

The perceived impact of the internet on family and social relations in the Kingdom of Saudi Arabia

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Abstract

This thesis considers the adoption of technology and perceived changing social attitudes and relations. Specifically it considers if there have been any perceived changes in family or social relations in the Kingdom of Saudi Arabia (KSA) and, if so, can this be traced to the relatively recent shift to allow more widespread access to the internet.

Traditionally the KSA has been characterised as a traditional, socially conservative society with a strong reliance on extended kinship groups. These family units have traditionally been the focus for much social interaction, especially for the female members and a regular round of face to face interaction was an important part of the social norms.

The adopted research design was a variant of the mixed methods methodology. In this case a questionnaire was issued to 300 young people at two universities and one high school in Riyadh. Following this, 50 interviews were conducted. These were a mixture of some under 28 (drawn from the questionnaire sample) and those over 28 (found using purposive sampling).

The research was designed to explore if the internet was perceived by respondents as having an impact due to time displacement (i.e. time spent on line was reducing face to face interaction) or in terms of any perceived changes of underlying attitudes towards the norms of Saudi society.

Broadly, the findings were that there was evidence that the internet was perceived as having led to significant changes in social relations due to time displacement. However, from the interviews, it was clear that to many women in the KSA the internet offered the means to sidestep traditional restrictions on social interaction. While most reported no change in social attitudes, those with relatively heavy usage did report an impact on both acceptance of existing cultural norms and social relationship.

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Chapter 1 / Introduction

The impact of significant shifts of technology on social and family relations is complex. A relatively dated paper by Fiedler (1997), argued that the actual effect is likely to be neither as positive nor as negative as originally hoped for or feared. The emergence of easy, large scale access to the internet has generated similar claims, both for the positive results and the potential impact on existing social norms and relationships. This thesis looks at the relatively recent uptake of the internet in Saudi Arabia and identifies a number of relevant problems in making a judgement about the consequences. One is that no social system exists in isolation to ongoing changes (so the internet is just one of many shifting influences) and equally access to the internet is all of: a technology (hardware, software), a means to spend time and also a means to access new information and attitudes. In addition, what is meant by ‘accessing the internet’ is changing from reliance on fixed computers and limited interaction to the ability to use mobile phones and hand held tablets and engage in direct interaction with other users or available programmes.

Some research on the impact of the internet suggests that it has led to less intra-family interaction and seen people substituting ‘on-line’ activities for real life interaction. On the other hand (Campanelli, 2008), other studies suggest this has been overstated, or that time spent with the internet has substituted for other non-social interactions (such as reading or watching television). However, these studies are mostly based within Organisation for Economic Co-Operation and Development (OECD) countries and do not address whether or not these dynamics are different in more traditional, less western, societies such as Saudi Arabia.

In this context there are potentially two related consequences of internet usage. One is the changing allocation of personal time, and, presumably, loss of time for real life social activities. Not least with the advent of modern phones, it is possible to be physically present at a family or social event but mentally engaged with the internet and social networks. The second issue is that it is an information resource and, in this respect, the internet offers young people access to different concepts of family life and adolescence than is the norm in their own country. Thus the internet may affect social and family relationships in two ways:

1. By taking time and attention away from conventional interactions;
2. By introducing new ideas and concepts about appropriate family and social relationships and personal values.

To these consequences should be added the argument developed in this thesis once the results of the questionnaires and interviews had been analysed. In effect, technological change may be more or less disruptive depending on: (a) how different the resulting means of interaction are to the traditