



Social Foundations of Sense Making: Four Case Studies

Magnus Yngvi Josefsson

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Magnus Yngvi Josefsson

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Sissa

Declaration

No part of this thesis has been submitted in support of another application for another degree or qualification of this or any other university or other institute of learning

Magnus Yngvi Josefsson

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List of Publications

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Alice – *Would you please tell me which way I ought to go from here?*

Cheshire cat – *That depends a good deal on where you want to get to*

Alice – *I do not much care where*

Cheshire cat – *Then it doesn't matter which way you go*

Alice – *As long as I get somewhere*

Cheshire cat – *Oh you are sure to do that if only you walk long enough*

Lewis Carrol

Abstract

This thesis addresses the problem of sense making in organisations. It considers how a particular type of knowledge intensive organisation, a creative / interactive agency, tries to make sense of itself in the context of a rapidly evolving and transient external environment, the Internet.

The study portrays how creative / interactive agencies are subject to serendipitous events in a vastly complex transient ecology. The study presents a qualitative analysis of four cases that are typical examples of knowledge intensive organisations in the creative industries in the UK's North West region. The study finds that this type of organisation is fundamentally dependent on expert resources, not just as actual skills, but in the way, those resources represent and connect to social domains of knowledge and practice. This dependency is the source of continuity but also unpredictability. These unstable organisations are subject to the eclectic motifs of employees that have their own agendas. These employees are committed to their own professional objectives and the organisations are the means to those objectives and not to a long-term career.

The study makes several important contributions to knowledge.

Firstly, how an environment influences and affects an organisation will depend on the organisation itself as a composition of attentions and interests.

Secondly, heterogeneous resources individually create meaningful environments when they focus their attentions on elements of experience relevant to their interests. The sense-making problem is bringing those idiosyncratic interests to some collectively meaningful interpretation and a functional coalition whilst preserving the creative incentive that is the key value generator in this type of enterprise.

Thirdly, findings emphasise how those resources belong to different social domains that in complex ways influence their interpretation of the environment and perceived action possibilities. These social domains are meritocracies by which social actors measure themselves and their peers against socially ordained criteria of what is creatively and professionally acceptable. These same criteria also determine the reputation and hence the ability of organisations to attract and retain these

individuals. The study contains an example of a case that fails in this respect and consequently faces dissolution and bankruptcy. Because of these complex network effects, it becomes difficult to determine the actual span of the organisational system and even harder to define its span of control.

The study also illustrates how decision makers make boundedly rational assessments of situations. Those assessments guide strategic decisions, but they do not mean decision makers understand a situation. They have more to do with decision makers making sense by drawing on the most salient feature of their experience. In a way, decision makers make sense of themselves and not the situation.

This thesis questions the assumption that the leader is the key architect of meaning and purposeful action. Rather, in this type of enterprise, it is more appropriate to conceive the leader's role as orchestrating expertise and relationships. The leader's most important role may be to initiate and sustain action as a prerequisite to progress and the creation of value rather than micro managing the production process directly. The organisation is itself a self-reflexive social system of heterogeneous social actors that in action and interaction are continuously creating and modifying the ecology.

The thesis identifies the traits and properties of those social actors and considers what factors drive interaction between them and how those affect the organisations for which they work. It introduces the systems concept of requisite variety as an important construct in the study of sense making in organisations

The study concludes by outlining theoretical and practical contribution and makes propositions for further research.

List of abbreviations

Behavioural theory of the firm [BTF]

The resource based view of the firm [RBV]

The evolutionary view of the firm [EV]

Grounded theory [GT]

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Chapter 1 Introduction

The man who has fed the chicken everyday throughout its life at last wrings its neck instead, showing that a more refined view as to the uniformity of nature would have been useful to the chicken

(Russel, 1998:35)

1.1 Introduction

It is a privilege, for a social scientist, to witness the emergence of a type of social space that has no precedence and to be able to observe the staged development and evolution of that space in a way that is transparent, data driven and which can be analysed systematically. We can for the first time, envision in real time or near time the structure and strengths of social networks and social interaction. We can observe through technology the creation and evolution of a socially constructed reality. This reality in some ways mirrors its foundational real, but in many ways reveals human behaviour and social interactions that would not normally be as visible.

The empirical impact of the Internet is such that we no longer must rely only on speculation or abstract theories about the social world or human behaviour often conceived in an experimental setting or in some other form of rigid instrumentation. Instead (in many cases), technology as the facilitator of the new social space, also is a portal through which one can observe the stage and follow events and episodes as they unfold. This includes human decision-making, social activities and serendipitous incidents that accumulate to modify and expand that space often shifting industries in the process.

The organisations that are the subject of this study (creative / interactive agencies) are in the midst of this theatre. They are a component of an economic system that is continuously creating and modifying the Internet. Each day they must come to terms with the evanescence of their environment. Their future is uncertain, their investments and identities can become obsolete almost overnight. They are not the innovators in the greater scheme of things but they do operate in the slipstream of those that are. This thesis considers how such organisations as collectives of individuals make sense of themselves and their circumstances in an environment of fundamental uncertainties.

1.2 Background to the study

The seed of this thesis is an earlier study that considered how creative / interactive agencies, managed and survived technological discontinuities and how they adapted to the dynamic but relentless environment of the Internet. Interviewing the managing directors of three agencies, the investigator had expected to find a preoccupation with strategy and decision-making. Instead, the managing directors were more concerned with their own span of control in organisations, which they described as unpredictable and opportunistic.

The study portrayed a problematic relationship between management and employees. It constituted in a conflict of interests where the employee's interests did not necessarily align with the interests of the organisation and its management. The focal point of the study became this dynamic described by one manager.

Again, this is my view and not necessarily the view of the company but we got into Ruby on Rails, version 1. Very sexy, a lot of our coders wanted really to do it because there is a kind off....coders want to do new stuff. It is not necessarily about delivery and about doing safe stuff. It's about. I want to learn....you know there is that passion to learn but sometimes that passion to learn pushes them over the edge to want to learn new things especially if it is peer recognized as being a sexy thing to be in and I think that is what pushed that decision.

Interview July 19th 2011. From Josefsson (2011)

The study's findings can be summarised in that the agencies depended on individuals who were committed to their own professional development. Those were inclined to participate in external experimental activities that were often and indeed usually not immediately commercially relevant to the organisation that employed them. The investigator detected in the managers' considerable antagonism and frustration towards those employees and their behaviour.

Many people at this level [management] are sick of upwards pressure from down here [employees]

Interview September 20th 2011. From Josefsson (2011).

The organisations were subject to the vicissitudes of change but exacerbating this sense of uncertainty was by the employees' natural propensity to want to tinker with technology and participate in exploratory activities. Employees traversed their online social networks, connecting to likeminded individuals, sharing information about innovation and developments in the digital sphere.

The onus of strategy and decision-making shifted from the managers and reallocated to those individuals. They (in pursuit of their own interests and agendas) constituted then the strategic landscape and the opportunities therein. How the managing directors made sense of the environment reflected the interests and activities of those individuals at any given time. This entangled the agencies in a complex social system of intense interaction that profoundly affected their sense of place and opportunity in the information and knowledge economy. The study generated a string of incentives for this research.

Firstly, as touched on in the introduction, the Internet constitutes a unique opportunity to observe the construction of a social system in real time. This system is becoming increasingly complex but technology (computing) enables us to both untangle some of that complexity and to introduce transparency to many social dimensions that would have been hidden and latent in our modelling of those dimensions.

Secondly, this sector is an important contributor to the economy where the value generated may far outweigh the resources needed for its creation. Those resources are primarily intellectual and social and they do not deplete natural resources to the extent conventional industries often do. The potential economic impact of a vibrant information and knowledge industry does not need arguing.

Thirdly, it is of historical interest to develop insight into the digitization of social systems and the emergence of an industry that is at the heart of significant and enduring economic and social changes and equally to understand the aspirational as well as the economic and social drivers of that industry.

Finally, from a theoretical point of view and as a direct result and continuation of the earlier study, the right question seems to be not how managers make sense of discontinuity, but rather how organisations internally make sense of themselves and by the way their environment? The unit of analysis are small and medium organisations (SMEs) that must survive (and turn a profit) in a fundamentally transient and unpredictable industry.

There are significant incentives to understand the role and purpose of organisations in a situation where the organisation in the conventional sense is not that important or even irrelevant to the value creating entities and processes of the information and knowledge economy. From the perspective of management, there are significant incentives to understand the traits and properties of such entities or social actors and the norms and values that drive them.

1.3 The information and knowledge economy

According to Oxford Economics (2011), a significant shift in business thinking is underway. It includes a transformation in how organisations view themselves, their role in the world and their relationship with their stakeholders. It also includes how we as social actors, interact economically and socially and how we define ourselves (and our relations to others).

This transformation will continue to unfold as developing economies invest in the technological infrastructure and connectivity that will enable them to participate in the information and knowledge economy. The propagation of digital data is a key driver of this transformation (generated more and more in the everyday activity of users). Web 2.0, technologies are now widely available, accessible and cheap. It makes everyday activity and online social interaction the most significant value driver of the information and knowledge economy (Cheng and Storey 2012).

What characterises this environment is the volume, variety and velocity of networked activity and the emergence of a dynamic space of economic activity that has already transformed banking and B2B relationships and is set to do the same in other commercial arenas (Chaudhuri et al. 2011; Cheng and Storey, 2012; Jacobs, 2009).

Whereas one appreciates the economic value of online activity, the social drivers that generate that value are more difficult to define. Abstract theoretical concepts (Big Data or the 3V's) mask a complex constituency of social actors that in interaction and communication propel the information and knowledge economy.

At the same time, there is often a platitude to what is said and written about this economy often entrenched in vivid and sometimes assertive narrative about its transformative powers. The term itself becomes almost a blanket term for contemporary economic activity. It is worth considering briefly what it is that makes it so transformative.

Benkler (2006) considers the transformation essentially that from centralised information / knowledge economy (where those that had the capital means produced, controlled and distributed information) to a decentralised networked information and knowledge economy. This transformation is largely a consequence of cheap ubiquitous and networked computing.

In this new type of economy, the capital required to participate is negligible. The technology is cheap and access to the Internet (in the developed world), is universal. At the same time, user-friendly interfaces require only basic technical literacy. There are no real barriers for an individual to participate and indeed contribute to the creation of data and information (the key value drivers of this new economy). The main source of economic value has become online everyday social interaction. In this context, human and intellectual capital is the most important resource and investing in extensive infrastructure is no longer necessary. In fact, those resources themselves likely own the capital resources needed for production (the computing hardware)!

Consequently, the creation of value is not capital intensive, it is largely non-proprietary and increasingly user driven (Web 2.0). Knowledge and information is largely open, free and available to anyone. One may however require some social leverage to gain access to information and knowledge (though in principle the Web is largely available to anyone who wishes to use it).

Secondly, that the networked information and knowledge economy is a social space is sort of a truism. The giants of this economy (Facebook, Google, Twitter) in tangible terms produce hardly anything at all in the conventional sense of industry. Their role is facilitating social exchange and they have created an economic system of sentiment, meaning, communication, and interaction.

The real transformation therefore is not the technology as such, but in networking, connectivity, collaboration and in the sharing of information and knowledge facilitated by technology. It endows social actors with the autonomy to explore the system on their own terms without constraint. The creation, proliferation and consequently excess of information is therefore a core component of this transformation where actors are free to pursue and share their idiosyncratic interests (Benkler, 2006). The question is what is the social dynamic that propagates this tremendous creativity, complexity, and value?

Thirdly, information and knowledge is effectively non rival and scalable. It means an infinite number of recipients can consume the information without it losing any of its value. Indeed, its value may well increase as the information diffuses in a social system (Bateson, 2000; Benkler, 2006).

Different actors may interpret information differently and therefore even what one might consider straightforward information may have significant affordance nested in human creativity and imagination. Indeed, in a digitally networked world, the impact of this is tremendous as the creativity and imagination of one social actor, fuels the creativity and imagination of another which then continuously cascades throughout the system through network effects. The networked information and knowledge economy is in effect an economy of infinite options that evolves by the continuous inventions and interactions of social actors.

Finally, the types of organisations that are the subject of this study are in the midst of this networked transformation. They belong to a new industry specialised in digital content creation, presentation, promotion and information and knowledge delivery. They are a product of the networked information and knowledge economy and as such, designed to exploit its opportunities. It means they are empirically interesting units of analysis if one wants to understand the dynamics of that economy.

1.4 The creative and digital industries

In the UK, the digital and creative industries are responsible for 1.4 million jobs and they are one of the UK's key sectors of economic growth contributing £92 Billion in net output to the total UK economy (Williams et al. 2012). The industry separates in two key sectors.

One is the digital sector or the provision and maintenance of the technology and digital infrastructure that must be in place to deliver and maintain creative digital content. The other is the creative sector that is concerned with the design and creation of digital / interactive contents. For example, websites, computer games, animation, advertising, and other digital commercial material.

Around 266,000 enterprises in the overall sector constitute about 10 percent of total enterprises in the UK. Productivity in the sector is almost three times that of the UK average where the economic value of goods or GVA of each person working in digital is nearly £92,000 compared to the UK average of £34,000. Many individuals in the sector are self-employed freelancers.¹

At the same time, GVA in the creative sector only is higher than the UK average though at £49,000; it is less than in the digital sector. Williams et al. (2012) illustrate the trend in employment and output in the digital and creative sector factoring in the 2008 recession, Table 1.1.

Table 1.1 Key output and employment indicators in the digital and creative sector

Digital and creative	2010 Level	Growth rate: 2000-2010 (% p.a.)	Changes (absolute)	Growth 2010-2020 (%)	Growth rate: 2010-2020 (% p.a.)	Changes absolute
Output	91,798	2.5	20,134	70.4	5.5	64,609
Employment	1,871,940	0.9	155,985	17.5	1.6	326,964
PT employment	264,567	0.3	8,194	20.2	1.9	53,456
FT employment	1,121,824	-0.1	-8,461	9.1	0.9	101,802
Self-employment	485,549	4.0	156,252	35.4	3.1	171,706
Male employment	1,197,032	1.5	166,925	14.2	1.3	170,458
Female employment	674,908	-0.2	-10,940	23.2	2.1	156,506

¹ GVA or Gross Value Added is a measure of the economic value of goods and services produced in an area, industry, or sector of an economy.

A third of employees in the digital / creative industries are professionals compared to a fifth across all other industries and more than a quarter of those have at least a first level degree or equivalent with 15 percent having a post-graduate degree.

In the creative sector of the industry, 40 percent of firms employ fewer than 25 employees in comparison with 35 percent employed in the digital sector. The creative sector also has a significant number of freelancers, which gives the sector a unique dynamic. Finally, the creative and digital industries cluster regionally with the bulk of productivity in the south of the UK but the North West accounts for around 8 percent of the total output (Williams et al. 2012).

1.5 The creative interactive agency

When one studies economic figures that measure economic value of the digital and creative industries, those usually consider the sector as a whole. That is, they factor in economic activity that supports the Internet (infrastructure), economic benefits that is a consequence of the Internet (increased efficiencies), and value created as a consequence of pure Internet activity (OECD, 2013), Figure 1.1.

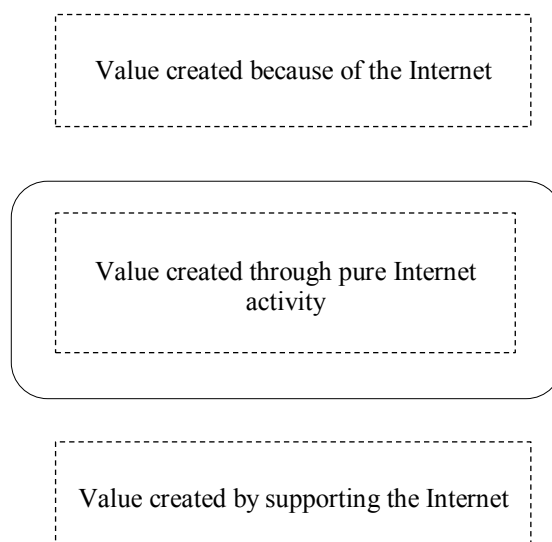


Figure 1.1 The digital economy

The creative / interactive agency constitutes the mid-tier in Figure 1.1. It usually deals exclusively in pure Internet activities typically generating value by creating content, facilitating e-commerce, promoting that content in the digital space and other forms of purely electronic value creating activities. It is an industry that in a fundamental way depends on human and intellectual capital, creativity and high level specialized technical skills. It is an industry defined as *'having [its] origin in individual creativity and which has a potential for wealth and job creation through the generation and exploitation of economic property'* (Bakhshi et al. 2013:6).

As an enterprise, the creative/interactive agency is a spin of what was an advertising agency. This type of enterprise is in the slipstream of digital innovation and it performs an important role in the digital and creative industries.

The creative / interactive agency has a pivotal role in nurturing the growth and development of a healthy information and knowledge economy and particularly in nursing businesses to establish operations in the digital space and to develop digital capabilities along a broad remit. This is arguably especially important in the context of regional economies. This research for instance, concerns enterprises in the UK's North West, where traditional manufacturing has been in decline for some time. Digital is an important component in regional economic recovery. The North West of course is not just historically a manufacturing region but also a region of innovation with major research centres located for example in Manchester and Manchester city itself committed to a digital strategy and a SMART city, <http://www.manchesterdda.com/> [online].

As the information and knowledge economy matures and today's innovation becomes tomorrow's expectation, the creative / interactive agency has to be able to meet and exceed those expectations. A creative / interactive agency is therefore a surprisingly complex organisation. It must address a wider social and technological remit than ever before.

Consequently, the creative / interactive agency has become an increasingly sophisticated and resource dependant organisation. A fact often overlooked since most are either micro or small enterprises that nevertheless often hide complexes that typify larger organisations.

Figure 1.2:25 from Burka (2014), illustrates a typical taxonomy of a creative / interactive agency. It depicts the organisational complexity of the enterprise and the eclectic spheres of expertise, skills, and activities that must be coordinated and managed in a commercial and often pressurized setting.

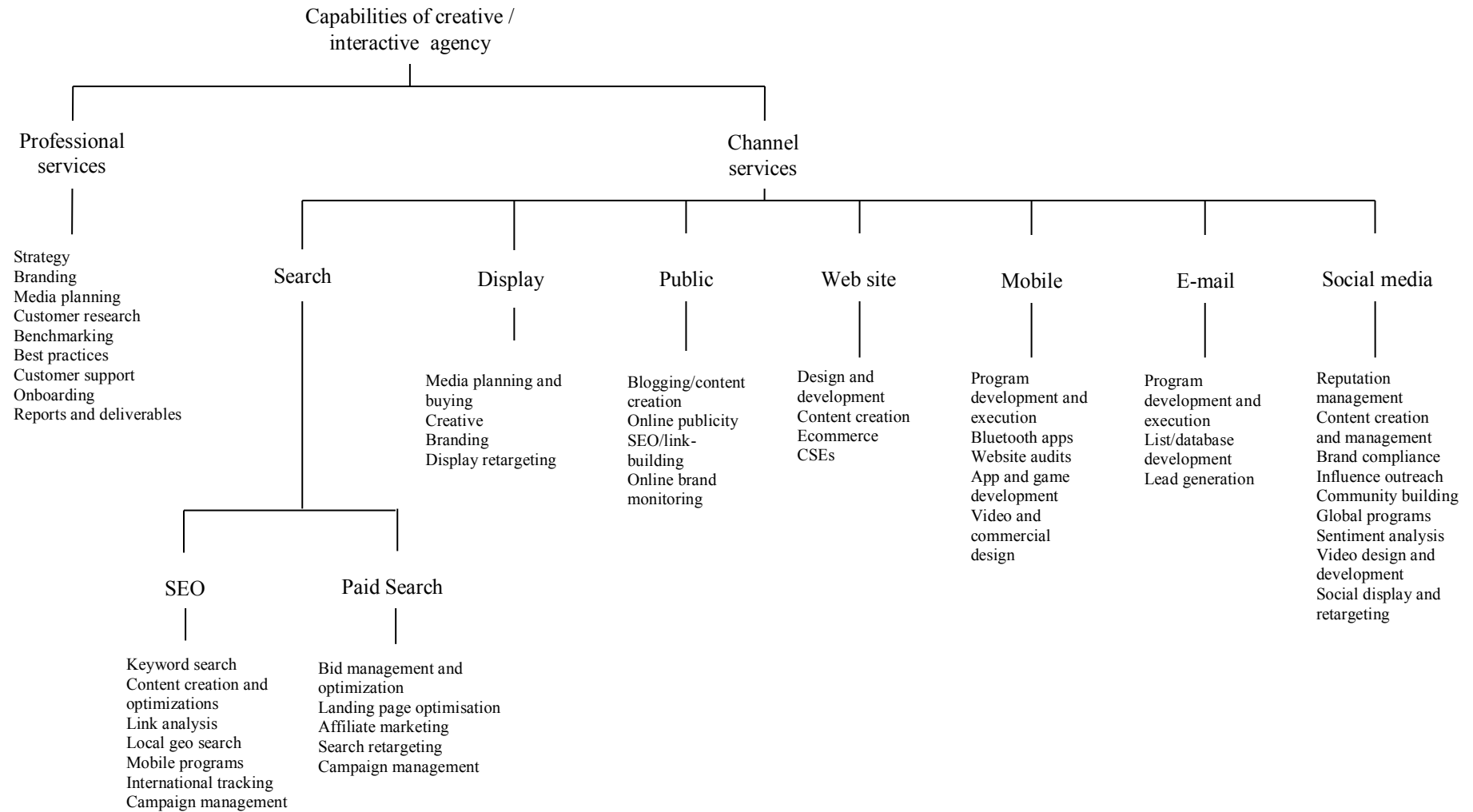


Figure 1.2 A taxonomy of a creative / interactive agency

The classification scheme in Figure 1.2 is complex and to some unsustainable. The remit of delivery is too wide and there is an emerging view that the creative / interactive agency will be reinvented in a form of highly specialised and differential operator (Nail 2012), Table 1.2.

Table 1.2 The evolving creative / interactive agency

Mediator	Business transformer	Experience and branding	Demand generator	Engaging audience
Role	Guide clients to adjacent innovations	Embed emotion in brand experience	Move purchase intention towards value exchange	Conduct always on conversation
Marketing	Add value	Build brand	Drive leads/sales	Build loyalty
Core skills	Consumer insight Business insight	Communication strategy Multichannel messaging Cross channel experience design	Data Optimization Analytics	Customer data Content strategy, creation and integration
Origins	Web site developers Systems integrators e-commerce integrators	Brand agencies User experience designers Digital advertising agencies Media agencies	Search agencies Direct marketing agencies Retail specialists Media agencies	Direct marketing agencies PR firms Publishing firms
Barriers	Harmonize soft human skills with hard technology skills	Build an egalitarian culture where brand building ideas can emerge from any discipline	Inject data informed human judgement into algorithmic processes	Break transaction centric mind-set to support ongoing conversations

The earlier empirical work drew attention to the need to study creative / interactive agencies. They in a way constitute the grassroots of the information and knowledge economy. As an organisational form, they are in a process of transition and they are particularly vulnerable to the vicissitudes of the environment. In the study, managers felt they were not in control of their own futures. They depended on human and intellectual capital that was both in short supply and which had their own ideas of their role and of the future.

The study found that where those resources were present, they were committed to their own professional development. Management was often a reflexive response to unforeseeable internal and external events that seemed to be largely outside management's span of control. It indicated that the span of the organisational system was more dispersed, more opaque and more elastic than management would like it to be.

1.6 Aims of the research

The principle aim of this research is to advance understanding and knowledge of how creative / interactive agencies as organisations make sense of themselves and by the way their environment. This study, inspired by the empirical findings of the earlier study, proceeds on the empirically grounded belief that the unit of analysis is the organisation and not its management. The subject is the way the organisation as a dynamic social system functions to makes sense of internal and external uncertainty. It proceeds on the empirically corroborated hunch that sense is in some way a function of interaction, communication, and collaboration between networked social actors and they as such influence sense making.

The study intends to explore and consolidate theoretical understanding of sense making in organisations and particularly how (for this type of organisation) the behaviour and social interactions of their human and intellectual resources effect the organisations sense of place and purpose in the context of drastic economic and social changes. The study is guided but not constrained by Weick (1995) and his conception of sense making in organisations.

The literatures acknowledge the analytic challenges associated with studying sense making in organisations. Weick (1995) who is widely considered a key protagonist of the concept, tethers sense making in organisations to evasive subjective dimensions such as *enactment*, *cues*, *sociality*, and *identity*, all that suggests sense making in organisations, is the parallel processing of multiple inputs, processes, and contexts. The study will identify some of the inputs, contexts, and processes that are salient to sense making in this type of enterprise.

At the same time it is not clear what is the nexus between *sense making in organisations* and *organisational sense making*. Even if organisations are internally able to negotiate and reach some collectively meaningful consensus, the transition from an internal consensus to a unity of purpose, strategy, and action is not manifestly predictable. The study aims to identify, what if any are the procedures that power that transition process. That is to say, what are the identifiable functional antecedents to *organisational sense making*? The study aims to produce practical insight into the processes of sense making so that ultimately creative / interactive agencies are better equipped to face up to uncertain futures.

1.7 Why this research

The area under examination is both distinctly dynamic and transient. There is hardly any rigorous research on the subject of creative / interactive agencies as such. Some work exists that considers new media and new media workers (Wakeford 2003; Terranova 2000; Kennedy 2010b; Gill 2005; Gill 2007). There is literature on knowledge intensive organisations (Alvesson, 2000; 1993). These literatures however do not produce the kind of context sensitive scenarios increasingly considered vital to understanding social systems.

As a study interested in accessing and unlocking subjective knowledge domains, its design is of the qualitative kind. Qualitative research design must consider not just the need for a particular research, but also it must explain why the research is a necessary undertaking (Alvesson and Sandberg, 2011). There are several reasons that justify the need for this research in addition to those outlined in the preamble.

Firstly, the creative / interactive agency exemplifies an important feature of the information and knowledge economy. The creative / interactive agency embodies a change in our perception of economic value and in our understanding of organisations as value creating systems. Creative / interactive agencies often constitute in loosely coupled arrangements of autonomous actors that temporally convene and individually contribute to the creation of value in a digital product.

Some agencies exist only in the digital space as decentralised networks of collaborating actors. As organisations, they do not sit well with our understanding of what an organisation is or how it works. They themselves may not readily function as an organisation in the conventional sense of structure and coordination.

Secondly, the earlier study empirically illustrated the need to study the social dynamics that seem to have a formative effect on the evolution of this type of organisation. The study had also identified that those organisational components did not appear to share either objectives or means. They seemed committed to personal agendas, working and developing individually and not collectively as organisation in the conventional meaning of the term.

In the earlier study, some of the organisations (but not all) seemed to achieve their objectives despite these internal disparities. How this happens and why this happens in some organisations and less in others is of interest to management and organisational theory. How organisations achieve this may in itself represent an innovative reaction to environmental conditions (Von Hippel, 1988).

Finally, any social system is a dynamic evolving phenomenon. The investigator is committed to the view that the world (in most aspects as we experience it) is a socially constructed phenomenon. An ongoing process of negotiation, reification and modification, therefore our understanding of the social including organisational theories require regular revision.

1.8 The research questions

As a qualitative undertaking, this study commences with two broadly defined questions so as not to limit the scope of this exploratory inquiry.

- Q 1: How do creative/ interactive agencies as organisations internally make sense of themselves and by the way their industry as a networked information and knowledge intensive environment?

This substantive question is designed to identify the traits and properties of the social actors that coexist within the organisation. It is also designed to establish and consider the parameters and character of the external environment as an environment of uncertainty and undefined futures. It seeks to establish both the internal and external *state space* and to consider the nexus between the two.

The earlier study had identified how this type of enterprise is influenced by its informal (often employee) associations. Those employees are technically competent resources that are essential to the enterprise's operations. Therefore as an auxiliary question, the study asks

- Q 2: How do informal external associations influence and impact sense making in creative / interactive agencies?

The focal point of this second question is to factor in any external influences to sense making in organisations as the prerequisite to formulating any form of organisational sense, strategy, and response.

1.9 Objectives of the research

The objective of this research is

- To collect primary qualitative data from case studies that all are typical of creative / interactive agencies.
- To analyse this primary data utilising a combination of rigorous analytic methods applied in such a way as to strengthen the quality of the analysis.
- To cross compare findings from each case to identify common conditions, concepts and procedures sufficiently distinct to be processed into propositions about what they mean and what they entail.
- To consider the ramifications of findings to both theory and practice.

The objectives of this research are also stated in both theoretical objectives and practical deliverables. It aims to contribute to the following.

- To theoretically identify the traits, the properties and the processes that collectively constitute sense making in organisations.
- To theoretically consider the relationship between the formal organisation and its informal associations and how this influences sense making in organisations.
- To consider the relationship between the organisation and its employees which in principle should be a purposeful collaboration but in the earlier study is portrayed as a state of vexation.

Those substantive theoretical objectives can be translated into meaningful practical deliverables

- This research offers a set of insights into the priorities and social drivers of a particular type of professional and a particular type of organisation.

- The findings of this research will support informed management and decision making by revealing possible path dependencies and potential sources of organisational vexation and conflict.
- The findings of this research will facilitate greater understanding of internal value creating processes in networked information and knowledge intensive organisations
- The research will offer a set of practical recommendations, [construed as attention focus] for managers of networked information and knowledge intensive organisations

To reiterate then the primary aim of this study is to understand the creative / interactive agency as an organisational form and as a social system supported but not constrained by Weick (1995) and his theoretical framework of sense making in organisations deployed as a useful scaffold for empirical evaluation.

1.10 Structure of the thesis

Chapter 1 has portrayed and considered the motivations for this research. It has sketched the scale and complexity of the networked information and knowledge economy as well as the complexity of the creative / interactive agency as a networked information and knowledge intensive organisation.

The section gave an overview of the digital and creative industries and it considered the networked information and knowledge economy as both a source of opportunity and vexation. The chapter then considered the aims of the study outlining specific questions and specific theoretical and practical objectives and deliverables.

Chapter 2 reviews the literature. It offers a non-committal exposition and evaluation of sense making in organisations. It is interested in the concept as a functional concept that stems from systems theory and cybernetics. The review proceeds to prepare the empirical canvas by considering different aspects of organisational theory moving towards the behavioural and resource based view of the organisation more specifically, the resource based view of the firm, the evolutionary view of the firm and the behavioural view of the firm. These are important theoretical reference points, as the problem (as portrayed in the earlier study) is primarily a problem of structure and agency. The view of organisations as anarchy is also considered.

The review then considers the intellectual foundations of sense making in organisations as a theoretical concept which has its origins in functionalism, systems theory and cybernetics (Weick, 1979; Weick, 1995a). The theoretical particulars of sense making are deliberated supported by empirical examples that illustrate how those particulars instantiate under conditions of uncertainty. The review then offers a review of the most current work in the field identifying scope for further study.

Chapter 3 first renders the study's philosophical stance and then outlines the methodology and a set of methods appropriate to the aims and objectives of the study. The chapter outlines methods of data collection, data treatment, and data analysis and it offers a robust justification of the research strategy.

Chapter 4 commences with the within case analysis of four creative / interactive agencies using unstructured interview data drawn from interviews with the organisations managing directors. It proceeds to develop a tentative framework and it then moves to consider how to enrich and empirically populate that framework.

Chapter 5 theoretically samples from the setting with the intent to identify data sources that are likely to increase the resolution and the robustness of the analysis.

Chapter 6 continues to collect primary data from sources within the organisation and to explore and add to the richness of the emerging framework achieving theoretical saturation in four interviews with middle managers.

Chapter 7 offers four short narratives (vignettes) designed to untangle (in a reader friendly way) some of the analytic richness of the within case analysis.

Chapter 8 compares findings across the four cases and considers their differences and similarities applying replication logic. Consolidation of constructs takes place or (in some cases) constructs become redundant. This chapter strengthens the tentative theoretical framework conceived in chapter 4.

Chapter 9 portrays the process of theoretical integration considering the findings and their theoretical placement. This chapter sets the theoretical framework and findings from chapters 4, 5, 6, 7 and 8 to the literature. It produces a substantive contribution to the theory of sense making in organisations tethered to empirical evidence.

Thirteen propositions consider specific questions and issues raised in the process.

Chapter 10 considers the aims and the objectives of the research and the extent to which the study has achieved those. It considers contribution to knowledge generally and to sense making in organisations specifically.

Chapter 11 concludes with a reflection of the research, its processes and it suggests further avenues of study.

Figure 1.3:35, depicts the overall structure of this thesis with key sections (in brackets).

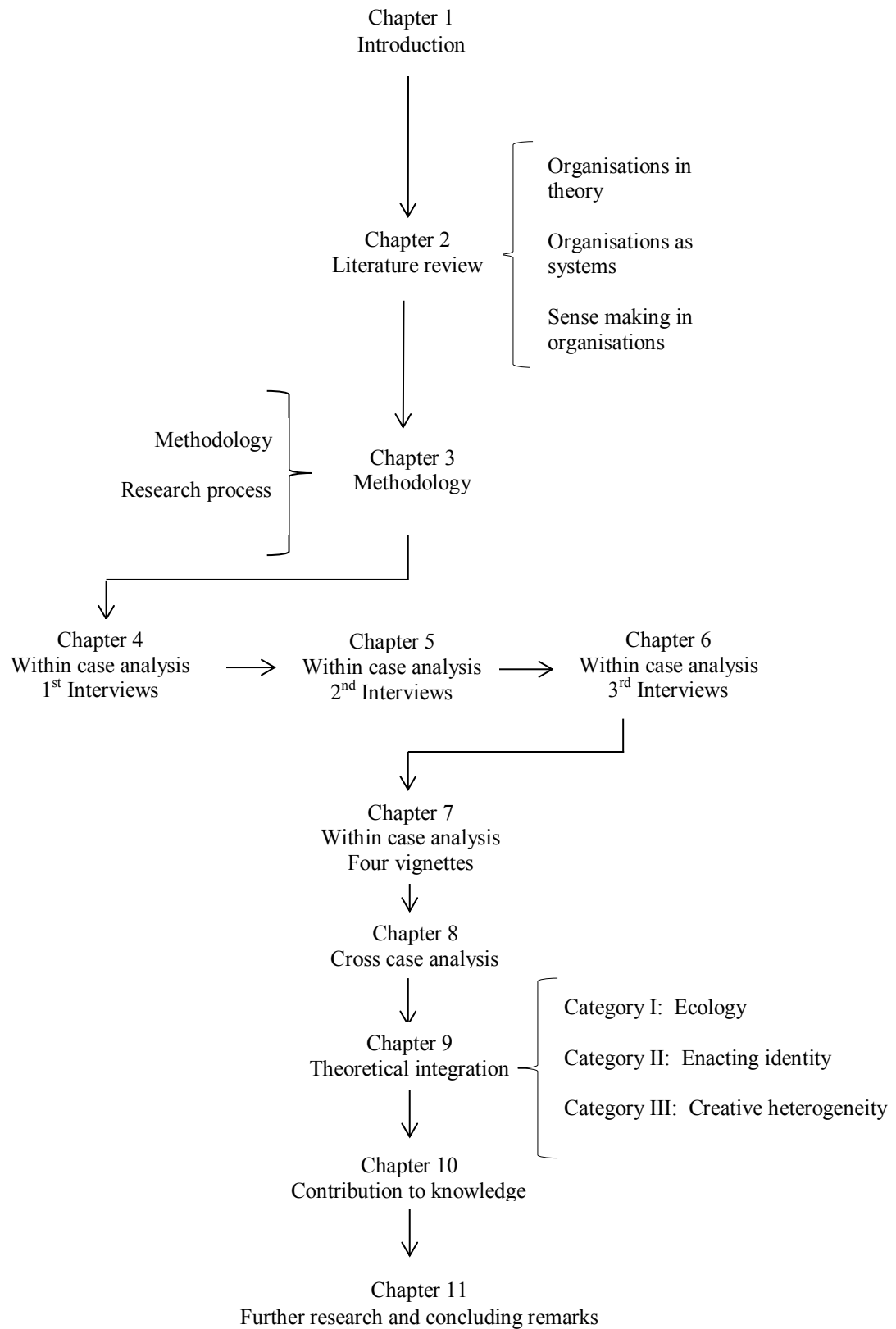


Figure 1.3 Structure of thesis

Chapter 2 Literature review

I must apologise for conducting the reader on a necessary trip to the basement. It will only be for a short while and I promise that what we do there will be of importance

Robert Rosen

2.1 Introduction

This literature review has three principal sections.

The first section introduces the organisation and organisational theory as the empirical canvas of this inquiry. It outlines major intellectual paradigms in organisational thinking. The review considers key organisational theories i.e. the evolutionary theory of economic change, the resource based theory of the firm, and the behavioural theory of the firm on the assertion that behaviour is incumbent in all three theories. The review also introduces organisations as anarchies as an interesting theoretical viewpoint.

The second section describes and considers the systemic properties of organisations. Those are outlined in the concept of social systems, change, feedback, and entropy.

In the third section, the review bears down on the subject matter of sense making in organisations. It considers the concept's key dimensions as originally put forward by Weick (1979) as a systems theorist. In his early delineation of the subject matter, Weick draws on systems theory and cybernetics, a fact often either ignored or assumed in many studies of *sense making in organisations* that tend to relax the more objective systems perspective.

In Weick (1995) as the concept's key protagonist, Weick has developed his thinking and sense making in organisations is outlined as a subtle compound of subjective dimensions. Here the delineation of theoretical constructs is much more vague than in the early version reflected later in the literature in imaginative tangential titles, see (Weick, 2006, 2007, 2011). Here, Weick proposes sense making in organisations constitutes in seven dynamic socially embedded properties.

The review will consider those properties and it offers an analysis of four atypical empirical studies of sense making that brings these propositions to practice. The review concludes with a review of recent contributions to the field and lists several reasons why studying *sense making in organisations* is both rich and relevant but also a challenging empirical topic.

The review is non-committal in the sense that it does not produce a theoretical framework that informs data coding and analysis but it provides the theoretical context to the research in detailing the antecedents to the contemporary conception of *sense making in organisations*. The review commences with an exposition of organisations in theory.

2.2 Section 1: Organisations in theory

Organisations are social entities. They are a purposeful arrangement of eclectic resources that in principle should collaborate and coordinate activity to create value (Daft, 2001; March and Simon, 1993).

This definition embodies all key dimensions of this thesis. It categorically places the onus on social interaction and the organisation as a socially defined purposeful enterprise that shares socially constructed boundaries with other organisations which coexist and compete in an environment of complex attention structures and conflicting signals (Aldrich and Ruff, 2006; March, 1994).

Daft (2001:17) portrays organisations as systems and purposeful arrangements of traits and properties. Those constitute the structure and the context of the organisation that (if one is to understand the organisation) must be part of any investigation, Figure 2.1:38.

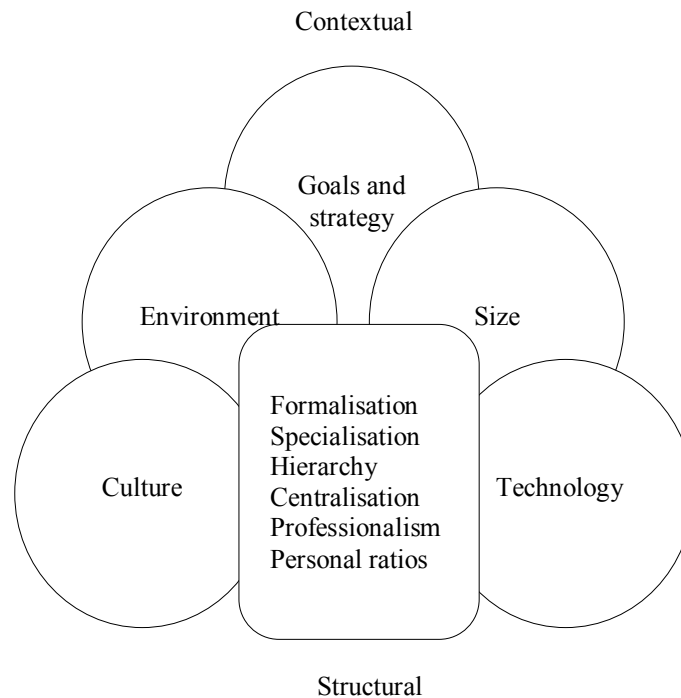


Figure 2.1 Organisations, structure and context

Any one of those dimensions is a unit of analysis, but from the perspective of organisational theory (as primarily the study of social interaction), the focal question is the configuration of those dimensions and the uniqueness of those configurations which in the organisational literatures is conceived in a variety of theoretical concepts.

Organisations are subject to the vicissitudes of the external environment and the span of that system is difficult to demarcate. They are subject to the actions of other formal and informal organisations which compete directly, indirectly or which simply through their actions alter the environment without having any direct affiliation with an organisation or even its industry.

At the same time, contemporary organisations are subject to the eccentricities of the modern, less loyal, and importantly networked citizens who increasingly constitute their own exclusive social circles relevant to their interests and aspirations and which may be completely out of any organisations span of control.

Benkler (2009) suggests the information and knowledge economy is a distributed value creating system where eclectic actors do not necessarily (except in the widest sense); share a common goal or a collective objective. This constitutes in new definitions of labour. For example, the '*new media worker*' and the '*knowledge worker*' who do not subscribe to the conventions of management and organisation (Alvesson and Wilmott, 2002; Gill, 2007; Weber, 2004; Wittel, 2001).

These developments do not sit well with our understanding of organisations as strategic and formal value creating entities that work on principles of administration, organisation, structure, unity of purpose and a sense of organisational identity.

Instead, they represent a more distributed egalitarian form of organisation (a learning organisation) that facilitates exploratory behaviour and emphasises the primacy of autonomy and sociality.

2.3 The learning organisation

Organisations need to shift to a newer paradigm based not on the mechanical assumptions of the industrial era, but on concepts of living biological systems

(Daft, 2001:25)

The learning organisation is an organisational form designed to encourage autonomy, communication, collaboration, empowerment, exploration and collective problem solving (Argyris, 1999; Easterby-Smith et al. 2000; Levinthal and Rerup, 2006; Spender, 1996). The assumption is that in a learning organisation, ideas and opportunities can appear from anywhere and value can be created by anyone.

Learning organisations are characterised by horizontal structures, which emphasise proximity between actors, decentralised decision-making, flexibility, and social interaction. This contrasts with classic organisational thinking, which emphasise hierarchy, administration, control and centralised decision making. The dichotomy between the two designs is of course synthetic. In reality, one will often find organisational designs that fall somewhere in between. Figure 2.2:40, illustrates the conceptual thinking behind the two concepts as illustrated in (Daft 2001:116).

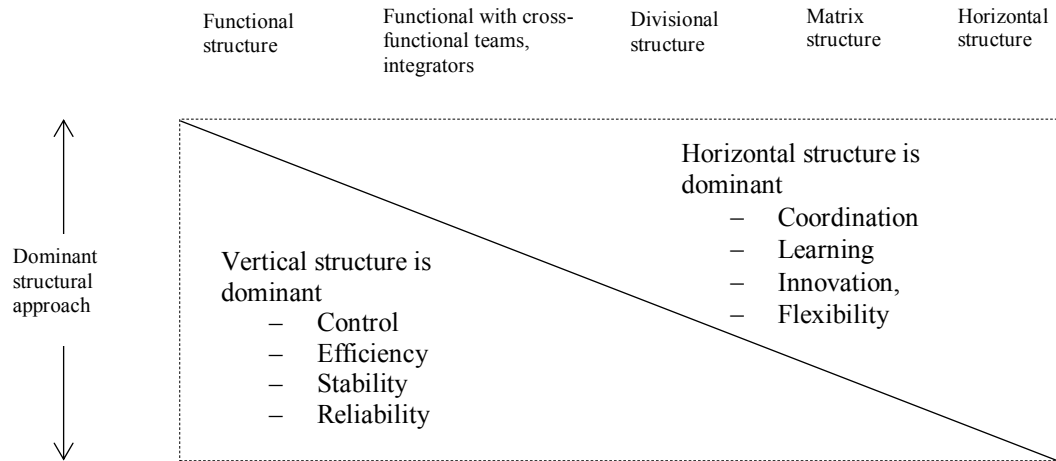


Figure 2.2 Organizational design and structure.

As Figure 2.2 depicts, structural designs have important implications because the design determines the nature of the relationship between supervisors and subordinates and the frequency of interaction between organizational members. One attempts to maximize efficiency by imposing a rule based system. The other emphasises effectiveness by encouraging autonomy, collaboration and exploration (Daft, 2001:98), Figure 2.3.

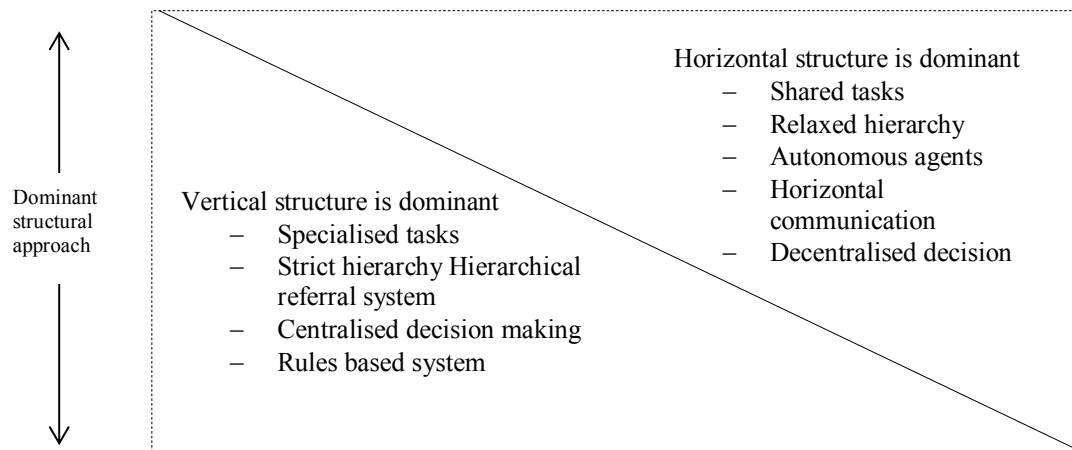


Figure 2.3 Rationale for organizational designs

Traditional conceptions of organisation as entities of administration and control consider them separate from the environment in the sense that they have a distinct identity, a purpose, a hierarchy, explicit boundaries, rules, and control systems designed to maximise the efficiency of the system as a whole and to guard against any external transgression.²

Such rule-based designs are vulnerable in the context of the information and knowledge economy. They do not facilitate the necessary exchange of information and knowledge that is the consequence of complex social processes, professional affiliations, and communal practices. New information is fundamentally a product of deviation, exploration, interaction, and uncertainty and rule based systems are designed to control and not to encourage all of those (Feldman and March, 1981; March, 1981).

Rule based systems often group together similar activities (modules), as a matter of order and convenience with little direct interaction and collaboration between different modules. Such arrangements often produce dense knowledge, tight networks, and high levels of skills and expertise but at the same time, it makes the structure less conducive to alternative information and knowledge transfer (March and Simon, 1993). Ultimately, in an information and knowledge driven economy, the legacy of this organisational form, may be a significant competitive disadvantage.

A loosely coupled learning organisation on the other hand seeks to increase variation and to an extent uncertainty by creating horizontal workflows around semi-autonomous teams. In this type of organisation, individuals play a defining role in a dynamic social system of production. Control systems are redesigned on ideas of participation, proximity, transparency, and social reinforcement. There is a '*bond of reciprocal dependence*' (Goffman, 1959:28), where collective competence, learning and knowledge is an emergent phenomenon, a property of activity (Blackler et al. 2000; Tsoukas, 1996).

² In effect these systems are designed to do the right thing in the right way, a conception that in an evolving information and knowledge economy is negated by the obliqueness of the right thing.

The learning organisation redefines the role of management as assigning and maintaining meaning (Smirich and Morgan, 1982). Instead, cooperation and team commitment replaces audit and direct supervision as form of control. This inevitably can entail a transfer of power to employees who at times may then have considerable influence over organisational affairs to the effect that organisational goals and objectives have to be acceptable to them and acceptance connects to how well those objectives align with their eclectic self-interests (Weick, 1979).

The learning organisation (by design) is agile. It is designed for adaptation, learning, and knowledge transfer. It maintains a dynamic based on (semi) independent social actors (resources) that are connected to and evolve with the environment (Helfat and Peteraf, 2003). Their value (in addition to their skills) is in their networks and in the interactions in those networks. The learning organisation is the beneficiary of that networked activity that becomes essential to the sustainability and long term survival of the organisation (Black and Boal 1994; Anand et al. 2002; Fægri et al. 2010; Emirbayer and Mische 1998; Alexander 1988; Axelrod and Cohen 2000).

The learning organisation (above all) emphasises the importance of social actors. It stresses the significance of individuals (as the keepers of contexts) as a unique resource. The key to understanding individuals is to understand the antecedents for their behaviour, most importantly their sociality and the way actors are embedded in idiosyncratic contexts which tints their world view (Barney and Clark 2007; Edmonds 2010; Axelrod and Cohen 2000; March and Simon 1993).

These social behavioural drivers are important and are the subject of organisational theorising that makes people and their aspirations, actions and capabilities the focal point of study. Four such theories are considered.

2.3.1 The behavioural theory of the firm

The behavioural theory of the firm (BTF) concerns how one may analyse the processes that define objectives and shape decisions in organisations (Cyert and March, 1963). It assumes these processes are inherently complex and transitory. They involve dissent and conflicting interests between both organisational units and between the selfish aspirations of individual members. BTF is interested in how one negotiates those interests and how this affects how objectives and goals evolve and change over time. Figure 2.4, illustrates key components of BTF.

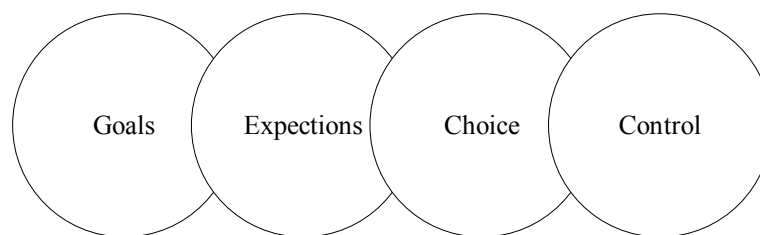


Figure 2.4 The behavioural view of the firm

BTF considers the organisation a coalition. The challenge is to formulate an objective that is collectively acceptable in a system that is likely to be adversarial or at least where individuals are likely to have different goals and reasons for participating in the system.

In a functional coalition (according to BTF), objectives are the outcome of negotiated terms and conditions and internal controls which stabilises and elaborates on those terms and conditions and the continuous adjustment of those terms and conditions to changes in the premises that produced them.

BTF acknowledges there will be asymmetries in the expectations and demands organisational actors make of the organisation. The role of management is to establish and maintain a functional equilibrium by negotiating those demands mainly through the application of an incentive mechanism. Although BTF emphasises studying an organisation's relationship to the environment, it only indirectly addresses sociality in conflicting goals, dysfunctional coalitions and organisational learning. However, it acknowledges that individuals are the organisations social antenna and as such instrumental to learning and adaptation.

BTF also assumes organisational conflicts are resolved in procedures it specifies as '*local rationalities, acceptable decision rules and sequential attention to goals*' (Cyert and March, 1963:165). There is an implicit assumption that an organisation's identity is intact and collectively recognised. BTF makes theoretical advances in that it invokes the question how organisations search for information and how information is processed, ranked, and selected. It begins to explore the difference between what organisations are supposed to do (according to the executive) and what they actually do (in operations) as events unfold at line level in the immediacy of situations. BTF makes three important conjectures.

Firstly, it assumes actors do not have access to perfect information. Actors are '*boundedly rational*' and their understanding therefore is always an interpretation of what they experienced and the decision subsequently a '*satisficing*' compromise based on some approximation of anticipated returns (Simon, 1991, 2002).

Secondly, the environment is transient and therefore organisations must be flexible. The environment is unlikely to stabilise for long enough for a set of rules to emerge that consistently optimise the organisation's returns. The focus should be on the adaptive capabilities that facilitate the continuity and survival of the organisation and not whether it temporarily maximises its profits. Following the dominant view at any given times may constitute being disconnected from potentially lucrative futures, the exploitation / exploration problem (March 1991).

Thirdly, organisations are inherently at odds. The interests of individuals and organisational modules are continuously under negotiation. Consistency in interpretation and objectives is the exception not the rule.

2.3.2 The resource based view

The resource based view (RBV) considers what causes consistent performance differences between competing firms (Barney and Clark, 2007). RBV considers how a firm may gain and sustain a competitive advantage by carefully managing and combining its resources. A resource in this case includes the technical and professional skills of individuals' (human capital) but also the potential value of their sociality (social capital). A carefully crafted composition of appropriate resources may yield economic rents in excess of the actual cost of production. Such resources are likely to be highly specialised, and in short supply (Barney and Clark, 2007).

An organisation that commands highly skilled resources may also potentially enjoy a unique and hard to emulate competitive advantage (competitive heterogeneity). Although the advantage may prevail for some time (because competing firms may be unable to replicate the advantage), the advantage may rapidly unravel. This happens often through developments in technology which makes existing capabilities and possibly an entire industry obsolete (Schumpeter 1950). Figure 2.5, depicts key components of RBV.

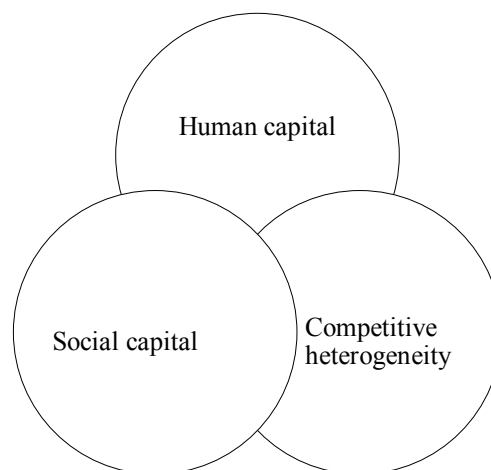


Figure 2.5 The resource based view of the firm

According to RBV, a resource must have four attributes to be of value.

- It must exploit opportunities and be capable of evaluating and neutralising threats in the environment.
- It must be in short supply among an organisation's current and potential competition.
- It must have valuable and rare characteristics that cannot be easily imitated.
- It must be exploitable in the sense that it must be susceptible to the organisation's routines and processes.

Barney and Clark (2007:57)

Although these features are all pragmatic and reasonable, they conceal complex analytic problems. For instance, what particular traits and properties are valuable? What is the particular combination likely to increase the rents those resources (in theory) are capable of generating? What complex social and behavioural dimensions and combinations generate this unique advantage?

It also evokes the problem of causal ambiguity or that the management of the superior organisation may not even understand the causes of the advantage possibly embedded in latent routines and in the tacit understanding and unique configuration of members. This means those advantages cannot be duplicated by competing enterprises, but also the superior enterprise may not be able to reproduce the advantage if the process or unique combination of resources is interfered with. For instance, if certain members defect or if new members destroy the social dynamic that is the advantage.

RBV in principle focuses on the traits and unique properties of resources and on culture as a sustainable source of competitive advantage. It acknowledges that sociality and social complexity is a significant element in organisational theory and that these are (in the immediate term), usually beyond the organisation's span of control.

Another conception of RBV is the way the organisation is dependent on the external environment and the resources in that environment (Pfeffer and Salancik, 2003). In this interpretation, the distinction between the organisation and the environment is synthetic and in reality the external environment influences, shapes and in many cases determines organisational structure and evolution.

2.3.3 The evolutionary theory of economic change

The evolutionary theory of economic change (EV) (Nelson and Winter, 1982), also considers how organisations manage ambivalence and how processes embodied in routines and selection mechanisms determine their evolutionary trajectories.

The central argument in EV is that organisations make selections from competing alternatives and those selections then affect the development and survival of the organisations. An organisation that is adept at the selection process is likely to gain a competitive advantage over organisations that are less so. The external environment continuously generates variety and alternatives for action. Internally, organisational activity, routines, and processes also generate alternatives. EV is not concerned with the survival of individual organisations, but in the overall performance of populations of organisations and the mechanisms that sustain their survival. EV focuses on three dimensions, Figure 2.6.

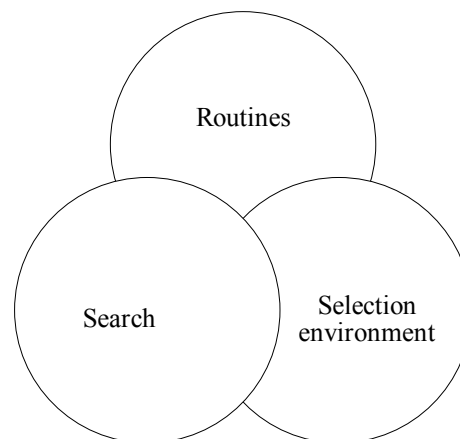


Figure 2.6 The evolutionary view

Organisational search is the activities that continuously aim to improve organisational performance and by the way, routines by discovering more effective alternatives or modifying existing ones. The selection environment in EV is the ensemble of considerations that intrudes and interrupts the organisation and which forces it to make choices.

Routine is the central feature of EV defined by (Nelson and Winter, 1982:14) as '*all regular and predictable behavioural patterns of firms*'. Routines constitute the specific rules that determine in conjunction with the selection environment how an organisation will behave and the decisions it will make. Routines are themselves a consequence of evolution and will therefore evolve influenced by the selection process. Because of this, routines constitute a useful unit of analysis if one wants to understand how an organisation has and may evolve.

Organisational routines are compared to genes in the sense they embody the rules that in conjunction with external influence determine how an organisation evolves (Nelson and Winter, 1982).

According to Nelson and Winter (1982), routines is the manifestation of a regime which regulates a system and controls for divergent interests. They establish a '*social zone of tolerance*', a truce, where actors have negotiated an understanding of procedures, norms and values and the boundaries of acceptable deviation. This succinctly accentuates routines as shaped by a social process.

Routines also retain learning and knowledge and as such constitute an '*executable capability for repeated performance in some context...learned by an organisation in response to selective problems*' (Cohen et al. 1996:683). In this definition, a routine is an explicit procedure carried out under particular conditions observed to be effective under similar conditions in the past.

Because routines in this way encode organisational knowledge and capabilities, they are conceptualised as serving an important learning and memory function (Miller et al. 2012; Walsh and Ungson, 1991). Routines, in emphasising consistency and repetitive behaviour tend to play down human agency but even relatively routinized action requires cognitive effort and some interpretation and categorisation of events.

A routine evokes some selective activation of responses associated with that routine which points to a more complex relationship between the individual and the situation (Emirbayer and Mische, 1998). At the same time, unique situations may create an *ad hoc* solution which may become the *de facto* way of handling that particular type of situation (Miller et al. 2012).

Such situated and context specific routines may proliferate in organisations. They may only surface when (and if) they fail in their function. They may also constitute a barrier to progress if they in some way set in and frustrate the organisations operations (Suchman 1987; Alexander 1988; Rice 2008; Rice and Cooper 2010).

2.3.4 Organisations and anarchy

Organisation theory in broad strokes proposes two classes of organisations, as systems of rules and control or of learning and collaboration. Although the two classes are distinct in style and procedure, both designs make certain presumptions. For instance, both presuppose shared understanding and acceptance of routines and priorities, which guide the decisions, actions, and social interactions of organisational members.

A different class of organisations is the concept of organized anarchy defined as a loosely coupled arrangement of actors that operate under unsettled conditions of maximum variation (Cohen et al. 1972). Organised anarchies lack formal structure and strategic direction and instead they emerge and evolve through the autonomous actions and discoveries of organisational members. Organized anarchies are by definition exploratory self-organizing entities that do not evolve in a linear way because they do not have or share clear and explicit goals. The organisation as a whole acts on variety of inconsistent preferences. The garbage can model of organisational choice exemplifies this form of organisation.

A collection of choices looking for problems, issues, and feelings looking for decisions situations in which they might be aired, solution looking for issues to which they might be the answer and decision making looking for work

(Cohen et al. 1972:2)

Although these concepts would appear to describe a confusion and randomness, such organisations have emergent properties and can be remarkably resilient, efficient, innovative, and adaptive. They often emerge in turbulent environments (such as on the Internet) where the environment shifts rapidly and where over committing to strategies can be fatal to the organisation.

In an organised anarchy, ambivalence and serendipity is the natural state. The organisation is a compromise. Members only have a minimum (if any) understanding of the organisation, which has no clearly defined greater purpose, or boundaries and objectives are both situated and temporal.

Such a system is an assembly of individuals who through their individual actions, eclectic interests and experiential learning contribute to the evolution of the system by exchanging information and knowledge about the system, its properties, weaknesses and opportunities (Scott, 2003; Weick, 1979). Feedback between members sustains this anarchic arrangement, which constitutes the mechanism that both binds this unlikely assembly of disparities and drives the evolution of the organisation as an adaptive system.

2.3.5 Summary of section

The four theories just discussed all in different ways consider the primacy of behaviour, activity, and sociality.

The behavioural theory of the firm is focused on the negotiation and bargaining it sees as fundamental to the continuity of the organisation. It acknowledges organisations are often adversarial, constituted of eclectic social actors and one cannot assume they share the same incentives or commitments to the organisation.

The resource based view contends that competitive advantage is a unique combination of rare skills and capabilities, which if embedded in a complementary organisational design are capable of generating superior value whilst at the same time creating barriers for others that wish to compete in that arena. It acknowledges that sociality and culture are salient elements in its conception of competitive heterogeneity.

The evolutionary view focuses on behaviour and activity as it materialises in organisational routines. Routines are the processes by which organisations evolve in a dynamic combination of search and selection. Routines emerge at multiple organisational levels and in response to specific situations and are not therefore necessarily acknowledged or shared between levels or indeed between modules at the same level. A routine may be highly efficient in the situation specific context, however, it may equally constitute an inappropriate response and dysfunctional dynamic in another context.

The proposition that organisations are anarchic arrangements of autonomous actors resonates with the concept of a decentralised and networked information and knowledge economy that evolves through the seemingly uncoordinated activities of eclectic (and sometimes) iconoclastic actors.

All of those theories concern but at the same time in a convenient way circumvent the complex constituency (organisation) that is the social system as the regenerative mechanism of progress. Organisations (as social systems) are analytically challenging. They are a collective of subsystems that even if they are individually quite robust and efficient, must be capable of negotiating into stable and functional combinations in a larger system. The analytic complexity and potential weakness of the organisation is in the relations between its elements which constitutes equally its strengths and vulnerabilities (Simon, 1962, 2002).

Organisations are coined as '*near decomposable*' because they are made of organisational components that share a weak often latent but not negligible relation to other organisational components (Ando and Fisher, 1963; Simon, 1962). The evidence of this relation is too often in the cascading effects of organisational failure.

The review has so far considered some established theoretical concepts from the organisational literatures. The aim has been to set the scene for a detailed discussion of how and in what way the social dimension affects organisational behaviour and development. The review proceeds to consider organisations as systems. It does this on the premise that it constitutes an effective way of describing the process of social construction that is integral to understanding *sense making in organisations*.

2.4 Section 2: Organisations as systems

Systems vary in complexity, exemplified in Boulding's taxonomy of systems, Figure 2.7. The taxonomy depicts progressively complex definitions of systems proceeding from stable and mechanical contraptions (simple dynamic systems) to a cybernetic conception of a system that behaves according to set values (Boulding, 1956).

Boulding provides an example of a thermostat that exhibits a range of limited values but once a value is selected the system will move towards that value and stay there until instructed otherwise. One can control such systems with some precision.

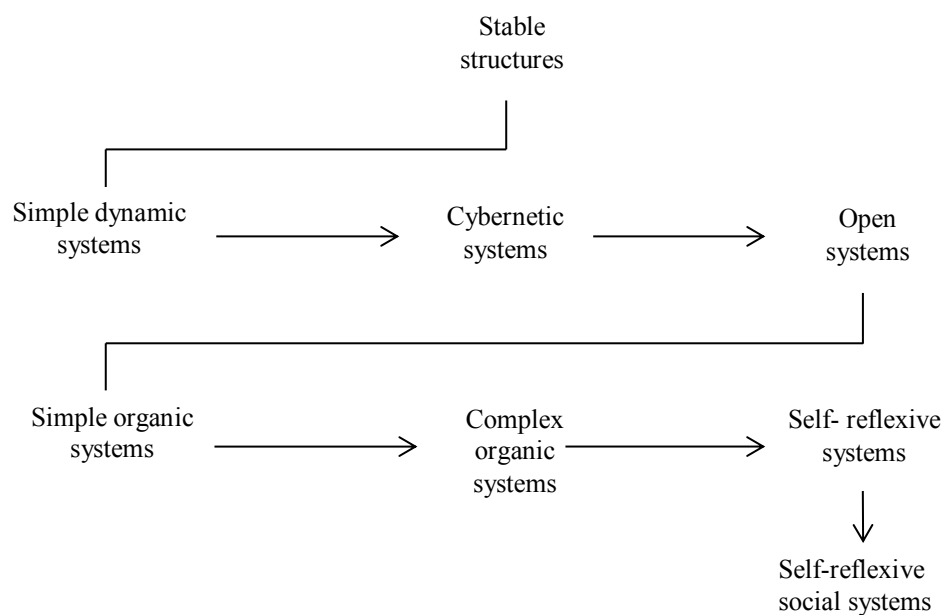


Figure 2.7 A taxonomy of systems

Organisation on the other hand are social systems and as such open systems (March and Simon, 1993). Open systems are so defined because they are self-maintaining, reproductive systems that have capacity for transforming external inputs into energy. They demonstrate a metabolism that sustains their growth, their structure and enables them to adapt and to evolve in reaction to environmental stimuli (Boulding, 1956). An open system exchanges matter with its environment. In such a system, equilibrium (a stable state) can be achieved through multiple means and routes (equifinality) that can not necessarily be traced to the system's initial conditions (Bertalanffy 1968).

To illustrate, then the boundaries of an organisation as a system of interrelated components are drawn but those boundaries are permeable, even a matter of interpretation. The system as whole is capable of absorbing inputs from the environment in addition to the direct resources intended for production. This diversity of inputs sustains its differential structure or the systems health (Scott 2003). Figure 2.8, depicts the theoretical dynamics of an open system illustrating the continuity of the transformation process.

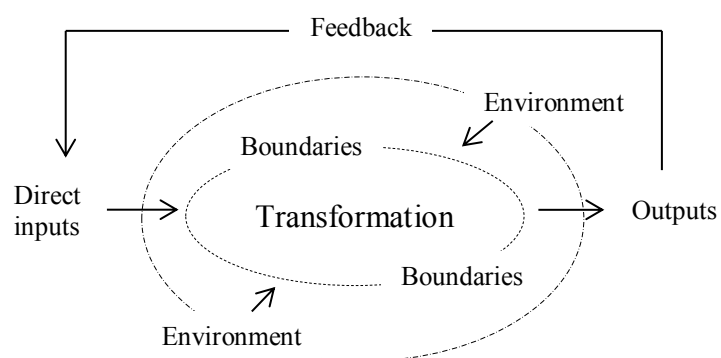


Figure 2.8 Open system

The apex of Boulding's taxonomy are self-conscious human self-reflexive systems that have cognition and the capacity to reflect and reason and which can develop tacit understanding, think counter factually and even act counter intuitively. Boulding then considers how social self-reflexive systems such as organisations behave in a way that transcends the individual and shifts to the individual's role and status as a constituent component in a dynamic social system embedded in complex social and environmental contexts.

2.4.1 Organisations as self-reflexive social systems

Parsons (2012) defines a social system as one of interacting social actors. The interactions that take place between social actors and their motivations determine the sort of relationships actors share and the structure and behaviour of the social system as a network of relations.

Parsons considers two principle aspects to analysing social systems. Where actors are located in the system and their status in that system, that is, not all actors are equal. Parsons does not view status and role as properties of the actor *per se* but sees it as the way the social system attributes properties to its actors, possibly as a function of the actor's achievements or by some other socially ordained means.

Accordingly, any meaningful analysis of a social system must consider the actor as the principle unit of analysis in the following.

- The social act or the actions performed by an actor in relation to other actors in the system.
- The actor and his status and role, which determines the nature of his relationship to other actors and which influences their interactions.
- The actor himself as a social object and the author of a system of role activities.

(Parsons, 2012:19)

At the same time, an organisation as a social system is also a system where many actors (but not all) have a stake in maintaining a stable system. Stability is a process of socialization and developing shared interests not only so in an economic sense but also in maintaining institutional and cultural conformity and the preservation of individual and collective identity, status and role.

Most importantly, organisations are made of intentional actors with their own agendas that are not necessarily or entirely compatible to the intents and purposes of the organisation (Axelrod and Cohen, 2000). Scott (2003) cites (Pfeffer and Salancik, 1978).

The organisation [social system] is a coalition of groups and interests, each attempting to obtain something from the collective by interacting with others and each with its own preferences and objectives.

And

[Coalitions] change their purpose and domains to accommodate new interests, [discarding spent interests] and when necessary becoming involved in activities far afield from their stated purpose

This portrays the complexity and opacity of social systems influenced by temporal elements and serendipitous events that make forecasting and control either impracticable or impossible (Prigogine 1989). At the same time, those same processes stimulate and sustain interest and create opportunities. There are therefore important trade-offs between control and individual sovereignty as a fundamental prerequisite for a healthy system (Scott 2003; Pfeffer and Salancik 2003b).

2.4.2 Organisation, control and autonomy

All organizing establishes some sense of control by reducing equivocality and by so doing facilitating some sense of continuity and predictability (Weick, 1979).

Organisations invest a great deal in organising to ensure continuity, but as organisations become more organized; they also may become more predictable.

A well-organized system is more likely to be predictable but it may produce limited new information. A perfectly organized system (one could argue) will probably produce less new information because it focuses on reducing and not generating deviation and uncertainty. Such a system will allow less scope for new discovery and may even in the long run develop structural inertia (Hannan and Freeman, 1984). In effect, the more *entropic* (disorganised, incoherent and unpredictable) a system is, perhaps the greater its capacity to create new information (Scott 2003).

Learning organisations strike a balance between organisations as functional and predictable systems and their exploration of possible futures through loosely coupled arrangements. Learning organisations do this primarily by emphasising social exchange (feedback) and by encouraging exploratory and creative behaviour.

2.4.3 Social systems and feedback

The concept of feedback is conceptualised in systems thinking as deviation-amplifying loops; regenerative loops or feedback (Bennett 1976; Wiener 1954; Maruyama 1963). In sense making specifically, feedback is conceptualised as interlocked behaviours and deviation amplifying loops (Weick, 1979). All describe the compound reciprocal interactions, which govern the behaviour of the system either towards a stable state or equilibrium (negative feedback) or towards dissolution or disequilibrium (positive feedback).³

Negative feedback stabilises a system by counteracting the directional flow of energy. Negative feedback for instance manifests in social systems in continuous negotiations between individuals both publicly and privately that maintain the (relative) stability of the system as a whole. Positive feedback on the other hand reinforces the direction of energy and accelerates its progress. If left to run its course it will result in some form of change (Bennett 1976).

In systems dominated by deviation amplifying loops, a message reinforces in positive feedback and the system does not produce sufficient negative feedback to cancel out its effects. A system will move towards dissolution of its current state and towards a new one that will stabilise only when it generates sufficient amount of negative feedback to offset the deviation amplifying process.

Positive feedback is also associated with the dissolution of an inadequate system or it can improve system performance by reformulating roles, goals, and the overall behaviour of a system by exploring new rules and configurations.

³ Positive and negative do not refer to desirable or undesirable states. It is not value laden in any way and simply refers to sustaining equilibrium i.e. negative feedback or contributing to disequilibrium i.e. positive feedback.

Positive feedback therefore has transformative adaptive powers that participants in a social system can use to manipulate the system to better suit their purpose or to make the system better adapted to its environment. The transformative powers of feedback and its controlled manipulation is the subject of change management. It is also the subject of cybernetics as the study of information, communication and control (Clarke and Hansen 2009; Wiener 1954; Bennett 1976).

A self-reflexive social system is a system of biases where feedback is characterised by values, preferences, randomness, and spontaneous and emotional responses. Feedback in social domains is subject not only to manipulation but also to misreading, misinterpretation, misunderstanding, and misrepresentation (Feldman and March, 1981). Feedback is said to be individually reinforced (Bateson 2000). Actors make socially and culturally embedded value and knowledge laden judgements which feeds into the system. Feedback therefore can develop in unpredictable ways influenced by social, economic, cultural, and behavioural factors.

There are two things to consider. There is the feedback process for living organisms including humans in some contexts and then there is the process of preferred behaviour or controlled purposive behaviour involving the rational manipulation of feedback for particular purposes operating in a particular sphere of society i.e. culture. While it is possible that the two blend at some high level of generality, since the behaviour may simply become part of a macro feedback process, they must be clearly distinguished at the sub systemic level when one is concerned with issues of social control or planned change.

Bennett (1976:58)

Such feedback is better conceptualised in a social context as adaptive behaviour (congruence) and maladaptive behaviour (incongruence). That is to say;

It is always necessary in the study of human ecology to explain from whose point of view the analysis of feedback and adaption or maladaptation is defined, since what is adaptive for one person may be maladaptive for another

Bennett (1976:58)

In other words, whereas reciprocal feedback powers social interaction, the discourse that powers the system is field dependent (Toulmin 2003). It forms part of communal, cultural, and professional identities and practices. Those over time may develop into idiosyncratic communicative practices that are continuously reinforced in professional discourse and social interaction (Orlikowski and Yates, 1994). Those may equally constitute barriers to anyone not party to that particular genre.

The presumption is that for communication (feedback) to be effective, there must be at least some sense of content being relevant to the communicants, some form of a relationship that makes the exchange meaningful and the communicants must be inclined to participate in the exchange (Watzlavik et al. 2011).

The decision as to which relationships are important and which are trivial is up to the person dealing with the problem i.e. the question of triviality turns out to be relative to one's interest (Hall and Fagen, 1956:18)

Any social system (organisation) has to come up with a way of making communication (and feedback) relative to both sender and recipient. It evokes complex patterns of interaction and a juxtaposition of views that is the social driver of change (Watzlawik et al. 2011).

2.4.4 Organisations and change

Change is the distant subject of this thesis. Change is something that changes the order of our perceived world and managing change is applying the opposite of what produced the change in the first place (Bennett, 1976; Watzlawick et al. 2011).

The organisational literatures tend to consider change as a problem. It is rare that they consider the social dynamics in detail that cause change (Armenakis, 1999; Gersick, 1991; Ven and Poole, 1995). Literatures attempt to analyse and propose how organisations can control and plan for change as an existential threat.⁴

⁴ Here I take liberties including the literatures on strategy, learning, management, leadership and change

Consider for instance the literatures on organisational learning and knowledge transfer (Easterby-Smith et al. 2000; Levinthal and Rerup, 2006; Nonaka and Takeuchi, 1995; Robey et al. 2000). Dynamic concepts such as *ambidextrous organisations* and *dynamic capabilities*, (Abernathy and Clark, 1985; Henderson and Clark, 1990; March, 1991; Teece, 2007; Tushman and Reilly, 1996).

The literature also considers how organisations may avoid developing perilous liabilities such as isomorphic selection processes, inertia and dominant logic (DiMaggio and Powell, 1983; Galaskiewicz and Wasserman, 1989; Hannan and Freeman, 1984; Prahalad, 2004). Strategies and conceptual tools have developed to enable organisations to control and manage change. For example, the value chain and the five competitive forces (Porter 1980). Concepts designed to enable organisations to analyse themselves and the environment in a systematic way and to foresee and plan futures accordingly. All of those assume that organisations are capable of designing and controlling their own futures. At the centre of all these intellectual precepts is the concept of *organisation* and the concept of *entropy* as opposite states (Scott 2003).⁵

Organisations being open systems can intervene and interfere in the entropic process by transferring energy, which in organisations takes the form of capital, creativity, information and other resources. Those constitute inputs, (negative feedback) deployed to stabilise the system by replenishing energy and so reconstituting structures and often by the way reconfiguring and realigning the system to deal with changes in the environment.⁶

Such procedures have been popularised in the business literatures in concepts like *business process reengineering* Raymond (1993) and *dynamic capabilities* Teece (2007). Those are essentially ways of sustaining competitive momentum by intervening in the entropic process.

⁵ As (Prigogine, 1989:398) explains entropy is not only an increase in disorder but order and disorder are created simultaneously. 'If we take two containers and put two gases in them, for example hydrogen and nitrogen, and if we heat one and cool the other, we find that there is more hydrogen in one container and more nitrogen in the other, due to the difference in temperature. Here we have a dissipative phenomenon which creates disorder, while the flow of heat also creates order, hydrogen on one side, and nitrogen on the other. Order and disorder are therefore intimately connected one implies the other'.

⁶ It implies the transformation of one distinct state to another. Order and disorder are fundamentally related.

Although, such concepts are intuitively catchy, in reality the process involves the problematic balancing of exploitation as a continuation of already existing and often still valuable value creating processes, and exploration of potentially lucrative futures. Such exploratory activities paradoxically may increase the complexity and resource dependency of an organisation. They produce more information about an environment which in turn increases its perceived complexity and more complex environments usually call for specialised resources to deal with that complexity (Ashby, 1958; Hannan and Freeman, 1977).

The organisational literature differentiates change in a variety of ways. As punctuated equilibrium Gersick (1991), as an incremental stepwise process (Quinn, 1980), as a continuous transition process (Brown and Eisenhardt, 1997), as an co-evolutionary process (Lewin et al. 1999) as a lifecycle process (Klepper 1997) and as an adaptive reactive process (Phillips et al. 2006). Those generally fall either under the prime categories of gradual or continuous change on the assumption that change is constant and cumulative or episodic or discontinuous change and the assumption that change is an infrequent and occasional divergence from equilibrium (Weick and Quinn, 1999).

Furthermore, the organisational population view considers how populations evolve or face extinction (Aldrich and Ruff, 2006; Hannan and Freeman, 1977; Nelson and Winter, 1982). In this view, organisations are subject to the vicissitudes of the environment. The environment determines how organisations must allocate resources and consequently how they evolve. In fact, extinction of the current organisational form is inevitable as a matter of evolutionary fact (Hannan and Freeman, 1977).

In the population view (as an evolutionary perspective), organisations that have developed to a high level of specialisation will be optimised to function in a particular environment. As long as that environment is stable, the organisation will be highly efficient. However, if environments change rapidly, high levels of specialisation can be deadly. Organisations (intensely focused on their area of speciality) may not detect impending change. They may have committed resources to develop their specialisation and they may be unwilling to accept the possibility their investments may sink often with little or no salvage value.

Highly specialised environments will also have highly specialised individuals who may have limited utility outside their particular area of specialisation.

On the other hand, for organisations in unstable environments, it is unwise to invest heavily in specialisation. In this case, the organisation's attention span must distribute over a range of areas. It must have '*excess capacity*' (resources) to explore and maintain capabilities across a spectrum of possible futures. Its social interface must also be sensitive and broadly aligned with the environment to intercept signals of change from a variety of sources (Hannan and Freeman, 1977).

Undoubtedly, how one will view change is relative, a matter of proximity and impact. From a distance, events may appear discontinuous whereas for someone immersed in that event, it may seem a logical continuation of a string of events.

All the intellectual concepts just discussed are synthetic and an attempt to frame and consolidate a social reality that is inherently always changing because of human action.

2.4.5 The social antecedents to change

Change is the natural state of social systems encoded in the interactions of social actors (Lewin and Volberda, 1999; Lewin, 1947). This study is interested in understanding the social forces that bring about change. Change is considered the consequence of interaction between social actors who are responding to internal and external influences (March, 1981).

The significance of the social dimension appears in the change and management literature but is rarely its focus eclipsed by an interest in structure and solution, not agency. One significant attempt to understand the social drivers of change is the three step model of planned change (Lewin, 1947), Figure 2.9.

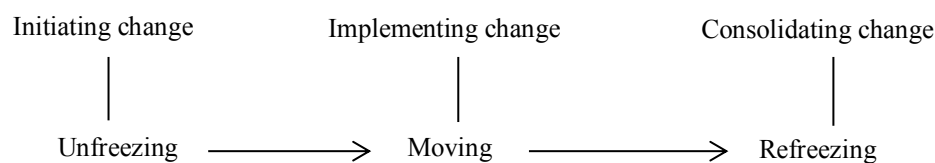


Figure 2.9 Kurt Lewin's three-step model of change

This conception of change is often watered down in the literature as the management of one distinct state to another. However, Lewin himself positioned the concepts as the study of '*quasi-stationary social equilibria and social changes; locomotion through social channels and social feedback processes and social management*' (Lewin, 1947:6). Central to Lewin was defining the social arena that to him was essentially the problem space.

Beliefs regarding existence in social science have changed in regards to the degree to which 'full reality' is attributed to psychological and social phenomena and in regard to the reality of their deeper dynamic properties.

(Lewin, 1947:10)

Lewin envisions a complex process where multiple situations unfold in a social arena that is subject to each actor's contextual differences and reading (and misreading) of each other's position described by Lewin.

As a procedure of analysis which swings from an analysis of perception to that of action and then back again i.e. from the subjective to the objective and then back again to something subjective.

(Lewin, 1947:12)

For Lewin, only when the situation stabilised or swung back would social actors be able to interpret and assess what effect the action had and the quality of its premises. Only action would reveal the real situation.

Lewin did not attach any form of permanence to the concept of stability. On the contrary, stability emerges because of certain conditions exemplified by group behaviour. A social system is a system of interdependencies where change and constancies are relative concepts. Lewin coined the term '*quasi-social equilibrium*' to describe a social system that from distance might appear to follow stable rhythms and patterns but in fact is constantly fluctuating because of external and internal forces interrupting the system.

In this view, the social system is a complex dynamic regime. A dissipative structure highly sensitive to the actions of the individuals whose idiosyncrasies are responsible for creating the variance and heterogeneity that is necessary to sustain the system (Felin and Hesterly, 2007). These nested social components are the drivers of higher-level phenomenon. Understanding the eclectic social actors and the idiosyncratic reasons for their behaviour is important because it yields insight into why and how a social system behaves and evolves in a particular way.

The incentive for such study is gaining sophisticated appreciation of the process of social construction as a compound of dynamic relations subject to socially ordained conditions (Abell et al. 2008; Alvesson and Wilmott, 2002; Edmonds, 2010; Felin et al. 2012; Rice and Cooper, 2010).

2.4.6 Delineating a problem

Those that have been involved in serious information search (such as writing a literature review) will appreciate the almost fractal qualities of information and knowledge. The undertaking involves validating current options but also the idea that fresh possibly better options may exist. In the context of the Internet, the options are infinite and it evokes two problems.

- The information abundance problem of cognitive and sensory overload that can be attributed to too much information (Information overload) (Eppler and Mengis 2004)

The paradox of information abundance is that it can paralyse sense and decision-making, yet to make valid inferences about anything, we assume we need information (although more information tends to increase the complexity of the problem).⁷

- Secondly, the information relevancy problem or assessing the importance of information and evaluating if that information is relevant to the present or indicative of the future (Tversky and Kahneman 1974; Feldman and March 1981).

⁷ How much information is actually needed to make a useful inference is an interesting subject in itself (Feldman and March, 2009)

Because Web 2.0 transfers control of content creation to the consumer, for many organisations, it entails overabundance of information, loss of control and the impermanence of information (Bawden and Robinson, 2008). Noise also becomes a problem as unwanted interference in intercepting the main content of information (a problem of contamination and relevance).

Noise is present when knowing what the input is you cannot predict what the output will be when it reaches the recipient. The same input can generate a variety of outputs because the noise is added during transmission and one can never be sure what eventually will be received

Weick (1979:179)

In this case, a message may have acquired multiple meanings (most of which will be interpreted as noise) if the receptor is unable to establish a contextual fit (which is essential to sense making). It produces a decision problem of attention allocation and choice selection (Bawden and Robinson, 2008). A problem summarised by March (1994), Table 2.1.

Table 2.1 Four problems of information and decision-making

Problems of attention	Organisational attention span is limited, too many things are relevant, and they must ration attention according to some priority and selection criteria
Problems of memory	Organisational memory is faulty. They do not keep proper records; information is distributed and sometimes units intentionally withhold information from other units
Problems of comprehension	Organisations are unable to draw inferences and connect multiplicity of meanings, signs, and symbols embedded in the richness of the information space. The response often is to search for more information which then produces more options aggravating the problem of equivocality
Problems of communication	Organisations are also the social fountain of inconsistencies, priorities, different interpretation, and incompatible communication, in effect often a cross-section of society

2.4.7 Summary of section

The narrative has so far considered organisational design, structure and systems. It has gradually worked towards considering the organisation as a complex social system sustained by interaction and activity that are the fundamental drivers of the evolutionary process. These processes are neither benign nor vindictive. They are driven by the actions of an eclectic population of individuals (social actors) who have their own reasons for participating in the system.

One should not take literally the systems analogy as true of reality. It is figurative and its purpose is to demarcate the mechanism and function of something that demonstrates systemic properties. It is a powerful concept because it combines studying individual components and studying the relationship between those components. Those combined constitute the transformative dynamics of the system.

A social systems perspective is also an abstract perspective. Social systems are deep and their boundaries are translucent. They are made of actors that do not generally follow simple rules nor necessarily act in predictable ways. They have a tendency to impose their own individualities on the system (Bennett 1976).

Understanding the individual's actual role in the system should be of value to theory (Sawyer 2005). For instance, one might be able to identify and demarcate systemic elements and conceivably determine the feedback processes that confer either stability or change in the system (Bennett 1976).

At the same time, the Internet comprises a tremendous scope of possibilities. Combined with the velocity of online social exchange, it forces organisations to face the ontological conundrum of '*what there is*' (Quine, 1953). The role of management may be less the provision of meaning and direction and more the provision of the conceptual space that sustains social interaction (Alvesson and Sveningsson, 2003).

The subject of this thesis is how an organisation makes sense of itself in this complex theatre and by the way the theatre itself. The next section considers the concept of sense making in organisations disentangling its foundations in systems theory and cybernetics supported by the preceding discussion but weaving in its assumption of a transient social reality that continuously challenges organisations. Empirical insights illustrate the ambiguity of the sense-making concept and particularly the nebulous distinction between *sense making in organisations* and *organisational sense making*.

2.5 Section 3: Sense making in organisations

The term *sense making* is often an umbrella term conflating individual, collective and organisational information processing, strategy and decision-making. It blurs the distinction between *sense making in organisations* and *organisational sense making*. This thesis concerns the former although the two distinctions may well connect at a higher level of abstraction.

Sense making has been said to be (in a nutshell), about '*order, interruption and recovery*' Weick (2006:1731). Inspired by Dewey, Weick writes

In every waking moment, the complete balance of the organism [system] and its environment is constantly interfered with and constantly restored. Hence the stream of consciousness in general and in particular that phase of it celebrated by William James is an alternation of flights and [rest]. Life is interruptions and recoveries

Weick (2006:1731 citing Dewey, 1922)

In his treatment of this as a fundamental existential problem for organisations, Weick (1979) draws on systems theory and cybernetics in his early conceptualisation of social organizing and sense making. It is a process of restoring equilibrium to an unbalanced system.

His focus is on the systems principles just described. That is, how feedback between social actors affects the behaviour and evolution of a social system. True to systems precepts, Weick (1979) contends this happens either through negative feedback, which stabilises an organisation, or through positive feedback, which dissolves existing regimes and sets a new course for the organisation. Either way emphasises how the organisation is entrenched in complex social dynamic and how that dynamic determines action possibilities.

Weick (1979) is concerned with the social dynamics of organizing as the emergence of majority rule. He describes organising as the '*forming of collective structures of diverse means that can be used to stabilise a section of the world to a workable level of certainty*' (Weick, 1979:45). Each of those means (social actors) represent a context and a point of view Figure 2.10:68.

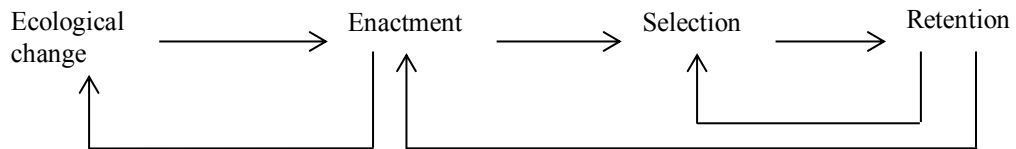


Figure 2.10 The social process of organizing

Figure 2.10, illustrates the making of meaning according to (Weick, 1979). Raw information from the environment is processed (by a social actor) in steps, which begins with enactment or the initial bracketing of sensation. This is then subject to a process, which sets that sensation to contexts. A sense maker interprets and evaluates its relevance and role in possible futures. Whereas some interpretations become redundant, others remain in the system for future reference.

They become part of a repository of contexts that can (in the future) be retrieved and matched to sensation. Interpretations (and contexts) are elastic and at times creative. If there is no precedence or a poor fit between a context and a new experience, a social actor may activate an abductive reasoning mechanism (as the inference to the best explanation) to arrive at workable solution (Harman 1965). Only implementation reveals its appropriateness.

Weick developed his original approach depicted in Figure 2.10 to embody seven properties of sense making in organisations. This is a conception of situated and socially embedded pragmatic actions, where actors actively establish and maintain their environment and simultaneously their own identities in response to some perceived change in their circumstances.

Those seven properties were according to Weick (1995:17).

- Grounded in identity construction
- Retrospective
- Enactive of sensible environments
- Social
- Ongoing
- Focused and extracted by cues
- Driven by plausibility rather than accuracy

This conception draws on pragmatic concepts that consider the fundamental relationship between identity and sociality (Mead 1982). It adds a qualitative dimension to the original, emphasising the role of organisational interaction as one way of constituting feedback and identity. It underlines the role of agency and sociality.

Figure 2.11 is adapted from (Weick et al. 2005:414, citing Jennings and Greenwood, 2003) illustrating the process.

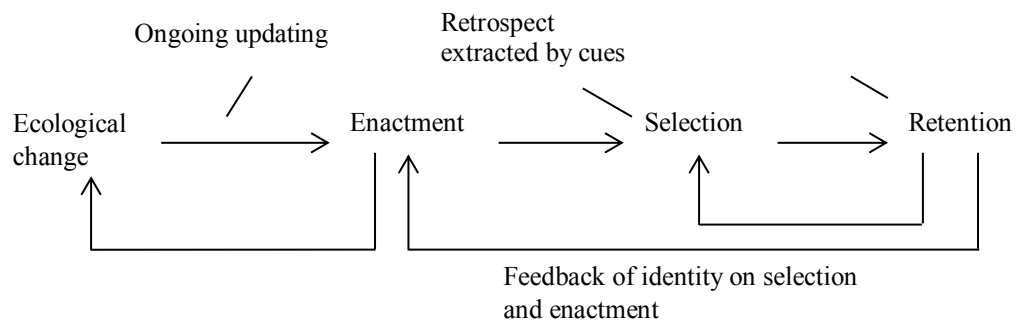


Figure 2.11 A process model of sense making in organisations

Figure 2.11, retains systemic properties, but it incorporates pragmatic ideas of individual interpretation and social consciousness and the way in which individuals act on cues. It situates the self (identity) at the centre of that interpretation and the act as the only true measure of what is inevitably temporal understanding. The subsequent sections will discuss those concepts and their functions supported with empirical example from the literature that sets theory to practice. It commences with identity.

2.5.1 Identity and sense making in organisations

According to Wenger (1998:149) '*we define who we are by the familiar and unfamiliar and by where we have been and where we are going*'. Understanding identity is of fundamental significance for studying sense making in organisations because it determines detection, interpretation, selection, and retention of information. For the same reasons, identity can be a fountain of conflict and complexity that can unravel a social system if left to work its ways.

Identity is a socially driven dynamic structure (Erez and Earley, 1993). It determines how we construe meaning from the unknown and as such is focal to how we understand the world (Weick, 1995).

Depending on whom I am, my definition of what is out there will also change. Whenever I define myself, I define it but to define it is also to define self. Once I know who I am, I know what is out there

Weick (1995:20)

This is a superfluous description of identity but it defines it as a social construct. It is described in more concrete terms in self-representation theory as reflecting the response and appraisal of other social actors. It situates identity at the centre of a social constructed reality (Erez and Earley, 1993). According to Erez and Earley (1993), each of us is an assembly of past social experience that constitutes in our identity which we use as signals to significant others.

What aspects of our identity is active at any moment is determined by contextual factors (the working self) which is in direct contact with the environment and as such tied to the prevailing circumstances (Markus and Wurf 1987; Goffman 1959).

Identity constitutes in a need for self-enhancement. Seeking and maintaining a positive image of oneself, the need for self-efficacy (perception of self as competent and valuable) and in a need for self-consistency (being coherent and consistent) (Bandura, 2001; Erez and Earley, 1993; Ryan and Deci, 2000).

Indeed most of us like to bestow ourselves with positive qualities that often entail integrity, efficiency, consistency, and rectitude. The way we project ourselves enables those that interact with us to evaluate their relationship to us, including possibilities for interaction. If we are consistent in our projections, acceptance may follow and we may eventually find ourselves acting within the parameters of our own but socially fortified expectations.

Organisational identity is a salient feature in organisational and management theory (Robbins and DeCenzo, 2008). Organisations and their leaders work hard to establish and maintain an identity (exemplified in mission statements and routines). Those project a unity of purpose and situate what the organisation stands for.

In reality of course, an organisation is a compromise. An incongruent collection of identities entrenched in their own social and professional localities. It is therefore important to make a distinction between organisational identity as an institutional claim and identity as something organisational members truly share and identify with (Albert et al. 1999; Whetten and Mackey, 2002).

Networked knowledge intensive organisations are particularly vulnerable when it comes to their identity. This manifests in conflicting goals, communication barriers and ontological disparities where valence towards a particular task or objective is categorically connected to the person's evaluation of its significance and relevance to own position in an external system of relations (Alvesson, 2000; Scott, 2003).

This type of organisation cannot presume all actors share or appreciate the same classification scheme when they encounter and interpret uncertainty. What cause actors will champion, what classification scheme they will apply, is an extension of their identity. The next section illustrates an empirical study that considers how identity played a key role in dealing with an existential threat in a deeply traditional industry. It illustrates the resilience and sociality of identity.

2.5.2 Insight cases study: The social construction of a shared identity

Porac et al. (1989) studied how a deeply traditional industry (Scottish knitwear manufacturers) had to reassess its position as the production of knitwear was transformed by technology that supplanted traditional processes that relied on a long tradition of regional artisanship passed down generations.

Faced with cheap substitutes from abroad, individual managers returned to their core belief about the industry, what it stood for and their role in it. Those beliefs spread throughout the regional industry and constituted in the collective identity of the industry as an industry of tradition and quality. Former competitors coalesced around that identity which formed a protective belt, which at the core emphasised quality, tradition, and commitment that regional stakeholders had a stake in maintaining.

Porac et al. (1989) illustrated how regional competitors (which faced a common threat), made sense of their predicament through the actions of individuals who shared social and cultural traditions, regions and industries. Long standing regional competitors rallied around a common identity and developed bonds that also guided competitive behaviour within the regional arena. These bonds were so strong that most actors did not deviate to far from the accepted norms and values. They would only differentiate slightly with minor design variations. Such small-scale variations were attempts to produce a competitive edge without upsetting the equilibrium of the regional industry as a whole.

The relevance of Porac et al. (1989) to this thesis is that it illustrates how identity is salient in uniting social actors in shared values and common interests. Identity constitutes a robust social bond so that even when actors (who are by definition competitors), when faced with a common existential threat close ranks and collaborate to neutralise that threat. It portrays pragmatic actors, socially and culturally committed to a common identity. It also illustrates the problematic and opaque boundary between *sense making in organisations* as the way by which individual actors make sense of their organisations and *organisational sense making* as the way by which an organisation evaluates threats and action possibilities through the sensations and enactments of organisational members.

2.5.3 Enactment and sense making in organisations

Weick (1979) refers to enactment as the preliminary partitioning of sensation.

Since human beings actively create the world around them through perception, organisational members do not merely react to an objectively accepted physical environment but enact their environment through the creation of meaning.

Scott, (2003:99 citing Kreps, 1986).

Enactment is the process of managing sensation and transforming that sensation into possibilities that were not there before (Weick, 1995). This creation of meaning and the way in which enactment works according to Weick (1995) connects to the way the individual understands the world. In other words, our definition of the world is embedded in what we think we already know, which extends to how we receive the world as well (Dretske 1981).

How much information a signal contains and hence what information it carries depends on what the potential receiver already knows about the various possibilities that exist at that source

Dretske (1981:79)

Enactment generates ideas and continually unfolds new action possibilities within an evolving reality. It has less to do with concrete existence and more to do with what is possible and reasonable. The assumption that one creates realities as much as discovers them is a poignant concept. It portrays the individual as a prism of experiences and the relativity of information processing (Dretske 1981; Thompson 2009).

Many studies of *sense making in organisations* tend to consider the manager the key architect of meaning. They assume managers are capable of detecting and processing significant events in their environment (Isabella, 1990; Mitroff and Kilmann, 1975; Porac et al. 1989; Smircich and Stubbart, 1985; Thomas et al. 1993). Certain events are said to trigger their sense making because they do not fit into the managers existing scheme of order (Balogun, 2006). It calls for a reassessment of a situation (Weick and Quinn, 1999; Weick et al. 2005). In Isabella (1990) the attention is wholly on the individual manager as a processor and principle architect of meaning.

This stresses what Isabella (1990) refers to as the (individual) *cognitive logic* of information processing.

2.5.4 Insight case study: Evolving interpretations as change unfolds

Isabella (1990) considered how managers interpret important organisational events. In this study, managers find change unfolding in discrete phases. The meaning of each phase is interpreted based on a set of initial conditions as understood at the time. Each interpretation is then subject to a modification as more information is gathered and new questions emerge.

In Isabella's findings, change is an event, which disturbs the equilibrium but which has closure, an aftermath that provides a window for reflection and evaluation. It is a conception of change as discrete events that can be distinguished and reflected upon (Quinn, 1980).

Once the event has arrived, the thrust of cognition becomes making sense of the new situation, always in comparison to the old, in the form of an amended or reconstructed frame of reference

(Isabella, 1990:33)

In Isabella's study, individual managers make sense of significant incidents that in some way dislodged their established sense of order. Isabella construes four stages of sense making (anticipation, confirmation, culmination, and aftermath).

According to Isabella, when managers interpreted an event they framed each stage, gathering information about the anticipated event and looked for contextually similar events in the past. They then entered a transition phase reconstructing a new reality with revised understanding and modified processes. The final stage (evaluation) would assess the new situation and evaluate its impact (i.e. how it might affect organisational members and the organisation as a whole).

As manager's test and experiment with a construed reality that moves beyond the traditional boundaries of past sense making, there comes a growing, concrete realization of the permanent changes wrought and of the consequences, those changes and the event itself have had for the organisation and its members

(Isabella, 1990:25)

The study's relevance to this study is in the way it portrays change as a string of events and an exception rather than the norm. Isabella adopts the concept of planned change to frame her findings (Burnes, 2004; Lewin, 1947). This is theoretically appealing and perhaps appropriate in the context of Isabella's study, but does not do justice to how a complex and dynamic social system behaves. Lewin refers to change as a constant stream of experience and the respite he refers to is fleeting rather than any refreezing of reality, see sections 2.4.4 and 2.4.5.

Isabella's study in treating change as the transition from one state to another emphasises a process of *sense making in organisations* as a change management procedure. The study largely ignores the sociality of the process and makes an implicit assumption that the new state is in some way *finite*.

In addition, the organisations were financial service institutions. Events included periodic changes such as the implementation of a new quality improvement program, acquisition, and transition to new ownership. That is to say, managers were mentally prepared; the events were specific and anticipated.

2.5.5 Selection and sense making in organisations

Aristotle promoted the virtues of practical wisdom seeing the '*salient features in any situation calling for action*' Aristotle (2009:xvi). He considered this a form of practical value rationality orientated towards action [*phronesis*]. For Aristotle this connected to the values of the person and that person's command of means and instrumental rationality governed by a conscious goal [*techne*].

The partitioning of sensation and its enactment constitute the preamble to the idea of selection in setting that sensation to context. This helps determine the meaning of a sensation and thus facilitates the decision as to what is a reasonable course of action.

Selection therefore tethers sense making to context and action. Context is what makes action meaningful. It involves a person's beliefs about concepts and how those concepts are connected (Axelrod 1976). It also facilitates mapping the consequence of action and but also inaction (Dutton and Dukerich, 1991). Selection and action helps reveal further action possibilities (and opportunities) that will determine in what way the world unfolds.

The difficulty of this conception is that it ignores that making the appropriate selection is also a decision problem and that individuals may associate the same situation with different contexts. (Edmonds, 2010; Gigerenzer and Gaissmaier, 2011; Kahneman, 1991; March, 1994). The concept of selection (like enactment) is theoretically and analytically complex. It is portrayed in *sense making in organisations* as the parallel processing of identity, contexts and enactment (Weick, 1995), Figure 2.12.

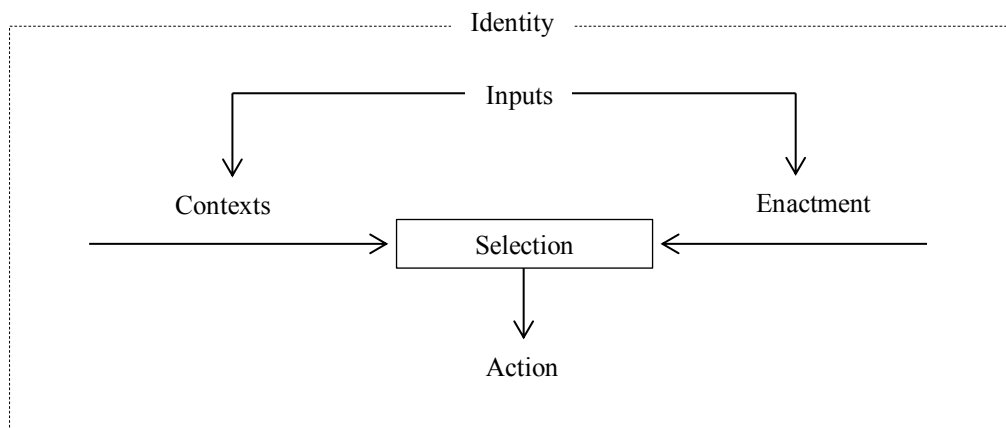


Figure 2.12 Antecedents to selection

In this interpretation, a new experience will only make sense if it fits the sense-makers repository of contexts. If no satisfactory context exists, the sense maker would have to search for a context elsewhere or create one based on available information, which then forms the basis of action. This form of creative explanation was first formalised as abduction where an explanation is formed by observing the consequences of action (Peirce 1934). It entails the creation of a pragmatic solution that (in the absence of information) will enable some action to take place.

This action will reveal (even in failure) at least some of the missing elements of the solution. Retrospect is therefore an indispensable feature of sense making frequently observed in statements such as *with hindsight we should have* or *given what we now know* which reveal a process of trial and error.

Heuristics tether to the selection of contexts. Here the context represents some criterion that justifies applying the heuristic (Gigerenzer and Gaissmaier, 2011). In some cases a context may be generalised to a number of domains as an '*abstraction of a class of situations*' Edmonds (2010:5). In the same way, a heuristic may be transferable between situations of that class.

Heuristics substitute precision for a satisfactory solution. Here the heuristic is a proxy, accepted because it is plausible and it would be foolish to reject it, particularly if no reasonable alternative exists (Polya, 1957).

Any organisation as a social system, involves a multitude of contexts and embedded heuristics that its members have acquired and carry with them. Contexts can alleviate cognitive load facilitating the integration of '*fuzzy pattern recognition with crisp reasoning mechanisms*' (Edmonds, 2010:5). Contexts also help facilitate communal action and communication. They are also a source of miscommunication, misreading, misunderstanding, and the discord one finds in many organisations (Mishler 1979; March 1994). In Weick (1990), the complexity and fault lines of the selection process appear in a case study that details the disastrous consequence of inappropriate decisions in critical situations.

2.5.6 Insight case study: The vulnerable system

The Tenerife air disaster (when two passenger jets collided on the runway with great loss of life) illustrated how system vulnerabilities and small breaches in routines could lead to a major crisis. An analysis of events leading up to the accident showed how (in a highly structured and coordinated system), minor interruptions in important routines and breakdown in coordination could rapidly escalate to disaster. (Weick, 1990).

Whereas the accident is down to human error (in this case the captain's decision to commence take off without clearance), in reality there were multiple factors that converged to produce that error grounded in inappropriate selections.

Weick's analysis showed how complex conditions, which call for complex collective responses, are vulnerable to mistakes. Under such conditions, individuals may fold under the cognitive load and regress to habit and flawed assessment of a situation by substituting diligence with familiar deeply individual contexts. In this case, it culminated in a single disastrous decision.

The analysis demonstrated how individual behaviour and unreflective selection, could easily undo what should have been a robust system of checks and balances. The analysis highlighted how fragile social systems can be because they rely on the accuracy of seemingly simple decisions. Breakdown in those can have a cascading effect, which can compromise the whole of the system. Weick concluded that a possible factor in the disaster was that the captain had been an instructor for many years. He had acted both the roles of pilot and flight controller, which explained how he might have shifted to the inappropriate role of controller and as such authorised his own plane to take off.

Weick also concluded that another cause for the disaster had been the social distance between the captain and his flight crew that had accepted the captain's decision without consideration. Under duress, the vulnerability of the system became apparent when the captain's coping mechanism (his habit) took over. Weick suggested that greater collaboration on the flight deck would distribute cognitive load and would improve '*detecting and diagnosing a condition*' (Weick, 1990:583). The study more than anything illustrated how regressing to inappropriate contexts could rapidly escalate beyond control and recovery. This study is concerned with sense making within a relatively confined space or organisation (the flight deck). Yet, it illustrates how a breakdown in *sense making in organisations* can cascade through the system with disastrous effects for the organisation and in extreme cases its environment.

2.5.7 Feedback, discourse and sense making in organisations

Discourse in *sense making in organisations* is the qualitative equivalent to system feedback. By framing the problem of feedback in discourse and embedding it in language, theorists have underlined the complexity of the concept of sense making in social systems in a way that emphasises relational, contextual, cultural, and linguistic dimensions intertwined in simultaneous cycles of interpretation and action.

Language provides a position from which we view and share a reality with others. Language provides the context to our understanding of that reality and therefore to the way we process our experiences (Boje et al. 2004). Language and discourse can be used to settle differences, but also to generate and sustain disparities (Alvesson and Karreman, 2000).

A language connects professional disciplines. It establishes a shared frame of reference sustained in professional discourse. It is reinforcing in itself as new entrants (if they want to be taken seriously) must accept and learn the socially ordained terms of the professional dialog.

Alvesson and Karreman (2000) propose a duality to discourse. On the one hand there is specific localised discourse that takes place in a situated context where language represents specific idiosyncratic processes and particular circumstances. An example is everyday communicative practices in and between organisations and the jargon, talk and textual nature of that interaction.

One the other hand, there is the deeper more fundamental *Meta* or general form of discourse that embodies our historical and cultural reality. In this case, the discourse embodies values, norms and other often hidden subjective cultural and societal trajectories often obscured by one's proximity to the issues. This form of discourse may only emerge through longitudinal analysis (Alvesson and Karreman, 2000; Jørgensen et al. 2012).

Making a distinction and transition between the two, that is the immediacy of the empirical and the complexity of the social and cultural remains a common problem in organisational studies. Because discourse is so salient in knowledge intensive firms, it is particularly important to understand both its significant aspects and its vulnerabilities (Alvesson, 1993).

Discourse may take the form of negotiation. In the sense making view organisational participants negotiate a settlement that re-establishes some sense of stability, ensuring at least the temporary continuation of the organisation. This suggests *sense making in organisations* is a political process (Balogun et al. 2014; Jørgensen et al. 2012; Kavanagh and Seamas, 2002). It has to account for culture and context (Brown 2006; Nagar 2012; Bragd et al. 2008; Park 2010; Osmond and Bird 2000).

Whereas organizing in human social systems is inconceivable without some form of discourse, it is conceivable that multiple forms of discourse within one organisation may bring the organisation to a point of dissolution if the discourse is unable to produce a workable consensus of meaning. For instance, in a multicultural or multidisciplinary situation it may be impossible to socially construct and negotiate an understanding that enables the organisation to proceed.

Appreciation of different forms of discourse therefore is the unresolved problem of *sense making in organisations* where discourse, experience and contextualization are mutually inclusive (Weick, 1995).

Before meaningful discourse takes place, a sense maker as an individual must demonstrate that something is sufficiently important to be worth talking about (Labov 2006). The decision what is worthy of discourse is a function of that individual's identity and social relations. Since social systems are always a compound of identities, discourse is never exact. That is, the message heard is always an approximation of that intended by the source (Mailloux 1995).

Discourse is also essential to the reification process as the emergence of a phenomenon that is collectively meaningful. The object reifies in discourse and not the other way round (Bragd et al. 2008). In this way '*situations, organisations and environments are talked into existence*' (Weick et al. 2006:409).

2.5.8 Insight case study: Sense making and discursive competencies

Rouleau and Balogun (2011) considered how middle management made sense *in situ* by performing two discursive activities (setting the scene) and (performing the conversation). The study illustrated how competent managers were able to influence and persuade actors by using language that was familiar and as such appealed to those actors.

The study highlighted the importance of management appreciating social and cultural contexts and the discourse that connects them. It also portrayed how the managers own personal histories and values influenced how they themselves were able to exploit language and turn it to their advantage through participation, Figure 2.13.

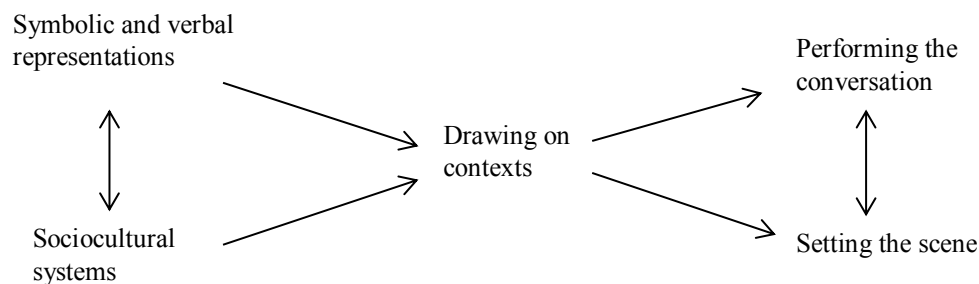


Figure 2.13 The discursive activities of strategic sense making

Rouleau and Balogun (2011) concluded strategic sense making is a function of effective communication. It tethers to a person's (manager's) ability to participate in local (situated) interaction. Indeed in some cases this ability could be a substitute for formal authority (Maitlis, 2005; Rouleau and Balogun, 2011). The study's key finding was that to access and connect to different knowledge communities, one must appreciate the symbols and jargon that constitute those communities.

Rouleau and Balogun (2011) try to bridge the gap between *sense making in organisations* and *organisational sense making* by attaching sense making as an internal process to strategy and concrete action. By so doing, the study objectifies an experience turning it into concrete higher-level organisational action possibilities.

The study is interesting and relevant because it connects to the seed for this study. That is to say, the disconnect between the principle and the agent, where management did not appreciate the discourse and sociality of the employees.

2.5.9 Anticipated contribution of this study to the sense making literature

This study is motivated to identify the premises that both constitute and compromise *sense making in organisations* and *organisational sense making*. The empirical target is the organisation as a social system and the specific individual and collective behavioural particulars of that system.

Theorists are still conceptually grappling with Weick's sense making framework (Allard-Poesi, 2005; Gioia, 2006; Maitlis and Sonenshein, 2010; Thompson and Stapleton, 2008; Weber and Glynn, 2006). The conceptual ambiguity of the framework is itself a catalyst for variation in its interpretation. It also clouds the distinction between *sense making in organisations* as an internal process and *organisational sense making* as the way by which organisations make objective sense of their environment.

Some of this ambiguity nests in the titles of Weick's seminal works on the subject '*Social psychology of Organizing*' and '*Sense Making in Organisations*'. This is particularly so in the way Weick structures the problem as a complex combination of individuality and sociality. It portrays the permeability of organisational boundaries, which renders *organisational sense making* as the union of structure and agency (Archer 1982). The examples just discussed illustrate some of the conceptual fuzziness in the nexus between the two.

The ambiguity of the sense-making concept also makes it a fertile conception. It produces a prism of theoretical and empirical work. Much of this work seems largely situated in the qualitative domain. It studies organisational discourse as the complex dialog between organisational actors (Balogun et al. 2014; Jørgensen et al. 2012). It studies how creative story-telling and organisational narratives are used by organisational actors to construct meaning (Addleson, 2013; Colville et al. 2012; Garcia-Lorenzo, 2010; Garud et al. 2011). It studies events as the anomaly that triggers sense making in the first place (Balogun 2006; Mills and Weatherbee 2006; Weick 2010; Isabella, 1990).

The social dimension of sense making is addressed in Cooren et al. (2011) on communicative practices, Reddy and Spence (2013) on collaborations, and Wrzesniewski, et al. (2003) on distributed sense making. Also for a general overview, see (Weick and Quinn, 1999; Weick et al. 2005; Weick, 1995, 2012).

However, some authors have taken issue, complaining that studies do not specify in sufficient detail how that social dimension and its manifold contexts influence the actor (Anderson, 2006; Mills et al. 2010). For a more robust critique (Basbøll 2010).

Indeed the social dimension is usually a truism in the sense making literature. A matter of management, negotiation, persuasion, communication and manipulation (Balogun and Johnson, 2004; Christiansen and Varnes, 2009; Dougherty et al. 2000; Rouleau and Balogun, 2011). There are few examples of the antithesis, that management may be deeply subject to and dependant on the idiosyncrasies of social dimensions (Tourish and Robson 2006; Alvesson and Sveningsson 2003).

There are also more recent threads in the literature that consider the nexus between individual and collective sense making as an emergent process (Kuntz and Gomes, 2012; Stigliani and Ravasi, 2012). In this view, the empirical target is the complex social and cultural contexts and material practices in which the actor is embedded. These shape the actor and ultimately how the actor attributes meaning to sensation and experience (Aldrich and Fiol, 1994; Elsbach, Barr, and Hargadon, 2005; Osmond and Bird, 2000; Weber and Glynn, 2006).

This study aspires to draw those dimensions together in a pragmatic empirically corroborated framework.

The next section reviews recent contributions to the sense making literature illustrating the intellectual diversity of the concept.

2.5.10 Making sense of the sense making literature

A review of the sense making literature from 2000 to the present surveyed the current state of knowledge in the field. Using the Web of Science <http://wok.mimas.ac.uk/> [online] and the search string [sense making, organisations, peer review, and earliest publication, 2000], 67 articles were located where sense making and organisations was the main subject.

A number of those were excluded by reading their abstract as either irrelevant or not of sufficient quality. Using the remaining articles, the investigator expanded the search by examining the citations of those articles using a function in Web of Science that facilitates the forward and backward visualising of citations.

The analysis was concept driven i.e. it was interested how the subject was being studied and what was the state of knowledge on the subject generally (Webster and Watson, 2002). The review retained 58 articles. It identified ten conceptual categories or research domains labelled for analysis illustrated in a concept matrix that depicts the research domain, the author, and title of the work, its type, and a brief synthesis of its content, Appendix D.

2.5.11 Eliciting the knowledge gap and relevancy to this study

What is immediately noticeable is that the literature tends not to distinguish very well between *sense making in organisations* as a subjectivity / socialization problem and *organisational sense making* as a direction / decision problem. *Sense making in organisations* often seems disengaged from the more practical problem of *organisational sense making*.

The key question seems to be how *organisational sense making* which surely must take into account the vested interests of the organisation is connected to *sense making in organisations* which accounts for the subjective interests of organisational actors. That is, how are idiosyncratic socially constructed cognitions coordinated as meaningful organisation?

This nexus and potential divergence of interests evokes the problem of structure and agency.

One attempt to come to terms with this is in Steinhilsson and Söderholm (2002). This study considers strategic management under multi contextual sense making conditions. It proposes that in organisations that lack a clear collective strategic mandate, it is important to develop some form of common grounds. Such common grounds establish both the organisation, enable it to function and provide a strategic directive. That is to say, the organisation is emergent from a set of rules that are commonly understood and at least tentatively accepted. Another study, Rekom and Riel (2006) propose that core values, that is, those that motivate organisational actors, are the glue that holds organisations together and as such would be constitutive of such rules.

Christiansen and Varnes (2009) consider how organisations as systems of rules influence everyday practices. That study concludes that the process of individual sense making often bends such rules and that formal rule does not necessarily mean exercised practice.

Other studies consider the role of organisational identity. What is this organisation, what defines it and how does one identify with it? (Ashforth et al. 2008; Gioia and Thomas, 1996). Brown et al. (2008) on the other hand tether sense making to individual identity and the maintenance of that identity sustained in individual and collective sense making narratives. Ashforth et al. (2011) consider how individual identities link across organisational levels. That study calls for more work on how external forces influence and impact identities at different organisational levels.

Stigliani and Ravasi (2012) establish a link between individual cognitive processes, and social and material practices and how those transition to a collective sense of coherence and a sense of unity. The study involved a client-focused enterprise that was by design homogenous. Organisational actors understood the purpose of the organisation and they had similar concerns about its projects. The study suggested future research should consider if enterprises that are more heterogeneous would also be capable of this transition process.

A number of studies focus on context. Elsbach et al. (2005) propose a framework of cognitive schemas (rule, event and personal) and specific contexts (e.g. physical, institutional) which generate situated cognition which seems to be another expression of Weick's enactment.

Steinthorsson and Söderholm (2002) focus on multi contextual sense making discussed before and Osmond and Bird (2000) consider the paradox of cultural values and how not all cultural values are equal and how they are embedded in compound layers of contexts which may inhibit the social processing of meaning.

The role of discourse is found in Balogun et al. (2014), Balogun (2006) and Rouleau and Balogun (2011). Those contend that to understand the organisation, one must be able to participate in localised (situated) discourse. It renders clear how knowledge may reside in locales and that if strategists are unable to access that knowledge, it may constitute a significant opportunity cost.

The systems perspective is represented in Henneberg et al. (2010). It focuses on business networks, as the environment surrounding and affecting the organisation. Kavanagh and Seamas (2002) consider the role of situated communities of actors and their collective sense making activities. It calls for work on the subjective reasons that drive interactions in such communities. Dougherty et al. (2000:321) map out systems of meaning and sense making that '*govern the knowledge people make sense of and the meaning they make*' and (Fjeldstad et al. 2012) propose self-organizing actor oriented architectures.

These studies are generally oriented towards *sense making by design and organisation*.

Often the language in the sense making literature is ambiguous and it can be difficult to tease out what the argument actually is and how it works.

We argue that intra-subjective understanding (I think) fosters intersubjective understanding (we think) through interaction.

(Ashforth et al. 2011:1144).

And

The fundamental un-decidability of sense making, its continuous paradoxical movement that both constitutes meaning and refuses its singular grasp

Allard-Poesi (2005:184)

And

Ingratiation behaviours may be endemic to any social situation in which even a modicum of status differentials and power imbalances are allowed to persist

(Tourish and Robson 2006:726)

Overall, the unresolved problem in these literatures is the problem that instigated this study. That is, the problem of how social actors that seem not to share a mutual understanding of the organisation or of its role and purpose manage to collaborate and coordinate their actions (or not).

It evokes Weick (1995:75) and the key question '*How action is coordinated in [a] world of multiple realities*'. It also appears in Allard-Poesi (2005:169) who describe the problem of understanding sense making as the paradox of seeking '*objective knowledge of subjective processes*'.

It is a key problem in the (organisational) sense making literature.

Considerable research is required in order to deepen our knowledge of how individual's sense making is translated into processes of organising

(Brown et al. 2008:1057)

And

Research linking cognition to organisational outcomes should broaden its focus to include the action and interactions of people in contexts

(Elsbach et al. 2005:431)

And

Further research [should focus on] on how value can and should be appropriated in actor oriented [flat] organisational designs and how such organisations self-organise to create that value

(Fjeldstad et al. 2012:747)

The interesting question is then what enables organisations to function and to evolve if organisational actors do not share a mutual understanding of why they do what they do.

The review evokes the empirical problem of distinguishing between *sense making in organisations* and *organisational sense making*, in this study treated as different although fundamentally related concepts.

Appendix C contains the articles the review located and assessed.

2.6 Summary of chapter

Like any study of social systems, *sense making in organisations* as a subject matter, combines three dimensions. Individuals with properties, traits and attributes; the social systems those individuals are embedded in; and the ecosystem they exist in (Bateson 2000).

The review has focused on those three. It commenced by considering organisation theory and the structural and theoretical differences in organisational designs and it considered the concept of the learning organisation as a system of collaboration, creativity, and discovery.

The review then considered four organisational theories. The behavioural theory of the firm, the resource based view, the evolutionary theory of economic change, and organisations as anarchy. The review considered organisations as social systems that exhibit systemic properties and systemic problems.

In the third section, the review introduced *sense making in organisations* and the concept's origin in systems thinking. The review outlined the concept supported with empirical examples that brought theory to practice.

The review has exposed some of the inherent ambiguity in the concept of sense making. For example, *sense making in organisations*, and *organisational sense making* are two distinct concepts although the two may well cross paths at some higher level of generalization.

The review concluded by systematically locating and evaluating recent advances in the sense making literature expounding calls for more study and justifying the need for the current undertaking. The review has strived to reveal the source of the concerns detected in the earlier study and to identify the possible channels that are causing the discord.

The next chapter considers the methodology and the methods suitable to investigating the substantial complexity of organisations and sense making.

Chapter 3 Methodology

Every problem solving effort must begin with creating a representation for the problem. A problem space within which the search for the solution can take place

Herbert Simon

3.1 Introduction

This chapter discusses and describes the methodology of this study starting with its philosophical position. It then considers methodological issues and deliberates methods of data collection and data analysis. It considers the case study methodology in detail and it elaborates on case study design and its individual strengths and weaknesses. Finally, the research design and research process including data collection is detailed.

Before stoking these matters, it should be said that the qualitative / quantitative debate is by and large a poor debate (Weber, 2004). It portrays a dualism in the social sciences in arguments about reality and in the banalities of methodological correctness. The investigator believes reality is evasive although we seem to glimpse the tail end of it.

Reality as we experience it is complex (we probably have not a hope of ever understanding it). However, to say it is entirely subjective is an evasion of both the ontological problem of what is, as well as the epistemological question of how we know it exists. Applying quantitative methods to understand a subject does not violate one's position as someone who accepts reality as (at least in experience), subjective. Nor does the incorporation of qualitative data contradict the intellectual standing of someone who claims to have an objective view of reality. Indeed problem structuring and solution processing will often call for a qualitative understanding before a problem may be formally expressed (Mingers, 2001).

Philosophies are Meta theories that like all theories help us make sense of the world. A good philosophy inspires one to think and like Russel (1998) stated at the beginning, can help one develop a more refined view of the world.

3.2 Research philosophy

This study assumes a distinction between the foundational reality of '*Brute*' facts and a socially constructed reality of '*socially ordained*' facts (Parsons 2012; Searle 1995; Overton 2002). This socially constructed reality is of concern here. It is relative (to a degree). Socially ordained facts cannot exist on purely relative terms. They are a product of social interaction, practice and necessity. They exemplify the coexistence of the mind and the environment (Berger and Luckman 1966; Thayer 1982).

Consider for example '*institutional*' facts (Searle 1995). They materialize in interaction and they are understood (and experienced) collectively. Institutions are social instruments that reflect a particular social challenge, for example, the concept of democracy, education, law, and policing. These and others shape our realities and communicative practices (Tsoukas, 2000).

This socially constructed reality anchors to history. It emerges through the systematic processing and classification of everyday activities (Chia 2000). It is continuous, purposeful and it reflects the experiences and interactions of social actors in a deep and fundamental way, mediated by language and other forms of meaningful signals, signs and functional and aesthetic artefacts (Blumer 1969). This is evident in and of consequence to the human condition recorded in our personal and collective history (Toulmin 1990).

Searle (1995), states that social reality evolves as a function of three dimensions. Firstly, the imposed functionality of objects that shape (and are shaped) in the course of events. Secondly, intentionality or the relationship of intentions and expectations we share with other actors that constitute our society. Finally, the rules and socially ordained value systems that most of us are committed to. Together these combine in a *bricolage* of social intricacies that can be difficult to disentangle but constitute a reality that is constantly evolving (James 2005).

In this evolving reality, distinctions that may appear obvious in a particular era are interpreted differently in another because the interpretation is contingent on the current accepted system of thought and the dominant world view, which (realistically) cannot be separated from its historical context (Feyerabend 1975; Tsoukas 2000). It means our theories of the social require continuous attention, reflection and refinement if they are to usefully reflect the contemporary social arena and the actors therein (Flyvbjerg 2001).

In the context of such an ephemeral social reality, one may argue that regular reappraisal and readjustment of theories is a necessary undertaking. One may argue that this reality is a functional reality and a product of creative problem solving and activity. Understanding the processes that underpin this reality can be of considerable value to understand the human condition and its problems in the past, in the present and in the future.

This study proceeds on the premise that the social world reflects and responds to the individuals and interactions that take place within it. We can and should explore the way we construct our experiential world. To do so is a necessary precondition for understanding how the future may unfold (Glaserfeld 1984). This world is not a meaningless ensemble, but it is a world of structure and of order. It includes institutions, laws and social norms and values that have evolved over time. Those are in continuous transition and any meaningful understanding must traverse the subtle distinctions that separate the objective and the subjective (Berger and Luckman, 1966).

3.2.1 The interpretative paradigm

This study adopts an interpretive stance which means according to Klein and Myers (1999:69);

[The] research [is], classified as interpretive if it assumes that our knowledge of reality is [acquired] through social constructions such as language, consciousness, shared meanings, documents, tools and other artefacts.

In this view, language is the principle carrier of human expressivity and meaning. Language establishes social parameters and constitutes the common frame of reference that both bonds and separates individuals and cultures (Goffman 1974). Language is also the primary tool by which we express ourselves individually and collectively (Blumer 1969). As such language is the most important tool at our disposal and essential for any meaningful understanding and evaluation of social realities (Berger and Luckman, 1966; Myers, 1997).

The instruments at the disposal of the interpretive researcher are theories that are tethered to words and representations that reflect a social reality in a contextually unique way (Van Maanen 1995; Flyvbjerg 2001). Because theories are instruments that are designed in response to existing and prospective problems, their value is in their utility and capacity to generate insight (Rapoport 1958; Hjørland 2009; Fraassen 1980).

The study considers that the language the study's participants' use is the key to their experiences. The investigator's role is to establish an appreciation of that language and by conflating that appreciation with theory to unlock that knowledge domain.

3.3 Methodology

It is critical to the validity of a qualitative study that its portrayal and treatment of data is transparent. That is to say, what is the nature and context of the setting in which the study was carried out (Stake, 1995). What data was collected, how was it collected and how was it analysed (Long and Godfrey, 2004). How clear, relevant and significant is the study to those it concerns (Hammersley, 2008).

The focal point of the study are the forces that impact the organisations and (in particular) the social generators of discord and opportunity. The obvious methodological choice is a qualitative case study as an '*ongoing witnessing of the lives of others*' (Lofland and Lofland, 1995:3). It situates the researcher in the field alongside the subject of the investigation. It makes the epistemological assumption, that only through experience and interaction can one draw accurate conclusions about a social setting (Lofland and Lofland, 1995).

The method used in this study (the interview) is here detailed and its strengths and weaknesses evaluated. The section lays out the rationale for case selection and explains processes of data collection and analysis. It details data treatment emphasizing the importance of analytic transparency. There is limited *a priori* instrumentation on the premise that an open mind is more sensitive to details in the data than if it followed a predefined format (Miles and Huberman, 1994).

There are two analytic cycles to the coding process. 1st cycle or *In Vivo* coding is the initial line by line coding. It is a process of fragmenting the data word by word. It looks for the dominant themes in the data. The 2nd cycle is inductive where the coding becomes more selective and purposeful (Charmaz 2014). In this research, the 2nd cycle makes use of a coding template designed to analyse interview data (Strauss 1987). The template is detailed and its application explained.

The analysis borrows analytic techniques from grounded theory (GT). This is done on the grounds, that qualitative social research is a spontaneous adaptive process. Methods should (as much as they can) reflect the dynamism of social systems.

The study builds on Weick's sense making conception, but it adopts the methodological rigour of grounded theory as a way of consolidating the quality and reliability of the analysis. All data is processed using NVIVO qualitative data analysis software.

3.3.1 The case study methodology

This is a study of four cases. It considers the case study not a method in itself, but a methodological framework that may utilise a number of methods and techniques.

The case study as a methodological form is addressed extensively in the literature (Benbasat et al. 1987; Eisenhardt and Graebner, 2007; Eisenhardt, 1989; Flyvbjerg, 2006; George, and Bennet, 2005; Thomas, 2011; Yin, 2009). Interpretive perspectives are represented by Klein and Myers (1999) and Walsham (1995).

Those scholars offer a different perspective on the case study as a way of investigation. Some uphold the conventional requisites of science i.e. validity, reliability and generalizability via the systematic and rigorous treatment and analysis of data. Eisenhardt (1989) for example considers a case study to be the general and initial conditioning of a research problem towards a testable theoretical framework.

In contrast, interpretive case studies emphasise their capacity for rich description. Those often describe (soft) causal mechanisms (tendencies) rather than a direct causal relationship (Lofland and Lofland 1995; Walsham 1995).

All case studies should be rich, in depth and empirically descriptive (Eisenhardt and Graebner, 2007) and they should portray a close fit between the empirical data and theoretical propositions. Miles and Huberman (1994) consider the case study bound by its context and this context must be appreciated if the case study is to be meaningful in its theoretical frame (Mishler 1979; Mishler 1990; Thomas 2011).

The methodology is generally considered a constructive way of generating deep contextual understanding *in situ* (Pan and Tan 2011; Flyvbjerg 2006; Baert 2004).

According to Ragin (1992b), there is no general guidance to what constitutes a case. A case can be an individual or a collection of individuals (Stake 1995), an institution or an event (Eisenhardt, 1989) or even a country (Walton 1992). Yet, to Ragin (1992b), all cases are dynamic and one cannot know what a case involves or where its boundaries lie until one is in the midst of it (Miles, and Huberman, 1994). It is a reflexive methodology capable of producing a subtle view of reality that acknowledges the full spectrum of social complexity (Flyvbjerg 2006).

3.3.2 Single case designs

Single case designs are considered more natural and descriptively richer than multiple case designs (Dyer and Wilkins, 1991). Yin (2009) considers single case studies more suitable to critical or extreme instances. He also considers single cases as primarily probes that examine unknown and emerging areas. A single case study can also demonstrate the singular exception that refutes existing theory i.e. empirical falsification (Popper 1959).

In general, single cases are suitable if one is interested in outliers, critical incidents or in documenting mundane everyday events. Single cases may reveal social norms, values and other intricacies of social interactions that might otherwise escape detection (Yin 2009). A single case study is capable of delivering a very high resolution of analysis (Järvensivu and Törnroos, 2010). The main critique of a single case design is the scientific validity of the endeavour and the fact that findings are inevitably unique and non-replicable (Lee, 1989).

3.3.3 Multiple case designs

According to Eisenhardt (1991), multiple case design looks for generalities and differences between a selection of cases. Each case is analysed and compared to other cases. The purpose is to identify the patterns and characteristics they share as well as those that differentiate them.

In a multiple case study, one particular case, (usually the one perceived as the most information rich) is used as a proxy to develop theoretical propositions that rest upon statements of conditions and processes (Yin 2009). Other cases are then compared to the proposition to assess their robustness applying replication logic or (in the case of a poor fit), to stipulate the conditions under which they contradict the initial propositions (Yin 2009). Yin offers an illustration, Figure 3.1.

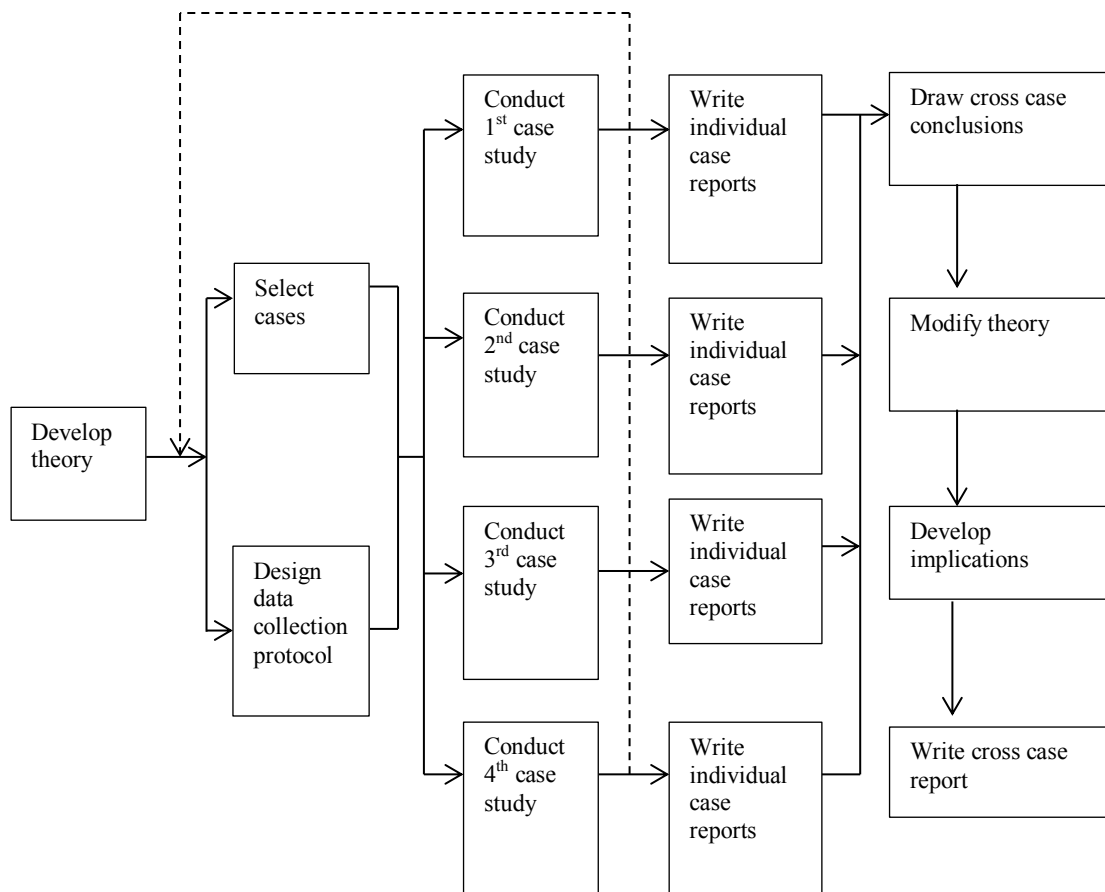


Figure 3.1 Multiple case study design

Multiple case studies aim to corroborate evidence from different sources (cases) using replication logic (Eisenhardt, 1991). It elevates something that is conceptual in the singular to a construct that is more robust because there is a correspondence across multiple sources of evidence. To give an example using data from this study, the widely held notion that time (relatively speaking) compresses in competitive digital environments appears in the data across all cases, Table 3.1.

Table 3.1 An example of replication logic

Initial proposition	Empirical examples	Conclusion
Time compresses in digital environments	Case A - Testing goes out the window because you have no time for it Case B- Seven years is a lifetime with the Internet, they had the opportunity Case C - Because if we don't keep up other people might overtake us Case D - Because we don't really have the time to train them	The proposition is supported with provisional implications <ul style="list-style-type: none"> - For instance lack of time affects quality control - It affects making sense of and developing opportunity - It affects the quality of decision making - It affects the recruitment process and training

It is obvious that if data from multiple sources all point to the same issue (even if there is slight contextual variation which is to be expected with multiple sources) the proposition is more valid than if it was produced by a single source (Saldana 2009). The rate at which digital environments change does have an effect at multiple levels. Time contracts the scope for evaluation and action that has a wider effect elsewhere in the system.

3.3.4 Limitations of case study designs

A problem of most case study research is the drawing of case boundaries and the issue whether case study findings are generalizable outside of their immediate setting. This remains a topic of vibrant discourse (Dubois and Gadde, 2002; Dyer and Wilkins, 1991; Eisenhardt, 1991; Eisenhardt and Graebner, 2007; Järvensivu and Törnroos, 2010; Siggelkow, 2007). Generalizability of course is a technical term that implies durability and at least some sense of relevance, applicability and longevity (Lee, 1989). The conventions of the natural sciences are conceptually problematic in social research that cannot be easily removed from the context of inquiry (Lee and

Baskerville, 2003) to the extent that (Flyvbjerg 2006) states that to this day there exist no predictive context independent theories in the social sciences.

The general consensus is that multiple cases are necessary to generate a degree of generalizability which in qualitative research more resembles pragmatic utility (Benbasat et al. 1987; Eisenhardt, 1989; Leonard-barton, 1990; Yin, 2009). Pragmatic utility or generalization is much looser in its claim to universality although it must have some legitimate and consistent claim to reality. It offers some basis for future action but it is not guaranteed to work (Ramiller and Pentland, 2009).

Nevertheless, findings are (more) valid if they derive from a logical set of statements that are themselves developed from a logically consistent research design and rigorous and transparent analysis of empirical data. Findings are also considered more compelling if they derive from more than one source (Yin 2009; George and Bennet 2005).

3.3.5 The research design

There is no *comprehensive catalogue* of different case study designs (Yin 2009). Each study is unique in its aims and objectives designed to be effective in its particular context. However, according to Eisenhardt (1989:533) there are general principles that constitute good practices in case study design which guide this study, Table 3.2:100.

Table 3.2 Building theory from case research

Step	Activity	Reason
Getting started	Definition of a research problem and question	Focuses efforts and provides better grounding of construct measures
Case selection	Non probability sampling Theoretical sampling	Focused on theoretically useful cases i.e. those that would extend theory by filling conceptual gaps
Negotiating access	Securing access Identifying key informants	Ethical considerations Negotiating clearance to informants and commitment to the project
Data collection	Single method Multiple methods Data treatment	Single method for exploratory phase Multiple methods strengthen theory through triangulation of evidence
Entering the field	Flexible and opportunistic data collection. Overlapping data collection and analysis	Allowed the researcher to take advantage of emergent themes and unique case features
Analysing the data	Within case analysis Cross case analysis	Descriptive analysis of data and preliminary theory generation Syntheses across cases
Shaping hypothesis	Tabulation of evidence Replication logic across cases	Confirms, extends and sharpens theory and builds internal validity
Enfolding the literature	Comparison with conflicting literature Comparison with similar literature	Builds internal validity, raises theoretical levels and sharpens construct definitions. Sharpens generalizability by improving construct definition. Raises theoretical levels
Closure	Theoretical saturation	Marginal improvements to theoretical framework Suggesting further study

This research adopts those principles in a hybrid approach incorporating (Yin 2009) and his concept of a case design as a flexible work plan and (Pan and Tan, 2011) and their concept of a tactical and adaptive approach to case studies. The study has five phases, Figure 3.2:101.

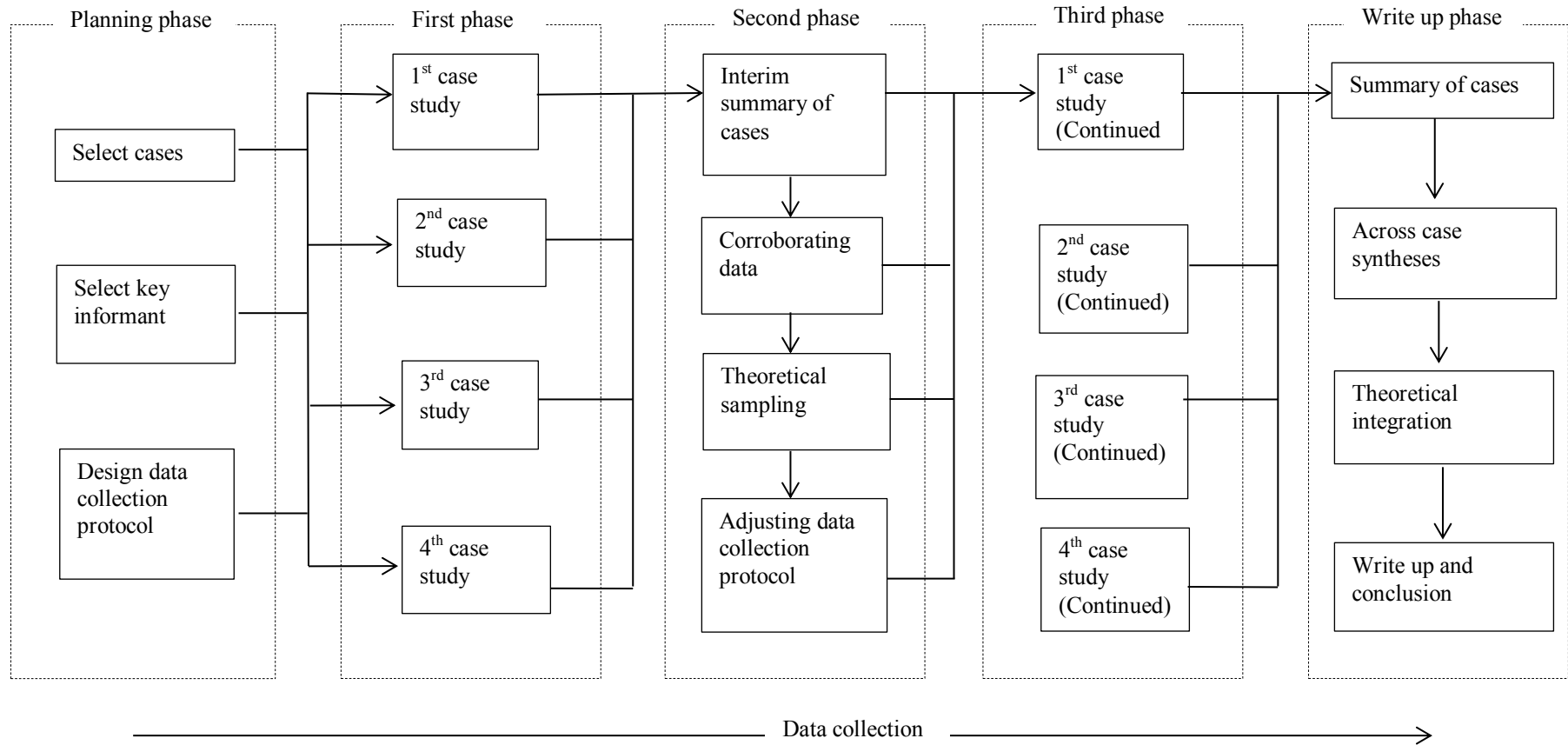


Figure 3.2 The research design

3.3.6 Case selection

Pettigrew (1990) states a decisive factor in case selection may be when initial study identifies a '*transparently obvious*' problem. Benbasat et al. (1987) suggest selection of cases be determined by problems that cannot be explained by current understanding. George and Bennet (2005) suggest using probes to determine if a hunch warrants further study. This study selects cases based on findings from such a probe. Selection is purposive, tethered to an empirical problem identified in the earlier study.

In a multiple case study, one will also consider the anticipated variation and similarities between cases (Yin 2009). If one were interested in representative outcomes then one would choose cases that illustrate those outcomes. This would be a simple replication design that would hope to identify shared elements. In contrast, a different type of study would aim to compare and contrast cases focusing on their differences. The cases in this study all belong to the same industry, but they specialise in different areas of that industry.

3.3.7 A note on non-probability sampling

Non-probability sampling is a judgement call that purposefully selects participants. It does this based on some pragmatic expectation of contribution or in some cases as a matter of convenience. There are generally four non-probability sampling strategies i.e. convenience, snowball, purposive and theoretical sampling (Saunders and Lewis., 2007; Strauss, 1987). A convenience sample by its definition is self-explanatory. The other three may at first instance appear quite similar and therefore merit some deliberation.

3.3.8 Snowball sampling

In snowball sampling, the investigation purposefully selects one or more individuals or cases. It then uses those individuals or cases to identify other prospective sources of data. The process relies on existing participants identifying new sources of data (a referral chain). The obvious drawback to this process is its susceptibility to bias and the tendency of participants to suggest sources similar to them and that are therefore likely to confirm rather than contradict their account of events.

3.3.9 Purposive sampling

In purposive sampling, the investigators select samples based on what they judge best suited to respond to the research question. In qualitative research, sampling is usually deliberate to the extent that there are initially some selection criteria that determine what source of information is likely to inform the research questions.

3.3.10 Theoretical sampling

According to Glaser and Strauss (1967) theoretical sampling is data driven. Cases and individual participants are specifically chosen in anticipation of what they may add to the study's emerging findings (Eisenhardt, 1989; Pettigrew, 1990; Siggelkow, 2007). The emerging framework (and the continuous commitment to enrich and understand that framework by collecting more data), is what distinguishes theoretical sampling from other types of sampling. An investigator will handpick sources of new data based on informed judgement about their information content guided by theoretical requirements (Flyvbjerg 2006). Data collection stops when new data ceases to turn up new insights, '*theoretical saturation*' (Glaser and Strauss, 1967).

3.3.11 Non probability sampling and sample size

In qualitative research, the appropriate sample size is the one that answers the research question (Marshall 1996). Because the objective is not in strict statistical sense generalizability (but inducing meaning), the critical factor is the quality and not quantity of data. In terms of how many interviews is enough, there is literature that attempts to average the number of interviews needed to produce consistent themes. This literature suggests that on average six to twelve interviews suffice (Guest et al. 2006).⁸

⁸ Interestingly, this study used twelve interviews but augmented by informal contact

3.3.12 Justification of the case approach and the unit of analysis

This study is interested in understanding the internal workings of a creative / interactive agency as an organisation (case) of interacting individuals. It is an organisation (rather than person centric) study (interviewing individuals provides insight into organisational processes) but the individual as such is not the case. The unit of analysis therefore is the creative / interactive agency as a particular type of organisation (case). It builds on earlier research on strategy (also case studies) in the same setting that found (to quote Pettigrew, 1990), a '*transparently obvious problem*' in the way cases (from the same sample frame) tried to make sense of themselves (never mind their strategy) in an unpredictable and transient environment, (see section 1.2).

For this study, (from the same population) ten organisations received an invitation to participate in the project and six declared interest. After initial contact, doubts were raised how committed or useful two of those would be to the research. The remaining four constituted a range and diversity that satisfied the research criteria.

They were all experienced operators. Their management had very different backgrounds. They pursued their own unique strategies and agendas. They each had an area of specialisation so that findings could apply to the industry in general and not to a specific field within that industry. They were all of a size that exceeds that of the micro firm (they all had more than ten employees).

Finally, they all belong to a fledgling industry that is experiencing unprecedented change. All cases shared certain attributes and commonalities that qualify them as a legitimate subject of this research, Table 3.3:105.

Table 3.3 Reasons for case selection

Justification	– They all operate in the digital sector and they are both developers and dependents of digital technologies
Rationale	– They have all been active for several years and so it can be assumed that they have acquired valuable knowledge about the industry
Experience	– They are operatives in a sector that has experienced unprecedented and revolutionary change in the past decade
Problem is transparently observable	– An earlier study has identified the problem to be transparently observable in this particular industry
Trust	– Trust has already been established between the operatives and the researcher and so further study is likely to give rich insight into the organisations
Motivation	– Representatives of the organisations have clearly indicated the desire to work towards understanding of the industry and its challenges
Idiosyncrasy	– They all exhibit particular characteristics pursuing their own unique strategic agendas

Table 3.4:106, provides an overview of the cases. It includes demographic information on the respondents, the number, and length of the interviews conducted, whether there was follow up and informal contact and it situates the agency's area of speciality within the broader creative / digital arena.

Table 3.4 Case description

	Case A	Case B	Case C	Case D
Industry	Creative/interactive	Creative/interactive	Creative/interactive	Creative/interactive
Differentiation	Creative content	Demand generator	E-commerce	Creative content
Established	1994	2003	2003	2004
Employees	70	33	18	30
Ongoing projects	200	30	200	N/A
Client base	18	190	N/A	N/A
First and second interviews – managing director				
Age	40	50	40	40
Position	Managing director	Managing director	Managing director	Managing director
Education	BA	MBA	NA	Economics
Background	Creative	Corporate	Project management	Advertising
1 st Interview	2hr12 min	58min	1hr33 min	38 min
2 nd Interview	1.33 min	26min	37min	32min
Informal contact	Yes	Yes	Yes	Yes
Follow up	Yes	Yes	Yes	Yes
Micro blogs	Yes	Yes	Yes	No
Third interviews – technical / creative director				
Age	33	39	40	40
Position	Technical director	Technical director	Managing director	Creative director
Education	BS	PhD	NA	BA
3 rd Interview	2hr7min	1hr55min	1hr 3min	1hr54
Informal contact	Yes	Yes	Yes	No
Follow up	Yes	Yes	Yes	Yes
Micro blogs	Yes	Yes	Yes	Yes

3.3.13 Selecting informants

Choosing informants from within cases is a strategic decision based on the perceived information richness of the informant. Here, it was logical to initiate the process by interviewing the cases managing directors. This was done on the premise that they are key informants and essential to understanding the context of each case (Pettigrew 1990). The managing directors are also (in all cases) the founders of the enterprises. As such, they are knowledgeable about the business, the industry, and the environment in general.

The study also assumed each case would have more than one informant (rather than relying on one source) as a matter of informed and balanced understanding of the subject matter (Lofland and Lofland, 1995). The choice of informants would be a matter of following leads in the analysis rather than a predetermined selection of individuals that might turn out to be not the optimal choice.

3.4 Research methods

Face to face situation is the '*prototypical case of social interaction*' Berger and Luckman (1966:43). The interview (as such a situation), is undoubtedly one of the most important tool for empirical investigation in social and organisational research (Alvesson and Kärreman, 2000). This is particularly so when the topic concerns the nature and complexity of organisational change and agency (Naslund and Pemer 2012; Tsoukas 2005; Weick 2012; Chia 2000; Maclean et al. 2012).

3.4.1 Unstructured interviews

The unstructured interview is the primary strategy for data collection. It entails gaining insight into informant's frame of mind and the processes that guide his or her understanding of the world. There are practical challenges to this method. Firstly, to generate valid insights the investigator must get as close as possible to the informant. The challenge is achieving this without imposing artificiality on the interaction (Spender 1989). The investigator should try to avoid imposing any theoretical or otherwise preconceived ideas on the interaction. Any such measures whether intentional or not, may potentially limit the depth of the narrative and so the encounters capacity for generating new insight.

Unstructured interviews focus on the informant. The informant is free to choose the language and the frame of reference that to the informant is appropriate and meaningful to the area under consideration. However, the weight of interpretation shifts to the investigator who is challenged to interpret and make sense of the account (Spender 1989).

This type of interview requires the management and negotiation of meaning. It affords the investigator with a privileged insight into a research setting as experienced by an informant. To achieve this means situating the investigator at one with the informant to minimize the social distance and potential dissonance between the two.

Finally the interview may be regarded by the informant as an artificial situation, a situation largely irrelevant to the world of professional practice (Myers and Newman, 2007). Such artificial situations will likely produce superficial responses, unless the investigator is in some way able to overcome this potential lack of motivation. The assumption is that data should be produced (not collected) in the interaction between the investigator and the subject (Kvale 1988). These considerations are summarised in Figure 3.3, adapted from Myers and Newman (2007:16).

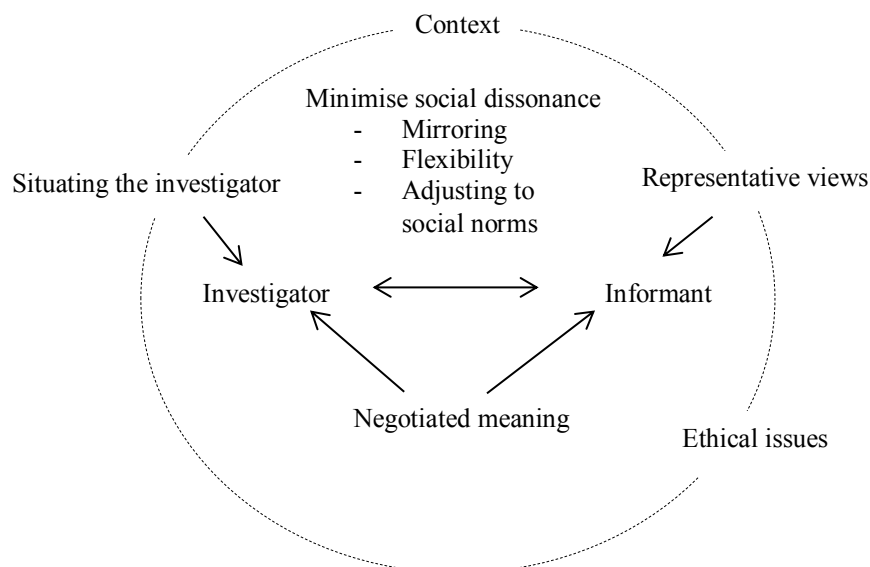


Figure 3.3 Interview design and considerations

3.4.2 Instrumentation and data treatment

Unstructured interviewing uses an incomplete script of directives or data collection protocol (Yin 2009). The investigator plays a mediating role in maintaining focus and the general trajectory of the interview. The investigator's role is to be sensitive to surprises and to potentially interesting and unanticipated threads of inquiry. In this research, prior instrumentation was at minimum to avoid prematurely delineating the parameters or dynamics of the setting.⁹

Spradley (1979) proposes a three-step interview strategy, Figure 3.4. It commences from general questions to a more strategic probing of specific constructs as they emerge from the initial analysis and finally to a process of juxtaposing the constructs the one against the other, all the while, probing for their deeper meaning and unique character. It processes emerging theoretical concepts to instantiations that clearly consolidates the boundaries and meaning of a concept (Jaccard and Jacoby, 2010).

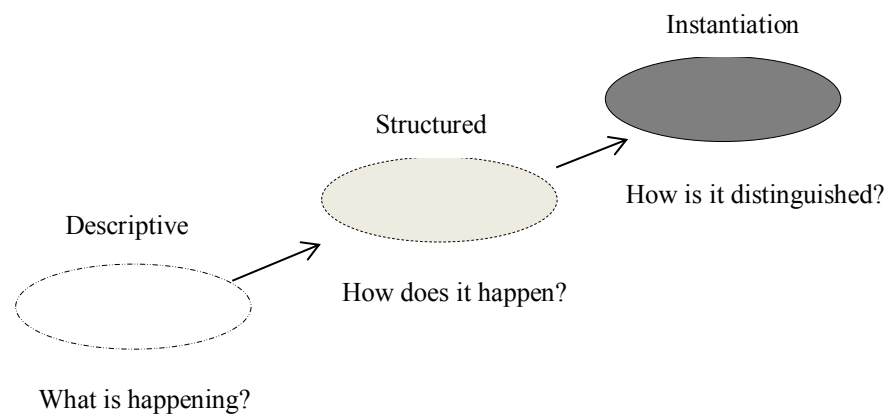


Figure 3.4 Conceptualizing the data collection process

The investigator adopted Spradley's strategy where the first step aimed to get a feel for what was happening within the setting before commencing to a more targeted investigation of specific constructs. The strategy supports the stepwise process of analytic abstraction (Miles and Huberman, 1994).

⁹ Instrumentation in the qualitative sense ranges from decisions on data collection and storage i.e. recorded, shorthand, note taking, to data treatment and analysis to defining and designing the parameters of the investigation through either applying an inelastic instrument with predefined parameters or an elastic and flexible instrument that will adapt and evolve with the data. The instrument that guided the procedure can be viewed in Appendix A.

Informants received a brief beforehand, describing the aims, the objectives, and requirements of the research (i.e. what they could expect from participating). The brief also considered ethical dimensions and all participants consented to participation in writing. The investigator personally recorded and transcribed all the interviews. All transcriptions were processed using qualitative data analysis software NVIVO.¹⁰ The software is a relational database that facilitates the organising and arranging of qualitative material.

It allows the investigator to upload transcripts and to code those either through a specially designated *In Vivo* function or the investigator can create bespoke codes that are meaningful to the theory under evaluation, the problem under investigation or the general disciplinary discourse (Strauss 1987). The investigator also kept memos throughout in a specifically designated memo function in NVIVO.

3.4.3 Coding strategy

In a conversation participants engage in spontaneous semiotic exchange and collaborate to create a shared reality (Matthiessen and Slade, 2011). This ongoing exchange of meaning, usually proceeds within some frame of reference where the expressions used exemplify a speaker's point of view and the depth and the breadth of feeling associated with events and situations (as experienced by the speaker). (Georgakopoulou 2011).

Coding attributes order and structure to narratives. It considers a speaker's use of nouns and adjectives, on the premise they signify the speaker's interpretation and evaluation of events, their importance and their impact.¹¹ Coding plays the key role of recording and assigning meaning and information to words, phrases or chunks of material (Miles and Huberman, 1994).

¹⁰ NVIVO the software is not to be confused with *In Vivo* as a technique for coding although the software does facilitate the technique with a specific *In Vivo* coding function.

¹¹ An adjective is a '*describing*' word that has the syntactic role of qualifying a noun or a phrase, giving more information about the object signified. The adjective animates and provides body and scale to a narrative.

Coding purposefully and strategically applies structure and order to a set of a data. It is the first step in bringing something into analytic focus (Charmaz 2014). It fractures and releases the data from its obvious context and allows the analyst to explore new configurations and hidden meaning in a systematic and transparent way (Strauss 1987).

All coding is an evolving process where initial codes may survive to be included in the final framework but they often become obsolete as the analytic framework evolves. The coding in this research is a three-cycle process.

3.4.4 1st cycle *In Vivo* coding

In Vivo coding is the technique of coding the actual expressions and phrases used by the participant (Charmaz 2014; Strauss 1987; Saldana 2009). It is particularly effective for fragmenting and extracting indigenous terms and expressions as they appear in a transcript. It is also an effective way of capturing and displaying the tenor of a setting for instance by highlighting the nouns and adjectives used by the informant. In this study, all data transcripts were *In Vivo* coded line by line (Charmaz 2014; Strauss 1987).

In Vivo codes are characterised by their analytic usefulness, accessibility and often vivid imagery (Strauss 1987). They already possess meaning in the concepts they represent. Consider an excerpt from one interview, Table 3.5.

Table 3.5 An example of *In Vivo* coding

Paragraph	<i>In Vivo</i> codes
Bear in mind that we had at this stage a very command and control kind of structure within the business with a middle team management that we had established because we felt we should be doing that sort of thing and what happened is that it comes down sort of the chain and we have got these silos going on with certain inefficiencies	<ul style="list-style-type: none"> – <i>In Vivo</i> code – Command and control – <i>In Vivo</i> code – The chain – <i>In Vivo</i> code – Silos going on – <i>In Vivo</i> code – Certain inefficiencies

The informant's choice of words and turn of phrase (even out of context) indicate a form of deep managerial concern. The *In Vivo* codes [*command and control; the chain; silos going on; certain inefficiencies*] seem to indicate some problematic reflection of practice and purpose.

The technique of *In Vivo* coding captures the vividness of a set providing the investigator with rich imagery and metaphors that illustrate elements as experienced by the informant. *In Vivo* coding however, does not explore the context or dynamics that underpin individual words, phrases, or sentiments.

3.4.5 Clustering emerging *In Vivo* constructs

Clustering aggregates codes that illustrate similarities. Miles and Huberman (1994:249) call this the task of considering '*which things go together and which things do not*'.

After all transcripts had been *In Vivo* coded, the investigator explored the contextual backdrop behind each *In Vivo* code. The *In Vivo* codes produced through the line by line coding of the transcripts (and that seemed to share a context) were clustered together under the heading of one particular *In Vivo* code (the one that best communicated the phenomenon and context).

The coding context function of NVIVO allows an investigator to first code the expression of interest *In Vivo* and then to expand the contextual backdrop to illustrate the context of the expression. To give an example, the *In Vivo* code, [*I can feel it in my waters*] describes the role of insight and intuition that challenges the rationality of the records. This only became evident by considering the full context of the *In Vivo* code.

The turmoil is there and I can feel it in my waters, in truth I can see it and I can feel it is not quite right even though in this year the numbers were still looking OK

Managing director case A. Interview Oct 11th 2012.

The *In Vivo* code itself clearly had suggested intuition, but did not provide enough contextual richness to enable informed interpretation. Eventually this particular *In Vivo* cluster aggregated twelve references to the role of intuition. Figure 3.5, gives an example of another *In Vivo* cluster [*Silos do not really work*]. Describing the initiation of a change program, it illustrates the logic of aggregation and clustering. A single *In Vivo* code represents the cluster.

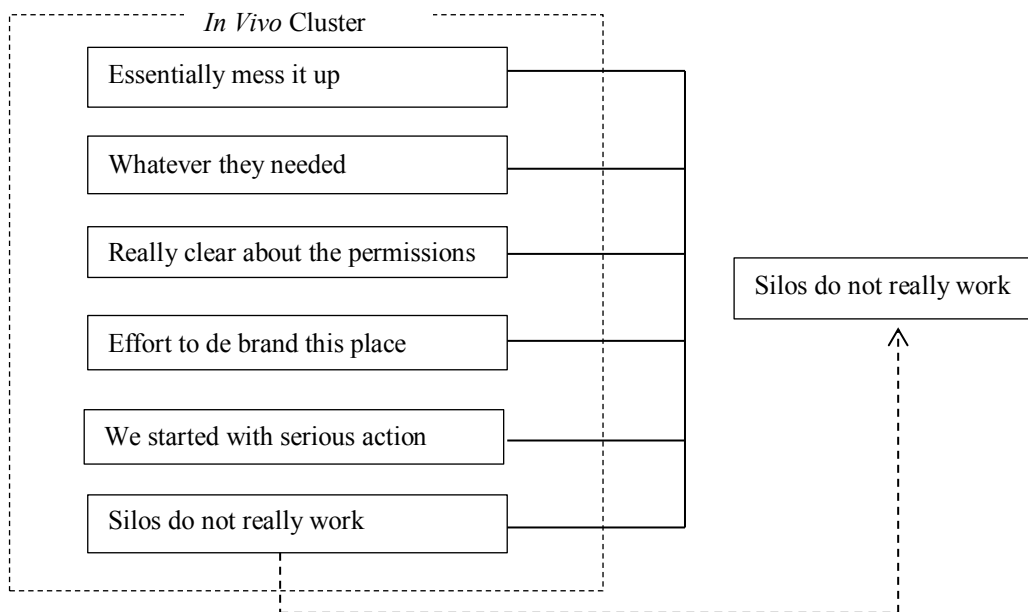


Figure 3.5 Clustering of 1st cycle *In Vivo* codes

These clusters (or first order themes) constitute descriptive concepts or factual evidence (Van Maanen 1979). Their role is to identify (provisionally) major domains or concepts within the data (Thomas et al. 2001). It constitutes the preamble to a more focused and purposeful 2nd cycle treatment of the data.

3.4.6 2nd cycle coding: Sociological and focused codes

The investigator used a coding framework to examine each cluster in detail. The framework is designed to both detect traits and properties of social actors but also (perceived) agency and causal dynamics which often emerge embedded in soft conditional statements (Lofland and Lofland 1995).

The coding framework appears in Strauss (1987). It is a semi-formal way of making sense of qualitative data sets, but the investigator made some modifications to the framework to make it more responsive to the requirements of the research.

Strauss (1987) provides guidelines on how to implement the framework. A particular condition is denoted where an informant refers to an event or experience. For instance, *'because things move quickly'* where *'because'* indicates the presence of a particular condition (speed). Conditional codes therefore appear in a referral to a condition *'because it'* or *'for that reason'* suggesting that a particular condition is or was prevalent in the system.

Similarly, consequences are noted when participants refer to activity that took place because of a particular condition. For example, *'because things move quickly we had to change our management structure'*, where the consequence of (speed) is a change in structure.

The construct *Identity* (which involved the modification) is represented by the informant referring to *'I'* or the collective *'We'* or when the informants use of language suggests shared meaning and purpose *'what we do'* or *'where we want to be'*.

According to MacMillan (2002:748) interaction is *'the process of being with or talking to other people and the way that people react to each other'*. Such processes are detected in the presence of *Gerunds* (Saldana 2009). In linguistics, a *Gerund* is a noun derived from a verb by adding the characteristic *'ing'* at the end. The form describes an action or process. For example, *'running'* or *'talking'*. Those can be further broken down to indicate the presence of intentional and purposeful processes. For example, *'creating a culture'* or *'tightening a strap'* or *'thinking about change'* (Wood 1956).

The investigator processed all clusters using this template. The coding template (and these strategies) support but do not determine entirely the analyses, Table 3.6:115.

Table 3.6 2nd cycle coding

Dimension	Signifier	Examples
Identity	I / We Who we are What we do What we are about Where we want to be	[I] have got to understand [I] have started to think differently [I] know everything [We] wanted to be doing brilliant brands and be famous [We] jumped ship
Conditions	Because / If Since / As / Had to For that reason No choice	[Because] we had a belief in what we were talking about Testing goes out the window [because] you have no time [Because] we were still in turmoil we didn't [If] we don't keep up other people might overtake us
Interactions	Purposeful - tightening / driving Intentional - going / intending Procession - walking / looking	They are [telling] me what is going on because they read forums They are [getting] information It was a case of [listening] to them

The final step in the coding process is constructing focused codes. Charmaz, (2006:57) explains the procedure.

[Focused codes] means using the most significant or most frequent earlier codes to sift through large amounts of data. Focused coding requires decisions about which 1st and 2nd cycle codes make the most analytic sense to categorise your data incisively and completely

Focused codes is assessing earlier codes and concentrating their message in a single construct that captures the key dimensions and dynamics of the theoretical construct. This coding strategy was used for the (within case) coding and analysis in all cases. In this study, each focused code and the entire three step coding process is traceable to its origin in the original *In Vivo* codes, Figure 3.6:116.

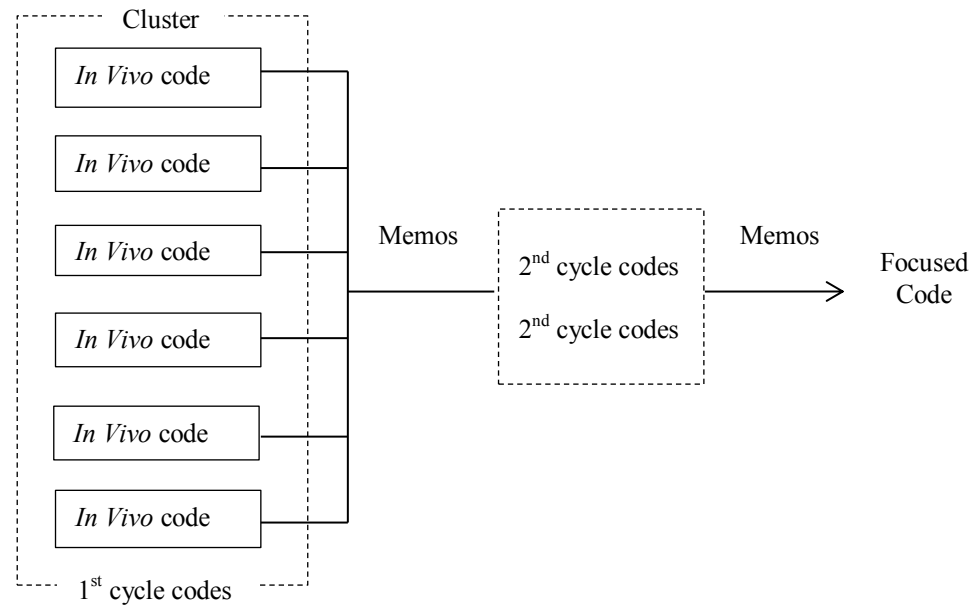


Figure 3.6 Three step coding strategy

3.4.7 Within case analysis

Within case, analysis treats each case separately. The objective is according to Czarniawska (2014) to portray and describe the scene, looking for the story and the deeper structures that distinguish each case, as the first step on the ladder of analytic abstraction.

As suggested by Yin (2009) a single case (case A) was selected as illustrating a richness that would influence (but not determine) the analysis of the other cases.

3.4.8 Cross case analysis

The purpose of syntheses is to deepen explanatory understanding (Miles and Huberman, 1994). A synthesis does this through formally comparing and contrasting findings from different cases moving towards specifying representative categories and the conditions and connections that exemplify them.

Here cross case analysis involved exploring shared patterns, cross-tabulating and synthesising those into conceptual categories (a process of replication logic) (Eisenhardt, 1989a). A deviant case such as we have here (case C), is valuable because it can provide a counter example. For example, if an antecedent to a particular state was in some way different or even absent, then what would be the effect to the condition of that state? This study identifies such antecedents and effects.

3.4.9 Theoretical integration, instantiation and forming of categories

According to Jaccard and Jacoby (2010), instantiation is clarifying concepts at a theoretical level and considering how concepts may be connected and if any causal inferences can be drawn from those connections. The final process in this research is where focused codes are theoretically evaluated (instantiated), constructs form, and integrate in categories as an abstract theoretical representation of what is taking place in the cases.

Analytic notes or memos were here incorporated into the analysis and used to bring the findings as well as questions into clearer focus thus generating theoretical propositions, Figure 3.7:118, adapted from (Strauss, 1987).

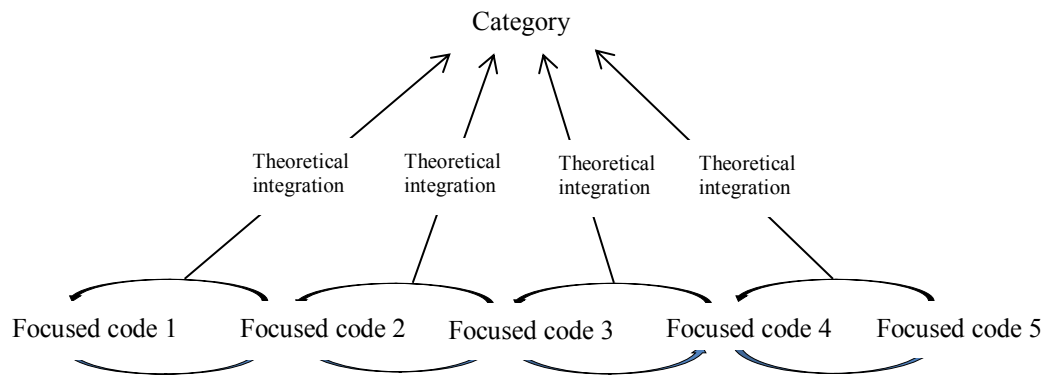


Figure 3.7 Instantiation and theoretical integration

The research follows the conventional trajectory of increasing analytic abstraction outlined in Figure 3.8, adapted from (Miles and Huberman, 1994:93) adjusted to reflect this research in a conception of the 4Cs of analytic abstraction.

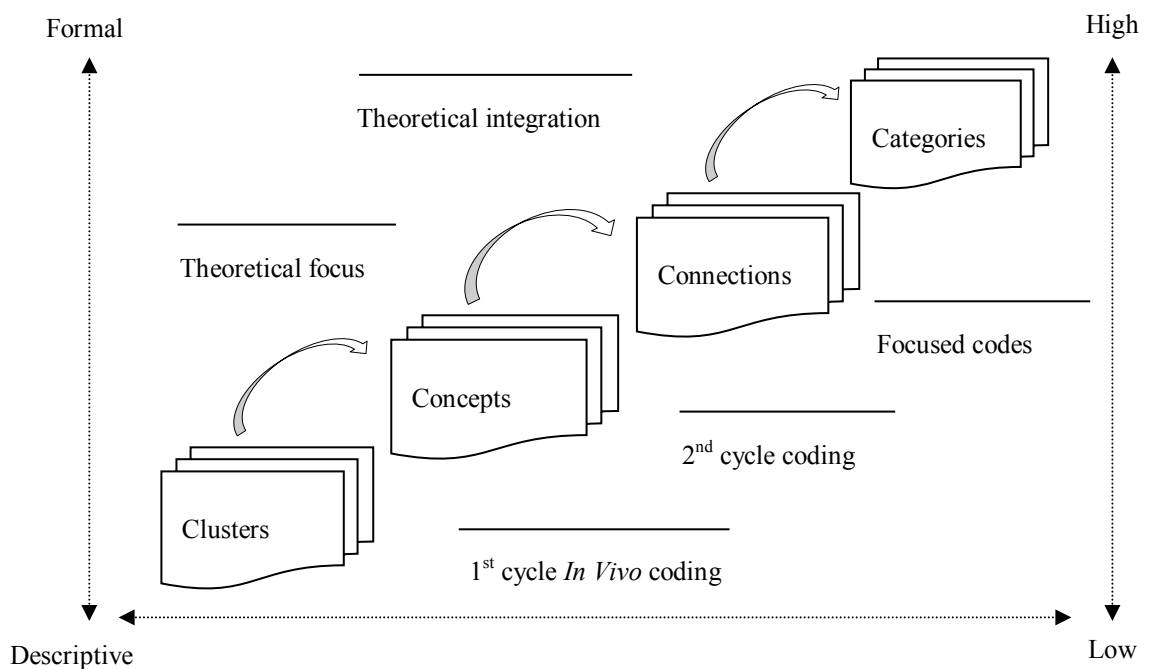


Figure 3.8 A 4 Cs conceptual illustration of analytic abstraction

3.4.10 Memos

The investigator throughout the research retained impressions and ideas (Memos) and recorded those immediately after any encounter with an informant and during data processing. The software NVIVO used to analyse the data has a functionality that facilitates the writing of memos. This was utilised extensively throughout the analysis. Figure 3.9, is a screen shot that depicts the interface of NVIVO and how it connects the memo to the code it concerns.

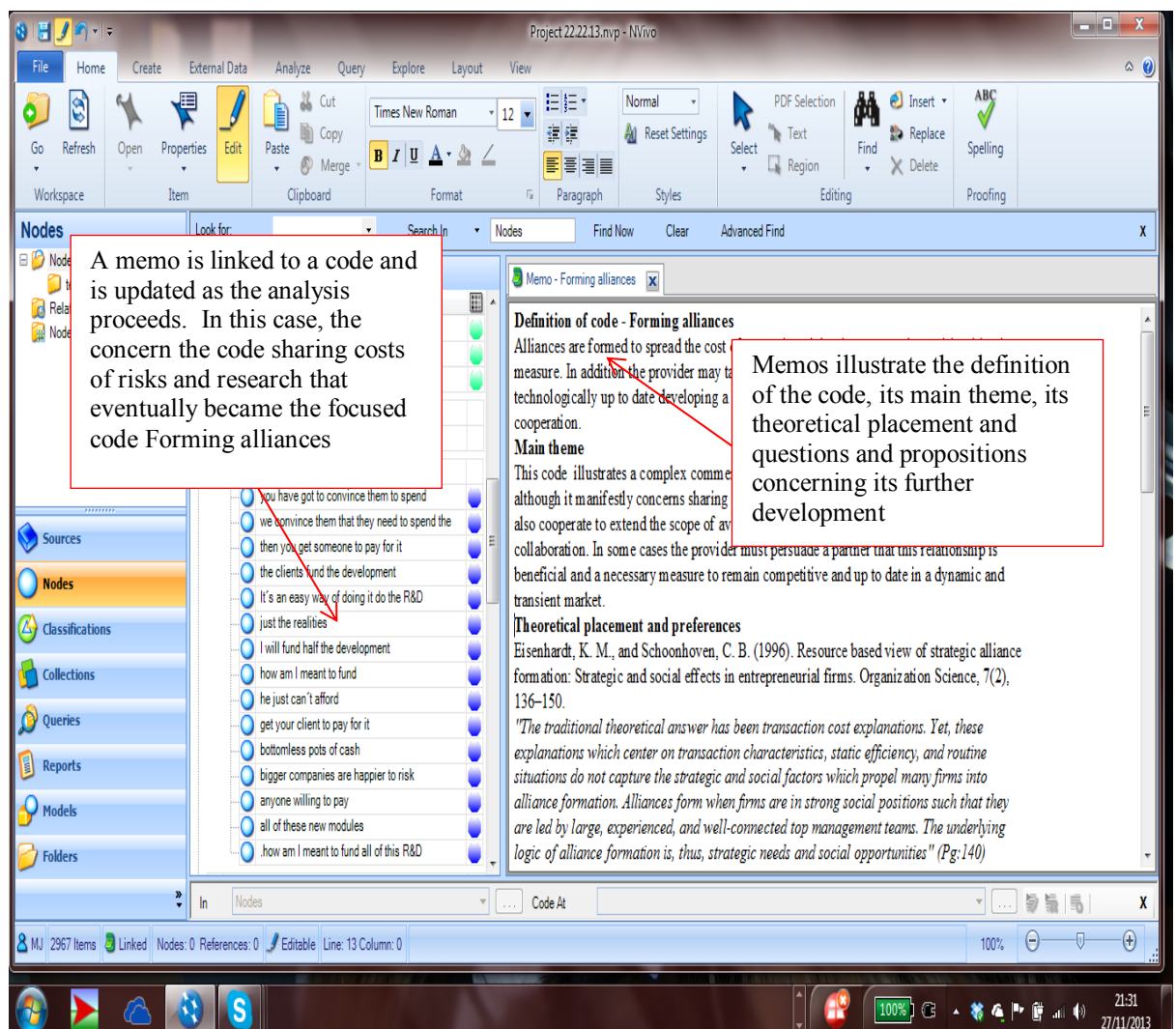


Figure 3.9 The memo function of NVIVO

3.5 Summary of chapter

Qualitative studies too often build on unspecified processes and premises. They lack in analytic structure. Vivid quotes are often scattered throughout in loosely bound, not properly substantiated themes (Miles and Huberman, 1994).

Their findings may be valuable, but an unclear design may transition to unclear (less believable) findings. It also is not ideal for communicating those findings to a wider audience (Phillips and Hardy, 2002).

Indeed, Hammersley (2008) and Mingers (2004) suggest that some qualitative research finds itself in a '*Cul De Sac*' of absolute relativism. Such studies may not produce a valid or practical understanding of the world.

This study endeavours to highlight the uniqueness of each case. The cases are analysed according to Yin (2009). That is to say, one case (case A) is analysed in detail and then the study compares the other cases to that one case. Nevertheless, each case was analysed individually and stands as an independent unit of analysis but the techniques capture the subtle contextual differences between the cases.

This chapter has outlined the analytic procedures that underpin the findings of this study. It illustrates the logic of the design and the rigour of the analysis. It aims to mitigate some of the more common critiques of qualitative research. The investigator is committed to the view that any study must illustrate a logical trajectory, evidence based practice and scientific discipline. To that end, it utilises powerful qualitative techniques (especially from grounded theory). However, it rejects the *blank slate* precept of grounded theory. Appreciating contexts (and theory) is necessary in any social inquiry (Mishler 1979). The next chapters will demonstrate these techniques in practice.

Chapter 4 Within case analysis: 1st interview

Why do you want to study that? I begin with two obvious and apparently unproblematic answers, because it makes me curious and because it is a significant social issue or problem.

Barbara Czarniawska

4.1 Introduction

The researcher digitally recorded all interviews and transcribed them personally. In total, there were 128 pages of transcribed primary data, single-spaced. The researcher read the transcription several times both to check for ambiguities and to become sensitized to what the data was saying. In one instance, the investigator contacted the participant for clarification. The investigator then uploaded the transcripts to NVIVO in preparation for analysis.

The question what case is analysed first is an important one. There will be variance between cases where some cases are transparent (the writing seems to be on the wall) so to speak. Others will be reluctant to reveal their hand.

Case A was analysed first as it was by far the ‘lushest’ case, and therefore chosen as the study’s entry point. The concepts case A generated, inevitably influence the analysis of the subsequent cases, but they did not constrain it. That is to say, each case was unique and treated as such, although case A seemed to crystallise theoretical constructs early on.

Although, the researcher had approached each participant with a list of questions, once introduction were over and the purpose of the research discussed, then participants needed no prompting. All the interviews were what Charmaz (2014) would consider ‘*intensive*’. The interviewer was able to sit back and concentrate on listening, which made the process quite egalitarian and interesting. Only occasionally did the interviewer intervene to intercept an interesting point before it would dissolve in the richness of the narrative.

4.2 Case A: 1st interview

It is the classic thing you know. You would have this experience and then you stop and reflect on that that experience and you personalize it and doubt

Case A – Managing director. Interview October 11th 2012.

This case is the gateway to this research based on the information richness of the case as one of the oldest agency in this industry in the region and by the willingness of the participant to reflect deeply and constructively on its practices and problems.

Case A has been around for a long time (in digital terms) and is widely regarded as one of the founders of the digital scene in the UKs North West. It is a creative content generator and sophisticated digital enterprise. Three friends established the agency fourteen years ago. The participant explains how in the early days *'each had a role'* and how the three founders to this day share a degree of empathy and understanding of each other.

The agency has grown since its conception and currently employs (approximately) seventy individuals. Although originally, the agency would design and sell web sites, as the industry has evolved, digital delivery has become more complex and demanding. The agency has long-term relationships with many of its clients (some of whom are large). These relationships now include the comprehensive management of the client's digital footprint.

The agency's managing director is a thoughtful individual who likes to reflect on his position, his industry, and its future. He himself has a creative background and in his view, management in the conventional sense constrains creative outputs and constitutes barriers to sharing, collaboration, and creativity. He explains, because they are a talent business, they have to align the business to attract talent. How he will do this is at the centre of his thinking. He views himself as a reformist that understands *'new times require new measures'*. He describes a recent transformation as having *'thrown old ways in the bin'*. He states he wants people that are collaborative and empathetic towards other team members.

His language is vivid, peppered with powerful expression of feelings, dynamics, and processes ‘*creating, turmoil, stagnated*’ all extracted from one paragraph. Even out of context or syntax, they are vivid descriptions of an organisation in transition. Not deterred by upheaval or by challenging the accepted view, he entertains a vision of moving his agency forward. Storytelling is clearly important to him and he is keen to share his findings and experiences.

4.2.1 Analysis

Each cluster was treated and analysed as outlined in section 3.4.3. The analysis produced eight *In Vivo* clusters, Table 4.1. The (untreated) clusters constitute in three dimensions, *traits, properties, and system dynamics*, see Appendix E for details. The analyst then drilled down to reveal key elements of each cluster (2nd cycle codes). Those 2nd cycle codes are the building blocks of focused codes designed to denote key features of the concept. The forthcoming discussion details the build-up of each focused code. All codes are from here on emphasised by square brackets. The informant is also from here on referred to as participant.

Table 4.1 Case A: Managing director - 1st cycle *In Vivo* clusters

Dimensions	1 st cycle <i>In Vivo</i> cluster	Ref
Traits, properties and system dynamics	So the story I am going to tell you	28
	I can feel it in my waters	39
	We jumped ship	13
	Our industry is all about change you know, massively	31
	The battleground for agencies	24
	Silos don't really work	69
	They are continuously hooked into what is going on	49
	Knowing the type of people that we want	20

The clusters are powerful and vivid expressions that describe a fascination of the Internet and a strong desire for self-determination. They portray a highly interactive and connected community of practitioners that thrive on autonomy and creativity. They also describe the participant's deliberations about the future, his critique of own performance and how he has developed a vision of how the agency must evolve to be better able to deal with that future. This involves a redefinition of his role and on the role of management in general.

Largely it is a process of taking myself out and looking and researching and [getting a grasp] of it. Actually knowing about them, they often come through and you absorb and it is a process of [pulling them together]...because that builds a discipline with you [building a story] from the things you looked at.

Case A – Managing director. Interview October 11th 2012.

A salient feature to emerge early on was the way in which the participant uses the story to make sense of himself and his situation. He has been on a journey of discovery and he wants to share his findings with anyone willing to listen. He has constructed a narrative around his experience and he invites the investigator to his internal dialog supported by multimedia presentations that highlight key events.¹²

His account is pregnant with the process of sense making. The participant reveals his internal processing mechanisms referring to absorbing information '*building a story*' or '*pulling things together*'. He refers to stepping out of operations to get a better overview of the situation and so tries to pull together elements that from close up do not obviously or necessarily connect.

Table 4.2:125 processes the initial cluster [The story I am going to tell you] in four 2nd cycle codes that constitute the focused code [Ordering through narrative]. The first column in the table is a reference to the *In Vivo* cluster that is being analysed. The middle column contains the 2nd cycle codes the cluster produced. The third column contains analytic notes supported by reference to the literature. The same format is default for subsequent analytic tables in the within case sections of this thesis, chapters 4, 5 and 6.

¹² 2nd cycle codes as well as focused codes are highlighted by square brackets for illustrative purposes.

Table 4.2 Focused code - Ordering through narrative

1 st cycle cluster	2 nd cycle codes	Analytic notes
The story I'm going to tell you	Internal dialog and reasoning <ul style="list-style-type: none"> - I have got essentially an equation - I then use this as a prism 	Stories enable the sense maker to give structure and coherence to a disorderly situation (Weick, 2011)
	Assembly and syntheses <ul style="list-style-type: none"> - Getting the balance between the what and the how - Building a story from the things you look at 	Stories are a diagnostic tool that also shape and sustain identity by keeping an experience alive
	Inferring from experience <ul style="list-style-type: none"> - Founded in a kind of experiences and mistakes that we made in the past - You stop and reflect on that that experience 	Stories describe a sequence of events albeit often inaccurately that are seen to bring about cause and effect (Griffin, 1993)
	Stepping out of context <ul style="list-style-type: none"> - I just took my head out of the business - I was fortunate to give myself some room 	Stories describe an ideal situation and are unlikely to be an accurate description of an organisation that in substance is inherently complex (Tsoukas 2005)

You know our main business is a lot like [running in the dark] you know you just put your hands in front of you and [feeling what is coming] and [trying to make a decision] about something

Case A – Managing director. Interview October 11th 2012.

The passage depicts how the manager leans on impressions and intuitions. It colours the way he evaluates circumstances. For instance, he describes sensing an internal dissonance and how he took note of this unease overruling that the *'numbers were looking OK'*.

The participant (in retrospect) considers how decisions in the past have affected him and the agency and he wants to understand why he made those decisions at the time. He describes a recent situation of complacency and inertia that he attributes to the agency's natural lifecycle but he also assumes responsibility for this in himself shifting his focus to what he describes as *'bigger things'*.

The focused code [Intuitive awareness] is processed from the *In Vivo* cluster [I can feel it in my waters] and two 2nd cycle codes which capture and denote this dissonance and sense of unease. These illustrate this participant's retrospective processing and tacit appreciation of circumstances, Table 4.3.

Table 4.3 Case A: Focused code - Intuitive awareness

1 st cycle cluster	2 nd cycle codes	Analytic notes
I can feel it in my waters	<p>Retrospective images</p> <ul style="list-style-type: none"> – I was falling out of love with what we were creating – We had a nice correlation and here we were starting to be a little inefficient – The company was hitting probably one of its crisis points <p>Tacit appreciation</p> <ul style="list-style-type: none"> – You know you just put your hands in front of you, feeling what is coming – So the turmoil is there and I can feel it in my waters, I can see it and I can feel it is not quite right – Even though the numbers were still looking OK 	<p>Knowledge and understanding that cannot be fully articulated through verbal means i.e. one knows more than one can tell i.e. tacit knowledge (Polanyi 1962)</p> <p>Leans on these unspecified dimensions of feeling to inform judgement (Sadler-Smith, 2008)</p> <p>Describes a process of internal reflection, evaluation and learning from experience where the past guides future action i.e. the past is leveraged to inform the future (Levinthal and March, 1993)</p>

If you asked us at the time when [we jumped ship] why we were doing that it was [because we were doing it for ourselves] and we wanted to be doing work to work and have the opportunity for better work and [we wanted to be doing brilliant brands and be famous] ultimately

Case A – Managing director. Interview October 11th 2012.

Entrepreneurial orientation is an important dimension of this participant's identity. The passage describes the need for self-determination and self-actualisation. The participant is opportunistic and projects a belief in own efficacy and an appetite for risk.

These concepts emerge from the *In Vivo* cluster [We jumped ship]. They constitute in two 2nd cycle codes that represent essential entrepreneurial orientations (opportunism and belief in own efficacy) that are denoted in the focused code [Enacting opportunity], a descriptive code that denotes the way this participant enacts his entrepreneurial orientation, Table 4.4:127.

Table 4.4 Case A: Focused code - Enacting opportunity

1 st cycle cluster	2 nd cycle codes	Analytic notes
We jumped ship	Self-determination and efficacy <ul style="list-style-type: none"> – If you asked us at the time when we jumped ship, it was because we were doing it for ourselves – We wanted to be doing brilliant brands and be famous ultimately Detecting opportunity <ul style="list-style-type: none"> – I would be looking for...the opportunities – We are looking for opportunity for innovation 	Attention is directed towards opportunity illustrating a state of mind and desire for autonomy e.g. detecting and exploiting opportunity (Bird 1988) Enacts entrepreneurial orientation through a strategic mind set of agility, flexibility and low uncertainty avoidance (Hitt et al. 2001) Creative individuals have an elevated sense of self, seek to be autonomous, are often emotionally intelligent and seek external validation for the work (Haag and Coget, 2010)

The centrality of change was evident as expressed in the passage. The scale of change is enormous and revolutionary, a transformative phenomenon is underway that continues to displace operators. What has emerged is a new landscape of creativity and connectivity.

I mean the way that the consumer has responded to Web 2.0 and the content tools and content generators and media space that is [larger than the media space of all the other media space combined] and that is [enormous and has revolutionised the whole of the marketing world].

Case A – Managing director. Interview October 11th 2012.

This new landscape is in continuous transition. Participants constantly face the challenge of falling behind. It is a priority to transfer what our participant calls our '*classic web skills*' to emerging platforms and new devices. The participant reflects how consumers have become content generators, how new technology is constantly arriving and how Web 2.0 is at the centre of this transformation.

Those consumers create value in online activity and social exchange using often multiple platforms that introduces a problem of convergence and the scope of technical competence.

It invokes the problem of having the breadth and depth of technical expertise to participate in a market driven by technologically sophisticated digital consumers.

The agency's ability to compete profoundly depends on if it is able to attract and retain these skills and if it is capable of generating the cultural dynamic to get them effectively and creatively working together. Managing this resource is a complex task. Three 2nd cycle codes emerge from the *In Vivo* cluster representing change [Our industry is all about change you know, massively]. Those capture the scale and complexity of the environment and its scope and velocity in the focused code [External conditions and system dynamics]. The *In Vivo* cluster [The battleground for agencies] is a vivid representation of the skills problem retained in its original form, Table 4.5.

Table 4.5 Case A: Focused code - External conditions and system dynamics

1 st cycle cluster	2 nd cycle codes	Analytic notes
Our industry is all about change you know, massively	System scale and complexity <ul style="list-style-type: none"> – Digital itself was that catalyst for that enormous revolution and evolution 	Describes a major systemic upheaval transcending industry standards, normative practices and transfer of power to consumers
	System scope and convergence <ul style="list-style-type: none"> – Because fundamentally, it has a capability to join things up that were not joined up before. – Because it is essentially across multiple devices and platforms 	Branching and complexity of digital dimensions characterised by convergence, mobile technologies and advances in HCI means firms must have access to a diversity of technical resources (Hoopes and Madsen, 2008)
	Rate of evolution and adaptation <ul style="list-style-type: none"> – You know how quickly we were adapting to changes – The speed at which we could take our classic web skills and move them on to new platforms and new devices 	The rate of evolution depict not just the escalation of technological evolution and acceptance but also the compression of time and of space and a reconfiguration of social practices (Bharadwaj et al. 2013)
	IV – The battleground for agencies <ul style="list-style-type: none"> – The battleground for agencies up here particularly in the North West and Manchester was going to be around talent – Because we would be competing for the same talent essentially 	A heterogeneous pool of both social and material / technical skills and talent are required for comprehensive digital delivery (Adler and Kwon, 2002).

The composition (heterogeneity) of resources (employees) is a key concern to the participant. He talks of needing the right combination of attributes to deal with the future. The way he processes this problem is interesting. For example he rationalises that *'if we can achieve this (attract people) then we will get superior quality'* and *'like in any equation certain thing need to be there'* both which give some insight into his problem structuring.

[What attributes we need inside the business] to really [deal with the future and recognize the attributes that were fundamentally missing]...a vision of where we wanted to be next which wasn't just about adapting what we were as an organisation.

Case A – Managing director. Interview October 11th 2012.

There are two dimensions to the composition problem. Attracting the right people and managing them. These considerations were prominent in the participant's account. It was first captured in the 1st cycle cluster [Knowing the type of people that we want] and developed in two 2nd cycle codes that identify talent procurement and management of that talent as key issues. Those are drawn together in the focused code [Composition and variance], Table 4.6.

Table 4.6 Case A: Focused code - Composition and variance

1 st cycle cluster	2 nd cycle codes	Analytic notes
Knowing the type of people that we want	Attracting traits and competencies <ul style="list-style-type: none"> – Really knowing the type of people that we want on those teams and the type of people we want in the business. – What attributes really we needed inside the business to really deal with the future 	Positioning the firm to attract the techno-meritocratic culture that will be lured by the prospect of professional progression (Castells 2001)
	Managing traits and competencies <ul style="list-style-type: none"> – Even when you do get these opportunities do we have the right people – If we get that talent working together 	Deliberates the issue of variety and the capabilities the firm must possess to create and exploit market opportunities (Miller, 2003)

What exactly attracts those types and classes of individuals emerges from the *In Vivo* cluster [Silos do not really work].

Those kinds of [people tend to really want the freedom] to get on with what they are there to do. They really [thrive on the options to get better] and to improve themselves in that area and to improve the quality of what they are doing

Case A – Managing director. Interview October 11th 2012.

The passage describes the problem of designing a dynamic environment where the participant reflects on lessons learned. He explains how he (at one point) began to act and think like business a man *'forgetting what the magic was'*. He began to impose structures and processes to increase efficiency. The effects were opposite to the intended. He attributes this to removing what his employees consider a key value driver (autonomy). He explains how people would just start concentrating on their part of the product and *'because...we have got all these stages to go through it's just not flexible and nimble, time gets wasted'*.

The result was general indifference, a state of inertia and a collapse in productivity with loss of accounts. He became aware of the situation when key people defected because they were unhappy with the organisations structure and processes. They considered the tight regime a barrier to carrier development because it removed the key incentive of creative freedom and professional progression.

Consequently, the participant began to question current practices. He eventually decides that a more loosely coupled organisation is the way forward. He initiates a change program, a process of dislodging deeply embedded routines that had developed over time (including the removal of key individuals). He explains how they made a tremendous effort to communicate to their employees their intentions and their commitment to the initiative.

The 1st cycle cluster [Silos do not really work] process in four 2nd cycle codes. These denote lessons learned and a revaluation of the role of the agency as organisation. The focused code [Crafting a dynamic milieu] outlines key dimensions of this new emphasis, Table 4.7:131.

Table 4.7 Case A: Focused code - Crafting a dynamic milieu

1 st cycle cluster	2 nd cycle codes	Analytic notes
Silos don't really work	Loose coupling <ul style="list-style-type: none"> - Those kind of people tend to really want the freedom - The autonomy when then gave to the teams to self-organize 	Loose coupling emphasises autonomy of individual elements whilst acknowledging their interdependencies (Rivkin and Siggelkow, 2003)
	Cultural empathy <ul style="list-style-type: none"> - There was a dynamic that was really working something that we now went onto essentially ruin as we grew and created silos 	Individuals thrive on autonomy and the self-generative mechanism of creativity (Gill, 2005) Cultural / cognitive dissonance is monitored and an effort is made to reduce dissonance and align expectations with operations (Shultz and Lepper, 1996) Dissent led to disillusion, inertia and intransigence that is derived from imposed structure and centralisation that eventually led to a collapse in productivity and defection
	Intellectual challenge <ul style="list-style-type: none"> - People just start to just do the job and you are taking away their thinking 	Accepting serendipitous events and exploring their potential instead of trying to control for every eventuality. Recognizing that instability is the normative state and control and forecasting is not possible (Prigogine 2000)
	Disrupting routines <ul style="list-style-type: none"> - We have thrown a lot of the ways we worked in the bin - We did not just change the structure we changed routines 	Normative standards are dislodged and new configurations are explored in a process of reorientation and regeneration (Siggelkow, 2002) A tremendous emphasis placed on communicating intentions and the extent of initiative. No one is exempt and there is serious action i.e. the removal of key individuals that signals intent and commitment

Indeed, the participant made frequent references to his employees as a source of inspiration and knowledge. He explains how through them and their relational networks, they (the organisation) are better able to make sense of the environment.

[They have the answers] and are capable of delivering what they need and they are capable of the adaption that we need and [they know better than I really where we ought to be going]

Case A – Managing director. Interview October 11th 2012.

According to the participant, his employees thrive on exploration and social interaction. To remain *'in the loop'* they must participate in professional discourse. This makes them the agency's antenna connecting it to the ecology of the Internet.

The participant explains how sharing is integral to his *'new'* organisation. The objective is to get people to interact and collaborate. Interaction and proximity states the participant, creates a feeling of shared interest, commitment and empathy. The space itself becomes a collaborative tool. Walls become nodes of interactions that stimulate intellectual development, facilitate sharing, and strengthen relational ties. These *'collaborative architectures'* are designed to facilitate knowledge transfer but also deal with knowledge redundancy. The 1st cycle cluster [They are continually hooked] produces four 2nd cycle codes. Those denote the importance of sociality and interaction that facilitates information and knowledge transfer. It suggests sociality may be an important component to understanding the environment but also as a technical resource, that extends the agency's span of expertise. These (social dynamics) are embodied in the focused code [Social domain of knowledge and practice], Table 4.8.

Table 4.8 Case A: Focused code - Social domain of knowledge and practice

1 st cycle cluster	2 nd cycle codes	Analytic notes
They are continually hooked	Collaborative architecture <ul style="list-style-type: none"> – Walls are the ultimate collaborative tool – They stand up and interact 	Communal expertise constitutes human and social capital that provides heuristics, practical support and alleviates the pressure on attention (Adler et al. 2011)
	Community knowledge <ul style="list-style-type: none"> – They know better than I really where we ought to be going – The people here have the answers they know how it should work 	Communal discourse collectively creates a vision of innovation that becomes central to its development and acceptance and conceptualisations of utility (Swanson and Ramiller, 1997)
	Community interaction <ul style="list-style-type: none"> – If you are in this industry and you are not doing that then you might as well be dead in the water 	Membership to a community connects one to the discourse and flow of ideas and collective sense making in the coming together of situated experience that reveals alternative explanations, affordances and possibilities (Lave 1991)
	Community culture <ul style="list-style-type: none"> – They really thrive on the options to get better and better – We have learned what motivates people in this line of work 	Conceptual and spatial arrangements construed to facilitate interaction, sharing, learning and creating (Wierzbicki and Nakamori, 2005)

In summary, seven *In Vivo* clusters produce twenty-two 2nd cycle codes and seven focused codes. The participant turned out to be a reflective practitioner (storyteller) who thinks deeply about internal and external path dependencies and how those influence the agency. He understood that the composition of his resource pool (social domain of knowledge and practice) was a critical factor determining his organisation's long term competitive fitness and future prospects. The social domain connects him and the agency to the external environment. This is an environment of great transience where digital technologies permeate every aspect of social life that for the agency constitutes a continuous challenge of keeping up.

Table 4.9, summarises the analytic process from the 1st cycle clusters through 2nd cycle codes to seven focused codes.

Table 4.9 Case A: 1st interview, summary of codes

1 st cycle <i>In Vivo</i> cluster	2 nd cycle codes	Focused codes
The story I'm going to tell you	Internal dialog and reasoning	Ordering through narrative
	Assembly and syntheses	
	Inferring from experience	
	Stepping out of context	
I can feel it in my waters	Retrospective images	Intuitive awareness
	Tacit appreciation	
We jumped ship	Self-determination and efficacy	Enacting opportunity
	Detecting opportunity	
Our industry is all about change you know, massively	System scale and complexity	External conditions and system dynamics
	System scope and convergence	
	Rate of evolution and adaptation	
	IV – The battleground for agencies	
Knowing the type of people we want	Attracting traits and competencies	Composition and variance
	Managing traits and competencies	
Silo's don't really work	Loose coupling	Crafting a dynamic milieu
	Cultural empathy	
	Intellectual challenge	
	Disrupting routines	
They are continually hooked	Collaborative architecture	Social domain of knowledge and practice
	Community knowledge	
	Community interaction	
	Community culture	

4.3 Case B: 1st interview

Case B is a demand generator and a sophisticated multi-channel marketing agency. It designs and produces scalable digital marketing solutions and content management systems. The emphasis is on marketing rather than creative, intercepting and retaining online customers utilising multiple digital channels.

Case B has been operating since 2004. Its managing director, the participant, has a long-standing career in the telecoms industry. He founded the business on the back of his disillusion of how that industry (within which he held a senior position) was unable and unwilling to capitalise on the clear strategic advantage that they had in developing digital capabilities. He claims '*they were just not interested*'. His management approach is conventional and locus of control is internal. It emerges in (declared) rigid organisational structure and centralization.

During the interview, the participant began to draw an organisational diagram that was clearly compartmentalised. It revealed a mind-set more akin to a corporate strategist rather than the manager of an SME in the creative industries. The agency is his vehicle to material gain rather than creative ambition. It manifests in his focus on control and audit.

He trades his way around and integrates strategically with other organisations. He establishes enduring relationships with clients where he exchanges digital services for shares in what he considers are promising investment opportunities. These often turn out to be traditional enterprises that trade in what he calls '*real things*' that to him are tangible things. He diversifies into retail and other sectors that trade in material goods. Data treatment was the same as outlined previously with case A.

4.3.1 Analysis

Again, section 3.4.3 outlined how each cluster was treated. The 1st cycle analysis produced seven *In Vivo* clusters again conceptualised in *traits, properties and systems dynamics*, Table 4.10. See Appendix E for details.

Table 4.10 Case B: Managing director - 1st cycle *In Vivo* clusters

Dimensions	1 st cycle <i>In Vivo</i> cluster	Ref
Traits, properties and system dynamics	We target them	22
	Is there some meat on the bone there	31
	I could not see any future really	82
	Massive change	26
	The grass is always greener	23
	Measured like a business	60
	They are telling me all the time	36

The seven clusters reveal some contextual similarities but also significant contrasts with case A. This participant is self-centric and has considerable self-esteem, determination, and focus. He dwells not on change in any detail and is not preoccupied with it as a problem. He simply states change is the normal state. He is a seasoned operator and he explains how in the nineties, he sensed change was underway and how its prospects appealed to him. He regards change as primarily an opportunity.

Residues of his corporate past emerge in centralisation, structure, control, and measurement. To him, such measures are about profitability and management is a question of control. He has structured his organisation with himself at the centre of strategy and decision-making. He talks of investment, diversification, growth, and '*massive traction*'. In this aspect, his account contradicts the previous case in quite fundamental ways.

A salient feature is the mind-set of a goal-oriented individual who presides over a rule based enterprise with clear divisional grouping, a hierarchical referral system and centralised power structure.

[I want it to be 7-10 million] which we can do we have a great reputation. We have a client base, which we can go after. We have all the tools so that [we can pinpoint whom we want to work with] we can interact with them...we will [take an equity stake in and then grow]

Case B – Managing director. Interview October 30th 2012.

On his own volition and keen to illustrate, the participant drew an organisational diagram. This showed that he was not concerned with who was doing what where, but rather what different business units were doing and how those were connected and aligned to create value. He focuses on plans, growth, and targets. He illustrates a strong belief that he is in control of the future and that his actions will determine in what way the future unfolds.

He seems to re-enact his corporate past pursuing a strategy of investment and diversification. His plans to integrate across industry, exploiting connections and investing in promising enterprises (often his own clients) offering digital services in exchange for shares. The 1st cycle cluster [We target them] had initially detected this determination. It produces two 2nd cycle codes that denote locus of control and corporate tactics. These are represented in the focused code [Focused attention], Table 4.11.

Table 4.11 Case B: Focused code - Focused attention

1 st cycle cluster	2 nd cycle codes	Analytic notes
We target them	<p>Locus of control</p> <ul style="list-style-type: none"> – Me as a business editor looking at what we need to do – We take that from £3million and £10 million <p>Investing and diversifying</p> <ul style="list-style-type: none"> – One arm is investment vehicle – We can pinpoint who we want to work with – Take an equity stake and then grow 	<p>Conventional measures used to achieve clear specifications and objectives. Exercises authority and locus of control i.e. belief in own efficacy and ability to determine an outcome (Lee, 2013).</p> <p>Enacts role of strategist and manager in the conventional sense. Identity is defined by what is familiar and has been experienced before (Wenger 1998).</p> <p>Invests and diversifies into areas that he considers real that usually constitute organisations that trade in material not digital goods. Simplifies scenarios turning complexity in to a set of investments choices focusing on returns as a practical incentive mechanism (March 1994).</p>

When confronted with what the participant refers to as noise, he tries to establish the relevancy and potential of the phenomenon. He talks of resorting to instinct and intuition and drawing on experience and knowledge to evaluate a phenomenon. He describes how they consider contextual precedence and if there are heuristics that fit the new phenomenon.

To see [if that is noise or not noise] or that is right and that is not right. It is about [if there is an instinctiveness or intuitiveness], is that just bollocks, or [is there some meat on the bone there] and we need to just go and have a look at and check and [the only way to really know is if you implement some of it and find out]

Case B – Managing director. Interview October 30th 2012.

If no useful response exists, then it becomes a process of *'trying things on'*, a procedure of trial and error. It attempts to establish the importance of a phenomenon that one can only really assess in action. It is the phenomenon's commercial potential and not its creative affordances that guide his interpretation and interest.

The 1st cycle cluster [Is there some meat on the bone] is processed and the constructs fit the existing 2nd cycle premises of the focused code [Intuitive awareness] (generated by Case A), Table 4.12.

Table 4.12 Case B: Focused code - Intuitive awareness

1 st cycle cluster	2 nd cycle codes	Analytic notes
Is there some meat on the bone	Tacit appreciation <ul style="list-style-type: none"> – To see if that is noise or not noise – It is about if there is an instinctiveness of intuitiveness about it – That is right or that is not right 	Leans on unspecified dimensions of knowledge to inform judgement in an ambiguous and time pressured situation (Sadler-Smith, 2008). Uses non-formal methods to investigate the potential of innovation (Meyer et al. 2005) Commercial potential not creative motives drive interpretation and meaning
	Retrospective images <ul style="list-style-type: none"> – Is there some meat on the bone there – The only way to really know is to implement some of it and find out 	Describes how to understand a phenomenon one must engage with it. Meaning materialises through experience and practice. Experiences are systematically and purposefully retained and revisited to inform the future i.e. situated action and knowing in practice (Lindblom and Ziemke, 2003)

All these experts came from America and Canada saying about being the search engine of the world and that really appealed to me, [I thought that was wow if we can get all of the algorithms]

Case B – Managing director. Interview October 30th 2012.

In the passage, the participant is reminiscing how he became disillusioned when his corporate employer failed to apprehend the potential of the Internet and despite having all the resources and being strategically positioned to exploit the opportunity, they failed to realise its potential and impact. Disillusioned by the apathy of the organisation he worked for and detecting the opportunity, the participant decides to jump ship and set out on his own. In this, he enacts and illustrates the definition of entrepreneurship as the discovery, pursuit, and exploitation of potential futures.

At the same time, the participant presents himself as an authority and a person of respect that has many years of experience in a turbulent industry. He explains how in the past he has been headhunted and how he was adept at playing the corporate game. His confidence spills over to his current circumstances and to a declaration of collective capabilities but it is largely self-centric and focused on own efficacy.

The 1st cycle cluster [I could not see any future really] had first captured this penchant for opportunity and 2nd cycle analysis found that the cluster (once processed) supported the premises of the existing focused code (case A) [Enacting opportunity], Table 4.13.

Table 4.13 Case B: Focused code - Enacting opportunity

1 st cycle cluster	2 nd cycle codes	Analytic notes
I could not see any future really	Detecting opportunity <ul style="list-style-type: none"> – We needed to change – I was thinking come on this is going to change – I thought that was Wow if we can get all of the algorithms Self-determination and efficacy <ul style="list-style-type: none"> – Because we are massive... we have got all the facts and figures – Because we have got the expertise, I can get anything onto the first page of Google – They said you are a big name in the business 	Attention is directed towards a sense of opportunity illustrating a particular state of mind (Bird 1988). Enacts entrepreneurship in discovery, evaluation and exploration (Eckhardt and Shane, 2003) Self-efficacy as a dynamic self-concept has powerful motivational consequences (Markus and Wurf, 1987).

This participant does not dwell on change or its complexity. He does not appear to view change as a particular problem. Nevertheless, change is latent in the account, often contained in the opportunity it brings. His interpretation overall is untangled, commenting only that change is the normal state and its scope and scale is massive.

[What is digital today, is it screen, is it the Internet] you know what I mean [we go into the digital realm] now don't we and to me it's the Internet but anyway.

Case B – Managing director. Interview October 30th 2012.

Similarly, scarcity of skills seems to be a resilient problem in the industry that also emerges here.

Again, the participant does not dwell on the issue of skills but makes subtle remarks that hint at the same problematic dynamics noted previously with Case A. This manager however believes in tangible incentives and using simple measures to retain and motivate employees. His account reflects a certain social distance between him and his employees and there never emerges an interest in alternative ways of motivating or attracting and managing them. The 1st cycle cluster [Massive change] is processed. It supports the same four 2nd cycle premises of the focused code [External conditions and system dynamics]. The original *In Vivo* cluster [The grass is always greener] denotes the skills problem, Table 4.14:140.

Table 4.14 Case B: Focused code - External conditions and system dynamics

1 st cycle cluster	2 nd cycle codes	Analytic notes
Massive change	System scale and complexity <ul style="list-style-type: none"> – Clueless in terms of what was coming down the track – I could see it was going to change our world 	Describes a major systemic upheaval transcending industry standards, normative practices and transfer of power to consumers
	System scope and convergence <ul style="list-style-type: none"> – Is it screen is it the Internet – We go into the digital realm now 	Branching and complexity of digital dimensions characterised by convergence, mobile technologies and advances in HCI means firms must have access to a diversity of technical resources (Hoopes and Madsen, 2008)
	Rate of evolution and adaption <ul style="list-style-type: none"> – We needed to change – Seven years is a lifetime with the Internet 	The rate of evolution depict not just the escalation of technological evolution and acceptance but also the compression of time and of space and a reconfiguration of social practices (Bharadwaj et al. 2013)
	IV – The grass is always greener <ul style="list-style-type: none"> – The grass is always greener – Staff retention is bad and sickness levels are unbelievable 	A heterogeneous pool of both social and material / technical skills and talent are required for comprehensive digital delivery (Adler and Kwon, 2002).

[Our measurement] of that has been there right from day one [track everything, everything is recorded] you know time everything you know what I mean so it is a bit like a lawyer you have everything, e-mails, [I have everything and I know that person spent 30 min on e-mails] so you know what I mean [everything is break down].

Case B – Managing director. Interview October 30th 2012.

The passage typifies this participant's management philosophy. His role is assembling the machineries of production, establishing and maintaining governance and the imposition of functions that have a clear place and purpose.

He is distinctly concerned with structure and departmentalisation. To him, control is the means to efficiency. The passage speaks for itself in the way it emphasises his span of control and it floats into every interaction and management move. This is clear when he asks the investigator unexpectedly *'have you heard of rule 21?'*

Basically, the human being can only take on three pieces of information three instructions and basically [you tell someone what they are going to do, then you tell them and then you tell them again]

Case B – Managing director. Interview October 30th 2012.

The structures and processes he describes enable him (as much as his subordinates) to make sense of the world (on terms he understands). He explains how he has foreseen the evolution of the business and how he himself has influenced its growth. The 1st cycle cluster [Measured like a business] is processed in two 2nd cycle codes that denote his thinking and his management style represented in the focused code [Structure, form and function], Table 4.15.

Table 4.15 Case B: Focused code - Structure, form and function

1 st cycle cluster	2 nd cycle codes	Analytic notes
Measured like a business	Ordering through arrangements <ul style="list-style-type: none"> – In the agency this is how it splits down really – Obviously that joins these functions and makes sure everything is running this way – That sits here ahead of that ahead of that, ahead of that 	Structure form and function describes arrangements that facilitate sense making because they represent something that is familiar to the sense maker and resonates with his past identity and role (Wenger 1998)
	Span of control <ul style="list-style-type: none"> – Our measurement of that has been there right from day – I have everything and I know that person spent 30 min on e-mails so you know what I mean everything is break down 	Structures, arrangements, and connections represent and impose purpose, order, audit, and a trail of reference. The architecture mirrors the founders belief system enabling him and others to interpret and cope with complexity and ambiguity (Haberberg and Rieple, 2008)

When the investigator inquired how the participant made sense of the digital space, the participant for the first time hesitated eventually explaining how the younger generation tells him what is going on. He states one has to be able to listen and it is vital to pay attention to his younger employees. Here (like case A), the employees are the antenna that connect the agency to the digital space.

How do we stay in front of the curve? By [listening to people that do their job all day long] is right is what they are doing. [They are telling me all the time] what is going on [because they are reading forums, they are getting information they are looking].

Case B – Managing director. Interview October 30th 2012.

He has learned that the generation divide (from his point of view) constitutes a resource, but equally a threat and a problem. However, there never emerges an interest in what motivates those resources or why they are listening or why they read forums. It is an outsiders view and evaluation of a resource. The 1st cycle cluster [They are telling me all the time] supports the 2nd cycle premises of the existing focused code [Social domain of knowledge and practice], Table 4.16.

Table 4.16 Case B: Focused code - Social domain of knowledge and practice

1st cycle cluster	2 nd cycle codes	Analytic notes
They are telling me all the time	Community knowledge <ul style="list-style-type: none"> – They are telling us what is wrong with these sites – They have come up with some blinding stuff that the experts in here have missed 	Communal expertise constitutes human and social capital that provides heuristics, practical support and alleviates the pressure on attention (Adler et al. 2011).
	Community interaction <ul style="list-style-type: none"> – They are telling me all the time what is going on – Because they are reading forums 	Communal interaction collectively creates a vision of innovation that becomes central to its development and acceptance and conceptualisations of utility (Swanson and Ramiller, 1997).
	Community culture <ul style="list-style-type: none"> – We are they Y but they are the next lot coming through – I have got creative geeks, I have got creative and I have got geeks and its and I mean that in the nicest possible way 	Membership to a community connects one to the discourse and flow of ideas and collective sense making in the coming together of situated experience that reveals alternative explanations, affordances and possibilities (Lave 1991).

All codes considered, what immediately struck the investigator was the rigid focus and determination to grow the organisation through investment and diversification. It has little to do with the stereotype of a creative / interactive agency. Instead, we have the seed of an aggressive corporate entity. The analysis illustrates the participant's focused attention but also how his self-esteem and confidence guide his actions. This participant identifies with corporate structures and hierarchies. Those determine his management of uncertainty and evaluation of choice availability and strategic routes.

There was a social and cultural distance between him and those he manages, 'geeks' that are nevertheless instrumental in keeping the agency in the game and up to date.

Table 4.17, summarises the complete analytic process from 1st cycle clusters through 2nd cycle codes to the six focused codes.

Table 4.17 Case B: 1st interview, summary of codes

1 st cycle <i>In Vivo</i> cluster	2 nd cycle codes	Focused codes
We target them	Locus of control	Focused attention
	Investing and diversifying	
Is there some meat on the bone here	Retrospective images	Intuitive awareness
	Tacit appreciation	
I could not see any future really	Detecting opportunity	Enacting opportunity
	Self-determination and efficacy	
Massive change	System scale and complexity	External conditions and system dynamics
	System scope and convergence	
	Rate of evolution and adaptation	
	IV – The grass is always greener	
Measured like a business	Ordering through arrangements	Structure, form and function
	Span of control	
They are telling me all the time	Community knowledge	Social domain of knowledge and practice
	Community interaction	
	Community culture	

4.4 Case C: 1st interview

Case C has been operating for twelve years. Its main business is e-commerce and according to its managing director, the agency has grown steadily becoming an established and well-known operator in the North West. It has positioned itself as a provider of e-commerce solutions to mostly small regional firms and start-ups. Its portfolio does extend nationally and in some cases internationally. It currently employs 18 individuals as well as using freelancers as projects demand. The founder and managing director has a background as project manager and business analyst.

This case had a different feel to it. It was located in the suburbs and shared premises with a mixed bag of other enterprises. The investigator never saw any of the employees and there was no receptionist to greet him upon arrival. The participant was pleasant and very talkative but also quite critical of the industry as a whole and appeared not too positive about its prospects, but he was eager to share his thoughts on both the economy in general and on the industry in particular.

He expressed strong views about the failings of the education sector to meet the demands of the information and knowledge economy and considered lack of skills to be a key constraint for the development of the regional industry. This respondent needed no prompting (the interview was quite intensive) but the investigator felt this case was not as successful or dynamic as the other cases. The investigator treated the data the same as before.

4.4.1 Analysis

The 1st cycle coding produced seven *In Vivo* clusters again conceptualised in *traits, properties, and systems dynamics*, Table 4.18. See Appendix E for details.

Table 4.18 Case C: Managing director - 1st cycle *In Vivo* clusters

Dimensions	1 st cycle <i>In Vivo</i> cluster	Ref
Traits, properties and system dynamics	You kind of duck and dive with projects	27
	You have to filter out the bad ideas	111
	We do not see it in the right way	64
	It is bloody complicated	55
	Skill has always been a problem	26
	I don't have bottomless pots of cash	34
	My networks are a mix of people	38

This participant is not as focused or purposeful as were the other two. The clusters reflect ambiguity, decision uncertainty and risk aversion. He comes across as agitated and apprehensive about the industry.

I have a pile of stuff on my desk, this is a load of proposals I have been sent. We don't go for the pitches because as you go through you think this is laughable because it is either, they are asking for an enormous amount of work for a small budget or they have an absolutely obscene budget for relatively small work. If I went for the work the way we operate as an agency they would think we were to cheap and discount us anyway, and ethically I don't want to go after work just to be considered along side the big boys about art directions and all that bullshit which is just not what we are about

Case C – Managing director. Interview August 2nd 2012.

This is paradoxical interpretation of a commercial opportunity! All the clusters had this sense of a problem or a negative connotation attached that concerned barriers and complications, resource scarcity and generally a sense of strategic drift.

This participant talks about information overload '*it is just endless, absolutely endless and it just keeps growing*' and a growing sense of unease '*we see it in a different way, we do not see it in the right way*'.

These remarks suggest the case is trying to deal with deep (strategic) problems. The 2nd cycle treatment quickly revealed quite fundamental differences between this organisation and cases A and B. It manifests vividly in procrastination as opposed to the pre-emptive lean of cases A and B.

That's what you have to do [you take all this technology and wait] for it to kind off there is [no sense in being an early adopter] with this stuff everyone wants to [see evidence of it being worthwhile]

Case C – Managing director. Interview August 2nd 2012.

The passage describes the participant's (strategic) management approach. It simply involves waiting to see if participation is worthwhile. His account is peppered with statements of process and intention '*we are looking, we are doing, we are keeping up*' but there is not a real sense of objective or purpose or action in the process.

He explains how he scans the environment for a proxy to guide strategic direction. His attentions scatter over a wide range of fields as he shadows innovators and early adopters. He seems to be the one who has to filter what he finds and he does not refer to delegating this task to anyone else.

He is a late adopter, intentionally placed behind the curve. Although the participant tries to give the impression of being innovative and competitive, his message frequently breaks down in frustration. The 1st cycle cluster [You have to filter out the bad ideas] picked up this uncertainty. When processed it produced three 2nd cycle codes that capture the attention problem, stalling and risk aversion. Those are represented in the focused code [Search heuristics], Table 4.19.

Table 4.19 Case C: Focused code - Search heuristics

1 st cycle cluster	2 nd cycle codes	Analytic notes
You have to filter out the bad ideas	Scattered attention <ul style="list-style-type: none"> – Try and find out about these ideas and what people are doing – Looking at that kind of futurology type of thing looking at what's coming next – Blinded by techno babble 	Adopts innovation when it is unequivocally necessary because of both commercial and peer pressure. Waits for something to formalise i.e. reify before committing (Wenger 1998). Risk aversion and the un / certainty effect (Teece 2007)
	Search for proxy <ul style="list-style-type: none"> – That's the complexity so you have got to say well hold on a minute this is noise let's see how that develops – I need to understand what the technology can do 	Uncertainty must be removed before adoption is deemed safe (Rogers, 1995). A heuristic alleviates the problem surrounding the probability paradox associated with choice under uncertainty (Gigerenzer and Gaissmaier, 2011)
	Shadowing early adopters <ul style="list-style-type: none"> – You have to do you take all this technology and wait for it to kind off – No sense in being an early adopter – So you have to filter out the bad ideas 	Heuristics are considered valid by virtue of collective practice and source dependence (Tversky and Kahneman, 1992) Heuristics can take the form of representation i.e. how does something A resemble B and to what degree (Tversky and Kahneman, 1974)

In contrast to the other cases that had (each in their own way) demonstrated confidence, strategy and sense of purpose, this participant seems to be strategically adrift.

[I don't know I don't know what the answer is to that]. I don't know how we do it but I would still like to get the answer [I am kind of making it up as we go along] pitching other people's ideas.

Case C – Managing director. Interview August 2nd 2012.

The passage vividly describes this participant's indeterminacy. He seems unable to deal with choice complexity and outcome uncertainty. When the investigator asked what strategies might move the agency forward, the participant admits he does not have the answers. He explained how the environment is continuously shifting. Practitioners explore technologies (often through new innovative configurations) and this inevitably increases the variety and complexity of the environment (and the scope of his indeterminacy).

[Everyone is doing different dances] and they are all doing something just as innovative and just as creative just [applied in a different way]

Case C – Managing director. Interview August 2nd 2012.

The passage describes how this agency wings it (rather than making sense and strategically or objectively moving forward). The 1st cycle *In Vivo* cluster [You kind of duck and dive with projects] initially captured this indeterminacy and it is further processed in two 2nd cycle codes that denote acting in a makeshift way and in a lack of strategic direction represented in the focused code [Winging it], Table 4.20:148.

Table 4.20 Case C: Focused code - Winging it

1 st cycle cluster	2 nd cycle codes	Analytic notes
You kind of duck and dive with projects	<p>Acting of the cuff</p> <ul style="list-style-type: none"> – I am kind of making it up as we go along – Because you kind of do that you kind of duck and dive with projects – You have to be a bit like Mohammad Ali <p>Irresolute</p> <ul style="list-style-type: none"> – I don't know I don't know what the answer is to that – I don't know how we do it but I would still like to get the answer – I just need to find a way 	<p>There is missing the vision of innovation as the collective interpretation of the meaning and utility of that innovation (Swanson and Ramiller, 1997)</p> <p>Irresolute illustrates the dysfunctional consequences of information overload affecting the participants mental state, sense of place and direction (Jacoby 1984)</p>

The participant hints at a growing awareness that he is not adapting to the way the industry has evolved. He realises that a successful agency requires a diversity of inputs and expertise. It is a shift from producing a web site to the comprehensive creation and management of a client's digital footprint.

[We see it in a different way we do not see it in the right way]. To get the blend of people to come here to make this work we' we got to have all those different job roles

Case C – Managing director. Interview August 2nd 2012.

The passage is not particularly rich in reference but it illustrates how the participant is developing a deeper tacit appreciation of his industry and his situation.

There is internal conflict in the account and a sense that there is need to reassess the situation. Still, the confidence to act on this appreciation has not yet developed to support or drive decision and action. The 1st cycle *In Vivo* cluster [We do not see it in the right way] first detected this dissonance and they process in two 2nd cycle codes that denote a sense of unease and internal conflict represented in the focused code [Emerging awareness], Table 4.21:149.

Table 4.21 Case C: Focused code - Emerging awareness

1 st cycle cluster	2 nd cycle codes	Analytic notes
We do not see it in the right way	<p>Sensing dissonance</p> <ul style="list-style-type: none"> – We see it in a different way we do not see it in the right way – We see digital as being nuts and bolts and it's just not <p>Internal conflict</p> <ul style="list-style-type: none"> – It is not really worth doing this this and this we should be doing this, this and this instead – Because you just get alarm bells 	<p>Intuitive judgements directly reflect impressions. Intuitive appreciation necessarily precedes the confidence to make an intuitive judgement (Kahneman, 2003).</p> <p>Clarity of intentions and the entrepreneurs state of mind and sense of purpose define organisational outcomes, fitness and survival (Bird 1988).</p> <p>Orientation and comprehension of a situation includes not only conscious and verbally logical components, but also unconscious components. (Bedny et al. 2004)</p>

[It goes much, much further than just digital] it's a whole different, it is marketing, advertising, it is creative [it's a massive array off things phenomenally complex] and done properly it is a [whole different ball game]

Case C – Managing director. Interview August 2nd 2012.

The passage again concerns the scale and scope of change and its perceived complexity. This participant confirms and consolidates earlier analysis. The pressure is for delivery on a wider remit than ever before and across a spectrum of operating platforms. He explains how imagination and innovative configurations continuously generate variation. This places onerous demands on already strained resources.

His description confirms earlier accounts of how change revolves around the proliferation and convergence of technologies. Rate of change and the skills shortage amplify a sense of flux that is associated with this dynamic evolving industry.

This participant appears to take a narrow view of skills talking mostly of technical requirements and does not elaborate on what attributes are of particular value. He makes no direct reference to his employees or their properties and sociality (other than to say digital delivery requires a mix of disciplines).

The 1st cycle cluster [It is bloody complicated] represents change. When processed it supports the premises of the 2nd cycle codes of the focused code [External conditions and system dynamics]. The skills problem is again represented directly by the 1st cycle *In Vivo* cluster [skill has always been a problem], Table 4.22.

Table 4.22 Case C: Focused code - External conditions and system dynamics

1 st cycle cluster	2 nd level codes	Analytic notes
It is bloody complicated	System scale and complexity <ul style="list-style-type: none"> – It's a massive array of things phenomenally complex – A whole different ball game 	Describes a major systemic upheaval transcending industry standards, normative practices and transfer of power to consumers
	System scope and convergence <ul style="list-style-type: none"> – It's really complicated... because there are masses of it – It is endless absolutely endless and it just keeps growing 	Branching and complexity of digital dimensions characterised by convergence, mobile technologies and advances in HCI means firms must have access to a diversity of technical resources (Hoopes and Madsen, 2008)
	Rate of change <ul style="list-style-type: none"> – Because ultimately we could be out of business in 12 months – We've got technology moving so quickly no one can really keep up 	The rate of evolution depicts not just the escalation of technological evolution and acceptance but also the compression of time and of space and a reconfiguration of social practices (Bharadwaj et al. 2013)
	IV – Skill has always been a problem <ul style="list-style-type: none"> – The other side of the challenge is still skills. – To get the blend of people to come here to make this work 	A heterogeneous pool of both social and material / technical skills and talent are required for comprehensive digital delivery (Adler and Kwon, 2002).

The participant explains how he seeks to establish collaborative alliances to spread the costs of research and development.

[I will go and approach them] and say I want to do a project. [I am not going to charge you full price]

Case C – Managing director. Interview August 2nd 2012.

The strategy is to establish mutually beneficiary relationships. He explains to a prospective client where he ought to be in digital terms and then offers that client a product at a discount on the understanding that the product is an experimental product. It is an arrangement whereby the client receives the latest digital capability and the service provider (the agency) gets hands on experience with that technology (that it otherwise could not afford to explore). This strategy however does not always pan out. There appears to be a problem profiling prospective clients that leads to toxic costs benefit dynamics.

Those clients (SMEs) do not really have the financial means nor (according to the participant) a real interest in developing digital capabilities. This means the agency has to work to convince clients to the benefits of digital capabilities beyond the universal acceptance of having a web site. The account suggests a lack of discretion in the client selection process first noted in the 1st cycle cluster [I don't have bottomless pots of cash]. When processed, three 2nd cycle codes reveal these toxic (mentoring) partnerships (and lack of working capital) subsequently represented in the focused code [Seeking alliances], Table 4.23:152.

Table 4.23 Case C: Focused code - Seeking alliances

1 st cycle cluster	2 nd cycle codes	Analytic notes
I don't have bottomless pots of cash	<p>Alleviating resource constraints</p> <ul style="list-style-type: none"> – I will go and approach them and say I want to do this project – I am not going to charge you full price for the projects – I don't have bottomless pots of cash <p>Toxic partnerships</p> <ul style="list-style-type: none"> – Let's face it they can't afford to borrow the money anyway – This client is just going to be a pain in the ass they have got no money <p>Firm as mentor</p> <ul style="list-style-type: none"> – We have got a client base that isn't as educated as it could be in terms of what technology can do for their business, so we are becoming consultants and trainers – So that is where the challenges is how do you get the client to understand 	<p>To alleviate resource constraints the firm seeks to establish alliances that are used to spread the cost of research and development (Fjeldstad, et al. . 2012)</p> <p>High levels of loss aversion i.e. the asymmetries between the perceived loss to gains (Kahneman, 1991)</p> <p>The strategic and operational benefits of the alliances are not realised because of ineffective selection criteria</p> <p>The firm becomes mentor and embroiled in long-term customer acquisition costs because of its client pool i.e. micro and small firms that are by definition meagre and loss averse (Baker and Nelson, 2005)</p>

This participant also refers to a social domain of knowledge and practice. He particularly refers to how social media connects the industry and how he (using API aggregators) funnels content to his attention and follows up on hunches and encounters.¹³

[My networks are a mix of people] that I listen to and [I follow people that are sharing content that is interesting], that is pushing the boundaries looking at that kind of futurology type of thing [looking at what's coming next] and [it gives me ideas]

Case C – Managing director. Interview August 2nd 2012.

However, this participant does not appear to be an active member of those networks. Rather he constitutes the audience of *'people that are sharing interesting content'* and it is not clear if or how he distinguishes between what is interesting and useful and what is noise.

¹³ APIs or Application Programming Interfaces enable different software components to interact with each other. Examples for instance are social media aggregators e.g. Flipboard.com and Tintup.com

He explains how he is not a participant himself ‘ *I’m a crap Twitter user*’ but he uses the platform to search ‘ *looking for ways, looking for opportunity, looking for ideas, looking at what is coming next*’. He speaks of openness, collaboration, and trust. He describes closeness in the community that creates opportunities. People are willing to approach one and other when in need of advice and expertise. The 1st cycle cluster, [My networks are a mix of people] supports the premises of social interaction that had been established in the focused code [Social domain of knowledge and practice]. There is however, a subtle emphasis on local membership rather than active participation in a relational network, Table 4.24.

Table 4.24 Case C: Focused code - Social domain of knowledge and practice

1 st cycle cluster	2 nd cycle codes	Analytic notes
My networks are a mix of people	Community knowledge <ul style="list-style-type: none"> – But it is a good place for like-minded people to share ideas. – Because people are not afraid to talk about things they are doing you know, share their experiences 	Communal expertise constitutes human and social capital that provides heuristics, practical support and alleviates the pressure on attention (Adler et al. 2011) Communal discourse collectively creates a vision of innovation that becomes central to its development and acceptance and conceptualisations of utility (Swanson and Ramiller, 1997)
	Community interaction <ul style="list-style-type: none"> – I listen to and follow people that are sharing content that is interesting – Looking at what is coming next 	Membership to a community connects one to the discourse and flow of ideas and collective sense making in the coming together of situated experience that reveals alternative explanations, affordances and possibilities (Lave 1991)
	Community culture <ul style="list-style-type: none"> – Someone who came to me and said we should look at working together because we are creating prospects that are too small for us – There are always those things going on and people say, that blokes a nutter 	Conceptual and spatial arrangements construed to facilitate interaction, sharing, learning and creating (Wierzbicki and Nakamori, 2005) Trust is a central feature of relational dimensions that can contribute to a forms effectiveness (Zornoza et al. 2009)

Overall, this case deviates in significant ways from the other two cases. This participant is full of doubt, decision uncertainty, and obstacles. His account describes a reflexive (not reflective) stance where he tries to make good with what is at hand. There is little evidence of any long-term strategic objective. He shadows early adopters of innovation and does not illustrate the same appetite for opportunity as previous respondents.

His association with small clients (that consider digital auxiliary to their real business) undermines the value of the alliances. The agency's business constitutes small accounts that have high cost to benefit ratios and no real long-term prospects.

The participant is beginning to question his competence. He attempts to blame the system as a whole rather than the problem (as of his own making). There are references to communities of knowledge and practice but it is not clear in what way they are useful or in what way the relationship benefits the organisation. There are no references at all to employees, to internal sense making or their role in that context. This manager appears to be the sole source of information processing and decision-making. Table 4.25, summarises the analysis.

Table 4.25 Case C: 1st interview, summary of codes

1 st cycle <i>In Vivo</i> cluster	2 nd cycle codes	Focused codes
You have to filter out the bad ideas	Scattered attention	Search heuristic
	Search for proxy	
	Shadowing early adopters	
You kind of duck and dive with projects	Acting off the cuff	Winging it
	Irresolute	
We do not see it in the right way	Sensing dissonance	Emerging awareness
	Internal conflict	
I don't have bottomless pots of cash	Alleviating resource constraints	Seeking alliances
	Toxic partnerships	
	Firm as mentor	
It is bloody complicated	System scale and complexity	External conditions and system dynamics
	System scope and convergence	
	Rate of change	
	IV-Skill has always been a problem	
My networks are a mix of people	Community interaction	Social domain of knowledge and practice
	Community culture	
	Community knowledge	

4.5 Case D: 1st interview

Case D has been operating since 2000. It is primarily a creative content generator concerned with content strategy, its creation and user experience with an emphasis on creativity.

The agency's founder and managing director has a background in economics. She used to work in advertising but sensing the advertising world was about to undergo radical change she decided set up her own company and pursue the opportunity. The participant explains how at the beginning, her style of management was unrealistic. She explains how she made naive assumptions about people, particularly about creative collaboration and shared decision-making. She explains how she now understands her role much better and how she herself has developed as a manageress maturing into a more realistic and focused person.

This case is now, according to the participant, managed along her very well defined values and with a firm emphasis on the organisation's creative culture. The participant states how it must be so '*since creative people do not respond to structure and imposed discipline*'. She reminisces and talks about having made many mistakes in the past '*mostly in managing people*'. She explains how although empowerment and autonomy is often associated with the management of creativity (in reality) most people want some sense of direction, stability, and purpose.

She feels her organisation and she herself are coming off age '*this is about the time when you come to really understand what your business is about*'. She claims they now have experience and understanding that will drive the enterprise forward. She states the world is kind of changing and she asks '*how do we make the most of the opportunity*'. Again the data was treated exactly the same as before.

4.5.1 Analysis

The initial 1st cycle analysis produced eight *In Vivo* clusters, Table 4.26. The (untreated) clusters constitute in three dimensions, *traits, properties and system dynamics*, see Appendix E for details.

Table 4.26 Case C: Managing director 1st cycle *In Vivo* clusters

Dimension	1 st cycle <i>In Vivo</i> cluster	Ref
Traits, properties and system dynamics	We know what we are doing now	38
	Land of opportunity	23
	What are our clients doing	11
	A massive skills gap	10
	Changes on a pin	22
	Challenging the mix all the time	16
	These are creative people	18
	Huge kind of cultural frame of reference	30

The eight clusters portray a reflective practitioner who has strong values and believes in culture, collaboration, and creative autonomy. Some of the clusters clearly reflect similar (systemic) problems to the other three cases (resource scarcity, transience, opportunism) but others underline culture and relationships that symbolise fresh perspectives that await further elicitation

The participant was reluctant to share her thoughts on internal affairs but her own account is rich with reflection. She talks of making mistakes and wrong decisions constituting in lost opportunity. In contrast to the other participants, this participant tends to refer to the collective ‘we’ rather than the singular ‘I’. The interviewer considered this a way of expression rather than an accurate reflection of management style (her account had a strong sense of purpose). This case is distinguishable from the others by virtue of the emphasis on creativity and culture (that although present in the other cases) seems defined and emphasised differently here.

Her account is rich with references to sense making, learning, and reflection.

[We have had to say no to some things] in order to stay at the level we are at and [on reflection one or two are now things that we should have said yes] too and [we should have pushed ourselves a little bit harder] but [you only learn that by making those errors]

Case D – Managing director. Interview January 13th 2013.

The passage describes a process of contemplation (making sense of the present through reference to the past). The participant explains how she (like case A) tries to step out of her own immediate context to draw comparisons with other sectors. She reflects how she has been on a journey of discovery and of trial and error. She explains some decisions (in retrospect) lacked the necessary foresight or perhaps confidence. She lays some of the blame on her own inexperience at the time, but she now considers herself a seasoned operator. This process of self-appraisal and developing an intuitive antenna is a cornerstone of her account.

The 1st cycle *In Vivo* cluster [We know what we are doing now] first detected this retrospective stance. When processed it supports the 2nd cycle premises of the focused code [Intuitive awareness], Table 4.27.

Table 4.27 Case D: Focused code - Intuitive awareness

1 st cycle cluster	2 nd cycle codes	Analytic notes
We know what we are doing now	<p>Tacit appreciation</p> <ul style="list-style-type: none"> – It's about the time when you start to come to really understand what your business is about – I think we have just about reached a point where we have made lots of mistakes <p>Retrospective images</p> <ul style="list-style-type: none"> – I think the biggest mistakes we made were around people largely borne out of nativity. – Because we know what we are doing now we have grown up a bit 	<p>Describes a process of internal reflection, evaluation and learning from experience where the past guides future action i.e. the past is leveraged to inform strategy</p> <p>This capability for learning and reflecting constitutes a mechanism for responding and modifying practices and strategies (Levinthal and March, 1993)</p> <p>The firm is aware of maladaptive identity mechanisms and through reflective practices acts to mitigate through self-reflexivity the damage those can inflict if left unattended (Brown and Starkey, 2000)</p>

The participant feels the industry as a whole is entering a different phase in its lifecycle. According to the participant, there is increased pressure to deliver along multiple social and technical dimensions. Her entrepreneurial orientation (as well as rational processing) emerges in the way she breaks down a situation to identify conditions that constitute opportunity.

[Because the market is growing up] [because there are certain opportunities] that we want to go for that [because digital is kind off rising] through the agenda and now operating at board level within companies there is a degree of which you have to be off a certain scale in order to be able to deliver what they need.

Case D – Managing director. Interview January 13th 2013.

The participant's entrepreneurial antenna tells her there are emerging opportunities on the horizon and that she must position the agency to engage with a more complex environment. She explains how (for many of her clients) digital is increasingly an integral part of strategy. There is an expectation that a creative / interactive agency should deliver a comprehensive digital solution and that it should be capable of managing a client's entire digital footprint. Creative / interactive agencies (she explains) must be able to adjust rapidly to these emerging expectations.

This participant also was concerned with conveying a positive image of the agency. She reflects how now, after more than 10 years, the agency is strategically adept and well equipped to deal with the future. However, the participant was cautious and seemingly reluctant to reveal what her strategies are. She begins several times to describe her intentions but breaks off *'I think it is...the way that I see the next five years is...have sight of... what the bigger ambition is which is...we are the most respected people in the city at what we do'*.

Where the dotted lines represent where she starts a sentence but then breaks off repeatedly to eventually talk about how respected the agency is! To the investigator it indicates the level of competitive rivalry within the industry.

The 1st cycle cluster [Land of opportunity] produces constructs that fit the 2nd cycle premises of the existing focused code [Enacting opportunity], Table 4.28:159.

Table 4.28 Case D: Focused code - Enacting opportunity

1 st cycle cluster	2 nd cycle codes	Analytic notes
Land of opportunity	Detecting opportunity <ul style="list-style-type: none"> – Because there are certain opportunities that we want to go for – Because digital is kind off rising through the agenda Self-determination and efficacy <ul style="list-style-type: none"> – You know we are going to go over there now and I am kind off going to go over there – We are pretty respected internationally at what we do. We want to keep that top slot 	Attention is directed towards a sense of opportunity illustrating a state of mind i.e. intentionality towards a specific objective e.g. detecting and exploiting opportunity (Bird 1988) Enacts entrepreneurial orientation through a strategic mind set of agility, flexibility and low uncertainty avoidance (Hitt et al. 2001)

This agency has lucrative associations with a large high profile organisation that has formative influence on how the agency evolves. This relationship appears to be the backbone of the agency's operations. It furnishes it with a clear mandate and sense of direction. It installs confidence and certainty about the future.

I will have monthly meetings with certain key individuals and we have got some clients or [we have got a particular client relationship] so one of the feedback mechanisms that inform the planning process is [what are our clients doing]

Case D – Managing director. Interview January 13th 2013.

The passage reveals the agency's strategy of connecting with an external organisation and its value chain rich in resources and capabilities. This organisation is a global actor and as such instrumental in the creation and management of digital content. Any firm under its sphere of influence (by virtue of the organisation's size and dominant and influential position on the Internet) will feel its presence.

The association provides a sense of direction and alleviates some of the uncertainty of interpretation and selection. This was first detected in the 1st cycle cluster [What are our clients doing]. Once processed, it produced two 2nd cycle codes that denote these (formative) strategic associations represented in the focused code [Shaped by association], Table 4.29:160.

Table 4.29 Case D: Focused code - Shaped by association

1 st cycle cluster	2 nd cycle codes	Analytic notes
What are our clients doing	<p>Integrating value chains</p> <ul style="list-style-type: none"> – So working really closely with them we should be reacting and changing our business – Make sure we can deliver for them so that's a knowledge set that transfers into the business <p>Sense through association</p> <ul style="list-style-type: none"> – You know we work a lot with [...] who are amongst the most intelligent digital thinkers – One of the feedback mechanisms that inform the planning process is what are our clients doing 	<p>Strategically integrates with larger companies connecting to their enriched value chains (Porter 1980)</p> <p>Inter organisational associations can overcome some of the strategic uncertainty and alleviate pressure of sense making through co-evolutionary dynamics (Hoffmann 2007)</p> <p>Strategic alliances can legitimise and enhance a firm's reputation as well as creating new opportunities (Eisenhardt and Schoonhoven, 1996)</p>

This participant also reflects on the scope and scale of digital and its impact on their operations. Their clients expect all inclusive digital delivery and a complete understanding and management of their digital footprint. It calls for a much more sophisticated understanding of the digital space, greater coordination and integration of technologies on a much wider remit than ever before.

[In digital, things move incredibly quickly]. You know the invention of new technology, the dissemination of new technology...I couldn't write the business plan other than that is where we want to be in more than 12 months sprints [because our world changes so much] that we would be foolhardy, even Google don't plan more than a year ahead you know

Case D – Managing director. Interview January 13th 2013.

This constitutes a shift for the agency as primarily being a creative enterprise (designing and creating content and web sites), to being expected to deliver and manage the digital footprint along multiple dimensions further complicated by the speed of change. This participant also considers the skills gap as the single most important and debilitating factor (a threat) for the agency and for the industry in general. She considers the agency's key strength its intellectual capital and its culture.

These are the organisations most valuable assets, not just in terms of actual technical ability, but also having people with enough *'business experience under their belt'* to be able to sit at board level and advice companies strategically. Although this participant does not dwell on this in detail, it is a central to her account.

The 1st cycle cluster [Changes on a pin] further strengthens the existing premises of the focused code [External conditions and system dynamics]. Again, the skills problem is represented directly by the *In Vivo* cluster [Massive skills gap], Table 4.30.

Table 4.30 Case D: Focused code - External conditions and system dynamics

1 st cycle cluster	2 nd cycle codes	Analytic notes
Changes on a pin	<p>System scale and complexity</p> <ul style="list-style-type: none"> – Well actually the world is kind of changing and digital is driving that <p>System scope and convergence</p> <ul style="list-style-type: none"> – Scale is significant and also integration with other skill basis so we have always operated in a very you know we just do digital we don't do anything else <p>Rate of evolution and adaption</p> <ul style="list-style-type: none"> – I do not think I could plan more than a year ahead – Because our world changes so much] that we would be foolhardy <p>IV - Massive skills gap</p> <ul style="list-style-type: none"> – Because you know we have a massive skills gap – Because it isn't stuff that we in our isolation can solve...you can only grow your own so quickly 	<p>Describes a major systemic upheaval transcending industry standards, normative practices and transfer of power to consumers</p> <p>Branching and complexity of digital dimensions characterised by convergence, mobile technologies and advances in HCI means firms must have access to a diversity of technical resources</p> <p>The rate of evolution depict not just the escalation of technological evolution and acceptance but also the compression of time and of space and a reconfiguration of social practices</p> <p>A heterogeneous pool of both social and material / technical skills and talent are required for comprehensive digital delivery. Competition is intense</p>

The participant is also concerned with the composition of her enterprise. She describes how this composition can create more opportunities and unique perspectives, but equally how neglect can easily undermine performance.

[We can have one person here who arrives and makes a massive difference] to the culture... We are only 30 people so every single person here, [if you get one person wrong that has a massive impact]. [If you get one person who thinks in a totally new way] that can open up loads of new doors for us

Case D – Managing director. Interview January 13th 2013.

The 1st cycle *In Vivo* cluster [Challenging the mix all the time] first noted this concern with heterogeneity and once processed, its content and contexts support the 2nd cycle premises of the existing focused code [Composition and variance] produced earlier (case A). Here as there, it concerns the same dimensions. Attracting individuals in the first place and managing those individuals, Table 4.31.

Table 4.31 Case D: Focused code - Composition and variance

1 st cycle cluster	2 nd cycle codes	Analytic notes
Challenging the mix all the time	Attracting traits and competencies <ul style="list-style-type: none"> – Because what we need to do is to attract people internationally to live and work in Manchester – If you get one person who thinks in a totally new way 	Positioning the firm to attract the techno-meritocratic culture that will be lured by the prospect of professional progression (Castells 2001)
	Managing traits and competencies <ul style="list-style-type: none"> – Normally we look for people that have a totally different experience base than anybody else who is there – We talk about somebody having the right kind of soul 	Deliberates the issue of heterogeneity and the engineering / selection problem i.e. understanding the asymmetries of capabilities the firm must possess to create and exploit market opportunities (Miller, 2003)

A central theme with this case (as it was with case A) is the problem of maintaining the cultural dynamic that sustains the creative processes. Autonomy is the key to the competitive edge it needs in the industry. This means cultivating an environment of loose organisational arrangements, empowerment, and intellectually stimulating and challenging projects.

[I think everybody here feels really confident in their ability] to do the job and you don't get that need to you know I am your manager and I am a notch above you and you know [it doesn't sit comfortably] and I think once you got that in a culture it is easy to keep it

Case D – Managing director. Interview January 13th 2013.

Although this participant is not descriptively vivid (see case A), she still describes an effort to explore alternative ways. The participant explains how they must accept or come to terms with serendipity. Not everything is foreseeable or meaningful in an industry that is rapidly evolving. This participant accepts serendipity, as the way things are '*let it roll out*'. She does not waste time trying to understand something that may quite fundamentally not be subject to interpretation or understanding. Her strategy is to provide individuals and units with the autonomy to absorb such discontinuities and keep moving. The focused code [Crafting a dynamics milieu] has already been developed in case A. The 1st cycle cluster [These are creative people and they do not respond to that] enriches and supports its premises, Table 4.32.

Table 4.32 Case D: Focused code - Crafting a dynamic milieu

1 st cycle cluster	2 nd cycle codes	Analytic notes
These are creative people and they don't respond to that	Loose coupling <ul style="list-style-type: none"> – Because we have a very, very organic process – There is that 20 per-cent that we cannot control so why worry about it and try to control it. Let it roll out 	Loose coupling emphasises autonomy of individual elements whilst acknowledging their interdependencies (Rivkin and Siggelkow, 2003)
	Intellectual challenge <ul style="list-style-type: none"> – They accept that they don't know everything so they are open to new stuff, they understand what we do and are excited by that – So they all tend to be interested in the world, ambitious in their own right, very driven, very self-starting 	Individuals thrive on autonomy and the self-generative mechanism of creativity (Gill 2005)
	Cultural empathy <ul style="list-style-type: none"> – We have a mirror system were we kind of ask how people are feeling about their role and we talk to them about how we feel they are doing 	Cultural / cognitive dissonance is monitored and an effort is made to reduce dissonance and align expectations with operations (Shultz et al. 1957)
	Disrupting routines <ul style="list-style-type: none"> – I feel really uncomfortable with that kind of old school rule because I don't get you know these are creative people and they don't respond to that – We are exploring different ways...but again that will present different challenges 	Rather than being synonymous with chance, serendipity results from identifying 'matching pairs' of events that are put to practical or strategic use (Rond et al. 2011) Pareto thinking

Finally, this participant also refers to a social domain of knowledge and practice that for this organisation (as it is for the others) constitutes an essential resource.

[They are all very networked] and they all talk to a lot of people that all work with a lot of competitors so [they are very aware of that wider world]. A lot of them only talk on Twitter or on I-chat so very, [very aware culturally] so has a [huge kind of cultural frame of reference]

Case D – Managing director. Interview January 13th 2013.

This participant likes to elaborate (from a distance) on how her employees connect and collaborate and how the discourse that the community generates is something the organisation necessarily must have access too externally as well as internally. Communication is therefore encouraged by designing the physical space in a way that facilitates interaction, an emphasis also noted with case A.

Although there are not that many references to this element in this case, it still appears to be central to the problem of sustaining the creative dynamic. The focus is on the creative cultural element, which still signifies the role of a social domain of knowledge and practice originally detected in the 1st cycle *In Vivo* cluster [Huge kind of cultural frame of reference]. It strengthens the existing premises of the focused code [Social domain of knowledge and practice], Table 4.33.

Table 4.33 Case D: Focused code - Social domain of knowledge and practice

1 st Cluster	2 nd level codes	Analytic notes
Huge kind of cultural frame of reference	Collaborative architecture <ul style="list-style-type: none"> – There are massive amounts of communication and it is a totally open plan office. – People can swivel their chair and go, did you see that thing in wired about 	Communal discourse collectively creates a vision of innovation that becomes central to its development and acceptance and conceptualisations of utility (Swanson and Ramiller, 1997)
	Community knowledge <ul style="list-style-type: none"> – They are very aware of that wider world 	
	Community interaction <ul style="list-style-type: none"> – But they are all very networked and they all talk to a lot of people that all work with a lot of competitors – A lot of them only talk on Twitter or on I-chat so very, very aware culturally 	Membership to a community connects one to the discourse and flow of ideas and collective sense making in the coming together of situated experience that reveals alternative explanations, affordances and possibilities (Lave 1991)
	Community culture <ul style="list-style-type: none"> – Huge kind of cultural frame of reference – It is a meritocracy 	

From the outset, this participant had been (in some ways) apprehensive in her account, particularly when it came to discussing the agency's strategy and processes. However, a number of interesting dimensions emerged that likely play a substantive role in this agency's success. Many of those strengthen existing constructs and focused codes.

Firstly, there is an ongoing appraisal of the past and process of retrospection that informs the participant's understanding of the present. There is a continuing search for some coherence within the system. The participant remarks how she scans the horizon for cues that signal change. When she sees things recurring, it suggests the phenomenon merits investigation. This reflection in action signifies a reflective operator who considers carefully the paths that have led the organisation to its present (successful) situation and future opportunity.

The digital industry is coming of age and there is increasing awareness that organisations in general must have a digital presence and that this presence has to be on a much wider remit than ever before. Because digital delivery takes place across multiple dimensions, an agency must have a broader skill base than ever before, and it must meet the fact that the industry is escalating, fragmenting and becoming more demanding. Those skills have more and more to do with engaging the audience in dialog.

There is a particular demand for individuals that have a broad conceptual and technical understanding of the industry and that are able to interact at board level with clients. Client associations have a formative influence on the firm and alleviate some of the strategic uncertainty. The social domain again embodies the same concepts that appeared in the other cases.

Table 4.34, summarises the analytic process from 1st cycle clusters through 2nd cycle codes to seven focused codes.

Table 4.34 Case D: 1st interview, summary of codes

1 st cycle <i>In Vivo</i> cluster	2 nd level codes	Focused codes
We know what we are doing now	Tacit appreciation	Intuitive awareness
	Retrospective images	
Land of opportunity	Detecting opportunity	Enacting opportunity
	Self-determination and efficacy	
What are our clients doing?	Sense through association	Shaped by association
	Integrating value chains	
Changes on a pin	System scale and complexity	External conditions and system dynamics
	System scope and convergence	
	Rate of evolution and adaptation	
	IV – Massive skills gap	
Challenging the mix all the time	Attracting traits and competencies	Composition and variance
	Managing traits and competencies	
These are creative people	Loose coupling	Crafting a dynamic milieu
	Intellectual challenge	
	Cultural empathy	
	Disrupting routines	
Huge cultural frame of reference	Collaborative architecture	Social domain of knowledge and practice
	Community knowledge	
	Community interaction	
	Community culture	

4.6 Summary of chapter

The first interviews produced a rich description of each case and they described how the cases shared certain external and internal realities but also how they managed those realities in different ways. For example, the description of the external conditions is consistent across all cases as is the description of the social domain of knowledge and practice.

The analyses captured properties established in the literature that concerns the dynamism and social and economic impact of the Internet. Management identity appeared in the way each participant had a distinct management style, which provided the individual with a sense of place and in some cases (but not all) purpose and direction. It demonstrated how their internal sense making was set in their identity and history and how they enacted their identity in the way they interpreted and processed their experiences.

However, the salient feature of the analysis (in all cases) was the sense that these organisation depend on social domains of knowledge and practice that in significant ways influence their understanding of futures. The actors that inhabit those domains (by virtue of their active involvement in the digital sphere) function as perceptual and contextual antenna and filters. They are perceptually sensitive to cues and contextually sensitive to their importance and meaning. These actors clearly constitute a resource with the caveat that there may be a division between the organisation's objectives and their professional, personal, and social priorities.

This can be offset (to some extent) with an organisational design that compliments and accepts their idiosyncrasies and conflicting imperatives. This design has to be of the type that facilitates internal sense making processes (although some managers may not be aware of such processes).

Figure 4.1:168, is a tentative framework that considers the three analytic constructs to emerge from the first interviews. The skills problem is summarised in *Scarcity of skills*.

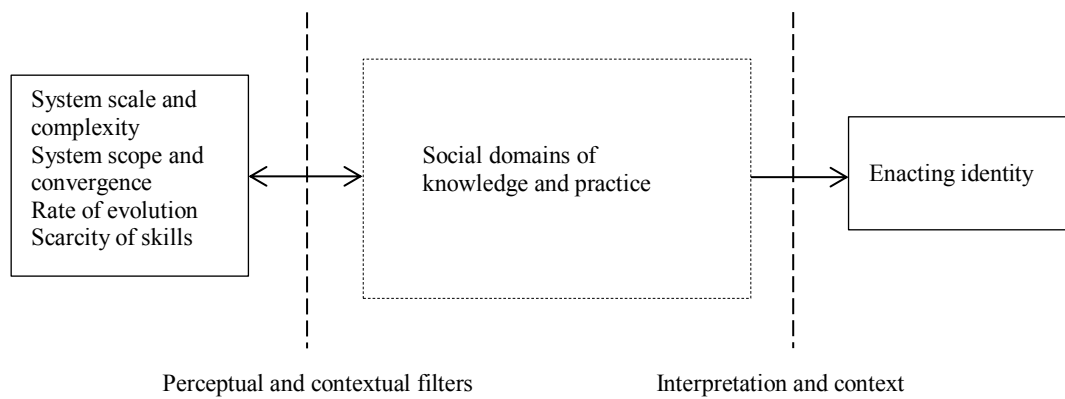


Figure 4.1 Tentative theoretical framework

In a qualitative approach (especially GT design), initial engagement often generates tentative ideas about a setting and then the technique of *theoretical sampling* determines data requirements. By *theoretically sampling*, one is guided by the data (Charmaz 2014). In this case, the data point to the social domain of knowledge and practice. It anchors the study in sociality and determines its analytic direction.

At the same time, because a GT process is iterative, it will often bring the investigator back to the source for further corroboration of findings (Charmaz 2014). In view of the initial findings, it was logical to approach the managing directors again to locate and evaluate representatives of those social domains and negotiate access to them.¹⁴

Those individuals are embedded in those internal sense-making processes and as active participants in those social domains, they are the logical choice to analyse and understand their dynamics.

The next chapter continues with the within case analysis. It describes the theoretical sampling process, commencing with revisiting the managing director of case A.

¹⁴ This study utilises GT techniques precisely because they facilitate these iterative processes.

Chapter 5 Within case analysis: 2nd interview

The '*generalizability*' of case studies can be increased by strategic selection of critical cases. What constitutes a critical case? How do we identify such cases?

Bent Flyvbjerg

5.1 Introduction

The investigator arranged another meeting with each managing director to discuss the analysis and to consider options. The investigator presented the findings from the initial interviews and then he asked each managing director to produce (draw) an organisational diagram. The investigator instructed the participants to use the diagram to suggest individuals (and reflect on their attributes and qualities) who would be likely to contribute to the research (in light of the emerging importance of the social domain).

Organisational diagrams (organograms) depict the structure of an organisation. They are very much a functions view that depicts the constituent elements of organisation and their mechanism and function. Because organisational diagrams illustrate roles and specializations, to have the managing directors illustrate their vision of the organisation would produce a more nuanced understanding of each case. It also constituted a strategy to identify sources that would deliver a more sophisticated understanding of the social domains.

Secondly, the exercise would produce empirical insight into the mind-set of the managing directors. This would illustrate their identities and cognitive idiosyncrasies. The managing directors did not know they would be required to do the exercise and so the diagram they produced was their spontaneous conceptual representation of each organisation. The investigator assessed all referrals (prospective respondents) by scrutinising their social media profiles and they were all active participants on several social media platforms.

Again, the researcher recorded all interviews but it was unnecessary to transcribe them in the context of the task.

5.2 Case A: 2nd interview

The meeting took place in the agency's offices on February 13th 2013. The participant seemed to enjoy the investigative process. He drew the diagram as an open space clearly highlighting his vision of the organisation as a social space. His focus was initially more on form than function. However, when pressed, he began to elaborate on individuals and their specific functions and roles.

It has grown and grown and it is a dilemma keeping and empowering people and keeping the groups smaller and make sure they can achieve something.....We have got loads of people and they are there for a reason and they are all on board but I have a lot of complexity now.

Case A - Managing director. Interview February 13th 2013

Each of his employees is there on merit he exclaims although at times, some of them appear to have an indirect social function binding the community rather than having an explicit role. As the diagram emerged, he commented on the various individuals within it. Eventually attention focused on the technical director.

[...] is able to help our clients to understand where they want to be. He helps us understand which technologies do we want be involved with and not involved with and...how do we shift our capabilities to adjust to what is going on in the market place

Case A - Managing director. Interview February 13th 2013

And when asked to explain his role.

When we recognise we have to do things differently, he will drive those things through as it relates from a technology perspective. An example of that is that over the last year is the massive shift from providing desktop solution to being a cross platform solution and has been a massive shift in capability and thinking and [he] lead the changes we had to make

Case A - Managing director. Interview February 13th 2013

When the investigator asked what particular attributes made the technical director good at what he did.

He has to come from that area of specialisms and he needs to be part of that change to understand what is going on in that space. He really needs to understand the type of individuals that are working in this area and those are all very different.

Case A - Managing director. Interview February 13th 2013

The profile of the technical director suggested he would be a rich source of intelligence by virtue of his role and connections in the social domain. Figure 5.1:172 is the diagram for case A. The investigator has inserted passages from the interview as insight into the participant's thoughts as he drew the diagram.

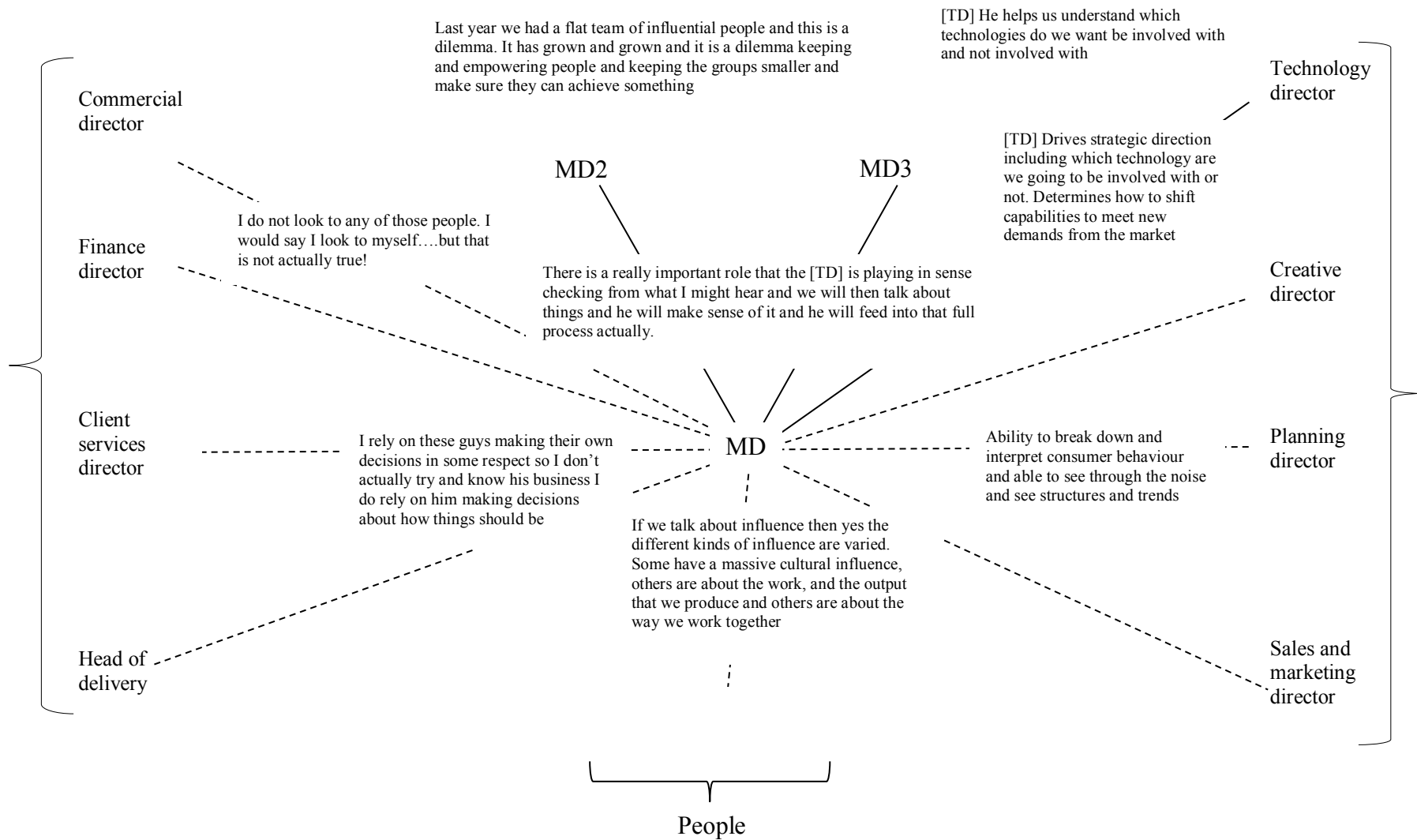


Figure 5.1 Organisational diagram Case A

5.3 Case B: 2nd interview

The meeting took place in the agency's offices on February 28th 2013. The participant began confidently to draw his chart, beginning from the top with three control modules '*business development, financial control, and project management*'. As he proceeded to illustrate different divisions, the chart quickly became cluttered and confusing with multiple intersecting lines intended to represent hierarchies, responsibilities, procedures, and processes.

This, this and this is here to drive new marketing to drive new business and to drive connectivity and they use these teams to do that. This goes into there and they talk and they say we need this, this and this.

Case B - Managing director. Interview February 28th 2013

And

So right.....that is working with that (a little confused) this will manage what is happening here and what is happening here...

Case B - Managing director. Interview February 28th 2013

When asked about individual roles and responsibilities.

So again, from here...well this is a better way of doing it...in the senior team, which feeds this as well. If I draw it then we have got head of digital which is all about what is going on in that space in terms of the right platforms and to do the right thing. She is responsible for making sure that we are right on the cutting edge.

Case B - Managing director. Interview February 28th 2013

The interview empirically demonstrated how the participant understands his organisation. Boxes appeared and lines connected them but the emphasis was on the boxes. Suddenly, and when the exercise was well underway, one individual unexpectedly dropped into the diagram!

Take [...] next door. She is really important because she is the one that gives me all the reports. You know balance sheets, cash flow and where business goes wrong is when they do not have that.

Case B - Managing director. Interview February 28th 2013

This person clearly had an important function.

This is accounts so [...] sits in here because she reports to the senior management team this is where we are; this is how we getting one because she gets all the order forms. She gets what is coming in and that feeds into the project management system and the digital management system so everything is being tracked so we know exactly what is going on where and when and who is doing what.

Case B - Managing director. Interview February 28th 2013

Figure 5.2:175 shows the key dimension of the diagram as drawn. Illustrated in the diagram are comments and references from the interview. The exercise identifies one individual as the head of digital as having the role of being an expert concerning the digital space. This individual appeared in the first interview as well and was clearly someone useful to the purposes of the investigation and representative of the social domain.

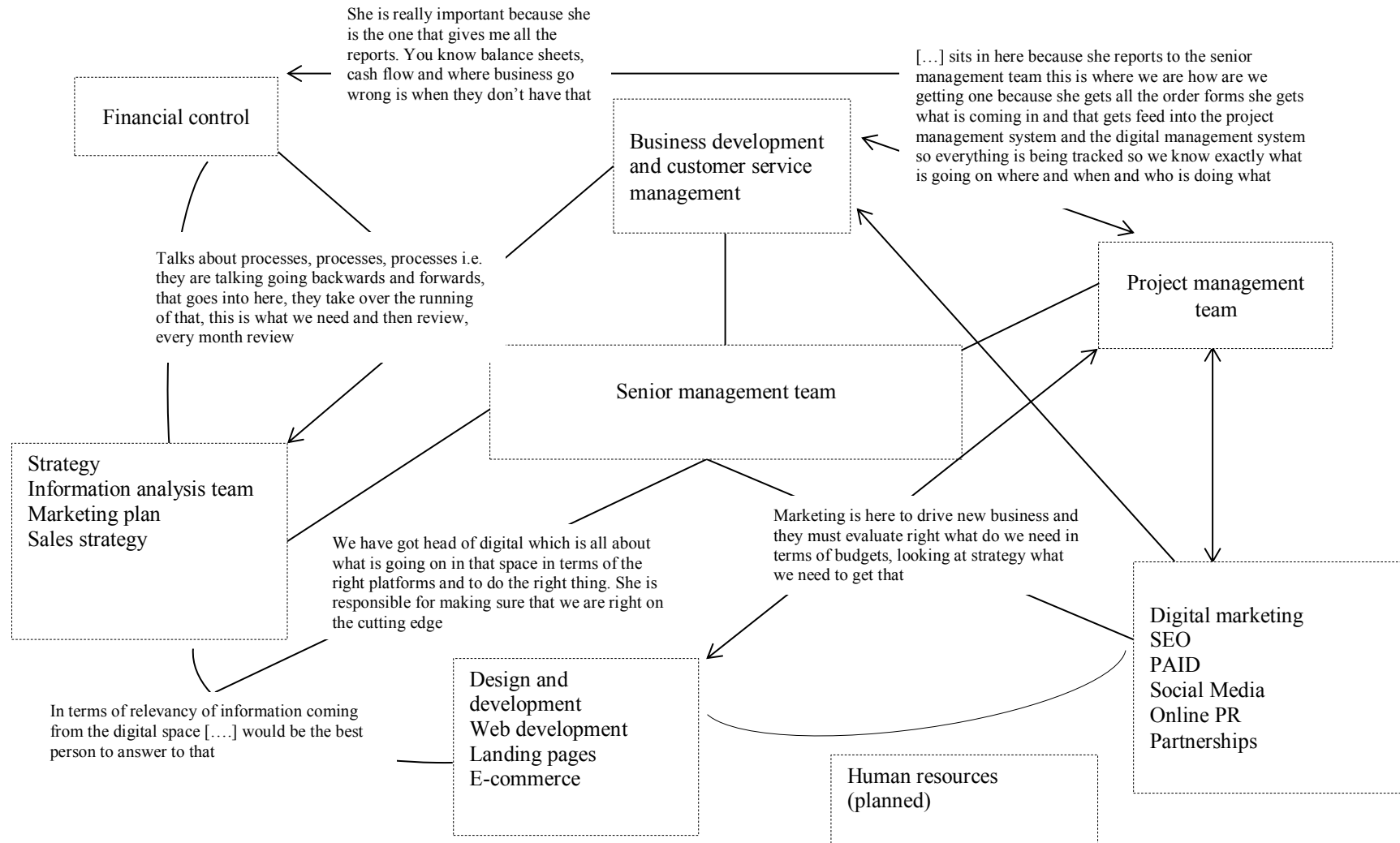


Figure 5.2 Organisational diagram Case B

5.4 Case C: 2nd interview

In contrast to the other cases, this participant (during the first interview) had not made direct references to the people that work for the organisation. He only referred to how he made use of social networks to feed him industry data and information.

His frequent but indirect references to the regional community had suggested further examination could be useful although the case for *theoretical sampling* was not as straight forward or clear as with the other agencies (who had made direct and explicit reference to alternative internal sources of intelligence) and had displayed a reliance on those sources.

Nevertheless, the investigator decided a follow up would be useful. The second meeting took place in the offices of the agency on March 30th 2013. The procedures were the same as before and the investigator asked the managing director to discuss the individuals that work for him and to consider their roles in the everyday activity and advancement of his organisation.

It is a bit tricky at this moment because...I am not sure whom you would speak to

Case C - Managing director. Interview March 30th 2013

He went on to explain that recently key individuals have left and he had some difficulty replacing them.

We need to get some stability into the team. We are stretching a lot of people at the moment. Every business in our industry goes through cycles, it evolves and it changes all the time and we will restructure and this is totally different from 12 months ago

Case C - Managing director. Interview March 30th 2013

He referred to the skills shortage and the practice of poaching

Before my senior developer left he had an e-mail nearly every month from the same digital agency they were just hounding him and he was getting two or three e-mails every week from agencies here in Manchester and not for advertised roles. These were people just picking off people

Case C - Managing director. Interview March 30th 2013

When the investigator asked the managing director to draw an organisational diagram, it quickly became apparent that the agency faced a critical skills drain in a sequence of events that have gravely weakened the organisation.

We have two senior contractors that we rely on and there is a severe skills shortage and people have let us down so the team are fairly junior

Case C - Managing director. Interview March 30th 2013

When asked why people were leaving

We have been really changing our business model and because we are working with bigger companies and the last person that left couldn't cope

Case C - Managing director. Interview March 30th 2013

This explanation is of course an inadequate account of events. The participant was elusive and explained that his employees were all unsuitable in one way or another. The interview was inconclusive in terms of identifying participants although the participant said he would consider the request. The participant agreed the investigator would be in touch to decide how to progress the study. As it turned out the participant was difficult to reach and repeat attempts produced no response.

Mindful of what Miles and Huberman (1994) maintain, that is to say, deviant cases are often a source of insight, the investigator decided to once again engage with case C to try to identify the antecedents to the agency's predicament.

Eventually the investigator reached the participant on the telephone and he reluctantly agreed to meet once again for a final interview. At this point, the investigator had a hunch all was not well with this case and that the right move would be to approach the managing director once again to drill deeper into why this case was experiencing such profound difficulties. Figure 5.3:178 depicts the organisational chart as drawn by the agency's managing director. His comments illustrate the diagram as before. The diagram seems to portray the attrition of the organisation.

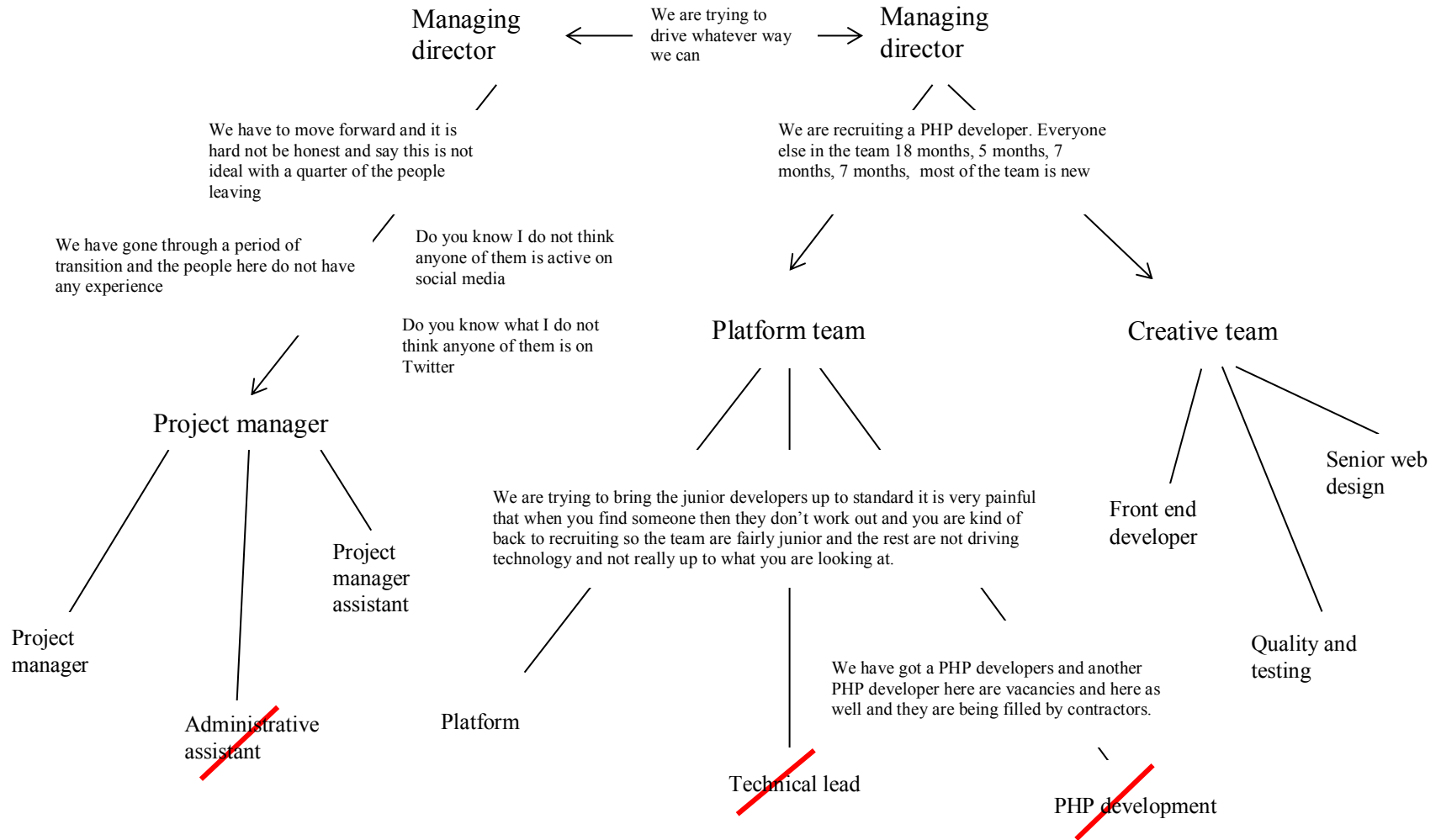


Figure 5.3 Organisational diagram Case C

5.5 Case D: 2nd interview

The interview took place in the offices of the agency on March 11th 2013. The participant initially recited what was probably the official version of the agency's vision and its pedigree. The participant repeatedly referred to the rich and enterprising culture of the agency and to the particular attributes of the people that work there.

They all tend to be interested in the world, ambitious in their own right, very driven, very self-starting and they are all very networked

Case D - Managing director. Interview March 11th 2013

The account had often referred to the skills problem. For instance, a policy was not to have any of the employees contact details on the agency's web site.

I think then when Twitter and Linked in first started we got very nervous about it and we would say people are going to try and steal our stuff. You know it is really easy to find out who works here. You know it used to be that the front door kept people away

Case D - Managing director. Interview March 11th 2013

She had also explained how those people were responsible for their own development

We hire people who naturally want to be their own managers and take responsibility for their own work and have their own ideas because that is kind of the kind of people that we attract

Case D - Managing director. Interview March 11th 2013

As with the other cases, the internal interactions seemed here as elsewhere to be a defining element in the analysis that would determine the procession of the research.

The diagram was quickly drawn and in the process, the participant again exclaimed there was in fact no hierarchy really. She also explained that although (historically) the firm has avoided structures, they are now at a point where they must start to organize for growth.

People come to us and ask for something different and within such a project we will often mix up people depending on what we perceive they may contribute in the context of that particular project.

Case D - Managing director. Interview March 11th 2013

And

Each project is so different and it is very, very difficult to grow and we are struggling to grow up to 50 people but it is very, very hard

Case D - Managing director. Interview March 11th 2013

She reflects that it is not a very mature market and operators must really feel their way forward and how in the beginning they would try to micro-manage operations

Micro analyse spreadsheet upon spreadsheet all these hours. Who was doing however many hours.

Case D - Managing director. Interview March 11th 2013

As she drew the diagram, she reflected on its structure and organisation.

There is naturally within this two or three people and I think that we pull out this year these people. A senior sort of thing or head of something to kind of sit in a more formal way above these people but you have to reach a certain critical mass before otherwise you have more chiefs than Indians and that always causes trouble

Case D - Managing director. Interview March 11th 2013

None of the individuals she refers to are on the agency web site and when the investigator asked why not, she explained the reason was if they were, people would nick them. The investigator also asked what motivates them

Creative goal, I made this, I did this my work is on the front page of the [...]. I won this award and the intellectual challenge. The reason people work here is that they will work on something they have not done before, we will push them but they are never going to be bored and it is a good filter mechanism

Case D - Managing director. Interview March 11th 2013

Moreover, she goes on to explain their attributes and qualities

They are all very experienced and well connected. [...] will talk to other guys in other agencies and we go to a lot of networking things and these guys are very connected to the other guys and they take a very active responsibility to understanding at a ground level exactly what is happening within those teams and projects

Case D - Managing director. Interview March 11th 2013

Eventually, attention focuses on one individual

[...] is a key person to talk to. He is very interested in culture and team spirit.

He will move people around regularly to make sure they do not always interact with the same people

Case D - Managing director. Interview March 11th 2013

The participant pointed to several individuals the investigator could talk to but she repeatedly comes back to this one individual as someone the researcher should definitely meet.

Although this person is not the technical director, he plays a key role in the management of the organisation's resources and in the acquisition and management of information and knowledge. Figure 5.4:182 is the organisation as drawn by the participant. Again, interview excerpts are included in the diagram.

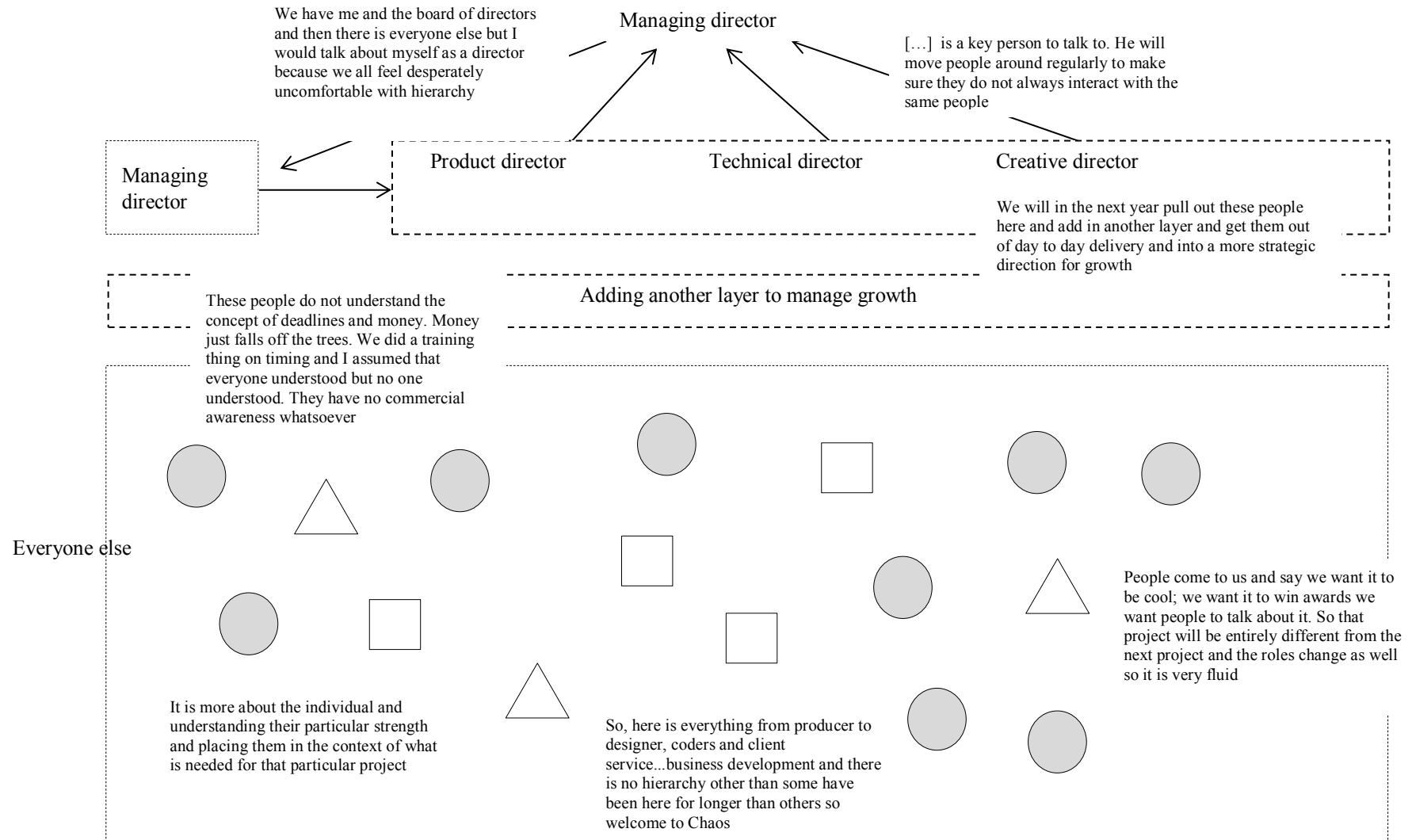


Figure 5.4 Organisational diagram Case D

5.6 Summary of chapter

In the Pulitzer Prize winning novel *'The Soul of the Machine'*, Tracy Kidder told the story of how in the early digital industries, organisational design and complexity was mirrored in the design and complexity of the products that were (by today's standards) primitive computers. The story goes on to describe the dynamics of the fledgling industry and how new organisational models emerged by necessity that connected creative and sometimes unruly individuals who were committed to computers and each other and not the organisation or its commercial objectives (Kidder, 1981).

The exercise just described, was interesting because each participants identity mirrored the organisational design and the diagrams were all very different.

Two of them were clearly conceptualised as horizontal structures that emphasised interaction, learning, and knowledge transfer. One, (Case B) was modular with a vertical structure and an explicit chain of command. Case C seemed to be in a process of disintegration. That case had not been able to suggest a promising source to further the research. Above all, the diagrams reveal their author's sense of self and sense of their organisation. The diagrams are conceptual structures, superimposed on the real social system and they do not illustrate the actual social processes or the relationships between different social actors. To appreciate those requires engaging with actual members of that system.

The within case analysis proceeds in chapter 6 to detail the encounters with representatives of the social domain identified in the 2nd interviews and to consider the features and properties of the construct identified as the social domain of knowledge and practice.

Chapter 6 Within case analysis: 3rd interview

The often used phrase 'pay attention' is apt. You dispose of a limited budget of attention that you allocate to activities. If you try to go beyond your budget, you will fail

Daniel Kahneman

6.1 Introduction

This chapter interviews members of the organisations. They are representatives of the social domains consistently referred to in the interviews with the managing directors. These individuals are in a management position but they are equally active members of those social domains. They are (by virtue of their overall position) an ideal and valuable source of information (they have an understanding of the organisation and its relational networks).

The investigator had assessed each prospective participant both through the referral process, as well as by studying the social profile of each prospective participant.

Their profile revealed a richness of activity (content generation) and social interaction on several social media platforms. The investigator considered this to be prerequisite and an important qualifier to that person as a legitimate informant about that social space.

Again, each case is analysed beginning with Case A.

6.2 Case A: 3rd interview

The interview took place in the offices of the company on June 20th 2013. The participant is a pleasant and thoughtful individual. He is initially reserved but becomes more comfortable as the interview commences. He has a background in maths, physics, and art and a BSc in computing and he states he never wanted to be a '*stereotypical computing*' kind of person.

The investigator had a list of questions generated through the encounter with the agency's managing director. However, the interview was again unstructured as the intention was to gain as rich an insight as possible by allowing the participant to express himself in an unconstrained way.

The participant explained how he has always been interested in how things work. He says he knows what he likes and he likes to build things that really work and look and feel nice. He has been in the industry for 12 years working both as employee and as freelancer. He explains how he has always endeavoured to work with people and enterprises that are '*doing interesting things*'.

He is the agency's antenna but his role also includes everyday management, making sure projects are on track and that teams are functioning. He taps team members for updates on technology and innovation. In this role, he is not only somebody who must be aware but he also must have the ability to evaluate the potential impact of developments (innovation and trends). His role is to stake commercial realities against the social incentive to engage with emerging technologies that are not necessarily suitable or commercially viable.

It is a multifaceted role and he explains how he must balance diverse interests and sometimes strong-minded individuals who are inclined to want to go their own way. He describes himself as deeply involved in the sense making process both strategically (evaluating external circumstances) and internally (ensuring the internal continuity of the organisation).

6.2.1 Analysis

The first analytic cycle produced eight 1st cycle clusters. The (untreated) clusters again constitute in three dimensions, *traits, properties, and system dynamics*, Table 6.1. See Appendix E for details.

Table 6.1 Case A: Technical director - 1st cycle *In Vivo* clusters

Dimension	1 st cycle <i>In Vivo</i> cluster	Ref
Traits, properties and system dynamics	It fascinates me	88
	Bringing yourself closer to those individuals	46
	You know feisty people in those roles	102
	We are not firing on all cylinders	27
	Make sure the team is kind of functioning	23
	Everyone is aware of kind of changes in things	28
	A kind of digital buzz around the place	51
	We are not firing on all cylinders	27

The clusters indicate the participant's professional convictions. They also highlight the problems associated with the everyday activity of managing a creative / interactive agency and the problem of transience and ambiguity. Above all the clusters underline the presence and role of sociality where '*everyone knows everyone*' and where the important thing is to be doing '*interesting crazy things*' that translates into a form of community ranking mechanism. The clusters process in the same way.

[I have always been the kind of person who likes to prove the value] by actually doing some work and [prove that you actually got that ability]

Case A – Technical director. Interview June 20th 2013

The participant comes across as someone who is deeply interested and engrossed in his work. He is deeply committed to his own professional development measured against community expectations. He explains how within this community, there are no shortcuts and one must prove one's ability to gain respect from one's peers. He is committed to building and maintaining strong relationships and he considers sharing and collaboration the ideal way of working. He is also deeply committed to cooperation and building long-term relationships with individuals who share his interests.

What comes through in his account is the participant's fascination with digital and his sense of identifying with a social dimension. The 1st cycle *In Vivo* cluster [It fascinates me] originally captured this concept of social self. Once processed it produces three 2nd cycle codes that denote the participant's principles, values, and aspirations embedded in a strong sense of social identity. These are represented in the focused code [Social self], Table 6.2.

Table 6.2 Case A: Focused code - Social self

1 st cycle cluster	2 nd cycle codes	Analytic notes
It fascinates me	Principles and values <ul style="list-style-type: none"> – I am very interested in how things work and how they look. I think that is the key thing for me – I always felt I built a relationship with someone by doing something and showing them you could do that 	Describes a fascination with the digital space and a strong sense of communal identity and ambition (Barron and Harrington, 1972)
	Professional development <ul style="list-style-type: none"> – It was just you know a complete revelation really the types of work that you were doing – I had more of a focus and I could see kind of what the end goal was going to be 	Members of the community must demonstrate both intellectual as well as practical competencies References to constant skills maintenance and upgrading (Kotamaju 2002)
	Demonstrating skills and competencies <ul style="list-style-type: none"> – I have always been the kind of person who likes to prove the value by actually doing some work – Prove that you actually got that ability 	Creativity and immersion offset the intensity of working in the industry (Kennedy 2010b)

[They are feisty in terms of having an opinion] which is great. Feisty maybe in terms of how they might deal with people you know if they are up against work or how they might be within teams in that [they might be a bit more kind of out for themselves]

Case A – Technical director. Interview June 20th 2013

The passage considers the traits and properties of the employees. In it, the participant describes the complexity of managing the motivations and diverse agendas of often strong-minded individuals who are deeply committed to their work. It describes how those individuals will likely not respond to instructions unless it aligns with their own interests.

The participant describes a volatile atmosphere where management must be sensitive (and responsive) to the needs of individuals. This is particularly so when it comes to managing conflict or appearing receptive to suggestions.

Many of the employees see the job as a calling, a question of artistry and reputation, not duty. They are committed to the work, but not to the organisation, which they regard as means rather than career. Failure to supply the right conditions (or the right work) may result in inertia, complacency, collapse in productivity and possibly defection.

The 1st cycle cluster [You know feisty people in those roles] processes in two 2nd cycle codes. Those denote creative traits and personal agendas as a fundamental feature of the enterprise represented in the focused code [Creative self], Table 6.3.

Table 6.3 Case A: Focused code - Creative self

1 st cycle cluster	2 nd cycle codes	Analytic notes
You know feisty people in those roles	<p>Creative traits and expectations</p> <ul style="list-style-type: none"> – A challenge you know, feisty people in those roles – Because certain people react to certain things – If you just dictate you are never going to go anywhere – They will leave because they will just get frustrated <p>Personal agendas</p> <ul style="list-style-type: none"> – They might be a bit more kind of out for themselves – That might find them looking elsewhere 	<p>The industry is comprised of individuals motivated by the creative undertaking. They have a natural lethargy to deadlines and constraints. Management must take into account community diversity and complexity (Wenger et al. 2009)</p> <p>This digital artisan is autonomous and driven by a personal agenda of professional development and peer recognition (Weber, 2004)</p> <p>Conditions must facilitate personal development and accredit ideas when those are presented or present a reasonable explanation for dismissal (Shultz, et al. 1957)</p>

The participant describes how employees often need support in planning and coordinating their work. They are task focused but often unable or just not interested in how their contribution fits in with the work of others. They do not necessarily share an objective or an interest in what others in the agency are doing. The role of the participant is to build bridges between those actors. The participant also explained he has to provide leadership and structure to individuals who do not naturally adjust or respond to deadlines and commercial targets.

You work with [people who are losing their mind... pulling their hair out] going how am I going to deliver this thing, three months' work where do I start and all that. You have to just sit down and break it down and work out how you are going to do it. When you go from that exercise then...easy right I can do that

Case A – Technical director. Interview June 20th 2013

The 1st cycle *In Vivo* cluster [Making sure the team is kind of functioning] first captured this dynamic. It produced two 2nd cycle codes that denote his role in bridging barriers and coordinating the creative system eventually represented in the focused code [Coordinating creative system], Table 6.4.

Table 6.4 Case A: Focused code - Coordinating creative system

1 st cycle cluster	2 nd cycle codes	Analytic notes
Making sure the team is kind of functioning	<p>Bridging and intervention</p> <ul style="list-style-type: none"> – You get the guys that are just so confident and they come in and [they are painting over the cracks a little bit with their ability – Checking in with the guys from within that team to make sure that things are online <p>Coordination and support</p> <ul style="list-style-type: none"> – You work with people who are losing their mind them pulling their hair out going how am I going to deliver this thing – A portion of my time is going to be internal facing kind of stuff making sure that the team is kind of functioning okay 	<p>Strikes a balance between conventional control systems and flexibility (Abernethy and Lillis, 1995)</p> <p>Managing relational configurations and providing support through both perspective and practice (Wenger et al. 2009)</p>

The creative and competitive dynamic of the social domain, continuously spins new variations because of the collective interest of the community in new technologies but also in the need to be seen performing and excelling in a community of critical peers.

[Constantly trying to do things in a different way] and [doing things differently] and [do it in a kind of perceived innovative way] and you are [making and striking a difference] in being out there and showing yourself [doing interesting crazy ideas that has that snowball effect]

Case A – Technical director. Interview June 20th 2013

The combination of intrinsic motivation, a concern with personal reputation and peer recognition infused with technological innovations propels community interaction. The participant refers to this as the '*snowball effect*' where ideas bounce around the creative commons in a process of co-creation and collaboration and where community participants try to outperform each other.

The narrative is vivid and rich in process. It describes a social system where feedback is immediate and unsympathetic. The 1st cycle *In Vivo* cluster [A kind of digital buzz around the place] contained this unforgiving evolutionary dynamic. Two 2nd cycle codes denote the extent of regenerative (reinforced) feedback in the system and the effect of peer pressure. It is represented in the focused code [Regenerative feedback], Table 6.5.

Table 6.5 Case A: Focused code - Regenerative feedback

1 st cycle cluster	2 nd cycle codes	Analytic notes
A kind of digital buzz around the place	<p>Peer appreciation</p> <ul style="list-style-type: none"> – I think for the most part we are driving it – Being out there and showing yourself as doing interesting crazy ideas – Immediate feedback you get is rubbish <p>The snowball effect</p> <ul style="list-style-type: none"> – Ton of people looking at that and doing that – It just kind of absolutely snowballs and it just keeps bouncing it along 	<p>Evolution of industry is pushed by practitioners who seek creative fulfilment that ultimately has to be validated by peers and the creative commons (Benkler and Nissenbaum, 2006)</p> <p>The environment is a cooperative and co evolutionary system. (Lewin and Volberda, 1999)</p> <p>The system is subject to positive deviation amplifying feedback which escalates and reinforces the message (Maruyama 1963)</p> <p>Consider bandwagon behaviour (Swanson and Ramiller, 2004)</p>

Social media connects actors. It facilitates discourse and the following and monitoring of expert activity.

To me [it is really about bringing yourself closer to those individuals] that are really quite pivotal in technology you might be working with on a day to day basis.

Case A – Technical director. Interview June 20th 2013

Being able to access such knowledge relations constitutes an important resource. Participation is essential to the exchange process as is being selective in whom one engages with '*some people are really quite pivotal*'. This suggests some ranking order and selection criteria within the system. The participant refers to digital enthusiasts '*blue-sky thinkers*'. Those like to broadcast their views to the community (usually through social media) but they are themselves only as good as the content they produce.

The participant describes how one must also be mindful of rhetoric carried away in the hype of innovation without any consideration for utility, relevance, or timeliness. The 1st cycle *In Vivo* cluster [bringing yourself closer to those individuals] is analytically processed in three 2nd cycle codes. These denote the utility of knowledge networks in facilitating access to experts and collective intelligence that also have a filtering function finally represented in the focused code [Communities of knowledge], Table 6.6:192.

Table 6.6 Case A: Focused code - Communities of knowledge

1 st cycle cluster	2 nd cycle codes	Analytic notes
Bringing yourself closer to those individuals	Access to experts <ul style="list-style-type: none"> – It is really about bringing yourself closer to those individuals that are really quite pivotal in technology – You can interact with those people ask them a question 	Connectivity is facilitated through social media that allows the sense maker to approach individuals that are perceived to be an authority on the digital matters
	Access to collective intelligence <ul style="list-style-type: none"> – You then start referring it out to whatever network you might have – A lot of people talk about best practice stuff 	Interactions and enticements generate feedback mechanisms where individuals share their knowledge and expertise (Nahapiet and Goshal, 1989)
	Filtering <ul style="list-style-type: none"> – People actually gloss over the kind of reality – Looking at to see what their background is and how relevant those guys are 	Not all sources are equal and the sense maker must be mindful of the interests that motivate the source (Coakes and Smith, 2007)

Communal activity goes beyond discourse and towards deeper collaboration on specific problem structuring and solution processing. Because of the complexity of many of those problems, having access to networks of *'know how'* is essential. In addition to the practical function of the networks, participating is also being involved in negotiating the meaning *'reification'* of a phenomenon.

You kind of are [collating other ideas from other individuals] that you might not have thought of yourself and it is just that thing of [sharing a problem and seeing things] and [coming up with a solution]. It is just kind of [you're only going to go so far on your own] and there is [always something that someone will throw in]

Case A – Technical director. Interview June 20th 2013

This trajectory of developing understanding is a process of collaborative engagement and experimentation. Different disciplines tinker with the innovation exploring its capabilities and affordances from within the boundaries of their own expertise. The participant explains how something acquires meaning in activity and how that meaning then dissipates into other projects and throughout the organisation.

There is a collective awareness in the community and an incentive for individuals to bring their perspectives to the table. This often produces new and innovative insights. What people throw in is the knowledge and ideas they have acquired through their own research, activity, and community interaction.

The 1st cycle *In Vivo* cluster [Everyone is aware of changes in things] processes in four 2nd cycle codes. These denote deep communal ties, the pragmatic role of action and community members enacting plausible scenarios. These construct the focused code [Communities of practice], Table 6.7.

Table 6.7 Case A: Focused code - Communities of practice

1 st cycle cluster	2 nd cycle codes	Analytic notes
Everyone is aware of kind of changes in things	Communal ties <ul style="list-style-type: none"> – Everyone knows everyone and you even have spent a period of time working with them – They work at all these different kinds of agencies so everyone knows what's going on 	Strong community ties at a regional level illustrate levels of support and transparency Individual members reflect on experience and knowledge that they have individually acquired and which they then bring to collective process of sense making i.e. distributed cognition (Boland et al. 1994)
	Collaboration <ul style="list-style-type: none"> – Because you can inject other things into far quicker if you're all working together on it at that point in time – It is just kind of you're only going to go so far on your own 	Experimental activity is key to understanding innovation (Brown and Duguid, 1991).
	Sense in action <ul style="list-style-type: none"> – I think the only way you can really evaluate a lot of stuff like that is looking it up – If it is a piece of technology they can actually try and use it 	Weeding out a plausible explanation from the general noise of the digital space in a combination of creativity and syntheses
	Enacting plausible scenarios <ul style="list-style-type: none"> – You're probably trying to kind of weed out – You start to know shaping a bit of a picture of something 	Environmental dynamism (Jansen et al. 2009) as a consequence of community activity can keep the company agile (Borzillo et al. 2012) but equally is also the generator of variety the increases decision complexity and uncertainty.

We struggle with an abundance of data sent via email, shared on internal email lists, but where that knowledge ends up no one can really say. We have an intranet that is going through a slow death and we drown in email....The dissemination of said knowledge is key, how people can consume it on a level they are content with

Case A: Technical director, E-mail correspondence June 23rd 2013

The passage above is an e-mail correspondence from the participant to the investigator. It underlines the problem of information overload and the management and maintenance of the organisation's overall communications structure. This is a real problem where information processing becomes ineffective because different disciplines do not agree on the information's meaning or utility.

The participant on his own accord contacted the investigator after the interview with some further thoughts on the topic, which again illustrated the centrality of the problem. In effect, the e-mail captures the problem of knowledge dissemination where information has to be adapted to intended recipient or communities.

Hence, there seems not to be a uniform interpretation of information but instead each community will construe its own unique meaning in light of personal and professional imperatives. The 1st cycle *In Vivo* cluster [We are not firing on all cylinders] first detected these barriers to information and knowledge transfer. These (to the participant) represent inefficiencies and lost opportunities. The cluster produces two 2nd cycle codes. Those denote two types of barriers, systemic (technical) barriers and cultural (social) barriers that then construct the focused code [Barriers to communication], Table 6.8:195.

Table 6.8 Case A: Focused code - Barriers to communication

1 st cycle cluster	2 nd cycle codes	Analytic notes
We are not firing on all cylinders	<p>Systemic barriers to communication</p> <ul style="list-style-type: none"> – Seems to get actually swamped with just communication basically good and bad – Because there is a danger that you just become a bit you know word spoken but nothing really happening – You lose sight of what it was you actually got together for <p>Cultural barriers to communication</p> <ul style="list-style-type: none"> – That may take a phenomenal amount of time to unpick and go back and change that – So that a constant challenge to get to the point 	<p>Describes barriers to communication and knowledge dissemination including information overload and resilient habits (Watzlavik et al. 2011)</p> <p>Cultural disparities produce misinterpretations and differences in emphasis and understanding impedes the effective processing of information and knowledge (Osmond and Bird, 2000)</p>

The analysis enriches our understanding of the communities and the properties of the individuals that collaborate within them.

It expands the concept of a social domain of knowledge and practice to describe a meritocracy of actors. Those must demonstrate competence to gain respect where engagement, participation, and discourse define the usefulness of community ties. The autonomy and diversity of those actors constitutes a management challenge.

Management must negotiate personal agendas and a diversity of perspectives to tease out some plausible sense of meaning and action. The *'snowball effect'* describes the co-evolutionary dynamic of the system and those that are creating it and how the agency must have the means to participate in this process. Failure to participate will alienate actors, who will then seek to disassociate and possibly trigger their defection to agencies perceived to be providing the right conditions.

Although community membership is clearly an important resource, it is also the organisation's main problem, since community members are inspired to participate in the evolution of the community irrespective of whether this is relevant to their role in the organisation.

Seven focused codes unequivocally point to the central role of sociality and community. They emphasise the pivotal role of individual community members that through the interactions and boundary spanning activities bring into the theoretical cross hairs the resource perspective (social and relational capital) but also how *sense making in organisations* (as a sense of identity, belonging and motivation) may be quite separate from *organisational sense making* (as a sense of strategy and purpose). Table 6.9, depicts the analytic trajectory from the initial 1st cycle clusters through 2nd cycle codes to the focused codes.

Table 6.9 Case A: 3rd interview, summary of codes

1 st cycle <i>In Vivo</i> cluster	2 nd cycle codes	Focused codes
It fascinates me	Principles and values	Social self
	Professional development	
	Demonstrating skills and competence	
	Stepping out of context	
You know, feisty people in those roles	Creative traits and expectations	Creative self
	Personal agendas	
Making sure the team is kind of functioning	Bridging and intervention	Coordinating creative system
	Coordination and support	
A kind off digital buzz around the place	Peer appreciation	Regenerative feedback
	The snowball effect	
Bringing yourself closer to those individuals	Access to experts	Communities of knowledge
	Access to collective intelligence	
	Filtering	
Everyone is kind off aware	Communal ties	Communities of practice
	Collaboration	
	Sense in action	
	Enacting plausible scenarios	
We are not firing on all cylinders	Systemic barriers to communication	Barriers to communication
	Cultural barriers to communication	

6.3 Case B: 3rd interview

The interview took place on June 20th 2013 at the now new premises of case B. These new premises are a creative open space clearly designed to impress clients as well as prospective employees.

The participant has a PhD in history. This has no obvious connection to her role as technical director but the participant is (in her own words) a digital native, a resident of the digital space from a very early age. Her online profile illustrates how she is active on the web as a content creator and active participant in online dialog.

She explains she has a conventional management role and there are no references in her account to her own principles or values. She does not demonstrate creative commitment (to neither the organisation nor other members). However, she describes having to be constantly aware of what is best practice. She must understand what is good, what is bad, and what is coming up. She does not fit into the stereotype of a creative person, but comes across as a *technocrat* as well as the organisation's social antenna.

Her role is '*tying things together*' and making sure she is aware of what is happening externally (in the digital space) and internally (in the organisation). She (like case A) refers to having to deal with volatile individuals who have their own reasons for being there. Interestingly, her account significantly contradicts that of the managing director (who was convinced he was in complete control).

6.3.1 Analysis

Initial treatment produced seven 1st cycle *In Vivo* clusters, Table 6.10. The (untreated) clusters again concentrate in three dimensions, *traits, properties, and system dynamics*. See Appendix E for details.

Table 6.10 Case B: Technical director - 1st cycle *In Vivo* clusters

Dimension	1 st cycle <i>In Vivo</i> cluster	Ref
Traits, properties and system dynamics	Most people need to be managed gently	38
	I have to tie everything together	46
	It is constant flux	79
	Continue to follow them on Twitter and talk to them	24
	I think it is actually difficult to formalise	77
	Keep trying new things	83
	Because it is a natural extension, they can blog	32

The clusters clearly illustrate resemblances to case A. Here too, the technical director's role is bringing different organisational elements into line in some organised and meaningful way. The participant explains how the organisation is a consortium of diverse practices and how considerable tact is required to sustain their interest and commitment. Here also, sociality, knowledge transfer and activity networks are central to the account.

Often some of them like to get involved in social media [because it's also a natural extension they can blog] and they can go out and promote the blog and what they've been writing and some of them just want to sit and write

Case B – Technical director. Interview June 20th 2013

There is less direct reference to the participant's own standing or professional pedigree. This participant is clearly not involved to the same extent in the creative and professional communities (although she is socially very active online). Her account of the internal social dynamics is more the view of an outsider (tasked with managing creative individuals). As such she positioned to sketch a picture what it is employees' value and what motivates them.

The initial 1st cycle cluster [Because it is also a natural extension, they can blog] denotes the social identity of those individuals in much the same way. She refers to certain values, principles and behaviours that support the premises of the existing focused code [Social self], Table 6.11:199.

Table 6.11 Case B: Focused code - Social self

1 st cycle cluster	2 nd cycle codes	Analytic notes
Because it is also a natural extension, they can blog	<p>Demonstrating skills and competencies</p> <ul style="list-style-type: none"> – SEOs like technical stuff and the puzzle of getting round Google – They are all like that, they like that sort of challenge <p>Principles and values</p> <ul style="list-style-type: none"> – Because the moment it becomes a formal requirement, people don't want to do it <p>Professional development</p> <ul style="list-style-type: none"> – The designers constantly have to keep abreast of what is fashionable – Everybody has a sort of development plan of sorts 	<p>This firm appears to have narrower frame of operations focusing on SEO and more objective deliverables.</p> <p>Technology bloggers enacted claims of a distinctive identity in the joint construction of their discourse and in response to continuous developments in new media (Vaast et al. 2013)</p> <p>References to constant skills maintenance and upgrading (Kotamaju 2002)</p>

I think it is the nature off when you work with slightly creative people or very creative people in some instances. [I think most people need to be managed gently] but most people you can also trust to get on with their day to-day work [because you know they want to do well they enjoy what they do]

Case B – Technical director. Interview June 20th 2013

The passage describes the same traits and properties highlighted previously by the technical director of case A. It concerns individuals that value their autonomy and creative freedom. In the same vein, it describes negotiating personal agendas and objectives. It fits with the previous conceptualisation of creative traits and personal agendas represented by the focused code [Creative self]. However, this participant also describes how new entrants make the system vibrant with new ideas and new ways of thinking. This increases the fitness and competitiveness of the system '*arsenal of tricks*'. The 1st cycle *In Vivo* cluster [Most people need to be managed gently] strengthens the premises of the focused code [Creative self], Table 6.12:200.

Table 6.12 Case B: Focused code - Creative self

1 st cycle cluster	2 nd cycle codes	Analytic notes
Most people need to be managed gently	Creative traits and expectations <ul style="list-style-type: none"> – If you interrupt them in the middle of writing code they get really frustrated – I think most people need to be managed gently 	Individuals that generally share being motivated by the creative undertaking and have a natural lethargy to deadlines and constraints. New arrivals create greater variety in the system (Feldman and March, 1981) This digital artisan is autonomous and driven by a personal agenda of professional development and peer recognition (Weber, 2004)
	Personal agendas <ul style="list-style-type: none"> – It's really around where each person sees himself what job they actually want to be doing – Generally the feeling that there is somewhere to advance and that actually is where they want to go 	Conditions must facilitate personal development and accredit ideas when those are presented or present a reasonable explanation for dismissal (Shultz, et al. 1957) Community diversity can lead to competitive advantage through asymmetries of perspectives and diversity of capabilities (Miller, 2003)

Sitting strategically with groups and negotiating their differences is part of this participant's everyday activity. The role is almost like sitting in between different teams making sure they are functioning and doing things correctly.

[I know that my role... is to make sure] that my teams are aware and understand new developments in search and it is also to make sure that the rest of the team the developers are building websites correctly and [if something new is happening and I need to make sure] that they are aware of it

Case B – Technical director. Interview June 20th 2013

The participant talks of '*stepping in*' and playing the role of gatekeeper. Being strategically located within the organisation enables her to have an overview of activities and interactions and the comings and goings of people.

His role extends to being responsible for making sure the agency is aware and online with the latest developments in digital. This also is in line with the technical director of Case A (although here there is much greater emphasis on control). The 1st cycle *In Vivo* cluster [I have to tie everything together] supports the premises of the focused code [Coordinating creative system] (generated previously by Case A), Table 6.13:201.

Table 6.13 Case B: Focused code - Coordinating creative system

1 st cycle cluster	2 nd cycle codes	Analytic notes
I have to tie everything together	<p>Bridging and intervention</p> <ul style="list-style-type: none"> – Because that is part of my role to make sure there is communication between the two – I can sit and I can hear what they're talking about and if I hear what they're saying and thinking it's not quite what I would say <p>Coordination and support</p> <ul style="list-style-type: none"> – I know that my role... is to make sure that my team are aware and understand new developments – Sitting with my team helping them tie things together 	<p>Is physically, strategically placed to enable her to monitor and supervise interactions in the workspace</p> <p>Is responsible for bridging and coordinating activities across factions. Plays the role of technology steward (Wenger et al. 2009)</p> <p>Coordination and mediation between internal heterogeneous entities i.e. member heterogeneity (Triandis 1965)</p>

[It is constant flux] in terms of what we are doing and to be honest [it is quite a lot of the appeal for me] because you have to keep learning new things and to keep trying new things. I have to be constantly aware of what is best practice

Case B – Technical director. Interview June 20th 2013

The passage again describes the same uncertainty and transience described by case A. However, case A had been concerned with what his peers were doing. This participant reflects more on the practical problem of responding to market expectations and on how rapidly the market evolves. She describes they have no real control over their futures.

To exacerbate the problem, this organisation (as a demand generator) is fundamentally connected to the evolution of larger online entities that even subject them to penalties if they in some way violate (or are perceived to violate) their code of conduct (or business processes). The 1st cycle cluster [It is constant flux] is processed and supports key premises of the focused code [Regenerative feedback] Table 6.14:202.

Table 6.14 Case B: Focused code - Regenerative feedback

1 st cycle cluster	2 nd cycle codes	Analytic notes
It is constant flux	Meeting expectations <ul style="list-style-type: none"> – If you aren't your business is going to go elsewhere and your clients are going to go to go elsewhere – Make sure that they are happy with what they are getting 	Rapid rate of innovation generates a pressure to keep up and there are unequal power structures between small digital firms and dominant Internet entities
	The snowball effect <ul style="list-style-type: none"> – Everything changes very, very quickly there is a constant need to keep up-to-date – It can get a bit a bit crazy and a bit volatile and a bit anarchic 	Industry dominant entities provide a regulatory constraint on practices The system is subject to positive deviation amplifying feedback which escalates and reinforces the message (Maruyama 1963)
	Peer appreciation <ul style="list-style-type: none"> – Obviously you can go crazy with it – The brand will enable you to do outrageous and unusual things 	Dominant players seek to exploit monopoly and to control the evolution of industry standards (Williams and Edge, 1996)

These networking connections are quite important [because sometimes we do not have the answer to something], so we need to know where to go out there and find it and maybe [we can ask outside our little circle]. Just say, how would you do this? Or on Twitter [if you saw this weird thing on a website then what would you do about it]

Case B – Technical director. Interview June 20th 2013

The passage signals the centrality of sociality where the content and character of one's network plays a key role. The account again illustrates the way communities of knowledge forage for information. They are also used to share and structure problems, to create solutions and to alert the organisation to external events. The expressions the participant chooses to use denote the usefulness of such relational networks. They tell her *'how savvy users are'*, *'how right things are'*, *'how radical can we be'*, *how people are searching*, *'how can we use this'* and so on.

It describes the essential role of communities of knowledge and electronic networks (social media) connecting those communities. The 1st cycle cluster [Continue to follow them on Twitter] first captured this and on processing, it reinforces the premises of the existing focused code [Communities of knowledge], Table 6.15:203.

Table 6.15 Case B: Focused code - Communities of knowledge

1 st cycle cluster	2 nd cycle codes	Analytic notes
Continue to follow them on Twitter	<p>Access to experts</p> <ul style="list-style-type: none"> – Because they were quite intelligent people with good ideas you continue to follow them on twitter – When they see something interesting then they do tend to circulate it <p>Access to collective intelligence</p> <ul style="list-style-type: none"> – We can ask outside our little circle just say how would you do this – Because sometimes we don't have the answer to something so we need to know where to go out there and find it <p>Filtering</p> <ul style="list-style-type: none"> – On Twitter if you saw this weird thing on a website then what would you do about it 	<p>Connectivity is facilitated through social media that allows the sense maker to approach individuals that are perceived to be an authority on the digital matters</p> <p>Interactions and enticements generate feedback mechanisms where individuals share their knowledge and expertise and so these connections constitute a repository of intelligence and practical support (Anand et al. 2002)</p> <p>Uncertainty is referred out to the networks as a collective resource i.e. situated communities of actors (Kavanagh and Seamas, 2002)</p>

The organisation also makes incremental advances by tinkering and testing ideas in a non-committal (pragmatic) way.

I have theories but you know you have to kind of as you know [you try something, one thing and you see how it affects] and [if nothing happens then you try something else]

Case B – Technical director. Interview June 20th 2013

This *sense in action* is also something that feeds into the future retained in the organisation's memory. This is a social process, an integral part of the overall configuration of learning, support, and discovery connecting the organisation to its environment. The participant even comments '*it would be stupid not to*', illustrating how sensitive these organisations really are and how unforgiving the environment really is. The 1st cycle *In Vivo* cluster [keep trying new things] initially detected this and when processed it supports the four premises of the existing focused code [Communities of practice], Table 6.16:204.

Table 6.16 Case B: Focused code - Communities of practice

1 st cycle cluster	2 nd cycle codes	Analytic notes
Keep trying new things	Communal ties <ul style="list-style-type: none"> – Something they read that is useful and they will show each other pages and say what do you think – Always bouncing ideas off each other 	The organisation as a communal activity system of collaboration and sharing i.e. mutual interest
	Collaboration <ul style="list-style-type: none"> – It tends to be where people are sitting where they spend most of their time those are the people they talk the most with 	Spatial configurations facilitate or constitute discontinuities in the communication process. A degree of permeability can be achieved by removing of physical barriers that the improves the flow of information and knowledge exchange by stimulating reciprocal communication (Nijkamp et al. 1990)
	Enacting plausible scenarios <ul style="list-style-type: none"> – Apply it to different situation and draw that connection 	Enacting sensible environments that constitutes the drawing together and analysis of evidence and aligning to commercial purpose (Weick, 1995a)
	Sense in action <ul style="list-style-type: none"> – Actual day-to-day practice of it is not as pretty – You try something, one thing and you see how it affects and if nothing happens then you try something else 	Incremental advances based on trial, error and bricolage. Advances are produced collectively embedded in the collective everyday practices of organisational members (Orlikowski, 2002)

I think that one of the most interesting issues internally in terms of our communication is sort of the [different goals between teams] and almost the sort of [miscommunication between teams] and sometimes [we get the sort of topsy-turvy]. For example, the way the BDM's think, the way they talk, sometimes they ask for something and [we completely misunderstand] what they want and deliver the wrong things and they get crazy and they think they have explained themselves well and we are just being stupid.

Case B – Technical director. Interview June 20th 2013

Here also appears the sticky (and resilient) problem of miscommunication between different disciplines. Like with case A, this is a problem embedded in the heterogeneity of the organisation. Different factions pursue their own agendas and view their role through the lens of their respective disciplines.

That is an issue we keep getting confronted with and again I do not know how you could do with that that comes down to [different types of people communicating in different ways] and preferring [different types of communication]

Case B – Technical director. Interview June 20th 2013

These cultural disparities are a difficult subject and constitute a real problem for the agency and it seems for this type of enterprise. Effective communications practices are difficult to formalise and to install so that they fit eclectic disciplinary criteria.

Originally captured in the 1st cycle cluster [It is difficult to actually formalise] is processed in the two 2nd cycle codes addressing the same problem of communication barriers. The cluster on processing fits the two premises of the focused code [Barriers to communication], Table 6.17.

Table 6.17 Case B: Focused code - Barriers to communication

1 st cycle cluster	2 nd cycle codes	Analytic notes
I think the problems is it is actually difficult to formalise	<p>Cultural barriers to communication</p> <ul style="list-style-type: none"> – If we are not interacting socially at all and there is no specific need for different teams to actually be communicating they don't – I think the problem is it's difficult to actually formalise it's because the moment it becomes a formal requirement people don't really want to do it <p>Systemic barriers to communication</p> <ul style="list-style-type: none"> – We have tried all sorts of things we have tried setting up a central almost an internal social network board – Different types of people communicating in different ways and preferring different types of communication 	<p>Cultural disparities produce misinterpretations and differences in emphasis and understanding impedes the effective processing of information and knowledge (Osmond and Bird, 2000)</p> <p>Different agendas and objectives are the consequence of multiple identities that are nested in external social dimensions (Albert et al. 1999)</p> <p>Dysfunctional communication undermines the system. The problem can be understood in the context of requisite variety of means (Ashby 1958).</p>

The encounter with the technical director of case B shared contextual similarities with case A although on some dimensions they diverge. The technical director's description fits within the premises of many of the existing focused codes (e.g. creative self, social self) and the particular dynamics of the community (e.g. communities of practice and knowledge, enacting plausible scenarios, sense in action). There is nevertheless greater focus on intervention (the technical director occupied a strategic position in the room to enable her to step in when and if necessary).

By virtue of its positioning as a demand generator, this agency is subject to the whims of much larger entity on which the services it renders depend. This process is messy and chaotic as the agency is subject to unpredictable changes at any time. The dominant entity in effect constitutes a monopoly in online search. A change in any of its algorithms or processes can be difficult to locate and tedious to disentangle.

What also clearly distinguishes this participant from case A is the lack of any reference to (the participants) personal conviction or values. This participant is a technocrat that appears to have little interest in design as such or ranking and status within the creative community. Her description of these constructs is not value laden (but nevertheless) valid because of her proximity to the social actors that do embody such attributes and properties.

The analysis enriches existing focused codes. It contributes to our understanding of the dynamics of evolution that here emphasises the role of monopolies and the discontinuity they bring to the everyday reality of smaller organisations. Table 6.18, depicts the analytic trajectory from the initial clusters through 2nd cycle codes to the focused codes.

Table 6.18 Case B: 3rd interview, summary of codes

1 st cycle <i>In Vivo</i> cluster	2 nd cycle codes	Focused codes
Most people need to be managed gently	Creative traits and expectations	Creative self
	Personal agendas	
Because it is also a natural extension, they can blog	Demonstrating skills and competencies	Social self
	Principles and values	
	Professional development	
I have to tie everything together	Bridging and intervention	Coordinating creative system
	Coordination and support	
It is constant flux	Meeting expectations	Regenerative feedback
	The snowball effect	
	Peer appreciation	
Continue to follow the on Twitter	Access to experts	Communities of knowledge
	Access to collective intelligence	
	Filtering	
Keep trying new things	Communal ties	Communities of practice
	Collaboration	
	Sense in action	
	Enacting plausible scenarios	
I think the problems is it is actually difficult to formalise	Systemic barriers to communication	Barriers to communication
	Cultural barriers to communication	

6.4 Case C: 3rd interview

Well the market moves very, very quickly. Not so long ago we were doing really, really, cheap websites [because that is what the market wanted and that is what we did]. The thing that really bit us on the bum was that we grew our overheads faster than we grew our margins.

Case C – managing director. Interview Dec 17th 2013.

There had been a long trajectory to securing this interview. Although originally, the intention had been to interview the technical director or another key person, it soon became evident this was not going to transpire. Moreover, the managing director was unresponsive despite multiple attempts to contact him. At the same time, the mapping exercise suggested there was a resource problem and this and the sense it might be an indicator of a wider problem resulted in the decision to try to engage again to explore the situation.

After repeated attempts to contact the participant, he reluctantly agreed to meet and the interview took place in the organisation's offices on Dec 17th 2013. It soon emerged the agency was experiencing troubling times. It is currently in administration and the participant is clearly edgy although not opposed to picking through the problem and the processes and decisions that have delivered the agency to insolvency.

The data once transcribed, revealed an extraordinarily candid account and confession of management failure and flawed decision making which in many ways confirmed earlier analysis of the organisation as strategically adrift. Now aground (in administration) the participant is trying to make sense of the situation.

6.4.1 Analysis

Table 6.19 illustrates seven 1st cycle *In Vivo* clusters. The (untreated) clusters constitute in three dimensions, *traits, properties, and system dynamics*. See Appendix E for details.

Table 6.19 Case C: Managing director - 1st cycle *In Vivo* clusters

Dimensions	1st cycle <i>In Vivo</i> Cluster	Ref
Traits, properties and system dynamics	If you are honest and hard working	48
	I need to have a bit of reality check	35
	Being selective in projects we choose	44
	Trying to reverse some of the mistakes	75
	Circumstances that are pushed on to you	49
	Brilliant and left after two months	57
	Trying to find finance	11

As the clusters indicate, the participant is agitated and trying to understand what factors have led to the organisations (and his) demise. The clusters illustrate his assessment of the situation and the events and decisions that led to the agency's predicament. Although there are some attempts to attribute his failure to external elements, he is unequivocal about his own role and shortcomings in the process.

The participant explains how the organisation had reached a point where the only way was to file for administration. The reason is (according to the participant) a cycle of low value business relationships.

No one is willing to support a business regardless of how good you or the mistakes that you have made or with regard to the circumstances that are pushed on to you. So yes we were going round and round in circles and I was left with one option and it was all I could do and in the end a supplier was taking us to court and that forced my hand and the factory company that we used basically said well we are going to withdraw the facility and you are going to have to go into administration.

Case C – Managing director. Interview Dec 17th 2013.

The participant states how (he now understands) the key is developing long-term client relationships with greater prospects integrating with external value chains and enabling participating parties (in collaboration) to move forward.

Achieving this, means securing access to human and intellectual capital (an unresolved problem for this agency). It is also something the participant does not seem to grasp. The participant tries to project an image of hard work, of being a victim of circumstances (transience and resource scarcity) and of being in the process of recovery. The participant goes to lengths to justify his situation and to preserve his professional integrity. He attributes blame to the elements (which presumably are the discontinuities of the environment) and the resource issue that is a consistent theme in all cases but is particularly problematic with this case.

[I am not the only one] who is going through administration there are [hundreds every day] and it is [just a fact of life everyone has these problems] and I think a lot of people, [you know the elements] the [people in the industry have got the same challenges].

Case C – Managing director. Interview Dec 17th 2013.

The account floats into deliberation of personal integrity, mitigating circumstances and altruistic behaviour. He presents the elements as a set of circumstances that he was subject to and tried to resolve the best he could. He refers to saving jobs and keeping clients in business. The 1st cycle cluster [if you are an honest hard working person] produced two 2nd cycle codes. These denote internal processes of justification and mitigation, to some extent face saving measures that construct the focused code [Preservation of self], Table 6.20.

Table 6.20 Case C: Focused code - Preservation of self

1 st cycle cluster	2 nd cycle codes	Analytic notes
If you are an honest hard working person	Mitigating circumstances <ul style="list-style-type: none"> – I'm not the only one who's going through administration, there are hundreds every day – I was left with one option and it was all I could do 	The participant explains a range of mitigating circumstance leading to his demise including the elements, his suppliers, skills defecting and the general complexity of the environment.
	Upholding integrity <ul style="list-style-type: none"> – I am quite an honest guy, I am not a bull shitter – If you are on honest hard working person – I have done it for genuine reasons first of all keeping my clients in business over Christmas and secondly trying to keep the people here employed 	A social actor is concerned with maintaining identity, image and reputation (Whetten and Mackey, 2002). Sensitive to the value convictions of the community of practices he connects with (Holt 2006)

The participant describes several external antecedents to his failure. Firstly, the industry has evolved to offer free e-commerce solutions depreciating the agency's key value proposition.

If you just think for 5 min of the number of marketing channels available to e-commerce businesses now. [There are thousands of them and they were not there a few years ago].

Case C – Managing director. Interview Dec 17th 2013.

And

The projects have become more and more complex and the problem with the e-commerce space is that everyone is evolving and moving and everyone wants more and more and more and more for the same base costs.

Case C – Managing director. Interview Dec 17th 2013.

Secondly, the agency is under financed and has not been able to attract (or retain) the necessary skills (human capital).

It is a bit of a kind of a bit of a tough year. [...] has left the business and has gone to do her own thing and the other developer [...] who was the other developers has left and has gone back to the same competitor who have now taken three people this year from us and actually the senior developers replacement left after 7 weeks he went to an event in Amsterdam for the next web and happen to bump into the MD of that same competitor who recruited him

Case C – Managing director. Interview Dec 17th 2013.

Thirdly, the rate of evolution, the scale, and the scope of the environment have overwhelmed this agency (or rather its key strategist, the participant).

This is a very transient industry so you have got the people to think about and what they are going to do next and then you have got all the technological changes that are happening and everyone else innovating around you changes in Google, changes in Apple, all the new devices, TV, all that technological stuff. So you have got to kind of, you are always kind of, this is my plan and this is what I am going to do in the future, but at the same time, what are the threats to all of that and what am I going to have to change next year because of all of that?

Case C – Managing director. Interview Dec 17th 2013.

The 1st cycle *In Vivo* cluster [Circumstances are pushed on to you] is processed to three 2nd cycle codes. Those denote external drivers of failure in the intensity of the environment, the ‘*snowball effect*’, and this agency’s failure to attract and retain skills ‘*resource scarcity*’. The *In Vivo* cluster, [Trying to find finance] is integrated in its original form on the rationale it is conceptually transparent. These construct the focused code [External antecedents to failure], Table 6.21.

Table 6.21 Case C: Focused code - External antecedents to failure

1 st cycle cluster	2 nd cycle codes	Analytic notes
Circumstances that are pushed on to you	Resource scarcity <ul style="list-style-type: none"> – We have had a lot of problems in getting the right people into the business – Finding good people it has been a problem for some time now 	Internet culture is a techno meritocratic culture that cultivates an ideology of freedom, exploration and creativity (Castells 2001). The firm seems to fail to attract those individuals
	The snowball effect <ul style="list-style-type: none"> – Because it is vast – Everyone is evolving and moving – Everyone has to raise the game to the next level – Everyone else innovating around you 	To understand the structure and dynamics of the environment i.e. the snowball effect means having access to the resources that are creating the system e.g. (Simon, 1956) on the structure of the environment
	IV - Trying to find finance <ul style="list-style-type: none"> – A supplier was taking us to court and that forced my hand – We owed them probably 20K in advances at that point – We issue an invoice and get an advance against an invoice 	Heterogeneous groups will represent a diversity of views that are consequently more likely to contain a solution to a problem (Triandis 1965) The account illustrates the confusion and complexity of the system where specifications and estimations become problematic and obfuscate intentions and judgment (March 1994)

We have [a lot of ambitious developers] in the marketplace and [they want to move on] and they want to have access to the latest skills and the latest knowledge and earn loads of money. [You lose a person a key person and you lose another person] and that can just push you so far off track that [you just can't ever get it back on track]

Case C – Managing director. Interview Dec 17th 2013.

Although the participant initially attempts to attribute failure to external circumstances, there are clear references in the account to flawed decision-making and complacency. Considering the opening passage, it describes rather well the creative community deserting the organisation perceived to be in creative decline.

Another passage vividly describes how the organisation failed to read the environment (market).

Well the market moves very, very quickly. Not so long ago we were doing really, really, cheap websites [because that is what the market wanted and that is what we did]. The thing that really bit us on the bum - was that we grew our overheads faster than we grew our margins

Case C – Managing director. Interview Dec 17th 2013.

Both passages reveal what is conceptualised (in the management literature) as the balance of exploitation versus exploration. In this case, the agency exploits the current situation not paying attention to the overall development of the industry itself, including the depreciation of the web site (its key product) as a bespoke product increasingly superseded by free open source (and easy to use) content management systems.

The two passages also indicate how in this industry, organisations must be steps ahead of market, ready to adjust to new circumstances. This capability crucially depends on the organisation having *excess capacity* that is, the resources, (and the insight) to deal with new situations (as they arise). Too narrow a focus (e.g. exploiting a current capability) may insulate the organisation from imminent changes in the environment and so when those changes do occur the organisation is unprepared and vulnerable.

Another unfortunate consequence of inertia, may be that in an industry that depends on creativity and innovation as key drivers of value creation (creative meritocracy), skills will quickly disassociate (defect) from an organisation seen to be inert and in creative decline.

The 1st cycle *In Vivo* cluster [Trying to reverse some of the mistakes] first captures these malignant dynamics. On analysis it produces three 2nd cycle codes that denote these internal failings. They constitute in strategic drift, inadequate profiling of accounts and a critical weakening of the agency's resource base. The skills drain is represented by the *In Vivo* cluster [Brilliant and left after two months]. Combined these are represented in the focused code [Internal antecedents to failure], Table 6.22.

Table 6.22 Case C: Focused code - Internal antecedents to failure

1 st cycle cluster	2 nd cycle codes	Analytic notes
Trying to reverse some of the mistakes	Casual account profiling <ul style="list-style-type: none"> – They don't have very much money so you kind of end of targeting the wrong people – If you have got to constantly find new clients just to stay alive it just doesn't work – You just go round in circles and that is where we got to 	Inadequate profiling of accounts means the firm is locked into unprofitable alliances with little or no prospect. A negative cost benefit ratio. The firm has to continuously look for new clients to sustain cash flow
	Strategic drift <ul style="list-style-type: none"> – You should look at the warning signals a bit sooner. – Because that is what the market wanted and that is what we did 	Organisations are subject to inertia through evolutionary selection processes. Precedents reduce uncertainty and so become normative standards (Hannan and Freeman, 1984)
	IV - Brilliant and left after two months <ul style="list-style-type: none"> – We basically had knock after knock with people – You lose a person a key person and you lose another person and that can just push you so far off track 	Resources defect to join other firms perceived to be more innovative. Interconnected communities of practice constitute transparency that can trigger defection if other firms are perceived to be more interesting (Weber 2004) The firm faces dissolution, loss of markets and reputation. Key employees defect, replacements are not found and the only solution is closure (Daft 2001)

The participant explains how the organisation is now trying to break out of its predicament. The solution (he states) is to invest in carefully selected (lucrative) clients, establishing long-term relationship.

[Being selective in the projects we choose] and [work on the right work] rather than getting the wrong client with wrong expectations who want you to do an absolute load of work for very little investment

Case C – Managing director. Interview Dec 17th 2013.

The participant now considers it important to get external advice. He has approached consultants to help him develop '*a more balanced view*'.

Interestingly, he still does not seem to comprehend the relational (knowledge) value of his employees. He also does not seem to grasp why he was unable to attract or retain them or how their relational networks may constitute a source of knowledge and advantage. He seems to view those instead as (technical) skills only, which he for some reason (general resources scarcity mainly) is unable to attract. He does not seem to view his organisation as any less competitive in the skills forum. According to him, (there simply are not enough resources about).

The 1st cycle cluster [Being selective in the projects we choose] is analysed in four 2nd cycle codes in what he considers critical factors to improve the agency's future prospects. These concern profiling accounts, disrupting toxic routines, discretion in the selection process and seeking advice. These construct the focused code [Learning from failure], Table 6.23:215.

Table 6.23 Case C: Focused code - Learning from failure

1 st cycle cluster	2 nd cycle codes	Analytic notes
Being selective in the projects we choose	Disrupting routines <ul style="list-style-type: none"> – Because we got to break out of the old model – Move forward in a different way 	Because the acquisition and exploitation of knowledge are predominantly social processes social capital may be critical for the long-term success of technology-based firms (Yli-Renko et al. 2001) Consider the relationship value of customers from the point of view of profitability and long term value contribution to company value (Zeithaml, et al. . 2006) Selection criteria and routines may constitute maladaptive representations of past selection that may be partly or wholly inappropriate (Aldrich and Ruff, 2006)
	Projecting long term profitability <ul style="list-style-type: none"> – Providing better service to a smaller group of people rather than providing a tiny service to lots of people – If you have got to constantly find new clients just to stay alive, it just doesn't work 	
	Developing selection criteria <ul style="list-style-type: none"> – Focusing on the important stuff – Being selective in the projects we choose 	
	Acquiring access to experts <ul style="list-style-type: none"> – Bringing more expertise in to give you that balance – You just act from gut instincts and sometimes you are wrong and you make mistakes 	

The participant describes how he explores and tinkers with technology and innovations. According to him, the scope of opportunity in the environment is bewildering. The paragraphs are themselves vivid.

I am a bit like a Magpie [if there is a sparkle over here then I will shift my focus over there] and before you know it, [I am spinning 30 plates and thinking how do I keep all this going]

Case C – Managing director. Interview Dec 17th 2013.

And

[If you are constantly coming up with the opportunities and the ideas] but never actually seeing them through then [that is my biggest downfall] in not being able to say well look I like all of those things but I want to be able to you know [the focus has got to be on this discipline and that is all]

Case C – Managing director: Interview Dec 17th 2013.

These passages reveal management flaws (e.g. decision uncertainty, lack of determination and strategic direction).

[I have got 20 things ongoing that I have started and not finished] [because I got an idea to do something else] which took me off somewhere else and that is the problem that I have got is that [there are too many different things to look at]

Case C – Managing director: Interview Dec 17th 2013.

The participant had in earlier interviews, produced focused codes that illustrated this wavering of attentions [Winging it] and [Search heuristic]. One can speculate that as the sole processor of inputs from the environment, the complexity and richness of that environment overwhelms the participant. This poverty of attentions, coupled with the ongoing dissolution of his business model and an uncertainty about what should be the desired future state of the enterprise exemplifies the state of this organisation.

The participant is aware of his own role (and shortcomings) and describes a process of critical self-assessment and critique that recognises those as salient weaknesses. The 1st cycle cluster [I need to have a bit of a reality check] is analysed in two 2nd cycle codes that denote these problems. They construct the focused code [Vacillating attentions], Table 6.24.

Table 6.24 Case C: Focused code - Vacillating attentions

1 st cycle cluster	2 nd cycle codes	Analytic notes
I need to have a bit of a reality check	Attention focus <ul style="list-style-type: none"> – I am a bit like a Magpie if there is a sparkle over here then I will shift my focus over there – I have got 20 things ongoing that I have started and not finished – Never actually seeing them through – Before you know it I am spinning 30 plates 	Attention focus is spread as there is not a clear vision of the desired future state of the firm (Meadows and O'Brian, 2007). There must be some rationing of attention (March 1994).
	Cognitive load <ul style="list-style-type: none"> – Too many different things to look at – So many things to think about so that is the biggest thing for me 	Selection criteria for processing information should constitute a filter retaining or eliminating based on some criteria of relevancy and importance (Henderson and Clark, 1990). Selection events are the engine for organisational learning (Henderson and Stern, 2004)

Case C from the outset, deviated in significant ways from the other cases in this research and as such it constitutes a valuable source (Yin 2009). It is an unhappy case, strategically adrift and in a process of gradual dissolution. The investigator had not anticipated the seriousness of its predicament although the way it deviated from the other cases appeared early in the concepts [Search heuristics and Winging it]. Those illustrated that this case was largely in a reflexive role, responding to immediate situations and challenges rather than plotting the future in any meaningful or strategic way.

The investigator went to considerable lengths to maintain contact with this participant and was privy to his confidence and candour. This case generally stands out for its teething problems and flawed decision making which unfortunately has to be attributed the managing director's failure to both read and react to market signals as well as comprehending the traits and properties that characterise the skills on which he depends.

The other obvious element is the participant's risk aversion and tendency to procrastinate and wait for evidence to justify action. He waits to see if the innovation will create value for him instead of considering how he himself may create value by exploring the affordance of the innovation. This was evident in earlier codes [e.g. Shadowing early adopters].

Whether this aversion to risk is because the participant is oriented on project management is hard to say, but the agency's demise can be in parts attributed to indeterminacy and a failure to participate in the system and its failure to attract and retain those that are creating it.

The story hides two quite fundamental issues well documented in the management literature. It illustrates how the manager has failed to read market signals (explore) and how he has focused on tapping (exploiting) current opportunities (based on an obsolete business model) not taking note of the way the environment is evolving.

There is another connection between the two. Perceived level of innovation (exploration) attracts skills. Mundane projects (continuous exploitation) are a deterrent to the same skills. The agency is in a loop where (because of its positioning and inaction) it is not competitive in the skills forum. In addition, those skills (if present) would likely generate (and sustain) the exploratory dynamic so critically important in the industry. Table 6.25, summarises the analysis and coding.

Table 6.25 Case C: 3rd interview, summary of codes

1st cycle <i>In Vivo</i> cluster	2 nd cycle codes	Focused codes
If you are an honest hard working person	Mitigating circumstances	Preservation of self
	Upholding integrity	
Circumstances that are pushed on to you	Resource scarcity	External antecedents to failure
	The snowball effect	
	IV - Trying to find finance	
Trying to reverse some of the mistakes	Casual account profiling	Internal antecedents to failure
	Strategic drift	
	IV-Brilliant and left after two months	
Being selective in the projects we choose	Disrupting routines	Learning from failure
	Projecting long terms profitability	
	Developing selection criteria	
	Acquiring access to experts	
I need to have a bit of reality check	Attention focus	Vacillating attentions
	Cognitive load	

6.5 Case D: 3rd interview

The interview took place on July 10th 2013 in the agency's offices. The participant has a BSc in electronic imaging and media communication and an MA in multimedia design and production. He is the agency's creative director. He is unequivocal in declaring his motivation and fascination of multimedia.

He explains how he always aspired to work in creative media and how at the time when the area was emerging, it was difficult to find a platform that satisfied his criteria for study. He explains how the media community in the North West was at the time tightly knit and how he immediately began to work with individuals who at the time were working on visionary new ideas in human computer interaction. He explains how this was taking place before the Internet and how he has seen the digital industry unfold in recent years from fledgling multimedia production to its current state.

The participant comes across as someone who is thoughtful and experienced. He is knowledgeable about the industry in general, but he also strives to read widely to develop a richer and more nuanced understanding of his industry and his profession. He is cautious of the bandwagon that forms around the latest gadget or trend and instead he seeks to understand the context and relevancy of the phenomena before committing to a view. He considers it important to develop his own vision of what innovation can, should do, and is circumspect and critical of populist views.

6.5.1 Analysis

Seven 1st cycle *In Vivo* cluster were produced, Table 6.26. The (untreated) clusters constitute in three dimensions, *traits, properties, and system dynamics*. See Appendix E for details.

Table 6.26 Case D: Technical director - 1st cycle *In Vivo* clusters

Dimension	1 st cycle <i>In Vivo</i> cluster	Ref
Traits, properties and system dynamics	I like creating something from nothing	28
	Our peers will never see what we have been labouring over	33
	With Twitter you are shouting	51
	It can crumple you	39
	Get used to stuff just disappearing into the Ether	41
	You find out the latest thing	25
	It can feel like quite a cult type of thing	31

This participant emphasises the organisation's culture and his own aspirations and values. He wants to preserve his and the agency's creative reputation, legacy and the pressures that come with that. This participant does not really reflect on management, but is preoccupied with creativity, sociality, and culture.

The participant (in his own words) is an autonomous exploratory individual who seeks to push the boundaries of what is possible. He claims '*we don't want to be pushing paper on glass*'. He talks of '*clunky technology*' and being '*underwhelmed*' with designs. In his management role, he makes sure things get done, but he allows people to do it in their own way. There is tremendous emphasis on sociality, culture, and collaboration.

The creative potential of digital captivates this participant and sets high professional standards and objectives. He explains how he always sought to associate with the innovators and those perceived to be doing interesting and ambitious work. He had worked for many years for a different organisation and he explained how he had remained there because of one particular individual who commanded great respect throughout the industry as an innovator. He describes the creative process as a social process where peer recognition is all-important and where seeing things *in situ* and recognised by peers is the ultimate goal.

You're always learning and trying new things but [my loss is that [it was something that was very beautiful and [it was very different]...and [the community aspect of it that never happened] and that's sort of and [our peers will never see what we have been labouring over]

Case D – Creative director. Interview July 10th 2013

He is committed to his own professional development, driven by his value, his principles, and his peers. The account fits all three premises of the focused code [Social self] processed from the 1st cycle *In Vivo* cluster [Our peers will never see what we have been labouring over], Table 6.27:221.

Table 6.27 Case D: Focused code - Social self

1 st cycle cluster	2 nd cycle codes	Analytic notes
Our peers will never see what we have been labouring over	Principles and values <ul style="list-style-type: none"> – I was very overwhelmed – Quite boring stuff really – It is a far easier life but you are not going to be making something you are proud off 	Demonstrates the creative principles and values that drive the community at the level of the individual (Amabile and Pillemer, 2012)
	Professional development <ul style="list-style-type: none"> – Just through not wanting to work at [...] anymore because the stuff that they were doing was not very cutting edge or visionary 	Creative expression and standing out from the crowd determines image and self-worth. Credibility is achieved by demonstrating competencies and skills i.e. creative meritocracy (Terranova 2000)
	Demonstrating skills and competencies <ul style="list-style-type: none"> – You're always learning and trying new things but my loss is that it was something that was very beautiful – I would hate for it to completely disappear – Our peers will never see what we have been labouring over 	Describes an ongoing fascination with the digital space and a strong sense of communal identity and ambition Strategically endeavours to associate with those perceived to be competent and operating on the cutting edge of digital designs

The participant explains how he himself and the employees are deeply motivated and attached to their creations. Business relationships are collaboration where both parties commit to the creative enterprise. It is essential that the clients acknowledge the creative effort. When one client relationship folded, it was primarily because the client failed to acknowledge the organisation's creative pedigree, *'there was not that respect anymore'*.

[I think everyone here really gives a damn about what they do]. Everyone still gets a buzz out of working together and creating stuff whatever that stuff is. [I do not think there is anyone that just comes here because it is just [his or her] job]

Case D – Creative director. Interview July 10th 2013

At the same time, this participant is deeply committed to the creative enterprise, and to his own creative identity.

I like creating something from nothing that's always what has been amazing about computers it is from nothing and then to see someone using it and to see it in situ or to hear of people having used it and it works for them that is what I really enjoy

Case D – Creative director. Interview July 10th 2013

The 1st cycle *In Vivo* cluster [I like creating something from nothing] denotes these creative dimensions. Once processed, it supports the two premises of the focused code [Creative self], Table 6.28.

Table 6.28 Case D: Focused code - Creative self

1 st cycle cluster	2 nd cycle codes	Analytic notes
I like creating something from nothing	Personal agendas <ul style="list-style-type: none"> – You are not going to be making something you might be proud off or breaking new ground – We don't want to be pushing paper on glass Creative traits and expectations <ul style="list-style-type: none"> – They did not give as the acknowledgement for some of the work we have done – You are trying to crack a nut 	The industry is made up of individuals motivated by the creative undertaking. They have a natural lethargy to deadlines and constraints. Management must take into account community diversity and complexity (Wenger et al. 2009) This digital artisan is autonomous and driven by a personal agenda of professional development and peer recognition (Weber, 2004) Conditions must facilitate personal development and accredit ideas when those are presented or present a reasonable explanation for dismissal (Shultz, et al. 1957). Consider (Ford, 1996) for creativity in social domains.

This participant also talks of how the pressures of the industries can affect individuals that are deeply committed to their work.

You are trying to solve an issue or you think you solve something and then something else comes along with another set of demands and [I have seen that and I felt it as well and it can crumple you]

Case D – Creative director. Interview July 10th 2013.

He describes a disparity between the creative enterprise as an ongoing social obligation and a commercial enterprise that has become increasingly difficult to sustain as clients have come to understand the role and place of digital within their own strategies. The industry is coming of age and is entering a new phase where some of the novelty is wearing off.

Clients have become informed and are beginning to understand their relationship with digital technologies. It manifests in tensions between internal and external stakeholders and the challenge of coordinating a creative drive with commercial realities. The 1st cycle *In Vivo* cluster [It can crumple you] captured these tensions. When processed it supports the two premises of the focused code [Coordinating creative system], Table 6.29.

Table 6.29 Case D: Focused code - Coordinating creative system

1 st cycle cluster	2 nd cycle codes	Analytic notes
It can crumple you	Coordination and support <ul style="list-style-type: none"> – The pressure does get you especially if it's relentless on-the-job and you're not feeling the support – I have seen that and I felt it as well and it can crumple you – You're trying to crack a nut that sometimes looks uncrack able 	Knowledge workers are subject to tight deadlines that in conjunction with long hours and creative obligation that can on the long run may corrode commitment, see (Terranova 2000)
	Bridging and intervention <ul style="list-style-type: none"> – They became just more and more demanding it was also the kind of work that we did not really want to do – There were rules suddenly and you could only do such and such 	As the industry enters a new phase it faces economic constraints on time and costs spent on projects There is a tension between the creative elements of a firm and economic reality as the industries understanding of the technology matures, see (Klepper 1996)

You know a lot of the work we did, as a company six years ago does not exist anywhere apart from files on the server. Even technically [some of the stuff just does not work anymore] because people do not have the right plug-in or the right browser [you have to get used to stuff just disappearing into the ether]

Case D – Creative director. Interview July 10th 2013

This participant considers the sunk cost that inevitably accompanies change. He states how he must exercise judgment and restraint when evaluating new phenomenon that may have little commercial relevance. Mindfulness and critical evaluation of the phenomenon substitute feedback and reinforcement (positive feedback). They have to produce their own unique version of opportunity he declares. They avoid repetition and stagnation by tending to the composition and configuration of teams. The combinations generate the necessary creative dynamic and fresh perspectives.

He explains how often everyday mundane events are occasions that offer opportunity for observation and evaluation. He is therefore cautious when it comes to the Internet. He states everyone has access to the same content and one should not accept information or participate in the *'latest fad'* without carefully considering its implications. Potential costs (opportunity and sunk) are high and this organisation is subject to the same feedback pressures that permeate the industry.

This is first picked up in the 1st cycle cluster [Stuff just disappearing into the Ether]. On analysis, it fits the two premises of peer appreciation and reinforced feedback represented in the focused code [Regenerative feedback], Table 6.30.

Table 6.30 Case D: Focused code - Regenerative feedback

1 st cycle cluster	2 nd cycle codes	Analytic notes
Stuff just disappearing into the Ether	The snowball effect <ul style="list-style-type: none"> – Technology, some of the stuff just doesn't work anymore – You can get to far ahead with these things 	Technological discontinuity and evolution of industry structure often means rates of obsolescence is high and salvage value is often limited (Johnson and Hoopes, 2003)
	Peer appreciation <ul style="list-style-type: none"> – Waiting for the dust to settle – It is about stepping up – You can get lost with some kind of Oracle 	As actors in a creative meritocracy, demonstrating skills and competencies to a community of peers is a key driver of the ecosystem (Weber, 2004)

Well, [with Twitter you are shouting into the Ether]. It is not targeted in any way but you might go to someone you probably thought might be the expert in that field and you might message him directly or [dangle something a nugget of information] which you think they might want to show off their knowledge about you know depending on whom the person is

Case D – Creative director. Interview July 10th 2013

The passage describes the act of deliberately exploiting networks for information and knowledge. Teasers (appealing to ego) lure experts to share knowledge they might otherwise not disclose. Social media defines these interactions strategically mined by appealing to the natural propensity of (creative) people to want to share and show off their knowledge and skills.

Those networks are thus used to strategically target specific sources, the idea of ‘*egoticing*’, dangling (a nugget) of information to get individuals to disclose information in anticipation of community recognition. However, the participant comments that not all networks are equal and the composition of one’s network defines its usefulness. Social media is also used as a practical way to get information (solutions) concerning specific problems in a non-targeted way ‘*shouting into the Ether*’ although the participant explains that he is mindful in evaluating (filtering) what such general calls produce.

The 1st cycle *In Vivo* cluster [with Twitter you are shouting] is analysed and supports the premises of the focused code [Communities of knowledge], Table 6.31.

Table 6.31 Case D: Focused code - Communities of knowledge

1 st cycle cluster	2 nd cycle codes	Analytic notes
With Twitter you are shouting	Access to experts <ul style="list-style-type: none"> – You might go to someone you probably thought might be the expert – in that field 	Connectivity is facilitated through social media that allows the sense maker to approach individuals that are perceived to be an authority on the digital matters
	Access to collective intelligence <ul style="list-style-type: none"> – With twitter you are shouting into the ether it is not targeted in any way 	Interactions and enticements generate feedback mechanisms where individuals share their knowledge and expertise and so these connections constitute a repository of intelligence and practical support i.e. social capital (Nahapiet and Goshal, 1989)
	Egoticing <ul style="list-style-type: none"> – Dangle something a nugget of information that you think they might want to show off their knowledge about you know 	Not all sources are equal or honest and the sense maker must be mindful of the interests that motivate the source (Coakes and Smith, 2007)
	Filtering <ul style="list-style-type: none"> – Everything on the internet you know is the truth and it is not always the case you know 	

The participant expands on what the managing director had described as culture. The narrative describes strong communal ties maintained through interaction and social exchange often over a meal. Simple rules strengthen the social and cultural bond (the propinquity effect).

[Because we do get on that well], for instance, [we have like a rule that no one eats at their desk] and we all get and have dinner together at the dinner table on the side there. We all sit down together and that is as important as [because actually a lot of stuff gets sorted]

Case D – Creative director. Interview July 10th 2013

One can clearly sense the significance of those social events by the conditional statements embedded within the narrative. For example, '*if they are feeling the pressure (then) a conversation will take place after dinner*'. Hence, the events constitute transparency and an instrument for management to gauge the general atmosphere and in the event of a problem to intervene at an early stage. The emphasis is on learning, sharing, and generating different perspectives through action and experimentation, evidence gained in practice. There are no references to any real conflicts. Instead, the codes describe cultural entrenchment, a tightly knit community, and a collaborative architecture. The 1st cycle cluster [It can feel like quite a cult type of thing] supports the existing premises of the focused code [Communities of practice], Table 6.32.

Table 6.32 Case D: Focused code - Communities of practice

1 st cycle cluster	2 nd cycle codes	Analytic notes
It can feel like quite a cult type of thing	Communal ties <ul style="list-style-type: none"> – It can feel quite like a cult type of thing to some people because we do get on that well – Pretty damn trusting in each other 	Individual members reflect on experience and knowledge that they have individually acquired and which they then bring to collective process of sense making i.e. distributed cognition (Boland et al. 1994)
	Collaboration <ul style="list-style-type: none"> – You know we have a rule that no one eats at their desk – What we need to do today and who is doing it 	Experimental activity is key to understanding innovation (Brown and Duguid, 1991).
	Enacting plausible scenarios <ul style="list-style-type: none"> – Trying to imagine that bit of technology in that situation – We are always thinking how people use stuff 	Weeding out a plausible explanation from the general noise of the digital space in a combination of creativity and syntheses
	Sense in action <ul style="list-style-type: none"> – You need to see stuff in action as it were moving you know how you get from A to B – Refer to what we have done in the past 	Environmental dynamism (Jansen et al. 2009) as a consequence of community activity can keep the company agile (Borzillo et al. 2012) but equally is also the generator of variety the increases decision complexity and uncertainty..

This organisation in contrast to the other has tried to deal with communication barriers by cultivating communal activity ‘*we have like a rule*’. The 1st cycle cluster [You find out the latest thing that is happening] captured the effects of these social encounters. Those illustrate the way this organisation has dealt with the communication challenge by applying (very ordinary) social occasions. Such occasions take place by carefully designing the environment and installing processes in that environment that encourage social interaction not directly connected to the immediate work.

When we do sit down for dinner, majority of the time the conversation is not directly about work it is about other things but [that kind of stuff actually is important] and [you can pick up actually straightaway if someone is unhappy] that day

Case D – Creative director. Interview July 10th 2013

This (soft) rule based system, constitutes in more effective and efficient communication practices. The initial *In Vivo* cluster is processed in the two 2nd cycle codes that denote two types of communication enablers (Cultural and systemic) represented in the focused code [Enabling communication], Table 6.33.

Table 6.33 Case D: Focused code - Enabling communication

1 st cycle cluster	2 nd cycle codes	Analytic notes
You find out the latest thing that is happening	Cultural enablers of communication <ul style="list-style-type: none"> – A lot of stuff gets sorted – Know how to behave to each other – That sort of trust Systemic enablers of communication <ul style="list-style-type: none"> – It is a really important part of the day – We have like a rule – You find out the latest thing that is happening 	Social occasions are facilitated by thoughtfully designing the environment and installing processes in that environment that encourage social interaction that are not directly connected to the immediate work context

The most salient feature of this case is the emphasis on its creative culture. The agency of course is a creative content generator and this individual’s stance, as its creative director is logical. The participant gave constructive insight into the mind-set of the individuals and the emotional and commercial pressures they face. It tones down some of the *elitism* often attributed to (creative) new media workers. The emotional dimension weaves into a commercial reality of a maturing and

increasingly sophisticated clients and consumers in general that constrains the agency's scope to be creative and to experiment.

This case emphasises creative freedom, autonomy, and loose coupling. This enables the organisation to respond rapidly to change and opportunity. Change is a positive and necessary element to be encouraged states the participant, but the agency does not necessarily embrace change just for the sake of doing so. This may reflect a particular client association, which shapes the enterprise. This alone, constitutes a competitive strength as this client is highly regarded internationally and this then has a natural appeal to designers, which then relish the spill over of prestige through association that sees their work reviewed internationally. Table 6.34, summarises the coding.

Table 6.34 Case D: 3rd interview, summary of coded

1 st cycle <i>In Vivo</i> cluster	2 nd cycle codes	Focused codes
Our peers will never see what we have been labouring over	Principles and values	Social self
	Professional development	
	Demonstrating skills and competence	
I like creating something from nothing	Creative traits and expectations	Creative self
	Personal agendas	
It can crumple you	Bridging and intervention	Coordinating creative system
	Coordination and support	
Stuff just disappearing into the Ether	The snowball effect	Regenerative feedback
	Peer appreciation	
With Twitter you are shouting	Access to experts	Communities of knowledge
	Access to collective intelligence	
	Filtering	
	Egoticing	
It can feel quite like a cult type of thing	Communal ties	Communities of practice
	Collaboration	
	Sense in action	
	Enacting plausible scenarios	
You find out the latest thing that is happening	Cultural enablers of communication	Enabling communication
	Systemic enablers of communication	

6.6 Summary of chapter

This chapter concludes the analytic treatment (within case analysis) of the primary data. The third interviews enriched the tentative framework first conceptualised after the initial interviews (Figure 4.1). Detailed analysis has increased the resolution and now outlines the social drivers of the organisations, different management strategies, and eclectic communicative practices.

Three of the cases demonstrated that participating and connecting to social domains gave them access to information and knowledge they would otherwise not have had (or they would have had to purchase). The analysis exemplified how representatives of those domains comprised the combination of means that distributed the load of surveillance and intercepting information, facilitating access to expertise and in general acting as the organisation's antenna and conduit to the greater digital ecosystem.

One case was the antithesis. It exemplified how organisations that do not have access to the right combination of means will be at a competitive disadvantage. The analysis of the failed case illustrated how in a transparent social system (a meritocracy where a key driver is creative participation), actors will quickly dissociate from organisations perceived to be inert. The skills drain is a process that will be hard to reverse for the troubled organisation. All participants refer to dynamic feedback processes and (in three cases) the influence peer appreciation has on the organisations.

The chapter emphasised the primacy and intensity of social interaction and creative identities. Sense making (in the organisations) does not seem to involve a common sense of (organisational) purpose. Instead, representatives (professionals) of different disciplines join the organisation for different (their own) reasons and the only thing stakeholders may agree on is that the organisation (for the time being) is useful in developing their personal legacy in a meritocracy of peers.

Chapter 7 contains four vignettes (short narratives) that consider and expand the analysis.

Chapter 7 Within case analysis: Four vignettes

When case studies are constructed as narratives, then causal explanation can be achieved without either comparison or generalisation. Narratives provide paths of causal links on a chronology of actions or events

Peter Abell

7.1 Introduction

So far, the narrative (chapter 6) has focused on systematically processing the interview data following the analytic system outlined in the methodology (sections 3.4.3; 3.4.4; 3.4.5 and 3.4.6).

This chapter (building on the analysis) commences to construct a narrative (vignette) of each case. The intention is to shift from a hard systematic mode, to a softer narrative mode to enable the reader (and indeed the analyst) to absorb findings (and to expound on those findings) in a more refined reader friendly format.

Specific instances in the data support the analyst's interpretation and evaluation of circumstances. The analysis itself (as such) is a scaffold to support the analyst's construction of each case. It prepares the reader for the forthcoming cross case analysis.

7.2 Case A: Vignette

Case A had been purposefully picked as the lushest case (a strategy suggested by Yin, 2009). It produced a rich account of how the organisation had to negotiate internal differences and where in reality it was subject to the aspirations (and whims) of its employees. This is due to their creative and social identity (creative and social self) which is fundamental to the social system (meritocracy) to which they belong and which validates their actions and associations. Consequently, it is difficult (perhaps impossible) to define the span of the organisational system and the system itself is dynamic (it is highly sensitive, unpredictable and in continuous transition).

The supply of skills is a critical problem, that is to say, the carrying capacity of the environment cannot sustain the rapid evolution and increasing complexity of the industry. This relatively small organisation (of limited resources) has to maintain excess capacity of means (professionals) to deliver on an increasingly complex industry remit.

Strategic attempts to increase internal efficiency had undermined the overall effectiveness of the organisation when irreplaceable employees (who felt constrained by the efficiency measures) defected. Superimposing a rule based hierarchy and accountability on creative individuals who (above all) value their autonomy had disastrous consequences

What really kicked it off for me was that there was a couple of key individuals that we had lost and even though it sounds odd then throughout our history we have never really ever lost anybody we wanted to keep so there would be no people leaving the business and sometimes it was the right time for them to leave and I accept that this is not necessarily a bad thing but there were a couple of people who were really, really talented and an integral part [of] that jigsaw and they pointed to the way the place was

Case A – Managing director. Interview October 11th 2012.

Such individuals are important in more than the technical skill sense. They also sustain the legitimacy of the organisation (as a place with prospects). The technical director had described how his colleagues (and he himself) would follow influential (key) individuals who would defect and join other organisations (perceived to be involved in more interesting projects). Being involved in such projects would enhance the professional reputation of the individual and would increase the individual's standing in a community of peers.

When key individuals defect, it can compromise the organisation's reputation (legitimacy). Faced with the possibility of other resources (professionals) following suit, the organisation has few options. It can continue to pursue efficiency (which can be lucrative for a while) or it can decide on a radical overhaul of its management philosophy, structure, and processes.

The choice was a transformation to *Agile / Lean* design that emphasis autonomy, social interaction, value creation and spontaneity. This is likely to be less profitable in the short term, but in the long term it will (hopefully) redeem the organisation's reputation and replenish it by appealing to individuals who are attracted by greater autonomy and a creative mandate.

For businesses that rely on creativity and problem solving, you will not get faster ideas or better products or more problems solved with a carrot and a stick by saying to someone that they are getting ten pounds for more ideas. Actually what you get is the reverse so the more pressure you apply on them it actually destroys them....those kinds of people tend to really want the freedom to get on with what they are there to do. They really thrive on the option to get better and better, and to improve themselves in that area and to improve the quality of what they are doing.

Case A – Managing director. Interview October 11th 2012.

Again, the organisation must be a legitimate carrier of creativity and innovation to sustain the reputation and self-efficacy of its employees (digital artisans). It emphasises how resource dependent the organisation is and how *sense making in organisations* may have little to do with *organisational sense making* as a question of strategy and action.

Indeed, sense making in organisations may be a process that does not account for (or even care about) the strategic interests (or the commercial objectives) or even really the health of the organisation. Sense making in organisations (as a process of negotiation and coordination) may be largely indifferent to whatever (other) problems the organisation may have. Consider why the technical director joined the organisation in the first place.

I was becoming more and more aware of [...] and what those guys were doing there were only at that point probably around 30 or 40 people. I had friends from [...] basically a guy that I had learned a lot from really quite high and respected and he'd stayed at [...] but while I was at [...] he actually came to [...] so that was kind of triggering you know something in my mind and there is a chap over there [...] worked at [...] who worked at [...] sorry whom I'd worked with he came over to [...]. So there is a few other guys [...] a creative guy whom I had worked with he came over...and a few other guys I work with and actually my wife poached him to another agency and then he came to [...] so it was all kind of...

Case A: Technical director, E-mail correspondence June 23rd 2013

There is not a single reference in the narrative to what the organisation stands for (only who work there) so accentuating sociality and (professional) social identity as a significant and even decisive element in the overall scheme of things (e.g. as a determinant of values, attitudes and behaviour. It is particularly difficult since the carrying capacity of the environment (in terms of resources) cannot sustain the rapid development of the industry which then undermines the organisation's influence and power over the individuals it depends on.

Furthermore, the scope and complexity of the environment creates a more complex, fragmented and interdisciplinary organisation. The case must have the capacity to detect, intercept, and interpret information flowing in from different sources in its environment. Greater organisational complexity (as it manifests in different spheres of activity) also generates complexity in the relationship between professional disciplines (activities) that may not be fluent in the terminology or processes of each other's domains and may view and approach a problem (and solutions) in very different ways. The problem appears in the technical director's e-mail to the investigator.

It is the mechanic of someone finding something of relevance to the business and how they go about sharing with other disciplines (i.e. tech, creative, strategy etc.)...The dissemination of said knowledge is key [and] how people can consume [information] on a level they are content with

Case A: Technical director, E-mail correspondence June 23rd 2013

Both participants had underlined the difficulty in maintaining a workable equilibrium in the organisation within and between project teams and in particular they had emphasised dysfunctional hierarchies, broken internal feedback loops, information overload and teething problems with information and knowledge exchange. Sense making in the organisation reflected the personal goals and social incentives of individual employees committed to their own professional progression and they would commit to the organisation only as long as it facilitates their own development.

All of those suggest that sense making as an internal process of exchange, negotiation and (at least some form of consensus) is not (in this type of enterprise at least) the usual (or even achievable) state of the system.

7.3 Case B: Vignette

Case B was a different type of enterprise. It was primarily a demand generator and it was clearly (at least in the mind of its managing director) a modular rule driven enterprise. Its managing director also was convinced of his own ability to control the organisation, its evolution, and commercial future (internal locus of control).

I will share this with you. We have got [...] group and on this side we have [...] enterprises and over on this side we have [...] agency. What sits in here are all the companies like [...] retail and they own [...] and then they have got seven [...] stores and several others. Then you have got [...], [...] and others just to give you an idea of which we own 8 per cent of these businesses so that is our enterprise arm we do equity and we do a cross fee in terms of a reduced fee but obviously we take dividends. Now, this business here when I got involved was doing 500K.

Case B – Managing director. Interview October 30th 2012.

This case is an interesting contrast to the earlier case. It reinforces the exact properties that had so undermined the performance of case A. There is clearly a social distance between management and the employees, referred to as '*they*' or as '*geeks*'. Those are (supposedly) accountable within a rigid organisational framework, a formal incentive mechanism, and an expectation of deadlines and of budgets. The managing director is under the impression that he (in his view and in his own words) knows everything and is in control.

Our measurement...has been there right from day one track everything, everything is recorded, you know time, everything you know what I mean so it's a bit like a lawyer you have everything, e-mails, I have everything and I know that person spent 30 min on e-mails so you know what I mean everything is break down.

And

We are very focused on who are we, what are we, where are we going, how is our targets, and we have a protocol you know I go back to, have you heard of the rule 21, have you heard of *Paretos* rule?

Case B – Managing director. Interview October 30th 2012.

Although the managing director possibly provides some sense of direction and purpose, he himself is not fluent in the terminology or language of the professions he employs. The way he superimposes structure and order on the organisation is for his own reference and does not seem to reflect what actually goes on.

It is constant flux....you try something, one thing, and you see how it affects and if nothing happens then you try something else.

Case B – Technical director. Interview June 20th 2013

What (actually) goes on (in most ways) mirrors case A. Employees *'have to be managed gently'* and they are committed to their own professional development *'they have to keep abreast of what is fashionable'*. They do not like being accountable *'because the moment it becomes a formal requirement, people don't want to do it'*.

Essentially they are all properties that contradict the idea of making sense and instead (like with case A) the organisation is a collaboration of contradictions, a system of egos, controversies and tensions.

I think that one of the most interesting issues internally in terms of our communication is sort of the different goals between teams and almost the sort of miscommunication between teams and sometimes we get the sort of topsy-turvy. For example, the way the BDM's think, the way they talk, sometimes they ask for something and we completely misunderstand what they want and deliver the wrong things and they get crazy and they think they have explained themselves well and we are just being stupid.

Case B – Technical director. Interview June 20th 2013

Despite this, those (polemic) individuals are the organisations social antenna connecting it to the business environment *'when they see something interesting then they tend to circulate it'*. It also enables the organisation to *'ask outside our little circle just say how would you do this...because sometimes we don't have the answer to something so we need to know where to go out there and find it'*.

Overall, the technical director's account significantly contradicts the managing director's vision of the organisation and its internal processes. It was subtly described by the technical director as '*actual day-to-day practice is not as pretty*'. This case is as vulnerable as case A and its future may be even more precarious given its deep dependency on a much larger service provider which makes the whole system inherently unstable and unpredictable. Sense making in this organisation (or rather lack of it) is in the words of its technical director.

Oh, my God, we have some sort of weird penalty, but we have not done anything!

Case B – Technical director. Interview June 20th 2013

7.4 Case C: Vignette

Case C is an exemplary case. It constitutes a counter example to the other two cases, which (despite teething problems) are successful in their field. This case is in a process of disintegration. Its reputation (as a creative enterprise) is tarnished and it has become inept and inert. Whereas there are many possible reasons why an organisation declines, one of them is inertia. A number of factors can contribute to organisational inertia (e.g. not accepting redundant investments in technologies and processes, decision uncertainty, risk aversion, strategic drift, and information overload). There are indicators that those (combined with lack of finance) are significant factors contributing to the organisation's decline.

That's the complexity so you have got to say well hold on a minute this is noise let's see how that develops and when it comes to something sensible we will work out whether it applies to our audience

Case C – Managing director. Interview August 2nd 2012.

What is interesting about the passage is that whereas the other cases had engaged with innovation (*sense in action*), this case finds sense in waiting (*search heuristics*). At the same time, where that (sensible) point the managing director refers to may be is hard to say.

There are ideas and there are game changers...I need to understand what the technology can do, do some initial research to see whether it is even possible and how it might apply to us. You know, there are all sorts of bright ideas so you have to filter out the bad ideas

Case C – Managing director. Interview August 2nd 2012.

To wait incites two problems. First, the agency continues investing in a business model already obsolete. The value of a (custom built) web site (including an e-commerce site) has rapidly depreciated superseded by (often-free) open source content management systems or other commercial platforms. Those are user friendly, easily maintained by someone with only basic computer literacy. The business relationships that sustained the organisation in the past now have limited or no long-term (digital) prospects.

We don't have a problem with keeping up we have a problem with finding customers that want to keep up that's the difference so it is back to education.

Case C – Managing director. Interview August 2nd 2012.

After the initial (general) scurry to have a web site, many SME's and sole traders have not seen a return on their investments. Intermediaries (e.g. Ebay, Amazon) have emerged that facilitate e-commerce that makes owning and maintaining a personalised web site a less attractive prospect, more costly or even unnecessary.

In the second interview, the managing director acknowledged he had made strategic mistakes in selecting and managing client relationships.

I shifted my focus quite a lot from chasing little bits of business in going after bigger pieces of business and also looking at the bigger picture which is what I should have been doing from the start but the problem we found was that you get to a cycle in the business.

Case C – Managing director. Interview Dec 17th 2013.

The other (no less toxic) problem is that the agency is labelled a laggard and as such a less attractive channel for career progression for employees in a dynamic networked industry. It becomes difficult (if not impossible) to attract talent and what talent there is, will look to other organisations with greater prospects. Decline is certain and only a matter of time.

Once key employees defect, (professional) relational networks dissolve and the organisation no longer has the antennae or the capacity to deal with the environment. The managing director becomes the only connection to that environment which is not (in the long term) a sustainable position.

Interestingly, despite the persistent problems and conflicts the other cases described (e.g. *creative and social self, coordinating creative system*) it may well be that it is precisely those some properties that sustain those cases in information and knowledge. What may appear (and probably is) a chaotic (senseless) system of selfish individuals may in fact be an organisation's key strength manifesting in a richness of attentions and autonomous actions, a consequence of dynamic heterogeneity.

7.5 Case D: Vignette

Case D also stood out as a highly dynamic enterprise. This case brands itself as a creative organisation unique through its association with a global media corporation. This corporation furnishes the case with the credentials and prospects skills look for. The incentive (for the skills) is to see one's work displayed in a global forum and interacting with individuals who are at the peak of their profession and on the cutting edge of digital innovation. Consider the paragraph.

Creative goal, I made this, I did this my work is on the front page of the [...]. I won this award and the intellectual challenge. The reason people work here is that they will work on something they have not done before, we will push them but they are never going to be bored and it is a good filter mechanism

Case D - Managing director. Interview March 11th 2013

What was particularly interesting was how the organisation's managing director (despite the creative rhetoric) clearly understood the strengths the association brought her enterprise. Not only does the association furnish the organisation with credentials (which gives the organisation an edge in the competitive skills arena), but it also alleviates (to an extent) attention pressures (the need to search and make sense of the environment).

How do they see the world and you know we work a lot with the [...] who are amongst the most intelligent digital thinkers you know they are defining how we consume digital media

And

So working really closely with them we should be reacting and changing our business to make sure we can deliver for them so that is knowledge that transfers into the business

Case D – Managing director. Interview January 13th 2013.

It is a rational strategy where the returns from the relationship far outweigh the cost of relinquishing control and autonomy. External and internal sense making revolves around what the larger organisation requires and where it wants to go. All other things being equal, the payoff for individual employees is considerable. They know they must go along with what the dominant player in the relationship wants (even if in the short term, they will have to relinquish their independence).

The creative director had also described *organisational sense making* i.e. the problem of dealing with the transience and pressure of the environment and he had explained how his role was to be critical of innovation ‘*you can get lost with some kind of Oracle*’. He also explained how he strategically evaluated innovation using social media (Twitter) ‘*with Twitter you are shouting*’ but how he at the same time has to be mindful of the type of information, his call would produce ‘*[not] everything on the Internet is the truth*’. There were clear references to reputation and rank in that knowledge system (clearly not all actors are equal).

Well, with Twitter you are shouting into the Ether. It is not targeted in any way but you might go to someone you probably thought might be the expert in that field and you might message him directly or dangle something a nugget of information which you think they might want to show off their knowledge about you know depending on whom the person is

Case D – Creative director. Interview July 10th 2013

There were synergies between this case and case A in the emphasis both have on sociality and creativity (e.g. *creative self, social self*).

Both are concerned with generating and sustaining a (creative) dynamic. The key to such a dynamic is social interaction and thoughtfully designing the space to sustain the *esprit de corps* that facilitates that social interaction.

In this case (as it was with case A) the common denominator that connects organisational actors, is the sense that these organisations are pre-emptive, connected and worthy of the association (legitimate). It seems, legitimacy may be the most valuable possession this type of organisation can have.

7.6 Summary of chapter

This chapter has constructed a narrative around the case studies that outlines the main findings (story) of each case. The cases clearly share certain elements (external environment, resource scarcity, and so on). However, they also (each in their own way) stand out because of what they do (specialisation) and by how they position themselves (or not) to deal with the environment.

By picking through the narratives, the analyst noted how *organisational sense making* and *sense making in organisations* are two distinct constructs that may or may not converge at some point. Ironically, superimposing a sense making regime on the social system on the assumption that this may in some way enforce internal sense making (that complex social interchanges can be configured to reveal the right thing to do) is not likely to work.

The analysis will commence in chapter 8 with the cross case analysis that systematically compares and contrasts the cases.

Chapter 8 Cross case analysis

One of the most valuable features of the case oriented approach is the fact that it engenders an extensive dialog between investigator's ideas and the data. Each case is examined as a whole, as a total situation resulting from a combination of conditions and cases are compared with each other as wholes.

Charles Ragin

8.1 Introduction

This chapter considers first the process of consolidating codes and concepts and proceeds to cross compare the cases and the empirical evidence. This is a process of detecting resemblances and drawing parallels from different sources.

The chapter outlines the category, *Ecology* (the condition and properties of the system in which the cases operate). It then considers how the cases (in the context of those conditions and processes) make sense of themselves and by the way that ecology in two categories *Enacting identity* and *Creative heterogeneity*. Each section records and incorporates the investigator's reflections of the findings.

8.2 Consolidating codes and concepts

It is natural when combining data from different sources that those sources (even when they refer to a common construct) produce slight variation in coding (Saldana 2009).

Consolidating codes and concepts is the process of selecting, focusing, simplifying, and transforming codes into more meaningful and functional concepts that combine the features that distinguished the cases individually into collectively meaningful constructs. The analyst makes analytic choices and refines codes and concepts that sharpen the evolving story, subsuming parallels into a greater explanatory framework (Miles and Huberman 1994; Saldana 2009). There are three instances of this in this study.

Cases A, B and D were concerned with maintaining and attracting means (skills) and sustaining the creative dynamic exemplified in the focused codes [Crafting a dynamic milieu] and [Composition and variance] (cases A and B) produced in the first interviews and [Coordinating creative system] (cases A, B and D), produced in the third interviews. These collapse in a single code [Crafting a dynamic milieu] Figure 8.1. Figure 8.1, depicts the 2nd cycle codes that construed each. This revised code is concerned with specific strategic initiatives and processes shared by the three cases but which manifest in different ways.

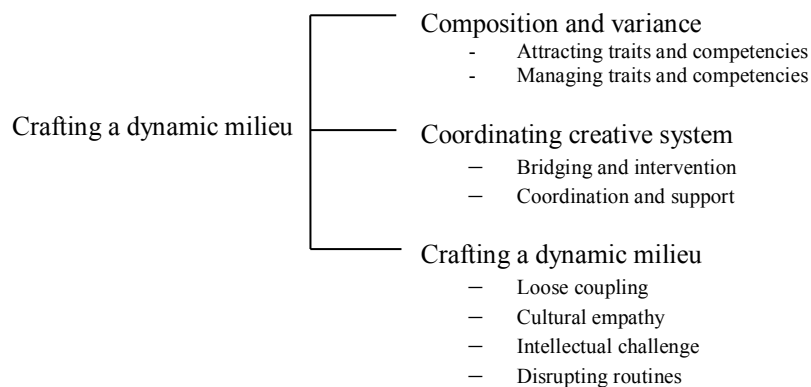


Figure 8.1 Syntheses of strategic practices

The *In Vivo* codes that represented the skills shortage, which had been left intact from the 1st interviews were consolidated in the focused code [Scarcity of skills], Figure 8.2.

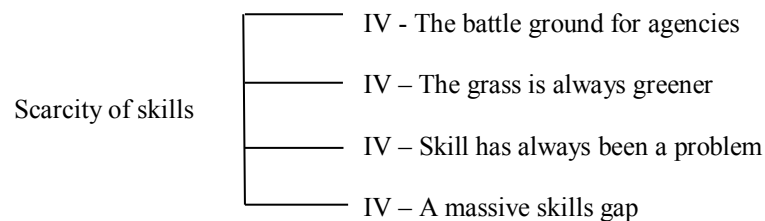


Figure 8.2 Scarcity of skills

The focused codes [Barriers to communication] (cases A and B) and [Enabling communication] (case D) both concern communicative practices. Two cases have not been able to establish effective internal communicative practices. One case (case D) has developed specific strategies that seem to work. The two focused codes collapse in a single construct that denotes communicative dynamics Figure 8.3. This code illustrates significant variations on a theme (differences between cases).

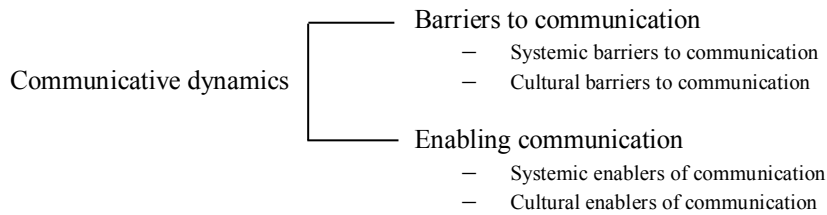


Figure 8.3 Syntheses of communicative practices

This process has consolidated the codes and concepts in a way that highlights and delineates their differences. Chapters 9 and 10 detail and theoretically evaluate these differences. Overall, the consistency in accounts between the cases suggest theoretical saturation or ‘*when additional analysis no longer contributes anything new to a category*’ (Strauss, 1987:21). The key constructs from the analysis incorporated in a revised theoretical framework, Figure 8.4.

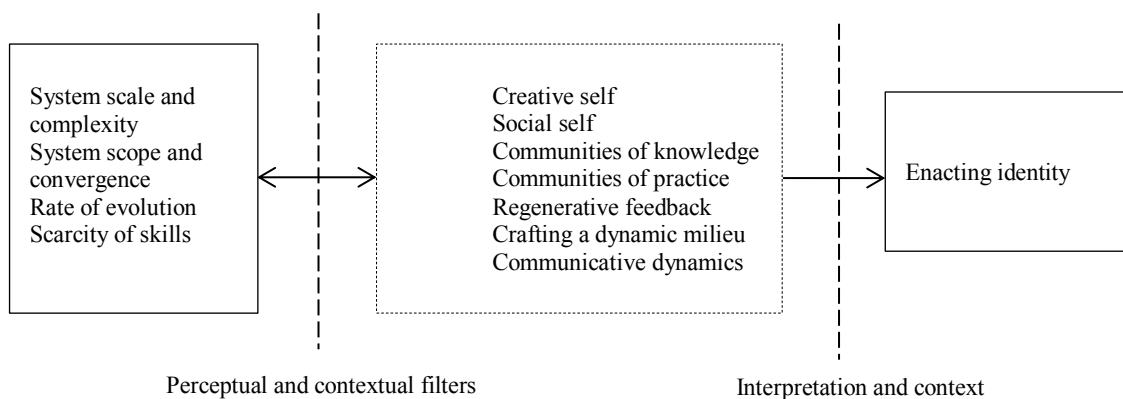


Figure 8.4 Revised theoretical framework

Figure 8.5, proposes three abstract dimensions (categories). Their cross case consistency is evaluated and internal workings instantiated in this chapter and in chapter 9.

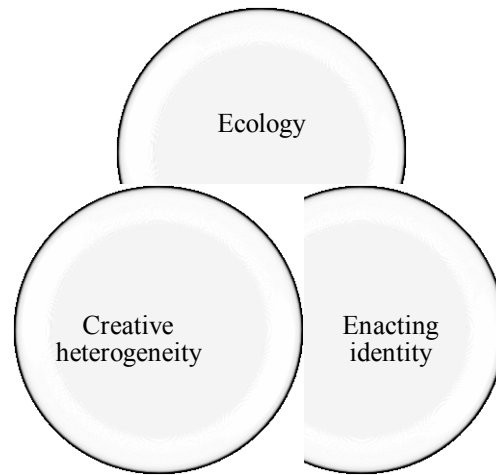


Figure 8.5 Three analytic categories

Each one of the categories individually constitutes a unit of analysis but the focal point for this study is where they join and where *sense making in organisations* and *organisational sense making* come together.

This focal point is where the cases reveal their individual identities, their rationales, and their strategic differences.

The next section proceeds with the replication process of cross case analysis to consider the category *Ecology*.

8.3 Category I: Ecology

I mean the way that the consumer has responded to Web 2.0 and the content tools and content generators and media space that is larger than the media space of all the other media space combined and that is enormous and has revolutionised the whole of the marketing world

Managing director – Case A

8.3.1 Cross case syntheses

The category *Ecology* draws the conditions and environmental contexts of operations and sets the scene for the analysis. It describes the operational environment as a complex constituency of social, technological, and commercial dimensions. Three participants explained how they relied on a social domain of practitioners and they consider (in house) representatives of this social domain a vital source of information and knowledge.

This social domain and its composition, constitutes an organisation's ability to make meaningful and valid interpretations of circumstances situated in the action and feedback of its creative actors. The key to this capability is that the social domain in its composition and technical sophistication mirror the social and technological complexity of the ecology.

Because the capacity to make sense of this ecology is in this way socially embedded, it is vital that these organisations have access to those social domains, that they cultivate relations within them and importantly a positive image amongst their representatives.

The conditions as described are symptomatic of the complexity and exponential growth and social diffusion of the Internet that most would agree now constitutes a complex ecology of technologies perpetrating every aspect of developed economies. The conditions embody also the mobile mind shift and the emergence of a sophisticated digitally literate consumer (who is the main generator of content) in a data driven environment.

In this context, the creative / interactive agency must be an expert across a wide band of technologies, but also it must be able also to connect to the end user across the social spectrum. From a sense making perspective, the cases must have *excess capacity* to explore and participate in potential futures and they must be wary of their own degree of specialisation. The cases must have the means to decipher and respond to uncertain and unpredictable futures and to explore opportunities as they emerge.

The social domain is vital in this context, constituting capabilities embedded in various professional and social contexts, which potentially grant an enterprise privileged access to innovation dynamics and their cues, and meaning. The social domain constitutes the interface between the enterprise, the industry, and the ecology.

The codes overall, describe the conditions and social composition of the external environment. Four codes allude to the scale, structure, rate, and complexity of the environment, whereas the fifth describes the social generators (but equally interpreters) of that same complexity.

It sets the scene for the ensuing analyses and illustrates the complexity and transience of the environment. Its key role is descriptive (it considers the conditions generally) including the social domain as a fundamental but also a problematic resource. The category frames the subject matter in objective terms, orienting the study. The conditions it describes are consistent across all four cases, Table 8.1:247.

Table 8.1 Category I: Ecology – Cross cases syntheses

Construct	External conditions		
Case	Focused codes		
A	<p>System scale and complexity</p> <ul style="list-style-type: none"> – Digital itself was the catalyst for that enormous revolution <p>System scope and convergence</p> <ul style="list-style-type: none"> – Because fundamentally it has the capability to join things up that were not joined up before 	<p>Rate of change</p> <ul style="list-style-type: none"> – There is a continuous cycle of technology arriving <p>Scarcity of skills</p> <ul style="list-style-type: none"> – The battleground for agencies up here in the North West 	<p>Social domain of knowledge and practice</p> <ul style="list-style-type: none"> – They are continually hooked into what is going on – They know better than I were we ought to be going
B	<p>System scale and complexity</p> <ul style="list-style-type: none"> – I could see it was going to change our world <p>System scope and convergence</p> <ul style="list-style-type: none"> – What is digital today, is it screen, is it the Internet? 	<p>Rate of change</p> <ul style="list-style-type: none"> – Seven years is a lifetime with the Internet <p>Scarcity of skills</p> <ul style="list-style-type: none"> – The grass is always greener on the other side 	<p>Social domain of knowledge and practice</p> <ul style="list-style-type: none"> – Because they are reading forums – I listen to them because they are the Z now
C	<p>System scale and complexity</p> <ul style="list-style-type: none"> – It is a massive array of things phenomenally complex <p>System scope and convergence</p> <ul style="list-style-type: none"> – It is really complicated, because there are masses of it 	<p>Rate of change</p> <ul style="list-style-type: none"> – Because ultimately we could be out of business in 12 months <p>Scarcity of skills</p> <ul style="list-style-type: none"> – The other side of the challenge is still skills 	<p>Social domain of knowledge and practice</p> <ul style="list-style-type: none"> – I listen to and follow people that are sharing interesting content – There are all sorts of special interest groups
D	<p>System scale and complexity</p> <ul style="list-style-type: none"> – Well actually the world is kind of changing and technology is driving things <p>System scope and convergence</p> <ul style="list-style-type: none"> – Scale is significant and also integration with other skills 	<p>Rate of change</p> <ul style="list-style-type: none"> – Because our world changes so much we would be foolhardy <p>Scarcity of skills</p> <ul style="list-style-type: none"> – Whether we could move as fast as we would like because of the skills issue 	<p>Social domain of knowledge and practice</p> <ul style="list-style-type: none"> – It is a meritocracy – They are very aware of the wider world – Even if you do not work on a project you know something about it

8.4 Category II: Enacting identity

I have everything and I know that person spent 30 min on e-mails so you know what I mean everything is break down!

Managing director - Case B

8.4.1 Cross case syntheses

The study identifies how each managing director is a contextually embedded processor of information; that is to say, they all selectively recall experiences from the past to make sense of the present. The imagery (and strategies) they evoke reflects their personal background. This appears in the category *Enacting identity* that clearly illustrates the highly individual ways in which the managing directors make sense of their circumstances.

The creative agent's background emerges in creative storytelling, synthesis of experience and feeling and fear of creative decline and so risking cold-shouldering by the creative community to which he himself belongs.

The corporate agent cares not for creativity as such and is only interested in its potential as value generator. He makes sense of the world through structure, imposed order, accountability, and to him structured routine processes. He exploits connections from his corporate past as levers to achieve his objectives through investment, diversification, and integration.

The project manager is concerned with risk and uncertainty to the extent it paralyses decision making and progress. Consequently, this organisation is vulnerable in the extremely competitive skills arena as professionals seek to associate with organisations perceived to be on the cutting edge of innovation and experimentation.

The economist draws on the association with a larger organisation. The economic rents the relationship renders furnishes the smaller organisation with prestige and advanced expertise its competitors do not have access to. The managing director emphasizes creative and cultural elements, but her thinking is rational and value driven.

These processes symbolize and highlight the significant differences between unique (contextually embedded) actors, which all belong to the same industry and are dealing with the same environmental dynamics. These sense making strategies focus attention on how these '*sense makers*' (each in their own way) mirror and act their professional, cultural, and social background.

Because the managing directors are so fundamentally different, cross syntheses focuses on drawing out their uniqueness in four constructs. Table 8.2:250 assembles focused codes from the first interviews into those four constructs that represents the way in which the managing directors attribute meaning to their environment.

The table has a different format than Table 8.1:247 in that it emphasises differences rather than similarities. The table illustrates clearly the contrasts between the participants in their internal approach to problem structuring and solution processing. This is particularly evident in the third and fifth column from the left, which embody the respondents' individualities. Other constructs demonstrate shared opportunism and retrospective processing. Chapter 9 sets these concepts to the literature.

Table 8.2 Category II: Enacting identity – Cross case syntheses

Cases	Constructs	Focused codes			
A	The Story	Ordering through narrative <ul style="list-style-type: none"> – The story I am going to tell you – Pulling it together 	Intuitive awareness <ul style="list-style-type: none"> – So the turmoil is there – I can feel it in my waters 		Enacting opportunity <ul style="list-style-type: none"> – We jumped ship – We wanted to be doing brilliant brands
B	The Goal	Focused attention <ul style="list-style-type: none"> – We target them – Got to grow around a £million a year 	Intuitive awareness <ul style="list-style-type: none"> – Is there some meat on the bone there – That is right or not right 	Structure form and function <ul style="list-style-type: none"> – Track everything, everything – This is how it splits down really 	Enacting opportunity <ul style="list-style-type: none"> – If we can get the algorithm – I could not see any future really
C	The Heuristic	Search heuristic <ul style="list-style-type: none"> – You have to filter out the bad ideas – No sense in being an early adopter 	Emerging awareness <ul style="list-style-type: none"> – We do not see it in the right way – Because you just get alarm bells 	Winging it <ul style="list-style-type: none"> – I am kind of making it up as we go along – I don't know what the answer is to that 	Seeking alliances <ul style="list-style-type: none"> – They can't afford to borrow the money – I have got to bring the client back to reality
D	The Association	Shaped by association <ul style="list-style-type: none"> – Make sure we can deliver for them – They are the most intelligent digital thinkers 	Intuitive awareness <ul style="list-style-type: none"> – We know what we are doing now – We have made lots of mistakes 		Enacting opportunity <ul style="list-style-type: none"> – Because there are certain opportunities – Because digital is kind of rising

8.5 Category III: Creative heterogeneity

How do we stay in front of the curve? By listening to people that do their job all day long right, what they are doing.

Managing director – Case B

8.5.1 Cross case syntheses

The collective agency of communal activity underlines the complicated relationship between social domains of knowledge and practice and these knowledge intensive organisations that depend on their expertise. It challenges the organisations to create value from these associations viewed by the creative professionals themselves as short-term collaborations not long-term career relationships.

Those professionals envision themselves as creative agents and their primary responsibility is to their creative reputation and professional development. In many cases, this is indistinguishable from their personal ambitions and sense of identity. They are deeply embedded in relational networks, which impose a regime of standards, expectations, and creative proficiency captured in codes that underline the salience of social and creative identity.

The communities engage in interactive exploratory behaviour that is not necessarily commercially relevant to the present, but which represents a crucial function in the organisation's evolutionary mechanism. The long-term success of these organisations seems to be the ability to facilitate (and tolerate) such behaviours. The problem is the span of the system and the organisation's own span of control (or lack of it) in that system. It bears down to a fundamental dependency on employees (resources) whose loyalties lie not necessarily with the organisation or its objectives. Their interests are their own.

The category *Creative heterogeneity* concerns the processes that animate the field. It considers the composition and feedback that constitutes the transfer and creation of information and of knowledge generated in relational networks of competition and technical proficiency, support and sharing.

Table 8.3:253 contains a cross case syntheses of codes where case C clearly deviates from the other three cases. It provides important counter examples in the erosion of human and social capital, which constitute the means by which the other cases acquire process and filter information and knowledge and by which they generate value.

The codes also show how the cases connect to a social system of practitioners and how they are the beneficiaries of the expertise and support those systems harbour. Again, case C provides a counter example in information overload, procrastination, sense of flux and strategic drift.

Table 8.3 Category III: Creative heterogeneity– Cross case syntheses

Construct	Creative heterogeneity	
Cases	Focused codes	
Case A	<p>Social self</p> <ul style="list-style-type: none"> – I have always been the kind of person who likes to prove the value by doing something <p>Creative self</p> <ul style="list-style-type: none"> – If you just dictate you are never going to go anywhere <p>Crafting a dynamic milieu</p> <ul style="list-style-type: none"> – Really knowing the types of people that we want on those teams 	<p>Communities of knowledge</p> <ul style="list-style-type: none"> – It is really about bringing yourself closer to those individuals that are really quite pivotal in technology <p>Communities of practice</p> <ul style="list-style-type: none"> – Everyone knows everyone and you even spent time working with them <p>Regenerative feedback</p> <ul style="list-style-type: none"> – Being out there and showing yourself doing interesting crazy ideas
Case B	<p>Social self</p> <ul style="list-style-type: none"> – It is really about where each person sees himself and where they want to advance <p>Creative self</p> <ul style="list-style-type: none"> – If you interrupt them in the middle of coding they get frustrated <p>Crafting a dynamic milieu</p> <ul style="list-style-type: none"> – Every time somebody come into the business they always come with different ideas and ways of doing things 	<p>Communities of knowledge</p> <ul style="list-style-type: none"> – We can ask outside our little circle, just say how would you do this <p>Communities of practice</p> <ul style="list-style-type: none"> – Stuff that worked and stuff that didn't work <p>Regenerative feedback</p> <ul style="list-style-type: none"> – The brand will enable you to do outrageous and unusual things
Case C	<p>Attention focus</p> <ul style="list-style-type: none"> – I am a bit like a Magpie, if there is a sparkle over there <p>Cognitive load</p> <ul style="list-style-type: none"> – Too many different things to look at, blinded by techno babble <p>Acquiring access to experts</p> <ul style="list-style-type: none"> – Bringing more expertise in to give you that balance <p>Winging it</p> <ul style="list-style-type: none"> – I don't know, I don't know what the answer is to that 	
Case D	<p>Social self</p> <ul style="list-style-type: none"> – Our peers will never see what we have been labouring over <p>Creative self</p> <ul style="list-style-type: none"> – Because the stuff they were doing was not very cutting edge or visionary <p>Crafting a dynamic milieu</p> <ul style="list-style-type: none"> – If you get one person that thinks in a totally new way 	<p>Communities of knowledge</p> <ul style="list-style-type: none"> – You might go to someone you thought might be an expert in that field and dangle some nugget of information that you think they might want to show off their knowledge about <p>Communities of practice</p> <ul style="list-style-type: none"> – You need to see stuff in action as it were moving you know how you get from A to B <p>Regenerative feedback</p> <ul style="list-style-type: none"> – You have to get used to stuff just disappearing into the Ether

8.6 Summary of chapter

The analysis sketches *sense making in organisations* as a complex phenomenon. It emerges as a dynamic, contextually anchored construct in the distinct way each managing director attributes sense to circumstances and in community interaction.

The comparison process clearly distinguishes each case as a unique case with distinct features, but also how they are distinctly alike in their dependencies on creative talent and their sociality.

These and their social domains are the nexus between the organisations as value creating enterprises and the environment.

Case C on the other hand, is stuck with dull, non-profitable accounts. It is in creative decline and professionals will not want to associate themselves with the agency in an industry, which measures value in creative output and where a key driver is peer appreciation and creative ownership.

The cross case analysis strongly indicates how the theoretical focal point of this study is the nexus between the organisation, the individual and the social structure and the complex ways in which those influence and impact one and other.

Chapter 9 will set these findings to the literature. It will consider (theoretically) each category and their relevance to this study's aims and objectives and to sense making in organisations.

Chapter 9 Theoretical integration

Under what conditions will cooperation emerge in a world of egoists without central authority?

Robert Axelrod

9.1 Introduction

The chapter considers all three categories in succession. The chapter evaluates findings in the context of theory and puts forward propositions. The chapter first deliberates the category *Ecology* as the contextual prerequisite for the finer theoretical details that follow. It then commences to consider the category *Enacting identity* as the unique way in which each managing director attributes sense to circumstances.

The third category, *Creative heterogeneity* considers the (somewhat troublesome) behavioural dynamics (traits, properties, and interactions) of that social domain. It also evaluates how that social domain influences (and impacts) *sense making in organisations* and *organisational sense making*.

9.2 Category I: Ecology

In the MIS Quarterly's special issue on digital business strategy, Bharadwaj et al. (2013b), focus on the shifting landscapes of digital ecologies. They consider the digital ecology a powerful multiplier of value. It facilitates creating new opportunities '*choice spaces*' for interaction and transaction. Digital continuously adds new value dimensions (to an already complex ecology) in an accelerated regenerative process driven by user interaction and creative opportunism. Digital is considered '*driven by the opportunity to expand the choice space*' (Bharadwaj, et al. 2013:643 citing Keen and Williams, 2013).

This digital '*choice space*' is in effect limitless constrained only by creativity and user participation, which both appear to have infinite appetite for innovation and social experimentation.

However, behind the vivid rhetoric of transparency, adaptive capacity, strategy, and shifting value architectures, is also an operational reality of complexity and flux. Yoo et al. (2012) maintain that in this environment, organisations must relinquish ideas that they are in control and instead they must accept serendipity as a positive and constructive force. Else, organisations face wasting resources on short-lived technologies with uncertain returns (Adomavicius et al. 2008).

In this study, this ecology is deluged with creativity, variety and associated selection dilemmas. These constitute opportunities where actors aspire and collaborate to push the boundaries of what is possible. Organisations create that environment in the way they aspire to excel at what they do discovering new innovative digital utilities. Not participating in this process may have the effect an organisation be regarded creatively inert. This is particularly toxic in this industry since those that operate there depend on resources that belong to a creative meritocracy of professionals.

Table 9.1:257, exhibits the analytic dimensions of external conditions as they appear in this study.

Table 9.1 Category I - Ecology

Construct	External conditions	
Focused codes	<ul style="list-style-type: none"> – System scale and complexity – System scope and convergence – Rate of change – Scarcity of skills 	<ul style="list-style-type: none"> – Social domain of knowledge and practice

9.2.1 Evaluation and propositions

The data indicates that these cases are not in control of their own futures. The system they describe embodies both the absence of meaningful precedence and the scale and scope of possibilities as a selection *impasse*. They describe processes where one cannot infer the evolution of the system by observing its structure, content or current behaviour, and where a small seemingly insignificant variation can lead to significant change in the system. Collaborations of organisational actors create variation but also other developments in the environment. For instance in the actions of other organisations or with the arrival of new organisations (Aldrich and Ruff, 2006).

The ecology therefore combines multiple dimensions that convene in a complex constituency of dynamic social domains where the evolutionary driver is social interaction. In this system, information and knowledge rapidly become obsolete. It makes contextual referencing as one of the foundations of sense making problematic.

The scale and scope of the system means organisations must have access to diverse means to decipher and interpret the multitude of possibilities present in the system at any given time. In addition, there may be conflicting views on what a situation means. It may have to be negotiated internally before action can take place (Eisenhardt, 1989b). At the same time, accelerated rate of change and evolution may impede the formulation of any meaningful or coordinated response (Bennet, 1976).

The only way to understand this transient ecology is by connecting to those that are actively participating, modifying, and creating it. Therefore the propositions;

P1- The ecology is a complex evolving constituency of competing social dimensions who selectively attend to their imperatives and thereby increase the complexity and variation of the ecology.

P2- Social domains of knowledge and practice constitute a resource of situated and context sensitive perspectives that can give an organisation a unique and dynamic advantage in complex ecologies.

Figure 9.1 illustrates the build-up of the category *Ecology* as a construct of the dimensions and instantiations that exemplify the conditions and dynamics under which these cases operate.¹⁵

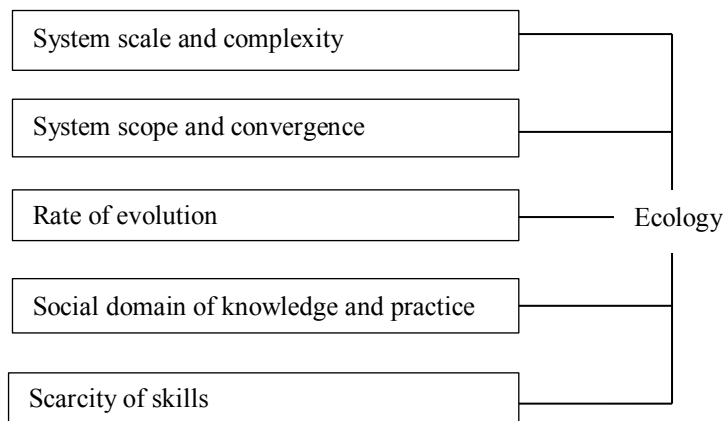


Figure 9.1 Components of the category - Ecology

¹⁵ See methodology note on instantiation

9.3 Category II: Enacting identity

In the category *Enacting identity*, each managing director describes unique cognitive and problem structuring processes. The individuality of those processes reveal their underlying value systems that provoke interpretation and action (Bartunek et al. 1999; Hill and Levenhagen 1995; Gioia and Chittipeddi 1991; Zhang 2010). Those are conceptualised in four constructs, Table 9.2.

Table 9.2 Category II Enacting identity

	Case A	Case B	Case C	Case D
Constructs	The story	The goal	The heuristic	The association
Focused codes	Ordering through narrative Enacting opportunity Intuitive awareness	Focused attention Enacting opportunity Intuitive awareness Structure form and function	Search heuristic Winging it Emerging awareness Seeking alliances	Shaped by association Enacting opportunity Intuitive awareness

9.3.1 The story

Through the medium of a story, we give form and meaning to experience (or our imagination) within a particular context (Hillis Miller 1995). Indeed, most stories unfold in a comfortably linear way. They allow us to construct an event chain that explains why things happened and importantly enables us to consider the counterfactual (what if) as an alternative to the reality in the story (Byrne and Johnson-Laird, 2009). Such event chains, trace back in time to connect events perceived to have had an effect on the current state. It also excludes those that are considered irrelevant or insignificant (Labov 2006). The story, resurrects events, sometimes as a (relatively) accurate account of what unfolded, sometimes as a figment of the imagination. Either way it produces a more coherent, structured world, which enables us to act (Fisher 1984).¹⁶

¹⁶ Relatively here means exactly that i.e. the account is accurate relative to the person who is telling the story not as a level of approximation of a reality

To a sense maker, the story is according to Weick (1995:61) '*a plausible account*' that holds '*disparate elements together for long enough to energise and guide action*'. Stories are a descriptive explanation, an analogy of a world of causal order. Stories are also a *mnemonic* and a graphic account of events that led to a situation (Weick, 1995). They are the canvas onto which people draw key events and connections that have shaped their lives, past and present.

Stories also become a diagnostic tool that shape and sustain identity and give structure and coherence to a disorderly situation by keeping the experience alive (Brown et al. 2009). Stories are a way of idealizing a situation. Perhaps masking it's true complexity (Mitroff and Kilmann, 1975).

The story was a central feature in case A. This story described an appetite for opportunity and entrepreneurial stance, as the search, evaluation (prospects) and exploitation of possible futures (Eckhardt and Shane 2003; Bird 1988). It described the role of intuition and dissonance as a call to action that overrules the rationality of the agency's accounts.

Three focused codes illustrated the premises of this individual's sense making. For him, this included rational ordering of actual events, enfolding tacit appreciation and intuition into that process as well as creatively constructing their significance and potential. This is important because the participant has a creative background and it is reasonable that the story (as a creative process) would feature as his way of making sense of the world and communicating that sense to others. This story (as a knowledge creation), is an '*abstraction of ongoing practices...useful for communicating with others*' (Gourlay 2006a:1428).

9.3.2 The goal

The goal (as a frame of reference), characterises the former corporate executive. He focuses on control and the maximisation of measureable performance overall. He does not seem too concerned with the organisation's internal processes. He practices (what the managing director of case A would call) an old worldview. Here, corporate tactics give form and function to the environment and the enterprise is a vehicle to material objectives, not creative reputation.

He describes a rule-driven enterprise. It is a world of corporate confidence, governance, hierarchy, accountability, targets, objectives, and order. Here, there has to be some logic and profit motif to justify decisions and activities. Central to the participant's narrative is the concept of own efficacy and locus of control constituting a clear idea of what works (Kormanik and Rocco, 2009).

Locus of control greatly simplifies the perception of choice availability through a self-referential mechanism. Enacting one's belief successfully once, strengthens the expectancy of ability to influence and determine future outcomes. It connects with the notion of efficacy as the capacity to control one's destiny (Bandura, 2001). This participant believes rules and structure counter complexity. These mirror the participant's own background and role as a lever in controlled and coordinated activity systems of formal organisation (Meyer and Rowan, 1977).

In contrast to the managing director of case A, (who believes loose coupling facilitates rapid adaptation), this manager leads from the helm in a system of coordinated and controlled activity. His goal provides him with a sense of direction and he organizes his resources and exploits his connections to the fulfilment of that goal.

The account also illustrates an entrepreneurial state of mind that joins experience and action towards a goal (Bird 1988). In this case, it is an explicit attempt to impose a rule-based regime, which assumes employees are phlegmatic and willing subjects. This approach does not reflect the intrinsic properties of the knowledge worker or a real interest in those properties. Instead, the question is crisply '*is there some meat on the bone there*'.

9.3.3 The heuristic

Heuristics are a practical and economic means to decision making (Gigerenzer and Gaissmaier, 2011). Heuristics to some extent alleviate the need for information completeness and complex situational analysis. Heuristics are therefore often resorted to under conditions of information overload or other factors that for some reason constrain the decision making process. Heuristics constitute what we might consider shortcuts to an explanation that reduces complexity and cognitive effort to a set of relatively simpler alternatives.

Heuristics trade precision for a *satisficing* resolution (Simon, 1956). Perhaps accepted because it is widely considered the appropriate course of action or it has worked in a similar situation in the past.

Polya (1957) states a heuristic is a useful substitute for certainty, It is accepted on the basis of being plausible (it would be foolish to reject it) if no reasonable alternative exists. In such a case, an individual will consider the problem and its dimensions and the degree to which it fits the heuristic. If there is a close enough fit, it may be inferred the heuristic is useful as it is or possible slightly modified (Tversky and Kahneman, 1974).

Such inferences focus on the consonance between experience and a selection problem. It alleviates the cognitive load of rational reasoning and the potential regress of complex analysis and so facilitates a speedier resolution to a pending problem. Heuristics can guide search by providing the criteria that guide a search process. They can also guide when to stop searching, (for instance upon discovering a suitable or satisfactory heuristic) (Gigerenzer and Todd, 1999). Although heuristics are powerful and economical means to decision making (and so can be useful to entrepreneurs in evaluating opportunities), their usefulness requires a sense of purpose and objective (Bryant 2007).

Case C describes how the search for heuristics leads to a selection *impasse*. The sense maker decides to shadow earlier adopters of technology and innovation rather than to commit to explore for himself '*no sense in being an early adopter*'.

The managing director simply observes and follows what others are doing. He admits to being without a clear sense of direction and so the search for heuristics becomes (to an extent) meaningless. The result is information overload and strategic drift. He had also failed to pay attention to how the organisation's main product (web sites) had depreciated as (off the peg) solutions (open source content management systems) have become mainstream.

The complexity of the ecology overwhelms this participant. Inertia and uncertainty sets in as he waits to see if investment in attention and resources is likely to generate returns.

The organisation is locked in a vicious cycle as by the time a technology has demonstrated its potential, early engagers may have gained an advantage over the laggard (Rogers, 1995). Being a laggard (in a creative setting) also means the case has less chance of attracting and retaining vital skills in an already resource scarce industry. It is a particularly serious problem in a complex and fast moving ecology where one must connect to those creating the system to have any hope of understanding it. The agency's business model is obsolete and despite the intensity of search for a solution, there is extrication between the managing director as chief strategist and the environment.

9.3.4 The association

Case D's association with a larger partner defines the way the organisation develops. It is subject to the intentions of this partner '*what are they doing*'.

Strong ties to other larger organisations can be particularly beneficial to the smaller entity mitigating strategic and operational uncertainty (Kraatz 1998). It can be a qualifier of identity, reputation and image (Whetten and Mackey, 2002). From a resource perspective, it can provide capabilities and knowledge that would otherwise not be available (Koka and Prescott, 2002). These are the more obvious factors that can result from the strategic integration of value chains. It concerns the beneficial effects of social and relational capital that sustains such collaborations.

From the perspective of relational capital, organisations which integrate their value chains (combining and sharing resources in innovative ways), may have significant advantage over organisations that do not (Dyer and Singh, 1998). The obvious disadvantage for the smaller entity is that it becomes submissive to the intentions of the larger entity, but the economic rents the relationship renders may more than offset the disadvantages.

Moreover, although the concept of relational capital is sometimes synonymous with notions of trust and empathy (Castelfranchi et al. 2006), the relational view is also a rational view, embedded in economic theory and inter-organisational rent generating dynamics (Dyer and Singh, 1998).

This is of particular interest here, because the participant is an economist and despite the rhetoric of creativity and culture, her strategy clearly is to sustain and exploit inter firm linkages. Her organisation is the main beneficiary of this arrangement both in terms of alleviating uncertainty about the future and in terms of income security and knowledge transfer. At the same time, economic rents manifest in reputation through association, which is crucial for attracting human and intellectual capital to her organisation. The particular client relationship is therefore central to the participant's sense making and to the organisation's overall competitive fitness. The association alleviates decision uncertainty, but at the same time the smaller organisation relinquishes powers of self-determination and direction to the larger entity over which it has no control.

9.3.5 Evaluation and propositions

In sense making, an individual enacts his or her sense of self. That is to say, in evaluating change and new variations in the environment, the sense maker's personal stance and social, professional and cultural backdrop will influence how and what cues s/he detects, selects and retains for future reference.

It entails curtailing and structuring a disturbance by setting it within a familiar frame of reference, internal knowledge structures that represent something meaningful. In this study, these knowledge structures seem to vary in quite significant ways.

According to Wenger (1998:149,151), '*we define who we are by the familiar and unfamiliar and by where we have been and where we are going*'. He argues our identity is embedded in the '*complex interweaving of participatory experience and reificative projections*'¹⁷.

¹⁷ Wenger explains the concept of reification as projecting what is meaningful onto the world and those projections are then perceived to exist as a reality of their own. The concept of enactment would sustain the reification because the enactment would always take place in a context. That is to say, what is believed to be a sensible course of action can only be meaningful within a frame of reference i.e. a reified reality although the fallacy may be to treat that reification as real when it is only an abstraction of an experience

This is important because the managing director is usually portrayed as the key strategist and decision maker, responsible for initiating and guiding action (Gioia and Chittipeddi, 1991). Insight into how their personal stance affects their interpretation is highly relevant to this study.¹⁸

Enacting identity describes each participant's intellectual bearing on reality and declaration of intentions based on that bearing. It embodies first order (task oriented) intentions (Cohen and Levesque, 1990) and second order (planning) intentions concerning a desired future state (Bratman 1984). In this study, three cases produce an organisational vision of desired future state.

One case (case C) does not. Instead, the participant is unclear about even present situation and immediate action. Whereas three cases (A, B, D) illustrate a dynamic sense of purpose and a unique '*intentional stance*' (Dennet 1989). The fourth (case C), is paralysed by the perceived complexity of the situation. The sense making framework itself makes reference to '*intentionality*' in the much cited

'How do I know what I think until I hear what I say' (Weick, 1995:18).

It is implicit in the sentence that '*intentionality*' is not necessarily a question of awareness, but it appears in the act. In Weick's case, it is the act of making a statement that reveals a unique belief system and ideas about reality and how it works (Dennet 1989). The category *Enacting identity* captures some of the unique '*intentional stances*' that guide action and expectation, combining experience with a nose for prospect.

These individualities manifest in '*four frames of reference*' or the '*organising of experience*' (Goffman 1974). They depict distinctly different cognitive processes deployed to ascribe meaning to situations, Figure 9.2:266. These frames are the premises for initiating and organizing action, which may have formative effects on the evolution of the organisation. It will also define and frame the realities of other organisational actors (Erez and Earley, 1993; Hill and Levenhagen, 1995; Smirich and Morgan, 1982).

¹⁸ Internal knowledge structures here represent dynamic knowledge structures and transient representations of particular situations. They are unique to the individual and epitomise the individual's ability to internally represent an external reality, induce the meaning of that reality and construe mentally, possible pathways to modify or to take advantage of that reality.

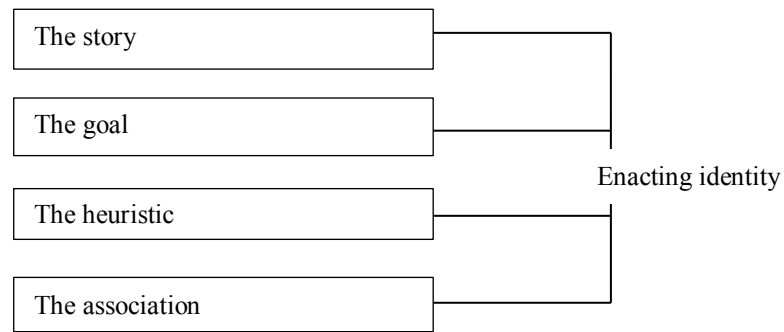


Figure 9.2 Components of the category - Enacting identity

Three participants claim to act on intuition. For case C, intuition seems to be gradually developing. This appears in a growing sense of dissonance and trepidation about the situation. In addition, three cases (A, B, D) seem to be actively participating in the ecology whereas case C is inert. *Enacting identity* manifests in the different ways each participant deals with uncertainty that is a function of their identity (Erez and Earley, 1993; Markus and Wurf, 1987) therefore the proposition;

P3 – Sense making in organisations is entrenched in unique identities and contexts of personal experience and social and cultural frames of reference

For a complete map of the category, see Figure 9.3:267.

The third category, considers how social actors, their aspirations, professional agendas and their relational networks influence the organisation.

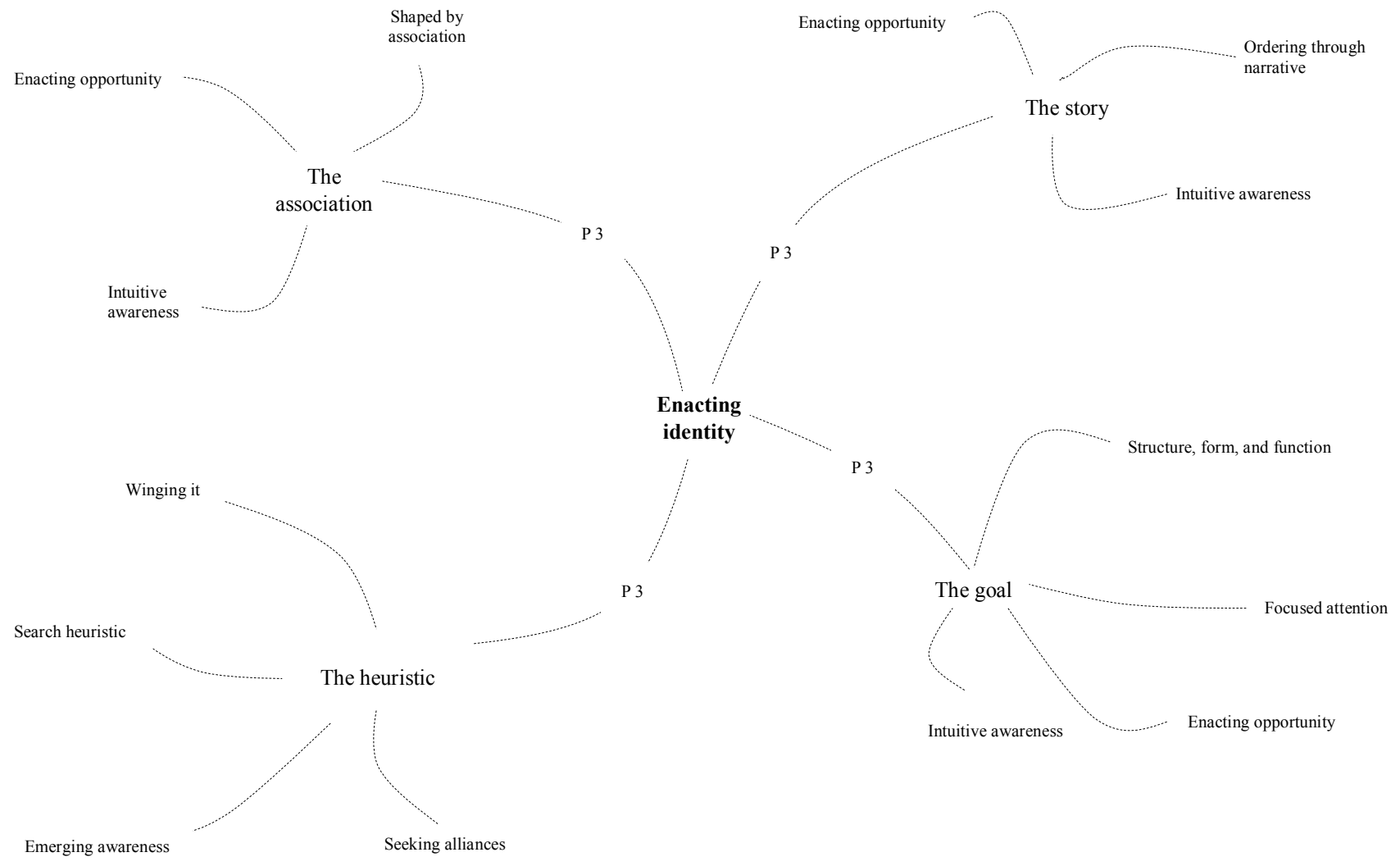


Figure 9.3 Mapping identities

9.4 Category III: Creative heterogeneity

The category *Creative heterogeneity* draws on the accounts of all participants combined. The category has six salient features represented in as many focused codes, Table 9.3.

Table 9.3 Category III – Creative heterogeneity

Construct	Creative heterogeneity	
Focused codes	Social self Creative self Crafting a dynamic milieu	Communities of knowledge Communities of practice Regenerative feedback

9.4.1 Evaluation and propositions

The knowledge economy is a creative economy based on the networking and collaboration of human intelligence (Tapscot 1995). In this economy, value is created by combining human, social and intellectual resources (Benkler 2006; Adler and Kwon 2002; Coleman 1988). In this economy, competitive advantage, can be attributed to having access to individuals (human and intellectual capital) with the right skills and capabilities and their social domains that in combination generate superior potential for value creation (Brown and Duguid, 2002).

Communities of knowledge and practice can be defined as '*social capital*' that can be intentionally deployed to create value (Coleman 1988). Social capital is construed as '*the fabric of social relations that can be mobilised to facilitate action*' (Adler and Kwon, 2002:17). This also manifests in '*relational capital*' as the synergies and trust between community members (Castelfranchi et al. 2006; Yli-Renko et al. 2001).

Although the analogy of capital is metaphorical, it has substance. In the creative industries, human, social, and relational capital replaces capital resources as the intellectual means to production.

The literature offers several conceptual definitions of communities of knowledge and practice (Cox 2005). They are considered key to understanding the evolution of routines (Cohendet and Llerena, 2003) and organisational learning (Brown and Duguid, 2001). They also are the means that facilitate participation in a social system (Ashby and Goldstein, 2011). They are construed as '*social learning systems*' (Wenger, 2000) and as '*knowledge assemblies*' (Brown and Duguid, 2001). They are key to understanding '*situated learning*' (Lave, 1991). According to Adler et al. (2011), they can be a collective resource, alleviating the natural constraints of individual information processing. They may help keep an organisation agile because community members are bound to a common cause of progress (Borzillo et al. 2012).

Furthermore, one will find in the literature, a focus on innovation (Brown and Duguid, 1991), on discourse (Bragd et al. 2008), on identity (Wenger 1998), on collective capabilities (Orlikowski, 2002), on technology (Wenger et al. 2009) and on relational networks and sense making (Dewhurst and Navarro, 2004; Kavanagh and Seamas, 2002; Nagar, 2012).

All of those emphasise the relationship between sociality, evolution, and adaptation, as an ongoing social accomplishment embedded in three dimensions. *Social identity* as the focus on the individual from a social perspective (Haslam 2004). The *Social system* as the space that provides the structural components and points of reference which orient and regulate behaviour (Parsons 2012). The *Ecology* as an environment of variety and choice which sustain the spontaneity and interest of the community (Wenger 1998).

Access to such communities can satisfy an organisation's key requirements for two types of knowledge. Solution related knowledge to deal with current technological challenges and problem related knowledge to face uncertain futures (Von Hippel 1988).

Organisations in more settled systems may simply follow or copy the dominant logic at the time (Prahalad 2004; Galaskiewicz and Wasserman 1989; DiMaggio and Powell 1983). However, the ecology under consideration is not a settled system. In it, actors continuously create new variations and modify the creations of their peers. They share information, knowledge is distributed and preserved in a network of actors that act as the system's collective memory (Walsh and Ungson 1991).

Communities of knowledge and practice are often self-organizing voluntary bodies where members through their participation, negotiate meaning and develop practices and forums of mutual support. To become a member of a community entails a process of socialization, establishing and proving one's ability and legitimacy as community member. One cannot breach or buy into a community without being a legitimate member of that class.

Borzillo et al. (2011) find three tiers (*Peripheral, Active and Core*) to community membership. *Core* members (blue-sky thinkers), are influential by virtue of their demonstrated expertise and dedication to the cause. As such, they play a leading role in the creation and dissemination of information and knowledge. They are essential filters and agents of the future captured in this study in the 2nd cycle codes (*access to experts, filtering, and egoticing*).

The legitimacy of *Core* members depends on the association they have with their peers and with their audience. Their message has to be relative to the community but also they must appear knowledgeable about the future. This can be a difficult path to traverse since being too futuristic may undermine their credibility (Vaast et al. 2013). Although *Core* members are often considered driven by altruism, their motives may be more selfish. They may be grounded in a need to demonstrate competence and maintaining reputation in the eyes of peers and the community (Wasko and Faraj, 2005; Weber, 2004).

Active members are also important conduits for information and knowledge participating and contributing to community discourse. *Peripheral* members are less involved perhaps more passive observers of interaction.

In this system of virtues, an actor may leverage his or her reputation to extract value from connections. An actor may also selectively reveal and relinquish knowledge to demonstrate expertise and to sustain a reputation and rank within a social order.

Community members are inevitably subject to the jurisdiction of the commons. They cannot (in any real sense) be separated from idiosyncratic material, intellectual and social conventions that influence the social system. A community (as a social system) is therefore a complex constituency of tacit and explicit dimensions illustrated in Table 9.4, adapted from (Wenger 1998).

Table 9.4 Explicit and tacit dimensions of social systems

Explicit	Tacit
Explicit conventions	Tacit conventions
Formal channels	Informal channels
Explicit hierarchies i.e. institutions	Implicit hierarchies i.e. power
Regulations	Values and norms
Typical routines	Atypical routines
Language	Subtle cues
Well defined roles	Implicit roles
Tools	Underlying assumptions
Documents	Shared ontologies
Images	Symbols
Codified procedures	Intuition and perceptions
Professional jurisdiction, regulations and contracts	Professional integrity and reputation

For the organisations, those communities constitute an extension of their resources in the skills and sociality of actors (Benhabib and Spiegel, 1994). Their participation in relational networks is vital and may (for the organisation) produce a superior advantage in the competitive arena (Adler and Kwon 2002; Quinn et al. 1996).

Having access to this system or social domain, extends an organisations knowledge horizon at marginal or no cost (Anand et al. 2002). It is an important filter and on balance (particularly if the system includes multiple perspectives), may contribute (for the organisation) to better decisions (Cohen 1984; Bawden and Robinson 2008). Organisations can also strategically manipulate the system by selectively revealing '*nuggets of knowledge*' (problems or solutions) that generates activity and dialog that can be used to improve the organisation's competitive position (Alexy et al. 2013).

It (to an extent) redefines the conception of the manager as the primary architect of meaning (Smirich and Morgan, 1982). Instead, meaning emerges from social participation where social actors are the architects and executors in the continuous social and creative construction (and destruction) of the ecology. The organisations have temporary access to representatives of those social domains (and by association their communities), but they must work hard to retain their interest and services.

Subsequently, the management problem is perhaps not in the deciphering of direction but in the composition and maintenance of those social domains and in sustaining the exploratory and intellectual curiosity of that resource.

The ensuing sections consider the features and properties of those domains and how they in combination with unique management identities determine how these cases make sense internally and how this influences how they make sense of a turbulent ecology. The sections generate key propositions that relate to this study's specific aim to produce an understanding of how creative / interactive agencies interpret and make sense of themselves, their environment and how associations influence that process.

9.4.2 Creativity as individual traits and properties

Creative individuals tend to have an amplified sense of self as being creative individuals. They value their autonomy, the aesthetic qualities of experience and they tend to think of themselves as having the ability to see associations where others do not (Barron and Harrington, 1972). Creative individuals are often stereotyped and one gets a sense of this by considering the composite, creative personality scale (Barron and Harrington, 1972), Table 9.5:273.

Table 9.5 The composite creative personality scale

Positive traits	Negative traits
Active	Argumentative
Alert	Assertive
Ambitious	Complicated
Artistic	Cynical
Clever	Demanding
Confident	Egotistical
Curious	Idealistic
Energetic	Impulsive
Enthusiastic	Individualistic
Imaginative	Sensitive
Independent	Spontaneous
Ingenious	Rebellious
Insightful	Uninhibited

There are synergies with these definitions and the '*digital artisan*' (Weber, 2004). Weber proposes a number of intrinsic values that drive the digital arena. Those include the enjoyment and artistry of problem solving as an element of style and self-expression. It also includes the idea of a joint enemy (that often takes the form of corporate evil) that galvanizes the community to a common cause of intellectual freedom. It manifests in a shared dedication to solve and to excel at one's work where the primary remuneration is the feeling of efficacy and reputation that stems from having one's work peer reviewed and reviewing other peoples work.

Digital artisans also belong to communities of practice, creative meritocracies of individuals passionately committed to connectivity where the social bond is informational (Wittel 2001; Kennedy 2010a). They inherently mistrust centralisation and any form of constraint particularly when it comes to sharing, believing that information and knowledge should be free to anyone wishing to review and use it (Weber, 2004).

Assuming this type of individual is not receptive to close supervision, it suggests management should focus on autonomous team based structures that facilitate interaction and exchange. Such structures accommodate the fundamental prerequisite of creative autonomy (Terranova 2000).

The architecture and elements of such structures will determine how conducive they will be to sustaining creativity. Amabile and Conti (1999) propose some guidelines to such architecture, Figure 9.4.

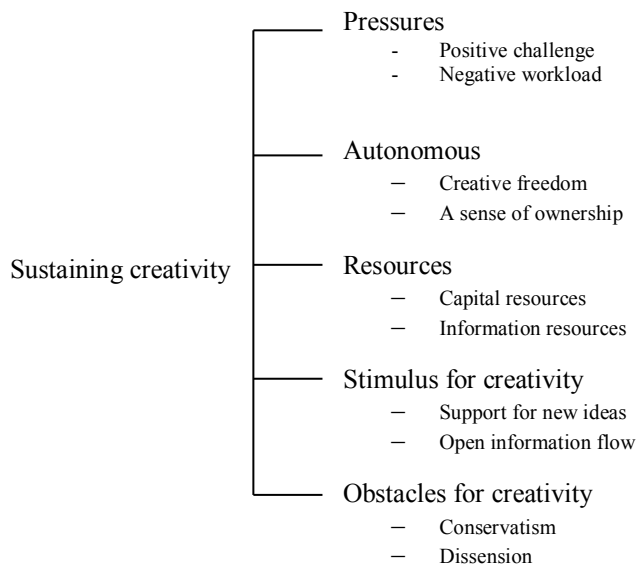


Figure 9.4 Antecedents and obstacles to creativity

Both Table 9.5 and Figure 9.4, describe a particular view of creativity focused on understanding creative attributes, individual differences and the management of those differences (Ford and Gioia, 2000). It does not really focus on the sociality of creativity and how social domains regulate the behaviour of those individuals and how those interlock in continuous feedback cycles.

9.4.3 Creativity as a social phenomenon

Creativity is entrenched in a sociality where differentiation is conforming to community expectations of the stereotypical creative individual as a divergent, autonomous, and exploratory thinker (Teresa et al. 2012; Boden, 2005; Ford and Gioia, 2000).

In other words, creativity is not just an intrinsic property but is embedded in context and social processes (Csikszentmihalyi 1975; Amabile and Pillemer 2012; Boden 2005). Indeed, when viewed in the context of self-actualisation, creativity for the sake of creativity is meaningless without a social context. That is, the social generators of the conceptual spaces that facilitate creative exploration (Boden 2005; Robbins and DeCenzo 2008).

In some cases group members may even over enact in a process of self-enhancing social comparison to distinguish themselves from others through extreme conformity to social norms and values (Turner 1982).

Under conditions, where group membership is salient, individuals stereotype themselves and other group members in terms of the common critical attributes of the social categories to which both belong. Since individuals within the same category stereotype themselves in terms of the same group characteristics, there is a perceptual enhancement of their mutual similarity, which should increase intragroup attraction

(Turner, 1982:27)

If one accepts the premises of the composite, creative personality scale and the self-enhancing social comparison argument, then it is conceivable that creativity (in organisations) could in some cases develop into a self-perpetuating dynamic of dissidence where creative individuals enact their creative identity as a member of that creative class irrespective of how it may affect the organisation.

It underlines how, in a situation where paradoxically heterodoxy and dissidence may be the most valuable asset an organisation has (such as in a highly creative setting), it becomes vital to understand what do individuals in the system value (and what they care about). This becomes even more important were certain types may both attract and exert influence over other members precisely because they act their role as creative dissidents.

9.4.4 The new media worker

Any social system may embody a significant number of professions, each that may diverge into several areas of specialisation (Abbott 1988). For instance the term '*new media worker*' is an umbrella term, which embodies a diversity of disciplines (Kennedy 2009; Wakeford 2003; Gill 2007). Those disciplines may have little in common other than wanting to create, maintain, and modify the digital ecology.

The new media worker and thus new media work exemplifies the notion that working in new media (digital media) and therefore today by association, the Internet, is different from conventional work.

The difference is not the creative capacity of the technologies themselves, or the individuals as such, but the way in which they connect actors who are inspired to create in the first place and keen to share both their own creations and participate in the creations of others.

Creative ability and technical competence are therefore often cited as key motivations of those working in digital media as well as the preservation of reputation amongst a community of peers (Raymond 1999; Weber 2004; Muffatto and Faldani 2003). In this system actors affect and are affected by other actors in significant ways. This process is largely (if not completely) outside the influence of the organisations to which the actors belong.

Many of those who work in digital media would also subscribe to an ideology of freedom (Castells, 2001). They are committed to the evolution of the Internet theatrically described as a '*magic cauldron of ideas*' (Raymond, 1999) and the '*fabric of our lives*' (Castells, 2001). Those actors constitute a resource and the resource based view proposes not just the importance of a resource as an asset, but also on the principle of *competitive heterogeneity* or the premise that '*close competitors differ in their resources and capabilities in important and durable ways*' (Helfat and Peteraf, 2003:997).

It presupposes that if an organisation has access to a unique combination of resources and if it is able to configure those in dynamic routines, it will enable the organisation to adjust more effectively to change ‘*dynamic capabilities*’ (Teece 2007; Hoopes et al. 2003). According to this view, even small variance in either the resource pool or in the way they are configured, can produce significant differences in performance. Differences that can be difficult for competitors to imitate and impossible for them to recreate (Miller 2003; Zott et al. 2011). It is therefore of fundamental importance that managers understand the identities and social dynamics that constitute those resources.

The relationship between an individual and the individual’s social system is complex and it can be difficult to tease out the functional significance of any one social actor under normal conditions (Parsons 2012). However, in a state of scarcity when an individual possesses competencies not easily replaced or substituted and where retaining that individual is important for the functioning of the system, the needs and values of the individual becomes a focal point.

It becomes important to understand the individual’s aspirations and factors that influence their valence towards their work and the ways by which they measure their achievements (Erez and Earley, 1993).

Understanding the conditions that foster versus undermine positive human potentials has both theoretical import and practical significance because it can contribute not only to formal knowledge of the causes of human behaviour but also to the design of social environments that optimise peoples development, performance and well being

Ryan and Deci (2000:68).

The ecology as it emerges in this study is the product of the social activity of actors intensely interested in that ecology. These social actors embrace change and discontinuity as a natural state. It nourishes their curiosity, creativity and exploration. It makes the ecology spontaneous and adaptive (Feldman, 2000; Tsoukas, 2000; Chia, 2002; Weick and Quinn, 1999).

In this arena, an organisation must embrace uncertainty and cultivate a flexible collaborative infrastructure capable of detecting and absorbing the unanticipated (Hedberg et al. 1976 citing Burns and Stalker, 1961 and Galbraith, 1973). It is essentially a creative social system that evolves because parties mutually exploit interdependencies and relationships (Volberda and Lewin, 2003).

This study submits the proposition that sense making in creative / interactive agencies is grounded in this social interaction especially boundary activities, creative dissidence and often transgression of organisational dictum and routines.

Organisations (given the right conditions) can sense and participate in the shaping of opportunity, seize its prospects and sustain the momentum by being part of ecology of experts and enthusiasts. Therefore, the propositions

P4 - Individuals will put their own professional and personal imperatives ahead of the organisations and they will measure their development against the criteria of their respective social domains

P5 - Social identity is the principle driver of sense making in organisations

P6 - The composition of means (traits and properties of social actors) should be a key consideration in creative / interactive agencies

The propositions underline the fundamental importance of providing the conditions that sustain creativity and social interaction that is a function of a unique combination of means. It illustrates how the individual has a fundamental need to establish and maintain a positive conception of self in the eyes of others measured against socially ordained value systems. These determine the position of the individual in a hierarchy of superior or inferior distinctions.

9.4.5 Communities of knowledge

You then start referring it out to whatever network you might have ...you are looking at maybe people that you know within the industry that you can e-mail or speak to get that kind of point of view

Technical director - Case A

Organisations learn either through the activity of its members or they learn through introducing new members that have new knowledge the organisation does not have (Simon, 1991). In the first case, organisational actors gradually learn about an environment as it unfolds around them and so (through participation and choices), they play a part in the creation of that environment. In the second case, the organisation invites new members to join and those have to integrate and be socialised for learning and knowledge exchange to take place.

Because each member (including new ones) carries contextual baggage, organisations are often collectives of contradictions and a complex amalgamation of differences rather than uniformity (Weick, 1979). Organisational interactions often reveal such differences as organisational members enact their expectations which may or may not be compatible with the expectations of other members in the organisation (Fairhurst et al. 2002). Such interactions (usually in the form of discourse) constitute the regenerative source of variation for organisations.¹⁹

9.4.6 Organisational discourse and knowledge

Discourse is sometimes idealised as a stabilising agent that creates a sense of community and a collective sense of purpose (Anderson, 2005; Boyce, 1995; Bragd et al. 2008). In reality, as community members traverse their environment exploring its dimensions and boundaries they will also take on board the complexity, diversity and the controversy they discover (Boje et al. 2004; Borzillo et al. 2012).

¹⁹ This has no value attached to it. It can be positive or negative.

Therefore, as organisational members both explore and interpret their experience according to cultural and social imperatives, the organisational discourse may become fragmented and localised and the key question becomes how such situated discourse may be configured and contextualised across social and cultural knowledge boundaries (Balogun et al. 2014).

Discourse often constitutes in field specific terminology peculiar to the discipline it concerns. It says something about both subjective and social realities and how participants to that dialog construe meaning from the process (Taylor and Robichaud 2004; Alvesson and Karreman 2000). Consequently, the symbols, signs and distinguishing verbal features of localised discourse are considered an important resource and a tool managers should learn to appreciate (Rouleau and Balogun 2011; Feldman and March 1981).

Such an appreciation can provide a manager with a unique insight into the subjective workings of knowledge communities, enabling them to appreciate both congruities and incongruities in meaning and purpose (Sveningsson and Alvesson 2003; Clarke et al. 2009). This may be useful since community discourse can be malignant if community members are unduly influenced or even coerced to participate in inappropriate or irrelevant communal dialog (Borzillo et al. 2012). Furthermore, organisational discourse can dissolve disciplinary boundaries (if intelligently managed) but it can also create or reinforce boundaries and even establish barriers if left to run its course (Bragd et al. 2008).

Community discourse has both a social and a practical function as a collective resource and a network of advice and support. Some cases describe using and even manipulating the system strategically describing how one can connect to the general stream of discourse to pick up *nuggets of information* and how one can appeal to a person's conceit (*egoticing*) to trigger information and knowledge transfer.

The caveat of entering into the stream of discourse and knowledge is that it exposes participants to experimental or conceptual dimensions that may have limited or no practical utility for the organisation. It may encourage bandwagon behaviour and subjecting participants to reinforced feedback that may not be helpful or useful to the organisation (Fiol and O'Connor, 2003; Swanson and Ramiller, 2004). In addition, one may find individuals who have commercial and biased incentives for contributing to the discourse. Therefore the propositions;

P7 - Community discourse extends the knowledge horizon of creative / interactive agencies alleviating the pressure of search and information processing

P8 - Appreciating the symbols, signs and distinguishing verbal characteristics of localised discourse optimise its potential use as a sense-making tool.

P9 - Organisations should pay attention to the composition of its relational networks and to the social credentials of its members

The propositions propose communities and communal discourse is a resource with the caveat being mindful about the knowledge and information they produce. It underlines how discourse constitutes being privy to the dialog of a community and how active participation is still an important means to coming to terms with uncertainty.

9.4.7 Communities of practice

I think the only way you can really evaluate a lot of stuff like that is looking it up and looking at it in more detail. If it is a piece of technology, they can actually try to use it

Technical director - Case A

This focused code supports the proposition that sense making in organisations is a socially constructed phenomenon enacted in collaboration and cooperation *in situ* (Easterby-Smith et al. 2000). Sense making is a product of practice and the pursuit of becoming a competent practitioner in both social and organisational contexts.

Communal activity and participation considers the wider social context of sense making as it unfolds in experimentation, *bricolage*, in communal interaction and in the situated sharing of experience. It describes the coming together of contexts and situated cognition in practice (Elsbach et al. 2005).

Situated cognition is always interest relative (Lave 1991). Situated cognition (thinking) is always embedded in the context in which it occurs (Elsbach et al. 2005). The organisational challenge is to negotiate and reconcile situated cognitions and to come to terms with the salient drivers of each one, both those that separate them and those they share. The rewards can be discovering new configurations and opportunities.

9.4.8 Identity, activity and practice

Wenger (1998:164) argues '*we create our identity through the practice we engage in but also in the practice, we do not participate in*'. Indeed, we individually earn our place in a social landscape through activity, which defines our focus, directs our energy, and determines our relational connections. It features the interplay between individuals, their situated contexts, and social structures that in activity and participation contact with one and other. A process which can reveal the implicit and explicit rules that guide their behaviour and their approach to the problems they daily encounter (Blackler, 1993; Orlikowski, 2002; Spender, 1996).

Situating action at the centre of sense making is logical because it reveals the orientation of the actor including his relationship to other actors and to the environment (Parsons 2012). Action by definition is change of some sorts and therefore (in a sense making context) a key unit of analysis. The act (say a search act) can increase equivocality in the environment (if the search criteria are general). If the search act is focused (constrained by a string of criteria), then it can reduce equivocality. In any case, action generates fresh cues, new information, and so new possibilities. According to Rudolph et al. (2009:734);

Three basic processes, acting, interpreting, and cultivating new diagnoses and feedback among these processes opens and closes windows of adaptive problem solving.

At the same time, any act will likely at some stage have unintended consequences. For instance, the act of empowering members to explore and experiment (in an effort to enrich an organisation's knowledge of the environment) may have the adverse effect of contracting the search space if members all happen to develop a shared interest in a particular aspect of the phenomena and collectively focus attention on that aspect (Siggelkow and Rivkin, 2006).

There is also a risk associated with not knowing what employees are doing (Gourlay, 2006b).

In this study, the data illustrated how members felt their participation in a network of relations connected them to the industry and how their participation made them privy to the information and support of others. Individual members shared their acquired experiences, which they then brought to the communal process of sense making and reification as the way experience is given form and '*congealed into thingness*' (Wenger, 1998:59). Therefore the proposition

P10 – Participation in communal networks is vital to sense making in organisations

P11 – Action and activity is essential to the creative social process of sense making and reification

We finally consider the element of regenerative feedback that casts the operational reality of the cases.

9.4.9 Regenerative feedback

You are making and striking a difference in being out there and showing yourself doing interesting crazy ideas that has that snowball effect

Technical director – Case A

All cases describe the destabilising effect of positive feedback. One interpretation of feedback considers it nested in action oriented problem solving. In this case each action produces cues that must be interpreted and compared to alternatives before further action can be taken (Rudolph et al. 2009). Actors commit to the most plausible alternative. They along with other participants in the system seize and share that solution until a better one appears. Such a diagnostic process (at least as described by Rudolph et al) is inherently rational, objective and it assumes both a problem and time to consider alternatives.

However, it seems here more appropriate to consider the social micro-level processes that are generating and sustaining the feedback from the perspective of network effects which reinforces feedback loops creating bandwagon pressures (Abrahamson and Rosenkopf 1997; Fiol and O'Connor 2003; Swanson and Ramiller 2004).

In this case, social pressures compel actors to participate in the exploratory process escalating the diffusion of the phenomenon that may not necessarily reflect its quality or utility.

At the centre of such a process is not informed understanding of the need to participate, a desire to simplify a complex environment, or a lack of attention to organisational objectives (Weick et al. 2008; Fiol and O'Connor 2003; Swanson and Ramiller 2004). Rather, a social dynamic powers collaboration where feedback reinforces through the creative actions and interactions of actors who by virtue of their interest and social identities are driven and even subtly coerced to engage and participate in this self-perpetuating evolutionary emergence of a new state.

These collectively reinforced processes may cancel out critique and rational evaluation of necessity (Bateson 2000). Individuals may see their participation as a natural extension of their creative identity, particularly if it aligns with their own interests and agendas. These feedback effects may therefore have significant implications for the organisations. They may signal new technologies, new routines, and possibly new organisational boundaries, all processes that would probably not have been initiated (or endorsed) otherwise.

Social media networks play a key role in facilitating and escalating regenerative feedback in the way they facilitate the contagious spread of information (going viral). A defining feature of social media networks is their transparency and their spontaneity. Social media has tremendous capacity to generate and sustain variation (Kane et al. 2014). However, social media is a double-edged sword. It can alleviate both the pressure of constant attention and the burden of interpretation. But it can also cancel out reflective thinking and rational evaluation of relevance (Kavanagh and Seamas, 2002). Collectively reinforced processes are the dynamic that binds the communities as well as the creative, collaborative force that both generates and escalates the evolution of the ecology, a process irreversible. Therefore the propositions;

P12- Collectively reinforced feedback powers the evolution of the ecology as actors compete to demonstrate competence and creative proficiency.

P13 - Actors are compelled to participate in the feedback dynamic to remain intellectually and professionally relevant.

There is therefore a fundamental connection between the constructs of the category *Ecology* and *Regenerative feedback*.

All in all the concepts just discussed signal the nature and social vibrancy of the system and the problem of balancing creative aspirations of organisational actors with commercial realities. These network effects may cascade in bandwagon effects and distension and in some cases may result in inappropriate action (Duan et al. 2009; Katona et al. 2011; Swanson and Ramiller, 2004). The category *Creative heterogeneity* combines these complex social dynamics and eclectic priorities in its six premises, Figure 9.5.

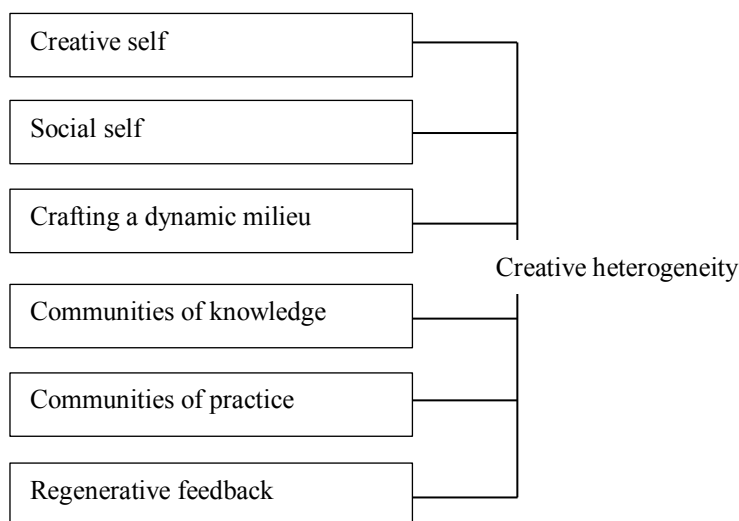


Figure 9.5 Components of the category - Creative heterogeneity

For a complete map of the category, see Figure 9.6:286. The next section considers the implications of these findings for *sense making in organisations* as construed in (Weick 1995) and for *organisational sense making* as a question of resolve and strategy.

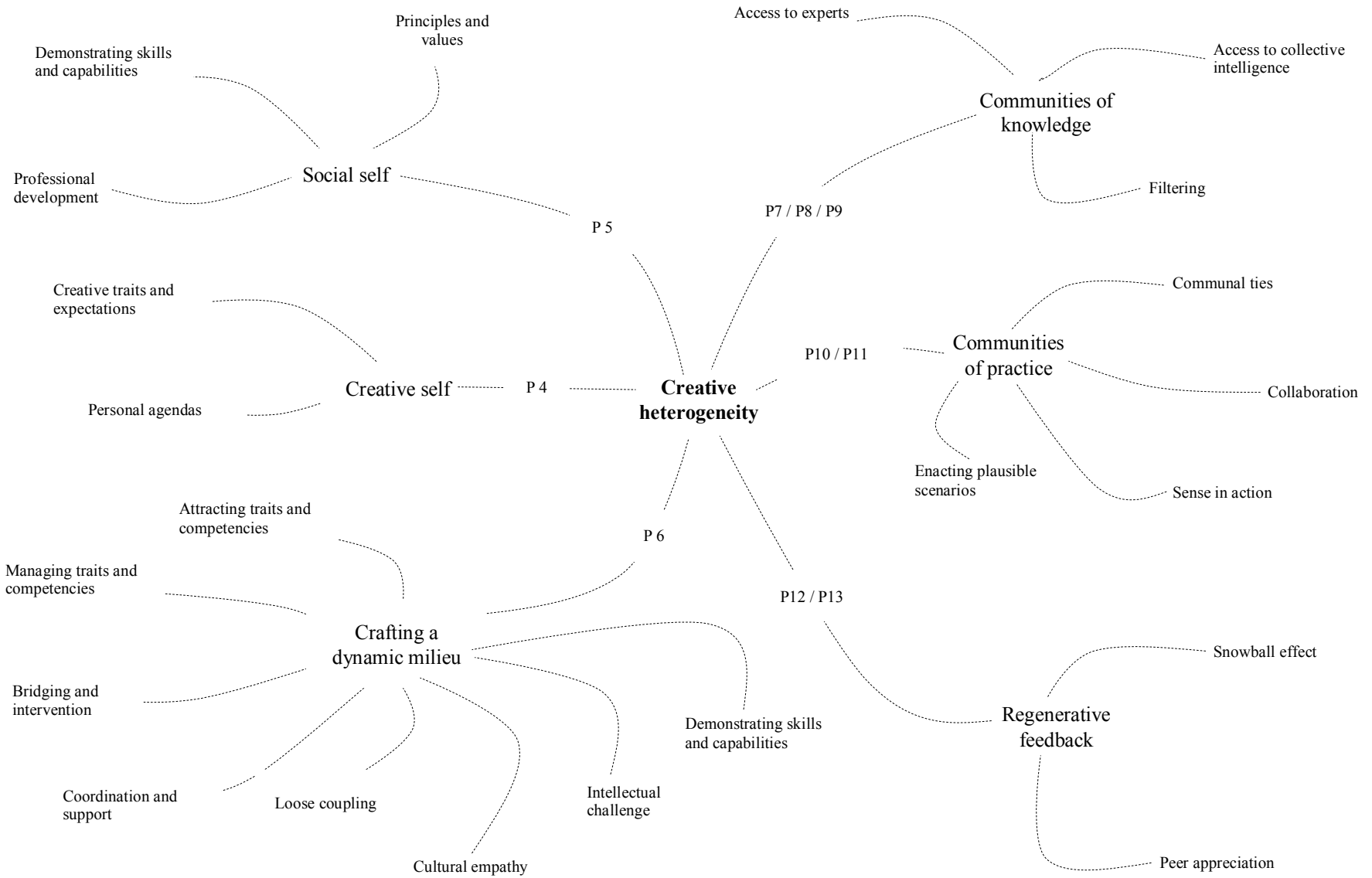


Figure 9.6 Mapping creative heterogeneity

9.5 Summary of chapter

This chapter has considered the similarities and the idiosyncrasies that connect and separate the cases. The findings indicate three cases have evolved with the environment and there are resources and procedures in place that facilitate the continuation of that evolutionary process. The analysis reflects how the more successful cases encourage and mobilise organisational actors to explore the ecology and socialise with other inhabitants of that environment.

Socialisation and cultivating relational networks (it is suggested) is important to effective *organisational sense making* and will influence an organisations capacity to respond effectively to external events (von Krogh, 2002). The findings have been cross-compared with themes from the literature generating 13 propositions, Table 9.6.

Table 9.6 Summary of propositions

P1	The ecology is a complex evolving constituency of competing social systems who selectively attend to their imperatives and thereby increase the complexity and variation of the ecology
P2	Social domains of knowledge and practice constitute a resource of situated and context sensitive perspectives that can give an organisation a unique and dynamic advantage in complex ecologies.
P3	Sense making in organisations is entrenched in unique identities and contexts of personal experience and social and cultural frames of reference
P4	Individuals will put their own professional and personal imperatives ahead of the organisations and they will measure their development against the criteria of their respective social domains
P5	Social identity is the principle driver of sense making in organisations
P6	The composition of means (traits and properties of social actors) should be a key consideration in creative / interactive agencies
P7	Community discourse extends the knowledge horizon of creative / interactive agencies alleviating the pressure of search and information processing
P8	Appreciating the symbols, signs and distinguishing verbal characteristics of localised discourse optimises its potential use as a sense making mechanism
P9	Organisation should pay particular attention to the composition of its relational networks and to the social credentials of its member
P10	Participation in communal networks is vital to sense making in organisations
P11	Action and activity is essential to the creative social process of sense making and reification
P12	Collectively reinforced feedback powers the evolution of the ecology as actors compete to demonstrate competence and creative proficiency
P13	Actors are compelled to participate in the feedback dynamic to remain intellectually and professionally relevant

Chapter 10 Contribution to knowledge

The mystique and prestige associated with science are not important. What does seem eminently reasonable is the notion of using evidence to provide feedback on the theories and propositions developed about society

Stanley Lieberson

10.1 Introduction

This chapter considers the study's aims and objectives and if those are addressed and where there is scope for further study. The chapter considers this study's contribution to knowledge, to practice and organisational scholarship and specifically its contribution to the sense-making concept in theory and practice.

The study's findings are outlined and it will be argued that *sense making in organisations* will in some cases underpin *organisational sense making* but that this process in this study is not straightforward. Indeed, there is little empirical evidence in the study that the cases have individually developed a *unified* sense of purpose although some may have developed a dynamic that sustains continuity.

A key premise of this study is that this kind of organisation (a creative / interactive agency) as a knowledge intensive organisation is of the type that is in quite fundamental ways resource dependant in excess of what would normally be the case in more conventional less dynamic industries.

Because these resources are diverse, it evokes the problem of communication, which in this study appears in reference to communicative dynamics. The chapter will consider those dynamics.

The findings give emphasis to a resource dependence perspective. Pfeffer and Salancik (2003b) provide useful insight in the theory of external resource dependence which will contribute to the dialog supported by insight from (Ashby and Goldstein, 2011) on the concept of *requisite variety*. Haslam (2004) provides insight on the value of recognising the influence of *social identity*. The emergence of organised action is considered as is the importance of counting in contexts as

important antecedents to sense making. Finally, Cohendet and Llerena (2003) contribute insight on the evolutionary role of routines.

Practical examples support these insights designed to advance understanding of the management problem as it appears in this study as well as providing a useful analytic decision structure for practitioners. Suggestions focus attention on specific areas for practitioners and researchers alike.

10.2 Evaluating aims and objectives of this research

The research set out with the principle aim to advance understanding and knowledge of how creative / interactive agencies as organisations make sense of themselves internally and of their environment. It anticipated that this would involve complex social processes and networked external associations. The two research questions reflected these assumptions.

- Q 1: How do creative/ interactive agencies as organisations internally make sense of themselves and of their industry as a networked information and knowledge intensive environment?

And

- Q 2: How do external associations influence and impact sense making in creative / interactive agencies?

These two questions have led to a rich exposition of *sense making in organisations* and organisational behaviour exemplified in the social foundations of sense making. It has portrayed how those foundations are both the regenerative source of variety and complexity, but at the same time a relational network of practical support and knowledge.

The analysis systematically unpicked the idiosyncrasies of this eclectic and complex social domain where actors are entrenched in professional communities of knowledge and practices and where those actors seemingly have little in common other than a desire to demonstrate competence in their respective social domains.

The analysis also illustrated how important it is for the management of this type of organisation to be able to connect to the actors that are participating in the creation and modification of the digital ecology. The study's questions, its objectives, and the implications of findings is addressed in the original order.

10.2.1 Technical and procedural objectives

The study stated an intention to collect primary data from organisations that were representative of the creative / digital industry and to analyse that data applying rigorous qualitative methods. The study also stated an intention to cross compare findings from each organisation and to identify by a process of replication logic, common conditions, concepts, and procedures that could be processed into theoretical propositions.

The study has accomplished those objectives as demonstrated in chapters 4, 5, 6, 7 and 8.

10.2.2 Theoretical objectives

The study stated an intention to identify the traits and the properties of the social actors that collectively constitute sense making in organisations and to advance understanding of the relationship between the formal organisation and its formal and informal associations on the premise that this nexus is instrumental to *sense making in organisations* and to *organisational sense making*. The focus was the relationship between the organisation and its human and intellectual resources portrayed in a state of vexation.

The study has located the source of this vexation, tethered to the precept of social identity and the prominence of professional, relational, and recreational communities. It has concentrated attention on the web of associations that these organisations through their resource dependencies inevitably get caught in. To understand theoretically the operational and existential implications means to espouse a resource dependence perspective. The next sections elaborate on this finding touching on different areas in the literatures. This exposition proceeds with a brief recapitulation of *sense making in organisations*.

10.3 Theoretical contribution

Sense making as empirically portrayed in this study conflates concepts from systems theory and social and organisational psychology (Weick 1995; Weick 1979). This study theoretically bridges those substantial bodies of knowledge by incorporating resource dependencies, which manifests in *requisite variety* as the necessary means to understand and operate in an environment of eclectic actors and tremendous uncertainty. It emphasises the role of social identity and socialisation as a major source of influence, information and knowledge. It also emphasises an explicit need to understand the local and situated routines and contexts, which determine how those resources behave and interact.

This study in principle supports Weick's conception of *sense making in organisations* which draws on pragmatic concepts that consider the fundamental relationship between the self and sociality (Weick, 2005; Mead, 1982). However, it adds a deeper more detailed qualitative dimension to the original systems / functions conception first construed in Weick (1979) (developed in Weick (1995) in seven properties of sense making).

- Grounded in identity construction
- Retrospective
- Enactive of sensible environments
- Social
- Ongoing
- Focused on and extracted by cues
- Driven by plausibility rather than accuracy

Those seven properties all emerge in the analysis in the shape of an enacted identity, intuition, retrospect, primacy of practice and a dynamic social dimension of discourse and collaboration. Yet, this study also portrays a diaspora of social actors creating as much as making sense in an environment of intense social interaction and benign competition in a situation of virtually limitless potential.

Weick's seven properties are a nebulous prescription that outline but do not detail the actors and processes of social construction and reification. This study on the other hand does identify and situate the specific actors and processes. These actors furnish the organisations with some sense of continuity although this does not automatically mean the organisations have made sense of their circumstances or that they understand the reasons and processes that sustain that continuity.

The findings emphasise the role of dialog and social activity encompassing the relational drivers that connect feedback and identity. It underlines the role of agency and sense making being an act of creation as much as observation and appreciation. This study finds actors enacting their identities and creating their realities in a vibrant ecology of social construction (but which also constitutes a social propellant of creative destruction) to borrow a popular term (Schumpeter 1950).

The study also finds actors embedded in their own systems of knowledge and practice. It constitutes important questions for future research about the structures, routines and rules that govern those systems and the union of agency and structure (Archer 1982).

At the same time, the study contends that for the organisations, the effectiveness of this union is contingent on the match between the actors and the ecology, which is the focal point in the cybernetic conception of *requisite variety*. Figure 10.1:293 sets this study's analytic categories to the sense-making framework first introduced in Figure 2.11. This enriched version emphasises the formative influence of the social domain but at the same time, how managers ultimately attribute sense from their own personal backdrop.

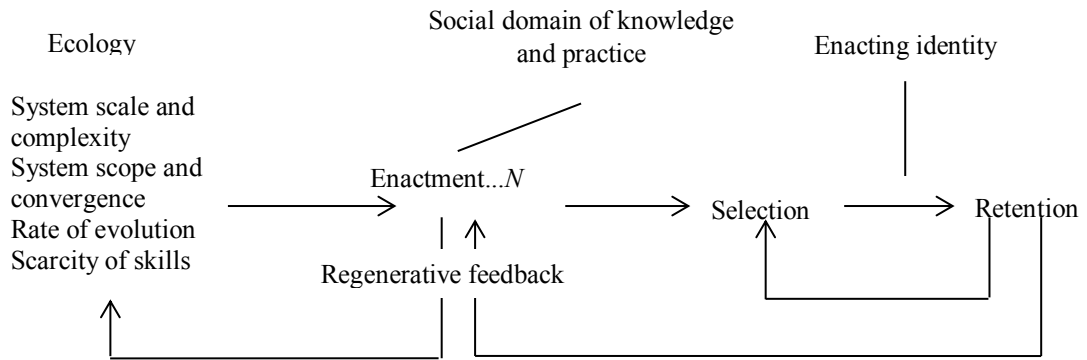


Figure 10.1 Revised sense-making framework

10.3.1 Evaluating theoretical impact

The study considers the function of the story as an important feature of *sense making in organisations* that to an extent balances thought and action (Colville et al. 2012). This study finds that in an operational environment that may not offer tangible historical reference points, the story becomes a creative balancing act constructing the most plausible explanation.

The study acknowledges the primacy of context as a key facet in *sense making in organisations*. It particularly acknowledges the important function of discourse as existing at different levels and the importance then of engaging in discourse at the appropriate level (Boje et al. 2004). It supports the work of Balogun et al. (2014) and (Rouleau and Balogun, 2011), who suggested management had to be sensitive to the socio-cultural systems they lead and they must appreciate their language and symbolism to realise their full potential as value generators. However, this study also finds that simply appreciating community jargon and being able to participate in local discourse does not mean one tacitly appreciates the knowledge of that community.

Kavanagh and Seamas (2002) suggested networks and more specifically communicative practices were a central feature of collective sense making. This study supports their suggestion by finding that the organisations are fundamentally tethered to such networks through individual memberships and those are an essential feature of their sense making processes. However, this study also makes an important contribution to the argument in that organizations may only have access to those knowledge domains as long as they have access to those individuals. This is generally not acknowledged in the organisational literatures that by and large are organisation centric (Pfeffer and Salancik, 2003a).

Another way that the study contributes to knowledge is in acknowledging the salience of the eclectic at times iconoclastic identities that typify the creative / interactive agency. It evokes the work of Alvesson (2000) and Alvesson and Wilmott (2002) who outline a phenomenon strikingly prominent in knowledge intensive organisations, the issue of social identification and loyalties

This study finds the creative / interactive agency a complex system of differentiation. The study has identified the social domain and relational networks as the primary generator of this differentiation. Social actors represent diverse points of view tethered to disciplinary agendas that influence how disciplines interpret and assess events and circumstances. This is an important finding for future work not just in the context of sense making but for organisational studies in general and for knowledge intensive organisations in particular.

Brown et al (2008) state how understanding the (unique) antecedent to different interpretations is important to understanding how those (despite differences) combine in organised social activity. This study has identified some of those antecedents pinning behaviour to creative and social identities. However, the emergence of organised social action remains a legitimate unresolved problem that can produce substantial dividends in further research. For practitioners, the primary concern is the negotiation of meaning, objectives and opportunity whilst retaining a sensitive balance between actors that may have fundamentally different agendas and which represent significant tacit differences.

All of those issues in one way or another provoke the focal problem of resource dependency and to talk of resource dependencies and interactions in the context of an organisational study is almost talking in platitudes. Yet, the challenges the organisations in this study face are the consequence of two empirical truths.

Firstly, these organisations exhibit a fundamental dependency on expert resources or rather representative of social systems of experts that constitutes the contexts and the incentives that determines how those representatives behave and which focus their professional attentions.

Secondly, within the organisations, these representatives in acting out their idiosyncratic priorities introduce a conflict of interests and the potential for misunderstanding the role, the purpose and the priorities of the organisation. In equal measure those representatives are both a creative and a disruptive force and the system itself is not a cohesive system but more of the type described as organised anarchy (Cohen et al. 1972).

The significance of those two empirical facts is that these organisations are embroiled in trying to extract from an eclectic mix of competing interests some strategic sense that preferably is not just valuable in the immediate and short term but constitutes some long-term returns.

Although the managers (as decision makers) each in their own way rationalise about how they made a decision, in reality, serendipity features prominently in all accounts. Because of the innate resource dependencies of these knowledge intensive organisations they must comply and collaborate with the aspirations of employees that is a function of their sociality. These in a way strong-arm management to participate in exploratory activities.

To the extent these representatives are a key resource (as the custodians of important skills and explicit and implicit knowledge) and to the extent they are the nexus to external knowledge domains, they are key to understanding how the organisations survive and evolve. Really unlocking those knowledge domains means having access

to their representatives and their explicit knowledge but also appreciating the innate '*inarticulate*' tacit knowledge woven into their identity (Gourlay, 2006a).

In combination, these concepts suggest that the transition from *sense making in organisations* to *organisational sense making* is contingent on local interaction and on successfully facilitating explicit and implicit inter-disciplinary exchange and activity as vital to the evolutionary mechanism.

This study contributes to knowledge in four theoretical perspectives, Figure 10.2.

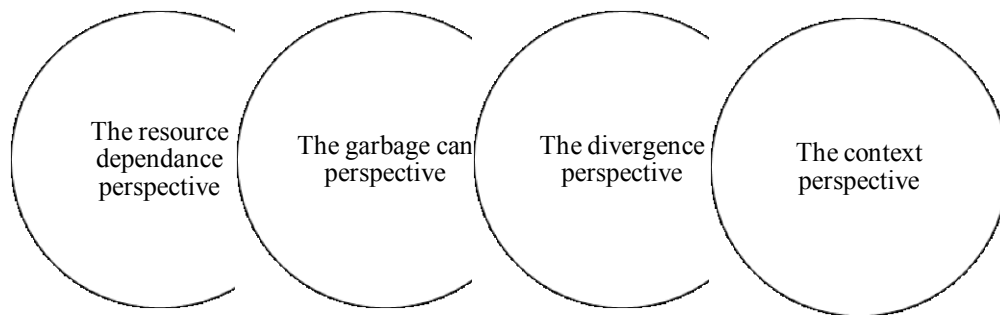


Figure 10.2 Four theoretical perspectives to inform further study

10.3.2 Theoretical contribution I: The resource dependence perspective

This study identifies the creative / interactive agency (as a resource dependant knowledge intensive organisation) as well as a complex constituency of identities and behaviours. Pfeffer and Salancik (2003a:1) state

To understand the behaviour of an organisation you must understand the context of that behaviour i.e. the ecology of the organisation [including the contexts that influence the behaviour of individuals].

Pfeffer and Salancik (2003a) submit organisational decisions are subject to the influence of internal subunits. If expert knowledge or external pressures, for instance strong communal pressures, reinforce such subunits then that influence may become a significant force affecting how the organisation understands its environment. An important thesis in this context is that without access to specific knowledge domains

(through individuals that have the credentials to unlock those domains), then the organisation may be blind to significant developments and as such at a disadvantage. In other words, the organisation experiences and interacts with the environment through its professionals (gatekeepers). Those must be able to negotiate their differences and establish at least a mutual approximation of experience.

Pfeffer and Salancik (2003a:2) continue to summarise their position as follows

Organisations survive to the extent they are effective. Their effectiveness derives from the management of demands, particularly the demands of interest groups upon which the organisation depends for resources and support.

The resource dependence perspective is relevant to this study because it evokes useful theoretical angles. It questions the organisation centric point of view which positions internal efficiency as the unit of analysis. It instead considers the nexus between an organisation and its resources, including the organisations ability to attract the right type of resource. The empirical target becomes the relationship between the organisation and the environment on the assumption that is where resources reside. The resource dependence perspective submits two important arguments.

Firstly, what will influence and affect an organisation will depend on the organisation itself as an entity of attentions and interests.

Secondly, meaningful environments do not necessarily exist as such but heterogeneous resources create such environments by focusing their attentions on elements of experience relevant to their interests.

This study contributes to the literature connecting the resource dependence perspective and sense making in organisations. The interface between the two is where *sense making in organisations* as appreciation of possibilities makes possible the transition to *organisational sense making* as appreciation of strategic options, Figure 10.3:298.

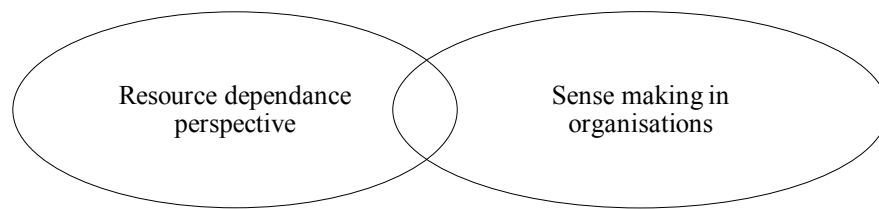


Figure 10.3 The resource perspective and sense making in organisations

10.3.3 Theoretical contribution II: The garbage can perspective

This study finds the creative / interactive agency a collection of differences. It fits with the description of knowledge intensive organisations that lack a sense of unity, shared identity and common purpose (Alvesson, 1993, 2000; Alvesson and Wilmott, 2002). Operational goals may be ephemeral (because of the rapid rate of technological change) and the organisation may project an unlikely union of disparities

The garbage perspective constitutes such an organisation of *'problematic preferences, [technologies of undefined utility] and fluid participation'* (Cohen et al.1972:1). A consequence of contextual ambiguity (Sillince et al. 2012; Maitlis and Lawrence 2007).

Ambiguity is both an intrinsic property of an organisation as well as something that actors can shape through their responses to the streams of activity

(Sillince et al. 2012:631)

Applying findings from this study and replacing ambiguity with variety and streams of activity with creative heterogeneity thus incorporating sociality, the garbage can thesis is a consummate description of a creative social system that evolves according to a diaspora of attention structures i.e. the time and effort devoted to different domains by a compound of creative actors.

This is an important dynamic in the context of a creative / interactive agency in view of what it does and where. This study found empirical support for this in case A, which described the emergence of inertia, a consequence of control and obligation.

Vital to applying the garbage can thesis as an empirical tool is to understand how in a system that seemingly does not have a common goal (except in a very general sense) actors interact in the absence of an explicit bargaining or incentive structure.

The empirical target is to identify the individual and collective attention triggers that collectively must at some point concentrate organisational attentions (Cohen et al. 1972). For instance, who are organisational members and how does organized action emerge despite divergent interests?

10.3.4 Theoretical contribution III: The organised action perspective

Despite the anarchic internal dynamics and incongruences, three of the cases are successful. This success connects to the way they maintain a vibrant social dynamic that enables the organisation to act and to evolve despite internal differences. This action takes place without participants subscribing to the same goal but even so, it has two important functions.

Firstly, by facilitating and sustaining action, the organisation is perceived as proactive and participating in exploratory activity (a prerequisite for attracting talent).

Secondly, social activity is a powerful creative generator of meaning. The evidence is in the consequence of action (sense is created as much as discovered).

An important finding of this study, is that this type of organisation must sustain exploratory activity even when that activity may appear shambolic and unrelated to the organisations intentions. Such disorderly activities may generate unique configurations and perspectives that would never have emerged in a more orderly predictable system. However, it evokes a practical problem of organising such differences in meaningful action.

According to Donnellon et al (1986) organized action can emerge despite differences in attentions and interests. For example, Weick (1979) suggested organisational members initially share means and not necessarily a goal or a common strategy for action. Actors do not need a greater objective but only a mutual understanding that they benefit from participating in the organisation and that reciprocal interaction will take place.

Individuals may have selfish motives for participating in a system. They may interpret communications and they may evaluate other members in line with their own individual objectives. Actors have means, but few if any have all the necessary means, which is the reason they join the organisation in the first place.

Consequently, according to Weick (1979) organisational members may create social structures primarily to exchange means and to share resources. This entails there must exist at least a primitive understanding of what the organisation is and what its resources are. Participants must also agree on a few basic rules that govern their behaviour and they must have a mutual understanding and expectation of why they are there. Understanding the parallel processing of such rules and identities may be the key to the garbage can thesis (how organisations negotiate their internal differences and by the way form organised action).²⁰

The aim is to identify and to understand those basic rules and how those social structures and at sometimes unlikely alliances form. What binds them in the first place and how do they collectively develop shared goals and common frames of reference, a process illustrated in (Weick, 1979:91), Figure 10.4.



Figure 10.4 A model of group development

²⁰ In other words, any solution must involve understanding 'the set of initial conditions' or the rules that determine the game (Popper, 1959:198).

10.3.5 Theoretical contribution IV: The context perspective

Another key contribution of this study is the relevancy and incorporation of contexts in the study of sense making in organisations.

Hayek (1945) defined coming to terms with contexts and factoring in the impact of contexts as;

The dispersed bits of incomplete and frequently contradictory knowledge [contexts] which all the separate individual possess [are embedded in]

(Hayek, 1945:519)

These dispersed bits of (tacit) knowledge are a particularly difficult topic because it constitutes feelings and intuitions not easily expressed or articulated (Gourlay, 2006a). These dimensions are in the literature construed as the contexts which influence (and may determine) interpretation and behaviour.

Context is defined as, *'the circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood'* (Oxford dictionary, 2014). It is a generic term symbolizing situated scenarios. In the literature, it is salient in *'situated learning'* (Lave 1991), *'situated action'* (Suchman 1987) and *'situated cognition'* (Elsbach et al. 2005). All tether an actor in a fundamental way to both past and present situations (contexts).

There is a call to deal with contexts in social and organisational studies (Edmonds, 2010; Johns, 2001; Petersen and Cassens, 2006; Weber and Glynn, 2006; Winter, 2011), see also (Barney and Felin, 2013; Ekbja and Maguitman, 2001; Mishler, 1979; Osmond and Bird, 2000).

All agree that cognition and action is always situated in some sense and therefore the key to understanding why actors behave and act in a certain way is in the historical and situational context that evokes that action (Elsbach et al. 2005; Kwon et al. 2011). Contexts are also on the agenda because they are particularly problematic and important in the evolution of machine learning, for example, artificial intelligence and computer simulation (Lindblom and Ziemke 2003; Edmonds 2010).

Contexts govern attention structures and for the organisations, influence if not determine, (because of their resource dependencies), action and choice availability.

The implications are that (for creative / interactive agencies as knowledge intensive organisations) one really cannot avoid the situated and innate behavioural and social factors that influence the way in which the organisation as a social system evolves. A future working thesis would have to consider the situated and social / relational contexts of social actors.

In summary, all four contributions and perspectives constitute a contribution to the sense-making problem and they outline theoretical considerations for those tasked to study and manage knowledge intensive organisations. The discussion commences to evaluate the practical contribution of the study. It begins with the concept of *requisite variety* (also is a facet of systems thinking) and as such shares a family tree with *sense making in organisations*.

10.4 Practical contribution

The key to sustainable management (findings suggest) is appreciating the social drivers of individual actors. One can conceptualise the problem as firstly the fit between the organisation and its environment '*requisite variety of means*' and an appreciation of what is contained in that highly abstract theoretical term.

Secondly, what are the specific traits and properties embodied in that notion of fit? What characterises their individual and collective behaviour (which granted the environment is complex, must be complex too).

The theoretical and practical insights to follow outline the management challenge and areas that should be the focus of management attentions. This study does not promise a solution but insight into the source of discontinuity, but equally advantage.

10.4.1 Attention focus I: The requisite variety of means

A common cause and unity of purpose is the locus of classic management theory (Robbins and DeCenzo, 2008). However, in a decentralised information and knowledge economy where the primary resource and value generator is the variety of perspectives, the organisations internal differential composition is of fundamental importance.

The law of '*requisite variety*' Ashby and Goldstein (2011), posits that an organisation must be endowed with the right means or resources, traits and competencies that reflect the environment. An organisation that does not have access to the right resources or the right combination of resources will be vulnerable and disadvantaged in a competitive environment.

The obvious problem with this idea is that an organisation must have a surplus or '*excess capacity*' of resources to match the environment and it must be able to attract and retain the right sort of resources (Hanna and Freeman, 1977). This becomes difficult in an environment as complex as the Internet. It is further complicated where there is a general scarcity of resources and where available resources will seek and select employment based on some socially ordained selection criteria (Schneider 1987).

The concept of *requisite variety* evokes the practical necessity of understanding the intellectual and social resources of an organisation before one has a hope of understanding how and why they act and interact. Indeed, any study of any organisations, which may appear culturally and socially uniform from a distance, will if one increases the resolution; reveal its composition, distinctions and variances. It will reveal the non-uniformity of the system, Figure 10.5.

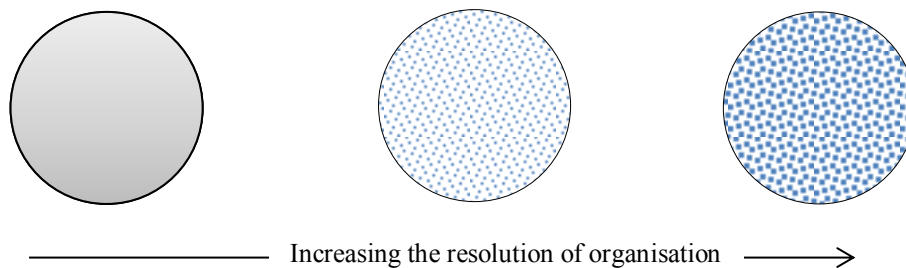


Figure 10.5 System composition and resolution

Greater resolution reveals individual, social and professional idiosyncrasies that in theory collectively should mirror those of the ecology. The composition (from the point of view of requisite variety) in effect is the system's threshold to its adeptness and its ability to decipher and construe meaning out of complexity.²¹ *Requisite variety* is in a way the ability to separate the *wheat from the chaff*, establishing the relevancy and necessity of acting and participating in the process of change.

In a creative social system, *requisite variety* is not just matching the spanner to the nut, but having access to creative individuals who have creative credentials that unlocks knowledge domains and makes the organisation attractive to other creative individuals.

²¹ Similarly, information theory (Shannon 1948) considers how as a function of design and intent an information byte is selected from a range of possible alternatives. Both theories concern the facilitation of fit and in both theories it is a matter of retorting to a stimulus assessing the conceptual fit between available responses and the stimulant and selecting an appropriate response

In this study, the category *Creative heterogeneity* is a reference to *requisite variety* in the way it portrays a collection of individuals (different in substance and priorities) whose collective creative behaviour may produce surprising and unintended results. It transcends any individual part of the system and gives the organisation a unique advantage (Sawyer 2005; Holland 1992; Axelrod., Cohen 2000; Barney and Clark 2007).

Yet, the idea of *requisite variety* invokes two problems. Firstly, that decision makers must appreciate what combination of resources the organisation requires.

Secondly, variety may evoke a dystopia of internal incompatibilities and cultural and social disparities. If a sense of shared culture and sociality is not present, then cultural and social sanctions as a control mechanism is unlikely to work. It makes understanding the unique path dependencies of success and failure a complex affair as those routes tether to contexts and is subject to serendipitous and temporal interference.

The main question is then how to manage such unorthodox systems of diverse dispositions and temperaments. Three cases (the solvent ones) clearly understood this as crafting a creative environment that constituted the key to continuity and success. It was concentrated in three codes Figure 8.1, which each concerned particular problem dimensions in the composition and management of creative heterogeneity. Those symbolise what should be the focus of management attentions.

10.4.2 Attention focus II: Managing creative heterogeneity

Pandza and Thorpe (2009) propose creativity and sense making are not conflicting but complimentary dimensions where management plays a pivotal and mediating but challenging role. The management challenge materialises in a number of considerations. Creative individuals usually value their autonomy, their identity is often tied to their creations and they are therefore often intensely committed to their work (Haag and Coget, 2010).

Creative people often require special measures which encourages diversity, interaction, autonomy and diminished accountability (Amabile and Pillemer, 2012; Haag and Coget, 2010; Mumford et al. 2002). At the same time creativity also depends on the fertility and acknowledgement of the creative actors social system (Boden 2005).

There are considerable incentives to understanding and cultivating heterogeneity in the context of creativity. Triandis (1965) demonstrated how heterogeneity generally tended to increase creativity and that various social and contextual factors (such as team composition and interpersonal attraction) played a substantive role in that increase. Triandis argued that groups made of cognitively dissimilar individuals would have a greater range of solutions than would more homogenous groups. Heterogeneity would simply be more likely to produce a solution by virtue of the number of individuals creatively working to solve the problem. Expressed in systems terms, heterogeneity increases the entropy of the system, its information richness and the overall availability of possible solutions.

In the same way, more homogenous groups decrease entropy. Solutions are likely to be more similar and so (all other things being equal) this would affect the performance of the homogenous groups and their capacity for creative problem solving. This dynamic has been considered in the literature in the idea of *strong network ties* (Granovetter 1973; Granovetter 2005) and *structural inertia* (Hannan and Freeman 1984). Figure 10.6:307 from Triandis considers the positive outcomes of group heterogeneity but at the same time outlines less benign aspects of the concept.

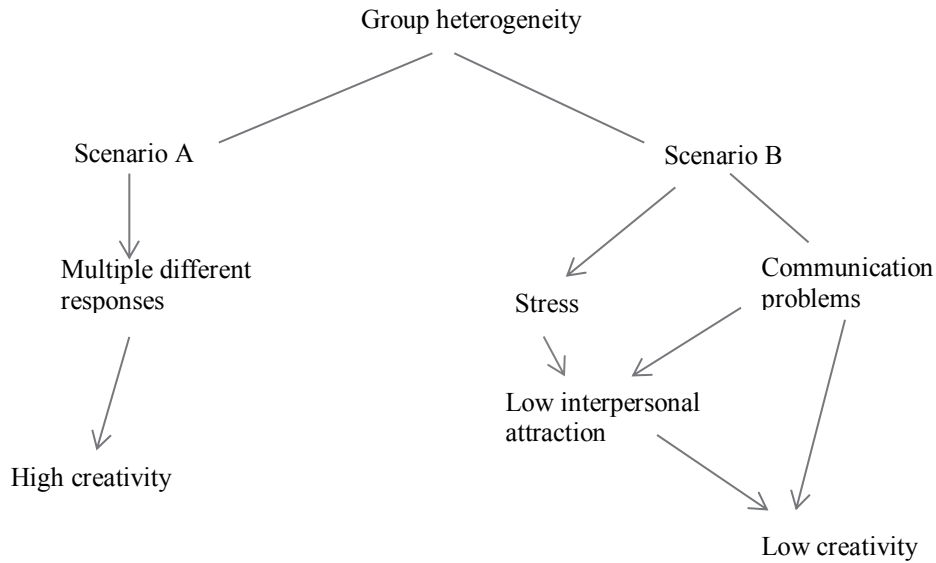


Figure 10.6 Heterogeneity, creativity and disparity

Scenario A depicts the positive aspect of heterogeneity in the generation of richness and high creativity. Scenario B features the problem of miscommunication, resistance, and breakdown that negatively affects creativity. In scenario B, the critical elements are communication and different professional and personal imperatives. These are all aspects that appear in this study as the technical director of case A explained in an e-mail.

It is the mechanism of exchanging the information. It is the mechanic of someone finding something of relevance to the business and how they go about sharing with other disciplines i.e. tech, creative, strategy etc. The dissemination of said knowledge is the key how people can consume it on a level they are content with

Technical director- Case A- E-mail correspondence June 23rd 2013

The technical director of case B touched on the same problem

We have thought about this quite a lot to be honest in terms of information sharing internally and the way it happens and we have tried all sorts of things we have tried setting up a central almost an internal social network board so people can post articles and ideas we have tried newsletters and we have even tried informal sort of lunchtime training sessions and I think the problem is it's difficult to actually formalise it's because the moment it becomes a formal requirements people don't really want to do it because it feels like a chore.

Technical director- Case B – Interview June 20th 2013

This evokes the problem of attributing certain traits and properties to the concept of *'knowledge worker'* or *'new media worker'* and so discounting the creative value of heterogeneity. Whereas social actors may not share ontologies, they also in activity and enterprise create epistemic differences that management must bridge to unlock their capacity for value creation. For the organisations, the key challenge is bridging those epistemic differences and overcoming communication challenges that derive from the multidisciplinary nature of the creative enterprise.

Whereas the particular strength of heterogeneous organisations will be the potential scope and range of social exchange, this advantage will depend on the effectiveness of the communication processes (Burt 1997; Granovetter 2005; Granowetter 1983; Sawyer 2005).

Both examples above illustrate the difficulty in coordinating multiple knowledge domains and the centrality of communication to the internal sense making process. It signifies the importance of understanding relational differences between protagonists and communicants who may interpret a message in fundamentally different ways (Watzlavik et al. 2011).

Group heterogeneity will also mean greater diversity of localised routines. This can produce conflicting goals, expectations and contradictions that have to be negotiated (Fairhurst et al. 2002; Markham, 1996). It may also mean it is difficult to envision what knowledge is actually held in the organisation and where it is held and what the alternatives are (Cohendet and Llerena, 2003).

Whereas autonomous units may be creatively more productive, there is therefore an inherent risk that loose coupling (Weick, 1979) (as encouraging independence) will create problems of incompatibility and coordination and thus inhibit information and knowledge exchange (Spender 1998; Rice and Cooper 2010).

10.4.3 Attention focus III: Social identity

In this study, identities, interests and loyalties of organisational actors are embedded in their respective communities of knowledge and practice.

Individuals appear to be primarily representatives of those communities. It suggests social identities are an important consideration for this particular type of organisation on the premise that social identities (the individual's membership of a social group) influences the individual's conception of self in the context of that membership that gives their behaviour a definite meaning (Tajfel, 1979; Tajfel, 1974). Social identity is the stimulus for the individual's behaviour, which in a system that is fundamentally resource dependent should be another focus of management attentions.

Haslam (2004:31) maintains the individual tethers to the ideals and practices of a social group, which inevitably becomes instrumental to how that individual understands and acts in the world. Figure 10.7 (from Haslam) illustrates conceptually a heterogeneous group of individuals which each stand in relation to their respective communities and where the *self* (the individual) is a projection of the *Self* (the external social group). A situation that has emotional and moral significance for the individual (Tajfel, 1979).

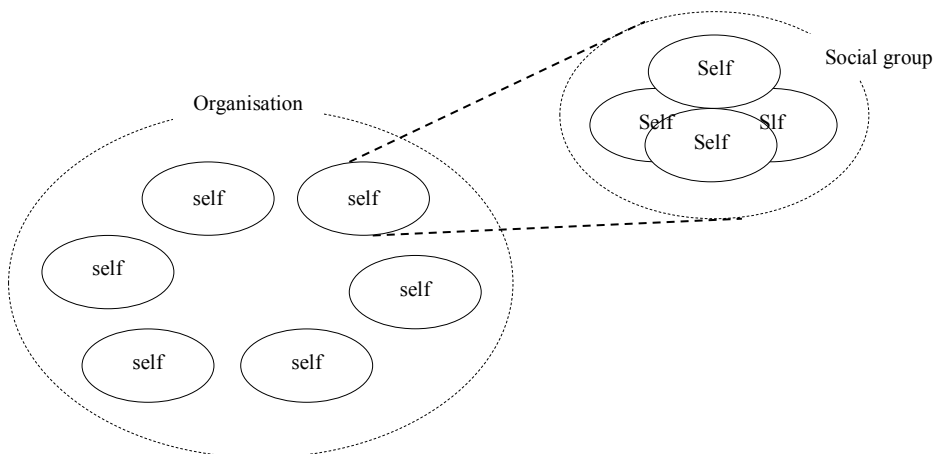


Figure 10.7 The individual and social identity

In a technically complex, networked, knowledge intensive, inter-disciplinary organisation such as a creative / interactive agency, one must assume that if individuals are embedded in this way in their social groups, this has significant management implications arguable even more complex as those individuals are assessed (by the group) on how creative they are. It evokes the problem of how and if these are able to communicate and how compatible their ontologies are.

10.4.4 Attention focus IV: Communicative dynamics

According to Cooren et al. (2011) organisations are defined in and by the communication process. Communication is the means by which organisations structure ambiguity in cooperation with other actors in a social theatre. Because communication is subject to influence and situated interactions, organisations may be not just heterogeneous in their composition, but also in the communicative processes.

Communication is essentially the drawing of inferences between participating communicants (Bateson, 2000; Cooren et al. 2011). As a problem, it becomes a case of understanding what dimensions (explicit and implicit) might influence those inferences. In this study, participants reflected on the problem of communication as constituting in two types of barriers (systemic and cultural). One case had measures in place that cancelled out those barriers. Those measures (enablers) were mundane everyday activities (like the compulsory sharing of a meal), Figure 10.8.

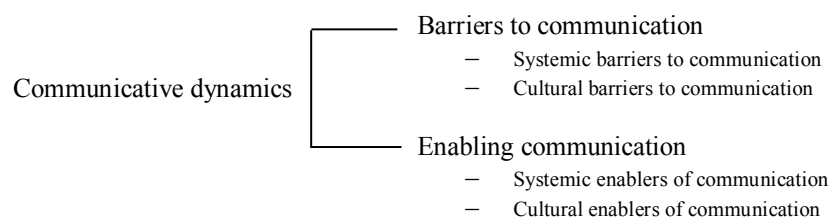


Figure 10.8 Communicative dynamics

According to Watzlavik et al. (2011) and Bateson (2000) there are three key dimensions to studying communication. One is the content of a message, another is the relationship between the communicants that will influence in what way a message received and processed.²² The third is that communicants co-construct its meaning through mutual inference.

This means that the meaning of a communication is always an approximation of its intended message (Mailloux 1995). The accuracy of this approximation will depend on the social and cultural distance between the communicants and other situational and systemic factors including in most communication explicit and implicit power structures (Fortunati 2005).

Case D had strategies in place that reduced both social differences and power distances. The influence of social events (such as sharing a meal) is an effective conduit for communication and a social equaliser. Bringing actors in proximity with one and other is useful for developing mutual understanding of what other people are interested in and what role they have in the organisation.

10.4.5 Attention focus V: Local routines

Routines are central in the evolutionary theory of economic change (see section 2.3.3). They are conceptualised in *ostensive* and *performative* routines (Felin et al. 2012; Miller et al. 2012). *Ostensive* routines manifest in three dimensions. Knowing what to do (the declarative memory); knowing how to do it (the procedural memory); and knowing in an organisational context who knows what (trans-active memory) (Argote and Ren, 2012; Cohen and Bacdayan, 1994; Felin et al. 2012; Miller et al. 2012). *Ostensive* routines may materialise in artefacts, forms and standard operating procedures that manifestly symbolise the routines and which characterise the organisation, although it does not necessarily require participants believe in the procedures (Brown and Duguid, 1991).

²² Bateson refers to content as report and relationship as command in reference to the way in which it determines its treatment.

The *performative* routine on the other hand considers how people actually carry out tasks in the context of immediacy, bounded rationality and imaginative *bricolage*. In the *performative* routine, situated action may deviate in quite substantial ways from the prescription, which then introduces into the system variation, alternatives and equifinality (Orlikowski, 1996; Suchman, 1987; Weick, 2011).

The *performative* routine in its task focus, is solution oriented but constrained by what is practical and possible in the present (Emirbayer and Mische, 1998). In effect, an *ostensive* routine provides a directive on task and procedure whereas the actual act of performing the routine involves experiential learning, improvisation, and *bricolage* that with time should influence the ostensive routines by being gradually absorbed in its three memories. In this way, in theory, reciprocal feedback between the act and the directive makes routines an agent of evolution and change (Feldman and Pentland, 2003; Feldman, 2000; Pentland et al. 2012). The two conceptions of routines are not discrete but in interaction form an evolutionary dynamic that has a formative effect on how organisations evolve as illustrated in Figure 10.9 adapted from (Miller et al. 2012:1539).

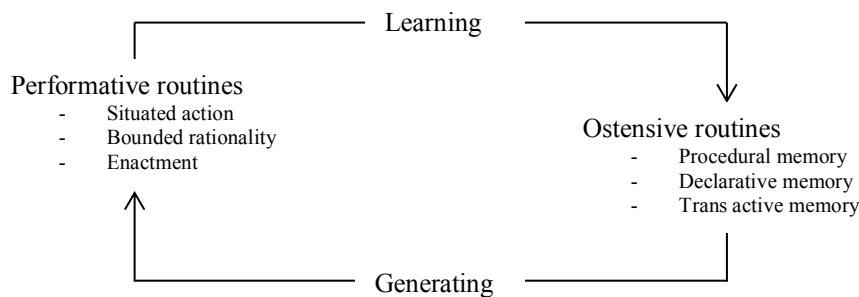


Figure 10.9 The evolution of routines

Of course, this conception of routines does not deal very well with the union of the two. Indeed the literature indicates there is scope for a transitive phase that considers the role of sociality in the evolution of routines.

That is to say, granted routines have an evolutionary function and granted *performative* routines are endemic in organisational units at all levels, how do those situated routines evolve, (which they must in a knowledge intensive environment). This seems highly relevant to the problem of *sense making in organisations* and at the ostensive level *organisational sense making*.

Cohendet and Llerena (2003) have considered this transitive phase and the role of community in the development of routines proposing that routines exist at three levels. At the level of the *ostensive*, the *performative* and at a *transitive* community level where routines are forged, shaped, and refined in a local context before they diffuse at a higher level.

In this view, each organisation is a specific setting of localised communities and the formation and emergence of routines differ according to the type of community concerned (Cohendet and Llerena, 2003). The argument is that although the cohesion of a community can facilitate rapid dissemination and processing of problems through localised and collectively understood routines, it does not necessarily mean those are absorbed at the other levels. That is to say, *performative* routines have to be broken in at a local level before they can be absorbed at the higher *ostensive* level.

It evokes the problem of how situated and local routines cross organisational partitions to be aligned into a cohesive purposeful whole (Simon 1962).

There is circumstantial evidence both in this study and in the literature that supports the argument that transitive processing of *performative* routines must take place before it can be absorbed at an ostensive level.

Empirical research has demonstrated that implementing a routine is more likely to be successful if it involves a process of community evaluation and reflection (Edmondson et al. 2014). Such a process may also alleviate the problem of misreading and misrepresenting the role of a routine connected to the symbolic value of information that fosters the possibility of misunderstanding (Feldman and March, 2009). It has long been known that information tends to be processed more effectively within sub units than between sub units (Simon, 2002).

Because routines emerge in response to specific problems (Nelson and Winter 1982), the idea of localised routines can usefully strike the balance between exploitation and maintenance of existing routines and the exploration and discovery of new ones whilst at the same time neutralising the emergence and impact of maladaptive or defunct routines.

10.4.6 Attention focus VI: Dysfunctional routines

The concept of unusual and dysfunctional routines is referred to as organisational non sense making (Rice 2008). Such routines are not unusual or dysfunctional by design but they may have emerged through solving some organisational problem where the means end up obscuring the objective. They may emerge as a matter of conflicting objectives, breakdown in communication and interaction and misreading and sometimes intentional manipulation of information.

They may also embody obsolete routines that continue to persist because they have become deeply entrenched in the organisation. Because dysfunctional routines are often latent in a system there is not always awareness of their existence or how they are affecting the performance of the system as a whole. They emerge in paradoxical events, unexplained interference, unintended consequences, and a sense of noise in the system.

The dysfunctional dimensions of unusual routines such as rigidity, scapegoating, secrecy, and conflict are associated with conditions of organisational decline (Cameron et al. 1987). Unusual routines may be symptomatic of dysfunctional sense making where the process of reducing equivocality regresses to a satisfactory fit with previous experience and so sense making reinforces habit narrowing the organisations frame of reference and scope of understanding.

In such a case, organisational memory may inhibit sense making as a repository of inappropriate measures and obsolete routines that have little or no bearing on current realities (Rice 2008). Such routines may come to dominate organisational behaviour becoming entrenched as the organisations dominant logic or '*as the way things are*' (Cohen and Bacdayan, 1994; Prahalad, 2004).²³

²³ There is no value dimension attached to the concept of routine here; they can be a source of competence and incompetence.

Furthermore, repetitive measures may produce greater expertise in the performance of a routine. As expertise and the routine develop, overall conceptual sense of circumstances may deteriorate because a routine may evolve to a rigid system of procedures. Hence, an expert may develop conceptual blindness through a focused rule-based regime (Hoffman 1996).

In this case, the routine may produce the opposite of the intended. Organisational actors become preoccupied with the routine itself as the means, thereby losing a sense of its purpose and function in the greater scheme of things. Unusual routines often materialise as a pervasive nuisance. For instance, in the institutional blame game and in bureaucratic conundrums, where procedural costs far outweigh any real gains.

10.5 General implications for organisational scholarship

Most key concepts in the strategy and organisational literature abstract from the complex social dynamics that animate their theories e.g. punctuated equilibrium (Gersick 1991) ambidextrous organisations (Birkenshaw and Gibson, 2004), absorptive capacity (Cohen and Levinthal, 1990), dynamic capabilities (Teece 2007), heterogeneity of resources (Hoopes and Madsen, 2008).

The organisational literature polarises exploration as experimentation, loose coupling, scanning and flexibility and exploitation as defining and measuring performance, reasoning and risk aversion (March 1991). Strategies to achieve a sustainable balance between those two include classic concepts such as '*agile routines*' (Winter, 1982) and '*dynamic capabilities*' (Teece and Pizano, 1994).

Organisational studies may conflate an evolutionary theme with an institutional approach (DiMaggio and Powell, 1983; Galaskiewicz and Wasserman, 1989). They focus on organisational learning and feedback trajectories (Cyert and March, 1963; Levinthal and March, 1993; Levinthal and Warglien, 1999; Weick, 1995) and they consider the resource perspective as unique assets (Barney, 1991; Helfat and Peteraf, 2003; Hoopes et al. 2003). All of those connect the evolution of the organisation to the evolution of the environment, but they do not concern themselves with the specific identities and properties of the actors, whose individual and social behaviour cumulates to shift industries.

Even if they did, then innovation and evolution produces new identities and new processes where specialized collectives of individuals may form around the novelty exploring its affordances and opportunities expediting the inevitable process of obsolescence (Hutchby 2001; Gaver 1991; Pólos et al. 2002).

Some management scholars question whether such abstract concepts can reasonably explain how firms adapt and survive calling for more detailed study on the micro-level origins of organisational behaviour.²⁴

By making the individual the unit of analysis, one makes the assumption that to understand a collective is to understand the traits and properties (and contexts) of the individuals that form that collective (Abell et al. 2008; Argote and Ren, 2012; Linda Argote and Greve, 2007; Felin et al. 2012; Felin and Foss, 2005; Numagami, 1998).²⁵

McKelvey (1997) suggested studying bounded social contexts and the multiple identities, microstates and interactions that coexist within those contexts. Those microstates embody human traits and properties as individual predisposition, values, cultures, style and intentions (Daft and Lewin, 1990; Dennet, 1989). Making the micro behavioural level the focal point through empirically corroborated models will enrich our understanding of how organisations are likely to evolve (McKelvey 1997; Lewin et al. 1999).

A focus on those situated settings could reveal the flash points of local interaction that influence evolutionary paths. This may reveal localised routines as the real locus of sense making, learning and evolution (Cohendet and Llerena, 2003). This would be a substantial contribution to the call to understand the contribution of employee network collaborations to organisational sense and decision making (Adler et al. 2011).

There is also the question if the concept and centrality of leadership in general, applies in this particular context (creative / interactive agency) which seems to suggest more the facilitation of a conceptual space of individual action more than a coherent activity system and unity of purpose. For insight, see (Alvesson and Sveningsson, 2003; Alvesson and Sveningsson, 2003).

²⁴ Methodological advances e.g. computing may be one reason for these developments as scholars are today able to explore the aggregate effect of individual action through computer simulations.

²⁵ For a robust critique of the approach see (Hodgson 2012).

There is cross disciplinary interest in developing more advanced qualitative appreciation of emergence in social systems (Kuntz and Gomes 2012; Sawyer 2005; Edmonds and Meyer 2013; Xenitidou and Edmonds 2014). Transforming what are deeply subjective social ontologies into abstract entities and processes not to say machine language is the frontier of social science. There are also studies that attempt to simulate the complex path dependencies of sense making. A problem that up to now has been beyond what is technically possible, but which now through advances in computing and simulation seems no longer an unattainable goal.

In summary, this study is a small contribution to the scholarly discourse. It constitutes a qualitative primer that does empirically identify some of the complex social and behavioural dynamics that underpin management and organisational theories. It finds that there are unique social drivers that propel the evolution of the digital ecology and it suggests those localised social drivers, that is, the social relations and behaviours which today can be researched in real time on the Internet; combine in theory and practice a powerful incentive for more detailed study

10.6 Limitations to the study

There are of course methodological, conceptual and practical limitations to this study.

10.6.1 Methodological limitations

Firstly, the study concerns only a small sample from what is a substantial and diverse industry. The study only deliberates the views of upper and middle management although the study considers the technical or creative directors representative of the employee pool and their respective social domains.

As a qualitative study, the work inevitably is subject to the author's preconceptions and interpretations of the encounters. There has been an attempt to offset those preconceptions and interpretations by making the analysis structured, systematic and transparent and so endowing the critical reader with the means to evaluate the rigour of the study and the quality and validity of its conclusions.

10.6.2 Conceptual limitations

The study is a keyhole view to an incredibly dynamic environment that evolves at such a rate as to make any study a fleeting insight. At the same time a scan of the literatures suggests there are not enough studies of the creative / interactive sector despite its obvious economic importance. One reason could be that the industry shifts frequently and unpredictably and it may be challenging to get practitioners to commit to a study of any real scale and scope. Another reason could be not considering this subsystem of the economy important enough to merit detailed investigation. This is a grave misreading of the potential of a fledgling industry that has already elsewhere had tremendous economic impact e.g. Silicon Valley.

In retrospect, if the investigator were to design the study again knowing what he now knows, then he would likely opt for a single longitudinal case study and an action research approach that would seek to engage with the setting in more detail than has been achieved here. Kurt Lewin first construed action research (see section 2.4.5). Lewin pioneered the idea of intervention in the pragmatic belief that truth is only in the observable consequences of action. In a way, then Lewin represents an early simulator of social systems deprived of the technological means to really envision and test his ideas.

The author considers this study to be an exploratory study highlighting some of the enduring and still unresolved problems of management and organisational theory. At the same time, its focal point is an environment in continuous transition, which in many ways exemplifies the union of structure and agency. This union is analytically complex, deep and often temporal and so any qualitative finding, which may suggest a pattern, will require more work.

10.6.3 Practical limitations

As in any study, then the relationship between the academic and industry is often a tenuous one. This investigator was fortunate in that participants were committed to the study even in face of their own failure. It is nevertheless clear that this type of study is constrained by how rapidly the subject matter evolves. A unit of analysis may become obsolete literally overnight and participants may leave the organisations to join other organisations (if those are seen offer greater chance of creative and professional progression).

This study is constrained in the provision of practical advice except in the most general terms, primarily because all four cases demonstrate equifinality i.e. there are multiple routes and path dependencies to success or failure. Nevertheless, the study identifies unequivocally that continuity hinges on sociality and action or in failure, its absence.

10.7 Summary of chapter

The chapter has considered the study's contribution to knowledge. It identified areas in the organisational literature generally where this study contributes insight. It has identified specific areas in the literature on *sense making in organizations* where the study confirms and adds to current understanding of the analytically somewhat problematic concept of sense making. It concludes that the creative / interactive agency evokes the concept of anarchy more than organisation in the conventional sense and it stipulates how the creative / interactive agency is fundamentally a complex resource dependent phenomenon.

The chapter has considered contribution to practice and has considered the practical implications of the findings particularly in the concept of requisite variety, organisational heterogeneity and the associated and almost inevitable problem of communication.

The findings contribute across the theoretical spectrum but particularly it enriches the sense making framework by adding insight from the resource dependence perspective as well as systems concepts that share an epistemological family three with sense making in organisations.

Importantly, it submits that the relations that so profoundly influence and impact the creative / interactive agency can be empirically studied by applying the same technology that sustains those relations, that is to say, information and communication technologies that are an essential part of their ontology.

Chapter 11 Further research and concluding remarks

Language is the labyrinth of paths. You approach from one side and you know your way about. You approach the same place from another side and no longer know your way about

Ludwig Wittgenstein

11.1 Introduction

We are witnessing to the emergence and development of a social phenomenon without precedence. Being able to observe in real time how that system evolves and matures in a way that animates our understanding of social construction as a continuous evolving process that exemplifies the union of identity, agency and structure. Technology enables us to analyse the interactions and to some extent the eclectic motivations that propel the system.

This study's main objective was to understand how creative / interactive agencies make sense of this social system and how they understand their own position within that system. The study has achieved its key objectives and has portrayed a dynamic social system of eclectic at times iconoclastic social actors that appear to convene and collaborate as a matter of sharing means not common cause.

This chapter reflects on the research process and considers the strengths of this work and what opportunities it offers for further study.

11.2 The empirical target

The findings of this study are particularly interesting because they seem to question the assumption that organisations (or at least this particular type of organisation) can make sense of themselves or their circumstances except perhaps at some general or abstract level.

The fact that each decision maker applied a distinct logic in attributing meaning to situations did not seem to be a real reflection of the situation itself, but more a way of sustaining temporary continuity. The precept of action and the regenerative feedback action evokes, is the fundamental prerequisite for any form of continuity, not to be mistaken for sense since the adverse effect of action is that it will usually generate even more alternatives, complicating sense and decisions making.

A *post hoc* diagnostic process is an import feature of *sense making in organisations* (Weick 1995; Rudolph et al. 2009). However, sense making in this type of organisation appears here also as a diaspora of *ad hoc* processes, *bricolage* and makeshift solutions which may appear to be without a strategic purpose or pattern but which functions to retain the interests of professionals and practitioners.

The key question then remains how in this scenario is action arranged and performed to constitute the patterns and structures of every day activity (Alexander, 1988).

The idea of divergence, minimal consensus and the view that organizations do not necessarily require a unity of purpose is compelling in the way it questions the role of management. It makes the social system as a self-organizing entity, the focal point of study. In this context, then understanding the traits and properties of the social actors themselves, why they are there and the rules that govern them are the key to understanding how the system behaves and how it may evolve. Such a study would focus on the '*leverage points and significant trade-offs*' of the social system (Axelrod and Cohen, 2000:21).

The fact that individuals may join the organisation for very different reasons may constitute an incompatibility of demands. It can evolve to become a fundamental existential problem for the organisation faced with the difficult task of providing inducements to all parties (Pfeffer and Salancik, 2003a).

The inducement / contribution balance (March and Simon, 1993), requires understanding what the inducements really are for individual actors and the complex relationship between motivation to contribute and expected rewards. The so called *zero point* on that satisfaction scale, appears to materialise if the organisation is seen to be in creative decline since being associated with that decline compromises the creative actors professional reputation in a community of peers²⁶.

Donnellon et al (1986) has suggested that a way of coming to terms with these complex issues is to look for inter disciplinary similarities and discrepancies that spring from a single action or interpretation of experience which may reveal how diverse organisational actors reach an understanding (or not). These according to Donnellon et al, may reveal the logical premises and inferences actors rely on to assess a situation.

All of these suggestions call for prolonged engagement with a research setting and the possibility of intervention to assess how different enticements influence the behaviour of the organisation. It ultimately requires more than a single research method but necessarily must deploy one that is capable of in depth probing of objective and subjective dimensions.

11.3 Routes and strategies to further study

Kurt Lewin of the famous three step model of change is also the author of the concept of '*Action Research*' which requires the researcher to interfere in a system in a controlled way to disrupt the organisational equilibrium and by to doing initiating change (Baskerville and Myers, 2004).

²⁶ The zero point is the point at which one begins to speak of degrees of dissatisfaction rather than degrees of satisfaction (March and Simon, 1993:105)

Essentially, action research requires first describing the state space and the conceptual boundaries of the study, what Baskerville and Myers refer to as the diagnostic stage, and secondly in close collaboration with the subject, action research commences to interfere with the system. The practical outcome is a form of pragmatic truth, revealing both the individual and social contexts of action i.e. the truth at least in the immediate sense is in the observable consequences of action. The present study could be the diagnostic phase of such an action research project.

At the same time, computer generated agent based simulations are also powerful means to exploring social dynamics where individual social actors, their traits and properties and their interactions are simulated to reveal the emergence of structures, collectives, evolution and learning.

Whereas the ultimate aim of simulation is to achieve a correspondence between the simulation and its subject, the particular strength of the method is in its capacity to generate insights and questions about the behaviour of a system.

For example, one area of simulation considers how empirical data e.g. qualitative data and specific contexts may be incorporated in a simulation and so increasing the accuracy of the model, context being a problem simulations have been largely indifferent to (Edmonds 2001; Edmonds 2010).

The parallel processing of action research and simulation seems a potentially powerful and complementary union. Findings from the action research process itself could feed into the simulation in a continuous improvement process and equally the simulation can itself explore possible futures, for instance comparing empirical data as it emerges in the action research process with simulation outputs. These are interesting and epistemologically lucrative avenues for social science, which must evolve towards methodological pluralism if as a science, it is to benefit from the tremendous technological advances computing is.

11.4 Conclusion

The chapter has considered routes to further study outlining a possible strategy to further research, which should consider how this process unfolds, possibly by simulating the evolutionary process. Such simulations i.e. computer simulations, mimic the behaviour of a social setting. They require defining the traits and properties of the actors or agents; defining their interactions, when and how do they interact and defining the parameters of the environment in which they exist. This work as a whole is a step towards establishing the parameters for such a simulation.

We understand the place and influence of social identity and the strong network effects that characterise this setting. We understand those identities exist in a tapestry of relations that influence their decisions and their actions. We understand how they interact externally through relational networks and how they internally, pursuing their disciplinary imperatives explore the potentials of innovation.

The next step is to go beyond theoretical speculation to empirical verification and to extend the study to look beyond the thesis that ours is a socially constructed reality to observe how that reality comes to be and how it evolves on the actions of its inhabitants.

This thesis will evolve to explore in greater empirical detail how knowledge intensive organisations in rapidly shifting environments make sense of both themselves and of that environment. As it stands, it constitutes a qualitative primer and initial diagnostic of a complex and vibrant social system that awaits further elicitation.

Appendices

Appendix A 1st interview protocol

Phase 1: Descriptive Questions	
Themes	Example questions
Change: Nature and structure of change	1 What characterizes your business environment? 2 In your industry, what would you say are the fundamental changes that have taken place in the past five years 3 When you reflect on the past, do you feel that you are faced with similar issues today in the context of how your industry is evolving? 4 Where do you think you will be in five years?
Technological evolution: Drivers of technological evolution	5 Where do you think this industry is? (future) 6 What do you think drives evolution in this industry? 7 What technologies do you see on the horizon and how do you think they will affect you? 8 How will you respond to these new technologies, what are your preparations?
Sense making 1: Identity, intention and purpose	9 What kind of mind-set must one have to be successful in your industry? 10 What are your intentions? 11 Where do you want to be in five years' time? 12 What was your vision and strategy five years ago? 13 Did your strategy work (if not then why not)
Sense making 2: Receptive mechanisms, sensitivity and interpretation	14 How do you gather intelligence about your business environment? (Sources) 15 What is your most important source of information? 16 How do you evaluate this information? 17 What makes a trustworthy source (Attributes) 18 How do you evaluate the prospects of new technologies? 19 How do you evaluate their relevancy?

Practice: Everyday activity and norms	<ul style="list-style-type: none"> - How is your day organized? (habits, everyday activity) - How is your organization organized? - Does your organization have a pattern to the working week? - Do you employees generally follow this pattern? - Can you describe the everyday activity of you employees
Networks: Structure, role and influence	<ul style="list-style-type: none"> - Tell me about your networks? - What makes a good network? - How can you tell the difference between a good network and a bad network? - Without your networks, could you survive and why not? - Have you thought about how the networks influence you? - Which aspects of your network are most important to you?
Conclusion: Follow up, new avenues	<ul style="list-style-type: none"> - If I were to ask you to name three issues that are most important to you in the context of surviving the next five years, then what are they? - Are the questions I have asked ones that you would have expected and if not then what questions should I be asking

Appendix B 3rd interview protocol

Phase 2: Structured Questions						
Themes	Questions					
Background	Personal background	Age	Education	Professional background	Years in practice Years in firm	Aspirations
General	Could you explain your average working day? (habits, everyday activity)					
	What would you say characterizes your everyday working environment?					
	What excites you about your job?					
	Where would you like to be in five years?					
Drivers of technological evolution	What do you think drives technological evolution in this industry?					
	What technologies do you see on the horizon and how do you think they will affect you?					
	Do you think it's important to be aware of new technologies? If yes then why					
	Do employees contribute to the firm's awareness of new technologies? If yes then how					
Attributes	As a manager, what kind of mind-set must one have to be successful in this industry?					
	What kind of person would be attracted to the digital industries, what makes them tick?					
	What do you consider key strengths for anyone involved in the digital industries?					
	What do you consider key weaknesses for anyone involved in the digital industries?					
	What kind of people do you like to work with?					
	What do you think those working in the digital industries most value in the workplace?					
	What do you think would really turn them off?					
	What to you makes a good manager?					

Practice: Everyday activity and norms	Does your organization have a pattern to the working week?	
	Does everyone generally follow this pattern? If not explain!	
	What to you are the best things about this place?	
	Do you think this place is better than other places?	
	Do you think this firm has key strengths?	
	Do you think this firm has key weaknesses?	
	If I ask you to name specific areas for improvements, what would those be and how would you go about it?	
Intelligence and information	Do you gather intelligence about the business environment?	
	Do you gather intelligence as part of your job description or as matter of interest?	
	What makes a trustworthy source or a good source of intelligence?	
	What is your most important source of intelligence?	
	Do you systematically evaluate this intelligence?	
	Does the context of your job matter when you evaluate intelligence?	
Networks	Do you participate in networks? Tell me about your networks?	
	Which aspects of your network are most important to you?	
	What makes a good network?	
	Do you cross boundaries and explore networks of other disciplines?	
	Have you thought about how the networks influence you or how you influence other network participants?	
	How do you evaluate ideas and trends you come across?	
	Do you think you could increase your own competitive fitness through network participation?	
	Do you think your networks are important to this firm?	
Do you get often get job offers?		
Conclusion: Follow up, new avenues	If our roles were reversed and you were asking the questions, what questions would you ask?	
	Conclusion	

Appendix C Invitation to research



Project title: Sense making in practice: A case study of the digital sector in the UK's North West

My name is Magnus Josefsson and I am a Doctoral researcher at Manchester Metropolitan University Business School (MMUBS). My research concerns how SMEs in the digital industry in the UK's North West interpret innovation and technological evolution. What drives this project is

- a) SMEs are particularly well placed to reap opportunities from globalisation and from technological change and innovation
- b) We know there is a relationship between high performing managers and organizational intelligence but traditional business models tend to break down and are unable to effectively explain the dynamics of fast paced digital environments
- c) It is critically important to the UK that it develops regional clusters of innovation and that the UK supports emerging industries by providing incentives for entrepreneurship and innovation.

In this context, it is vital to develop understanding that can a) inform and advice managers in their daily activities and b) inform policy makers to help them formulate industry support.

This research will demonstrate how managers interpret events and circumstances in a dynamic and fast evolving industry. It will allow participants to reflect on their practices by providing them with a historical and contextual backdrop and it will make explicit how they can use ICT strategically through informed selection and how they can leverage this information to develop their organizational intelligence and competitive fitness. The research will benefit management in the following way

- a) It will produce an instrument designed to enhance organizational intelligence in a small and medium business context
- b) This instrument will strengthen the managers ability to manage and evaluate information and content and its relevancy and quality

- c) This instrument will be useful for managers by sensitizing them to the signs of development, change and innovation
- d) The instrument will empower managers by suggesting how they can unlock their information resources particularly as it concerns untapped social capital
- e) The research will deliver a valuable overview of the digital industries.
- f) All participants will receive an extensive consultancy report which will incorporate the latest thinking on how to develop organizational intelligence.

Participation Requirements

I will want to interview you three times in 2012-2013. Each interview will last no more than 2 hours. I may also monitor your content and interactions in the public space of social media.

This research follows the ethical framework as laid out in the rules and regulations of the Manchester Metropolitan University. All information and data will remain confidential and under no circumstances will the names of the participant organisations or the names of their agents, in whatever capacity be shared with third parties. The researcher will be happy to sign a non-disclosure agreement as long as it does not conflict with the interests of the research or the interests of Manchester Metropolitan University. The participant is also free to withdraw from the study at any point and to withdraw his contribution. Feel free to contact my director of studies or the chair of the Doctoral program at MMUBS for more information regarding this project (see below).

I confirm that I have been briefed on the objectives of the research. I also confirm that the research that I have agreed to participate in has been explained to me including data treatment, data processing and the ways in which its findings will be used and communicated. I am of the understanding that the research is done in accordance to Manchester Metropolitan Universities ethical standards and good practices

Signed _____ Date ____ / ____ / ____

Contact details**The researcher**

Magnus Josefsson MSc, MRes (Doctoral Candidate)
Manchester Metropolitan University Business School
Faculty of Marketing, Operations and Digital Business
All Saints Campus
Manchester M15 6BH
E-mail: m.josefsson@mmu.ac.uk
Tel: 0755-309-3949

Director of studies

Dr Bruce Edmonds
Manchester Metropolitan University Business School
Centre for Policy Modelling
All Saints Campus
Manchester M15 6BH
E-mail: bruce.edmonds@gmail.com
Tel:0161-247-6479

Chair of the Doctoral program

Professor Anthony Hines
Manchester Metropolitan University Business School
Faculty of Marketing, Operations and Digital Business
All Saints Campus
Manchester M15 6BH
E-mail: a.hines@mmu.ac.uk
Tel:0161-247-3853

Appendix D Syntheses of sense making literature

Domain/s	Title	Type	Syntheses
Identity	(Ashforth et al. 2008) Identification in organisations: An examination of four fundamental questions. <i>Journal of Management</i> , 34(3), pp.325–374.	Empirical	– Discusses individual and organisational outcomes and asks how does identification occur which it describes as a process involving cycles of sense breaking and sense giving, enacting identity and sense making, and constructing identity narratives. Considers how multiple identifications may conflict, and converge
Identity	(Rekom and Riel, 2006) A methodology for assessing organisational core values. <i>Journal of management studies.</i> , 43(2), pp.175–201.	Empirical	– Offer a methodology for empirically assessing the core values of an organisation. It uses means–end analysis in order to determine those values that organisation members manifest in their daily behaviour, and which are not just espoused ‘truisms’
Identity	(Ashforth et al. 2011) Identity in organisations: Exploring cross-level dynamics. <i>Organisation Science</i> , 5(Sept-Oct), pp.1144–1156.	Conceptual	– Collective identity fosters intersubjective understanding through interaction, which in turn fosters generic understanding i.e. a sense of the collective that transcends individuals (‘it is’). Identities are relatively isomorphic across levels because organisational goals require some internal coherence. However, , isomorphism is often impeded across levels, and identities tend to become somewhat differentiated
Identity	(Clarke et al. 2009) Working identities? Antagonistic discursive resources and managerial identity. <i>Human Relations</i> , 62(3), pp.323–352.	Empirical	– Considers the coherence of organizational participants work identity narratives and the practical difficulties managers experience in assembling such narratives from available discourses, some of which may have divergent implications.
Identity	(Gioia et al. 2010). Forging an identity: An insider outsider study of processes involved in the formation of organisational identity. <i>Administrative Science Quarterly</i> , 55, pp.1–46.	Empirical	– Internal and external, as well as micro and macro influences affected the forging of an organisational identity. Both social construction and social actor views of identity related processes were not only germane to the formation of organisational identity but that these processes were also mutually constitutive in creating a workable identity
Identity	Gioia, D.A. and Thomas, J.B., 1996. Identity, image, and issue interpretation: Sense making during strategic change in academia. <i>Administrative Science Quarterly</i> , 41(3), p.370.	Empirical	– Under conditions of change top managers team members’ perception of identity and image are key to the sense making process and serve as an important link between the organisations internal context and the team members’ issue interpretations

Identity	(Alvesson. M and Wilmott, H. 2002). Identity regulation as organisational control: Producing the appropriate individual. <i>Journal of Management studies</i> , 39(5), pp.519–644.	Empirical	– Employees are enjoined to develop self-images and work orientations that are deemed congruent with managerially defined objectives. Extends and deepens themes developed within other analyses of normative control
Narratives	(Sims 2005). You Bastard: A narrative exploration of the experience of indignation within organisations. <i>Organisation Studies</i> , 26(11), pp.1625–1640	Empirical	– Narratives are used to offer a narrative understanding of the process by which some people become indignant with others. It suggests a narrative construction of how sense is made of indignation, particularly in cases where two narratives come up against each other.
Narratives	(Garcia-Lorenzo 2010). Framing uncertainty: narratives, change and digital technologies. <i>Social Science Information</i> , 49(3), pp.329–350.	Empirical	– Illustrates how narrative are used to transmit permanence and collective knowledge while allowing for self-development and the managing of emotions
Narratives	(Brown et al. 2008). Making sense of sense making narratives. <i>Human Relations</i> , 61(8), pp.1035–1062.	Empirical	– Sense making occurs in the context of individuals’ idiosyncratic efforts at identity construction and in the narratives that actors tell about their work and self both for others and their selves.
Narratives	(Garud et al. 2011). Dealing with unusual experiences: A narrative perspective on organisational learning. <i>Organisation Science</i> , 22(3), pp.587–601.	Conceptual	– By developing narratives, organisational actors create situated understandings of unusual experiences, negotiate consensual meanings, and engage in coordinated actions. Through the accumulation of narratives about unusual experiences, an organisation builds a memory with generative qualities
Discourse	(Boje et al. 2004). Language and organisation: The doing of discourse. <i>The Academy of Management Review</i> , 29(4), pp.571–577.	Conceptual	– Rather than consider as some organisations ‘thing’ that exists independent of language and that is only described and reported on in language, the contributors to this issue start from the point of view that organisations can be understood as collaborative and contending discourses
Discourse	(Taylor and Robichaud, 2004). Finding the organisation in the communication: Discourse as action and sense making. <i>Organisation</i> , 11(3), pp.395–413.	Empirical	– Conversation, framed within a material/social and a language environment, is the site where organizing occurs and where agency and text are generated. The language environment frames conversations and reflects the sense making practices and habits of interpretation of organization members dealing with their immediate material/social purposes
Discourse	(Balogun et al. 2014). Placing strategy discourse in context: Socio-materiality, sense-making and power. <i>Journal of Management Studies</i> , 51(2), 175- 201.	Empirical	– Explore the potential of discursive scholarship in integrating between significant theoretical domains (sense making, power, and socio materiality), and realms of analysis (institutional, organisational, and the episodic), relevant to strategy scholarship.

Discourse	(Kuznetsov and Kuznetsova, 2014) Building professional discourse in emerging markets: Language, context and the challenge of sense-making. <i>International Business Studies</i> , 45(5), 583-599.	Empirical	<ul style="list-style-type: none"> – Examine cross-border semantic sense making through a retrospectively constructed observational study. – Argue that a relative inadequacy of the national professional idiom is likely to remain a feature of the business environment in post-communist economies for some time. – Recommend including discursive hazards
Discourse	(Jørgensen et al. 2012). Sense making and discourse analysis in inter organisational research: A review and suggested advances. <i>Scandinavian Journal of Management</i> , 28(2), 107–120	Review	<ul style="list-style-type: none"> – Review investigates inter-organisational encounters from sense making, discourse analytical perspectives. – Proposes a research method and agenda.
Discourse	(Berente et al. 2011). Arguing the value of virtual worlds: Patterns of discursive sense making of an innovation technology. <i>MIS Quarterly</i> , 32(3), 685-709.	Empirical	<ul style="list-style-type: none"> – The study through a Toulminian analysis of claims, grounds, and warrants, identifies 12 common patterns of sense making – Indicate that themes of confirmation, open-ended rhetoric, demographics, and control are evident in the different types of claims
Discourse	(Rouleau and Balogun, 2011). Middle managers, strategic sense-making, and discursive competence. <i>Journal of Management Studies</i> , 48(5), 953–983.	Empirical	<ul style="list-style-type: none"> – A framework is developed that shows two situated, but interlinked, discursive activities, ‘performing the conversation’ and ‘setting the scene’, to be critical to the accomplishment of middle manager sense making. – Language use is key but needs to be combined with an ability to devise a setting in which to perform the language.
Discourse	(Anderson, 2005). ‘What you’ll say is: Represented voice in organisational change discourse. <i>Journal of Organisational Change Management</i> , 18(1), pp.63–77.	Empirical	<ul style="list-style-type: none"> – Through the use of represented voice, organisational members work out how an action or practice has sounded in the past as spoken by another member, and they articulate how proposed organisational changes might sound in the future. By making these inferences, members are able to discursively translate between a single situated utterance and organisational practices.
Discourse	(Bragd et al. 2008). Discourse as the means of community creation. <i>Scandinavian Journal of Management</i> , 24(3), 199–208.	Empirical	<ul style="list-style-type: none"> – Demonstrates discourse can both create and dissolve boundaries around a discourse community. – Discourse is often used to create inclusion, it may also recreate the traditional patterns of exclusion
Events	(Svejenova et al. 2014). Cooking up change: Ferran Adria as an institutional entrepreneur. <i>Journal of Organisational Behaviour</i> , 28(5), 539-561.	Empirical	<ul style="list-style-type: none"> – Creativity generates continuous flow of new ideas – Reputation within and outside the field that endorses ideas as worthy of attention. – Dissemination that brings ideas to the public domain. – As novel ideas challenge received practices paradoxes of logics and identity emerge

Events	(Whiteman and Cooper, 2011) Ecological Sense making. <i>The Academy of Management Journal</i> , 54(5), pp.889–911.	Empirical	<ul style="list-style-type: none"> – Ecological embeddedness enables sense making and that inability to make sense of subtle ecological cues introduces hidden vulnerability.
Events	(Abrahamsen et al. 2012). Sense making in business networks: Introducing dottograms to analyse network changes. <i>Industrial Marketing Management</i> , 41(6), 1035–1046.	Empirical	<ul style="list-style-type: none"> – Show how the dimensions of time (past, present and future changes) and space (change at actor, dyad or network level) can be better understood
Events	(Kuntz and Gomes, 2012). Transformational change in organisations: a self-regulation approach. <i>Journal of Organisational Change Management</i> , 25(1), 143–162.	Conceptual	<ul style="list-style-type: none"> – Consider the relationships between change-related sense making, interpretation, readiness, and behavioural action decision-making. – Elucidate the impact of human agency properties, namely the interplay of efficacy perceptions, social learning, and self-regulating mechanisms on these change-related cognitive processes and subsequent behavioural outcomes
Events	(Patriotta and Brown, 2011). Sense making, metaphors and performance evaluation. <i>Scandinavian Journal of Management</i> , 27(1), 34–43	Empirical	<ul style="list-style-type: none"> – People make sense through metaphors that conventionalize reality and thus contribute to the maintenance of continuity in everyday social action. – Metaphorical understandings assist people’s effort to assign events and situations to familiar categories and thereby turn the ‘unusual’ into ‘business as usual’
Events	(Mills and Weatherbee, 2006). Hurricanes hardly happen: Sense making as a framework for understanding organisational disasters. <i>Culture and Organisation</i> , 12(3), 265–279	Empirical	<ul style="list-style-type: none"> – Organisational identity as a critical element in the sense making process. – Identity affects the processes of sense giving, sense taking, and sense making
Events	(Maitlis and Lawrence, 2007). Triggers and enablers of sense giving in organisations. <i>Academy of Management Journal</i> , 50(1), 57–84.	Empirical	<ul style="list-style-type: none"> – Identify conditions that trigger sense giving and conditions that enable it. – The perception or anticipation of a gap in organisational sense making processes triggers sense making. – Discursive ability allows leaders and stakeholders to construct and articulate persuasive accounts. – Process facilitators, routines, practices, and structures give organisational actors time and opportunity to engage in sense giving
Events	(Bean and Hamilton, 2006). Leader framing and follower sense making: Response to downsizing in the brave new workplace. <i>Human Relations</i> , 59(3), 321–349.	Empirical	<ul style="list-style-type: none"> – Find two opposite interpretations of the firm’s employee database efforts and project-based structure emerge after the downsizing event. – Suggest the lack of geosocial boundaries in the organisation influences sense making. – Nomadic workers adopt frames that drive their interpretations and actions

Discussion	(Boons 2013) Organizing within dynamic Ecosystems: Conceptualizing socio-ecological mechanisms. <i>Organisation and Environment</i> , 26(3), pp.281–297.	Conceptual	<ul style="list-style-type: none"> – Argues that direct ecological impact needs to be incorporated into research on organisations and the natural environment, as complementary to conceptualizations of ecological impact as a social construction. Building on work in analytical sociology, it proposes to study socio-ecological mechanisms and thus enhance the understanding of processes of organizing within dynamic ecosystems
Discussion	(Boje et al. 2004). Language and organisation: The doing of discourse. <i>The Academy of Management Review</i> , 29(4), 571–577.	Conceptual	<ul style="list-style-type: none"> – Language is context and a way to re-contextualize content. We do not just report and describe with language; we also create with it. And what we create in language ‘uses us’ in that it provides a point of view (a context) within which we ‘know’ reality and orient our actions.
Discussion	(Tourish and Robson, 2006). Sense-making and the distortion of critical upward communication in organisations. <i>Journal of Management Studies</i> , 43(4), 711–730.	Conceptual	<ul style="list-style-type: none"> – Managers often over commit to particular courses of action, irrespective of whether they bode ill or well for the organisation concerned. – They frequently demonize those who belong to stigmatized outgroups or who hold contrary value systems.
Discussion	(Colville et al. 2012). Simplicity: Sense-making, organizing and storytelling for our time. <i>Human Relations</i> , 65(1), 5–15.	Conceptual	<ul style="list-style-type: none"> – Examine the concept of network pictures through the lens of the organisational sense making perspective. – Develops the concept of network pictures by suggesting we think of them as exercises in sense making.
Discussion	(Maitlis and Sonenshein, 2010). Sense-making in crisis and change: Inspiration and insights from Weick (1988). <i>Journal of Management Studies</i> , 47(3), 551–580.	Conceptual	<ul style="list-style-type: none"> – Argue for two core themes that underlie sense making in such contexts: shared meanings and emotion. – Examine when and how shared meanings and emotion are more and less likely to enable more helpful, or adaptive, sense making.
Discussion	(Thompson and Stapleton, 2008). Making sense of sense-making: Reflections on enactive and extended mind theories. <i>Topoi</i> , 28(1), 23–30.	Conceptual	<ul style="list-style-type: none"> – Focus on the debate between internalism and externalism about cognitive processes, the relation between cognition and emotion, the status of the body and the difference between ‘incorporation’ and mere ‘extension’ in the body-mind-environment relation
Discussion	(Weber and Glynn, 2006). Making sense with institutions: Context, thought and action in Karl Weick’s Theory. <i>Organisation Studies</i> , 27(11), 1639-1660.	Conceptual	<ul style="list-style-type: none"> – Propose that there are salient but unexplored connections between the institutional and sense making perspectives. Explain how three specific mechanisms , priming, editing and triggering, bring institutional context into processes of sense making, beyond a more conventional notion of internalized cognitive constraint

Discussion	(Neill et al. 2007). Developing the organisation's sense making capability: Precursor to an adaptive strategic marketing response. <i>Industrial Marketing Management</i> , 36(6), pp.731–744.	Conceptual	<ul style="list-style-type: none"> – Organisations are examined as sense making units stimulated by perceived environmental turbulence, cultural open-mindedness, and team functional diversity. These factors are modelled as determinants of an organisation's sense making capability, which is comprised of communicative, interpretive, and analytical dimensions
Discussion	(Allard-Poesi 2005). The paradox of sense making in organisational analysis. <i>Organisation</i> , 12(2), pp.169–196.	Conceptual	<ul style="list-style-type: none"> – Sense making is faced with the interpretive paradox implied in seeking an 'objective science of subjectivity'. Fully acknowledging that studying sense making is an active and subjective sense-making process in itself implies that we re-engage in sense making processes.
Networks	(Colville and Pye, 2010). A sense making perspective on network pictures. <i>Industrial Marketing Management</i> , 39(3), 372–380	Empirical	<ul style="list-style-type: none"> – Develop the concept of network pictures by suggesting we think of them as exercises in sense making. – Provide an introduction to organisational sense making before establishing a degree of commensurability between network pictures and sense making.
Networks	(Bjørn and Ngwenyama, 2009). Virtual team collaboration: Building shared meaning, resolving breakdowns and creating translucence. <i>Information Systems Journal</i> , 19(3), 227–253.	Empirical	<ul style="list-style-type: none"> – Investigate communication breakdowns that can be attributed to differences in lifeworld structures, organisational structures, and work process structures within a virtual team. – All communication breakdowns are manifested and experienced by the participants at the work process level; however, resolving breakdowns may require critical reflection at other levels
Networks	(Heverin and Zach, 2012). Use of microblogging for collective sense-making during violent crises: A study of three campus shootings. <i>Journal of the American Society for Information Science and Technology</i> , 63(1), 34–47	Empirical	<ul style="list-style-type: none"> – The analysis of patterns of microblogging communications found that information-sharing behaviours dominated the early response phase of violent crises, and opinion sharing increased over time, peaking in the recovery phase of the crises. – The analysis of individual microblogging communications identified various themes in the conversation threads that not only helped individual contributors make sense of the situation but also helped others who followed the conversation.
Networks	(Kavanagh and Seamas, 2002). Sense making, safety, and situated communities in (con)temporary networks. <i>Journal of Business Research</i> , 55(7), 583–594.	Empirical	<ul style="list-style-type: none"> – Emphasises the need to move away from rationalistic assumptions about communication processes within projects of this nature, towards a richer conceptualisation of such enterprises as involving collective sense making activities within and between situated 'communities' of actors.
Networks	(Ford and Redwood, 2005). Making sense of network dynamics through network pictures: A longitudinal case study. <i>Industrial Marketing Management</i> , 34(7), 648–657.	Empirical	<ul style="list-style-type: none"> – Highlights the fact that networks and networking are not modern inventions, but are intrinsic to the nature of business activity.

Networks	(Henneberg et al. 2010). Sense making and management in business networks: Some observations considerations, and a research agenda. <i>Marketing Management</i> , 39(3), 355–360.	Empirical	<ul style="list-style-type: none"> – Research in the area of sense-making and management in business networks may help us understand how managers cope with the contextual complexity in business networks, and how managers construct the forms in which this complexity appears
Systems	(Wetzel and Dievernich, 2014). Mind the gap: The relevance of post-change periods for organisational sense-making. <i>Systems Research and Behavioural Science</i> . 31, 280–300.	Empirical	<ul style="list-style-type: none"> – The moment of retrospection defines the relevance and continued impact of previous decisions. – Retrospection defines the corridor for future success and reveals a previously ignored momentum of change
Systems	(Stigliani and Ravasi, 2012). Organising thoughts and connecting brains: Material practices and the transition from individual to group level learning prospective sense-making. <i>Academy of Management Journal</i> , 55(5), 1232–1259	Empirical	<ul style="list-style-type: none"> – Develop a process model that accounts for the interplay between conversational and material practices in the transition from individual to group-level sense making – Unpack how the ‘materialization’ of cognitive work supports the collective construction of new shared understandings.
Systems	(Reddy and Spence, 2013). Toward a model of collaborative information behaviour in organisations. <i>Journal of the American Society for Information Science and Technology</i> . 64(12), 2437-2451	Empirical	<ul style="list-style-type: none"> – Offer collaborative information behaviour (CIB) as an umbrella term to connote the collaborative aspects of information seeking, retrieval, and use.
Systems	(Rudolph et al. 2009). The dynamics of action oriented problem solving: Linking interpretation and choice. <i>Academy of Management Review</i> , 34(4), 733–757.	Empirical	<ul style="list-style-type: none"> – Action-oriented problem solving includes acting, interpreting, and cultivating diagnoses: – Feedback among these processes opens and closes windows of adaptive problem solving: – Reinforcing feedback and confirmation bias, usually considered dysfunctional are helpful for adaptive problem solving.
Systems	(Waehrens and Riis, 2010). Failures to enact the future: A social practice perspective. <i>Futures</i> , 42(4), 328–336.	Empirical	<ul style="list-style-type: none"> – Illustrates the importance of understanding the construction of collective and individual meaning in working with organisational foresight. – Shows how the inherent rigidity of the existing activity system and the weak ties between these diverse subsets of the organisation may block the interaction between emerging social practices and organisational intentions resulting in ongoing failures of understanding and enactment.

Systems	(Fjeldstad et al. 2012). The architecture of collaboration. <i>Strategic Management Journal</i> , 750(August 2011), pp.734–750.	Empirical	<ul style="list-style-type: none"> – Propose new organisational architectures based on actor oriented schemes composed of three main elements. – Actors that have the capability to self-organise. – Commons where actors accumulate and share resources. – Protocols, processes and infrastructures that enable multi actor collaboration
Systems	(Jay, J. 2013). Navigating paradox as a mechanism of change and innovation in hybrid organisations. <i>Academy of Management Journal</i> , 56(1), 137–159.	Empirical	<ul style="list-style-type: none"> – Develops a process model of navigating such paradoxes: in sense making about paradoxical outcomes, actors grapple with definition of success and can transform the organisational logic. – Result can be oscillation among logics, or novel synthesis between them when outside perspectives enable a clearer view of the paradox.
Systems	(Argote and Ren, 2012). Trans-active memory systems: A micro-foundation of dynamic capabilities. <i>Journal of Management Studies</i> , 49(8), 1375–1382.	Empirical	<ul style="list-style-type: none"> – Present trans active memory as a micro-foundation of dynamic capabilities. – Describe how an organisational system for collectively encoding, storing, and retrieving knowledge can facilitate the combinative integration and renovation of an organisation’s knowledge assets.
Context	(Elsbach et al. 2005). Identifying situated cognition in organisations. <i>Organisation Science</i> , 16(4), 422–433	Empirical	<ul style="list-style-type: none"> – Develop a framework that identifies how some specific forms of cognitive schemas (i.e., rule schemas, event schemas, person schemas) and specific contexts (e.g., physical contexts, institutional contexts) interact during sense making processes to give rise to momentary perceptions that we call situated cognitions.
Context	(Skålén et al. 2005). The contextualization of human resource and quality management: A sense making perspective on everybody’s involvement. <i>International Journal of Human Resource Management</i> , 16(5), 736–751.	Empirical	<ul style="list-style-type: none"> – Contextualization stands for the process that leads to a shared meaning, i.e. the majority of the co-workers in an organisation understand and define a concept or change in terms that are shared and accepted.
Context	(Laursen et al. . 2011). Regions Matter: How localized social capital affects innovation and external knowledge acquisition. <i>Organisation Science</i> , 23(1), 177–193.	Empirical	<ul style="list-style-type: none"> – Geographically localized social capital affects a firm’s ability to innovate through various external channels. – Being located in an area characterized by a high degree of localized social capital is complementary to firms’ investments in internal research and development (RandD)
Context	(Osmond and Bird, 2000). Beyond sophisticated stereotyping: Cultural sense – making in context. <i>Academy of Management Review</i> , 14(1), 65–77.	Empirical	<ul style="list-style-type: none"> – Culture is embedded in the context and cannot be understood fully without taking context into consideration. – To decipher cultural paradoxes, the authors propose a model of cultural sense making. linking schemas to contexts.

Search	(Jenkin et al. 2013) Individual exploration, sense making , and innovation: A design for the discovery of novel information. <i>Decision sciences.</i> , 44(6), pp.1021–1057.	Conceptual	– To be useful, novel information must have a particular relationship to existing organisational knowledge. It must be far enough away to qualify as novel, but it must be close enough that it can be understood and exploited. Therefore, a key challenge for novel-information discovery (NID) is to find concepts that have such relationships to a given starting point or focal concept of interest
Search	(Pandza and Thorpe, 2009) Creative search and strategic sense-making: Missing dimensions in the concept of dynamic capabilities. <i>British Journal of Management</i> , 20, pp.118–131.	Conceptual	– Creative search and strategic sense-making and experiential learning are complementary. This notion of complementarity implies that these processes, notwithstanding their contrasting characteristics, coexist together and serve to offer an explanation for how knowledge progresses at a firm level. Variance is introduced into the framework proposed through the identification of factors that influence the coexistence of creative search and strategic sense-making
Social	(Maitlis 2005). The social processes of organisational sense making. <i>The Academy of Management Journal.</i> , 48(1), pp.21–49.	Empirical	– Social processes of organizational sense making unfold in four distinct forms, guided, fragmented, restricted and minimal. Stakeholder engage in trying to influence others understanding of an issue

Appendix E Breakdown of 1st cycle *In Vivo* clusters

Case A – First interview – Managing director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
Our industry is all about change you know, massively	<ul style="list-style-type: none"> – a continual cycle of technology arriving – a real problem for the agency and its ability to adapt fast enough to that kind of change – because it is essentially across multiple devices – fundamentally has a capability to join things up that were not joined up before – larger than the media space of all the other media space combined – new devices creating a real interruption in the market – speed at which we could take our classic web skills – immediately becomes the expectation – the impact mobile was going to have – they actually use technology in an unexpected way – this enormous shift – this landscape is still moving and emerging 	Silos don't really work	<ul style="list-style-type: none"> – a real problem – command and control – essentially mess it up – not flexible and nimble – not quite right – old view of the world – people become less attached to what the organization is trying to achieve – putting a lot of that in the bin and starting again – sort of the chain – structure getting in the way – the more pressure you apply on them it actually destroys them – time gets wasted – we grew and created silos
Cluster	Selected 1 st cycle <i>In Vivo</i> codes	Cluster	Selected 1 st cycle <i>In Vivo</i> codes
They are continually hooked into what is going on	<ul style="list-style-type: none"> – It was a case of listening to them – people here have the answers – the cultural aspect – Because of the nature of this industry – they are clever enough between them – they are continually hooked into what's going on – they are working – they do keep on top – they go on line – they have the answers – they know better than I really where we ought to be going – they know how it should work 	Knowing the type of people that we want	<ul style="list-style-type: none"> – appetite and understanding of collaboration – attributes really we needed inside the business to really deal with the future – attributes that were fundamentally missing – components of it that need to be there – Cross-discipline, capabilities, empathy and understanding. – do we have the right people, – knowing the type of people that we want – the right environment for them to succeed – those kinds of people – we want brilliant people – Empathy and understanding. – what motivates people in this line of work

Case A – First interview – Managing director			
Cluster	Selected 1 st cycle <i>In Vivo</i> codes	Cluster	Selected 1 st cycle <i>In Vivo</i> codes
We jumped ship	<ul style="list-style-type: none"> – an opportunity for us – be famous ultimately – fame and commercial success – have the opportunity for better work – how could I go and try and do bigger things – leaps of faith – we actually had a lot of motivation – we are looking for opportunity – we had a belief – we had a plan – we have always been fairly fascinated – which we are looking for 	So the story I am going to tell you	<ul style="list-style-type: none"> – And this story is really about this point for me – building a story from the things you looked at – explaining today – founded in a kind of experiences – getting a grasp of it – going through a defined period of analysis – I have got essentially an equation – I talk about the sort of business model – I then use as a prism – looking at them as a whole – Pulling them together – then create and do something with that understanding – you personalize it and doubt
Cluster	Selected 1 st cycle <i>In Vivo</i> codes	Cluster	Selected 1 st cycle <i>In Vivo</i> codes
I can feel it in my waters	<ul style="list-style-type: none"> – because we were still in turmoil – feeling what is coming – I can feel it is not quite right – I realized I had skin in the game – I was falling out of love – journey of that instinct and understanding – leaps of faith – put your hands in front of you – running in the dark – seeing what the picture was – the journey about making sense – there was a real problem – trying to make a decision about something – we were not dealing with some of the issues 	The battle ground for agencies is going to be around talent	<ul style="list-style-type: none"> – get the talent in the first place – if you had the best people then that was going to help you succeed – leads to better people walk through the door – retention is massive – the recognition that it was a talent business. – there was a couple of key individuals that we had lost – there were a couple of people who were really, really talented – there would be no people leaving the business – we get the talent in the first place – we have never really ever lost anybody – keep some of that talent in the business – we were a talent business in an industry that has a talent shortage – what they came here to do in the first place

Case B – First interview – Managing director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
Staff retention	<ul style="list-style-type: none"> – they have wanted to do their own thing – the grass is always greener – staff retention is bad – get it out of their blood streams – every year there is a pay review a percentage across the team – we will pull them and say we are giving you a pay rise – We pay bonuses – we give pay rises to people – you are always welcome to come back – do their own thing 	They are telling me all the time	<ul style="list-style-type: none"> – How do we stay in front of the curve – I have got creative geeks – listening to people that do their job all day long – telling me all the time what is going on – so you have got to be able to listen – they are getting information – they are looking – they are telling us what is wrong – they educated me – they have come up with some blinding stuff – because these people here they are the Z now
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
We target them	<ul style="list-style-type: none"> – we will take an equity stake in and then grow. – we take that from 3 million to 10 million – we can get massive traction on. – we can pinpoint – I want it to be 7-10 million – Five years' work and another million quid it's nice. – we wanted to target – we will take an equity stake 		

Case C – First interview – Managing director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
I don't have bottomless pots of cash	<ul style="list-style-type: none"> – how am I meant to fund all of this Rand D – get your client to pay for it – Anyone willing to pay – then you get someone to pay for it – you have got to convince them to spend – we convince them that they need to spend the money – I will go and approach them – anyone willing to pay – how am I meant to fund – It's an easy way of doing it do the RandD 	It's bloody complicated	<ul style="list-style-type: none"> – all of these new modules – being different, different things in different ways – go round in this cycle – everyone is doing different dances – different devises working in different ways. – it is a whole different ball game – its endless absolutely endless and it just keeps growing – millions and millions of permutations – new technology new tools and techniques – you are constantly trying to run to stand still – so much more complicated
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
My networks are a mix of people	<ul style="list-style-type: none"> – engaging with people in a different way – blue sky thinking – I kind of look at who other people are following – I listen to and follow people that are sharing content – looking at that kind of futurology type of thing – lots of people talking about the next big thing – the next big thing the next trend – you tend to filter a lot less – sharing more information – I am a crap Twitter user 	Skill has always been a problem	<ul style="list-style-type: none"> – the challenge is still skills – To get the blend of people – totally different job roles – Loads of different people involved – It's finding quality skilled staff – I want a nice lean core team – all those different job roles – mix of disciplines – We need to start the inspiration

Case C – First interview – Managing director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
We do not see it in the right way	<ul style="list-style-type: none"> – you just get alarm bells – a pain in the ass – when are they going to catch up – we see it in a different way – we see digital as being nuts and bolts and it's just not. – They just don't know the value off it – struggling to stay in business – people that don't know what they are doing – I don't think it is going to work – it's that kind of chicken and egg 	You have to filter out the bad ideas	<ul style="list-style-type: none"> – how do we leverage all this technology – I don't have to worry about that stuff that is years away – I need to understand what the technology can do – let's see how that develops – no sense in being an early adopter – not spend a lot of time wasting time – too far in advance – unless it moves you forward – you take all this technology and wait – just kind of work out how to do it
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
You kind of duck and dive with projects	<ul style="list-style-type: none"> – You just don't know where to start – you have to be a bit like Muhammad Ali – you have got to dance a bit – you have to go through this dance – light on your feet – making it up as we go along – got to dance a bit 		

Case D – First interview – Managing director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
We know what we are doing now	<ul style="list-style-type: none"> – We are pretty respected internationally – made lots of mistakes – you start to come to really understand – we are the kind of grand-daddy end of it – we are very well equipped – pretty respected – you only learn that by making those errors. – we have grown up a bit – we made this wonderful naïve assumption 	Changes on a pin	<ul style="list-style-type: none"> – digital things move incredibly quickly – Because the market is growing up – our world changes so much – we have to be pretty fast and lean – we would be foolhardy – I don't think I could plan more than a year ahead. – The world is changing
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
These are creative people and they don't respond to that	<ul style="list-style-type: none"> – Let it roll out – not crush what we have already created – very driven – very organic and very fluid – we have a very very organic process – why worry about it and try and control it – there is a degree of serendipity 	Land of opportunity	<ul style="list-style-type: none"> – Exploring different ways – I am kind off going to go over there – I can see the line to growth – increasingly people will come to us – make the most of the opportunity – Market is growing up – more aggressive way – These are interesting times – digital is kind off rising

Case D – First interview – Managing director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
Massive skills gap	<ul style="list-style-type: none"> – because of the skills issue – not losing staff – not losing staff that we enjoy working with – they are going to leave – the problem is going to be growing skills – you can only grow your own so quickly. – why are you going and what can we do better – we don't really have the time to train them 	Huge kind of cultural frame of reference	<ul style="list-style-type: none"> – That is just not us at all – people go sorry, I forgot for a minute – not crush the culture – my massive inspirations – the right kind of soul – carry the same values – a really good filter mechanism.
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
What are our clients doing	<ul style="list-style-type: none"> – How do they see the world – make sure we can deliver for them – the most intelligent digital thinkers – working really closely with them – intelligent digital thinkers – reacting and changing our business – a particular client relationship 	Challenging the mix all the time	<ul style="list-style-type: none"> – Aware of that wider world – they are all very networked – then adding to that mix – we look for people that have a totally different experience base – interested in the world – feedback mechanisms – massive amounts of communication

Case A – Third interview – Technical director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
We are not firing on all cylinders	<ul style="list-style-type: none"> – just pointless exercise – because there is a danger – word spoken but nothing really happening – a constant challenge to get to the point – working in parts – you lose sight of what it was you actually got together for – you lose that focus and making that decision – you start to get dragged into other things. – old ways creeping back 	A kind of digital buzz around the place	<ul style="list-style-type: none"> – because people are fundamentally interested – immediate feedback that you get is rubbish. – fiddle around with it – By virtue of the stuff that they do – being involved – learning stuff – kind of absolutely snowballs – just keeps bouncing it along. – They are just in it you know – they need to get under the skin of it
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
Everyone is aware of kind of changes in things	<ul style="list-style-type: none"> – they are your friends – We try to encourage sharing – you do play quite a tactical thing – there is quite a big social side to it – start plugging the gaps – it's just that thing of sharing a problem – get that kind of point of view – everyone knows what's going on – everyone knows everyone – All highly linked – because you can inject other things into far quicker 	It fascinates me	<ul style="list-style-type: none"> – I am very interested in how things work – I know what I like and what works well – I want to come and work for you guys – I want to be involved – I think that is the key thing for me – it can be quite soul destroying – that's what interested me – not the type of thing that I want – I really really loved it at that point – I like to know how to build things that work and feel really nice

Case C – Third interview – Managing director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
Bringing yourself closer to those individuals	<ul style="list-style-type: none"> – You can follow someone – you can interact with those people – your kind of far more plugged in – collating other ideas from other individuals It was all about collaboration – having that exposure – exposure between different things – I mean there are conversations – you start to see some of that feeding into the work – people actually gloss over the kind of reality of what they are talking about 	Making sure the team is kind of functioning	<ul style="list-style-type: none"> – looking at what the teams are doing – make sure that things are online – work out how you're going to do it – you work with people who are losing their mind – you have got to just sit down and break it down – checking in with the guys from within that team – where do I start and all that
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
You know feisty people in those roles	<ul style="list-style-type: none"> – doing interesting crazy ideas – doing things differently – certain people react to certain things. – being out there and showing yourself – keep projecting themselves – I think just constantly trying to do things in a different way – do it in a kind of perceived innovative way – pulling their hair out – they are frustrated ultimately 		

Case C – Third interview – Managing director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
Because it is also a natural extension	<ul style="list-style-type: none"> – any thoughts – a lot of kind of pushing within – kind of filters around – bouncing ideas off each other – they can blog – people interact differently – what you think about this and that. – they go hey 	Continue to follow them on Twitter	<ul style="list-style-type: none"> – ask outside our little circle – depending on who you are – because sometimes we don't have the answer to something – constant need to keep up-to-date – everybody's on twitter – they are massive – we need to know where to go
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
I have to tie everything together	<ul style="list-style-type: none"> – I am sitting up here and not down there – I always have a list of things I need to do – I have got to be constantly aware – I can step in – I need to make sure that they are aware of it – sitting with my team – make sure that internal teams communicate – I know that my role 	I think the problem it is difficult to formalise	<ul style="list-style-type: none"> – Because the moment it becomes a formal requirement people don't really want to do it – happens less in between groups – it will be one-person shows one person – it tends to be where people are sitting – miscommunication between teams – make sure there is communication – there's lots of internal stuff – we pulled the dividers down

Case B – Third interview – Technical director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
It is constant flux	<ul style="list-style-type: none"> – Changeable – very frustrating – it can get a bit a bit crazy – oh my God we have got some sort of weird penalty – obviously you can go crazy with it – SEO is messy and there are 100 ways of doing anything. – topsy-turvy – they treat you like your crazy 	Keep trying new things	<ul style="list-style-type: none"> – actual day-to-day practice is not as pretty – arsenal of tricks – keep trying new things – look at and check – constantly having to learn – what's up next – Stuff that worked and stuff that didn't work – you see how it affects and if nothing happens then you try something else
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
Most people need to be managed gently	<ul style="list-style-type: none"> – feel that they fit in – do them a different way – is where they want to go – they get crazy – they find it frustrating – they get really frustrated – volatile and a bit anarchic – very creative people in some instances – we have to keep them happy 		

Case C – Third interview – Managing director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
If you are honest and hard working	<ul style="list-style-type: none"> - I am not a bull shitter - I am not the only one though - I am quite an honest guy - I did everything I could to try to get out of it - I have done it for genuine reasons - save the jobs - that forced my hand - I'm not the only one who's going through administration - you have got the people to think about - there are plenty of people abusing the system 	Brilliant and left after two months	<ul style="list-style-type: none"> - challenge in finding people - a lot of ambitious developers - basically been hovering up everyone - everyone has got these problems - finding good people - getting the right people - has left the business - how long are they going to stay - he just quit without notice - the output started to grind to a standstill - they want to move on - knock after knock with people
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
Circumstances that are pushed on you	<ul style="list-style-type: none"> - because it is vast - a situation where it takes twice as long - everyone is innovating - everyone else innovating around you - hundreds every day - that really bit us on the bum - There are thousands of them - you know the elements 	I need to have a bit of a reality check	<ul style="list-style-type: none"> - I am a bit like a Magpie - if there is a sparkle over here then - I am not messing about anymore - my biggest downfall - so many things to think about - I like all of those things but - 20 things ongoing - two hours later I will pop a window - all that technological stuff - I am spinning 30 plates

Case C – Third interview – Managing director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
Being selective in the projects we choose	<ul style="list-style-type: none"> – you have got the right customers – the right profile of clients – our focus has been wrong – news travels fast – just repositioning – it is a small world – I shifted my focus – helping me understand – break out of the old model – bringing more expertise in – being willing to do different types of work 	Trying to reverse some of the mistakes	<ul style="list-style-type: none"> – it just doesn't work – it is not easy it is really not easy. – key clients – value of the projects – You start chasing your tail – just a fact of life – we were working with. – the mistakes we have made
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
Trying to find finance	<ul style="list-style-type: none"> – advance against an invoice – keep invoicing work – blabber your way through – You just have to invest out of the profit of the work – all you are doing is pumping profits back into people – fund the core of your business 		

Case D – Third interview – Creative director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
I like creating something from nothing	<ul style="list-style-type: none"> – boring work – I like creating something from nothing – trying new things – I just fell in love – creating stuff – Thirst for knowledge really – it is a bit of a buzz – very different – very beautiful 	Get used to stuff just disappearing	<ul style="list-style-type: none"> – get your head around – I had seen it all change – change overnight – technologies come and die – you can get lost – It is about stepping up – technically some of the stuff just doesn't work any more
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
It can crumple you	<ul style="list-style-type: none"> – is this actually worth it – long hours involved – the pressure does get you – you're trying to crack a nut – You're trying to solve an issue – what the f... let's go home – we're getting more and more pressure 	It can feel quite like a cult type of thing	<ul style="list-style-type: none"> – does not suit some people – make it bearable to come in – that sort of trust – we have like a rule – you know a table – you have got to get into the swing – things that really fester – you can pick up actually straightaway if someone is unhappy that day

Case D – Third interview – Creative director			
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
Peers will never see	<ul style="list-style-type: none"> – make something cool – I would hate for it to completely disappear – turned off like that – to see it in situ – to hear of people having used it – not going to be making something you might be proud off – the community aspect of it that never happened – very different – my loss – not very cutting edge or visionary – breaking new ground 	With Twitter you are shouting	<ul style="list-style-type: none"> – dangle something a nugget of information – everyone sort of is on twitter – Everything on the internet you know is the truth – tip of the iceberg – twitter is the first port of call – we all rely on twitter – worth their weight in gold – You got to be careful – it was something that just worked
Cluster	Select 1 st cycle <i>In Vivo</i> codes	Cluster	Select 1 st cycle <i>In Vivo</i> codes
You find out the latest thing	<ul style="list-style-type: none"> – a lot of stuff gets sorted – all sit down together – you know a table – things that really fester – You know we have got balconies – good place for people to vend the discussion – pretty damn trusting in each other – know how to behave to each other 		

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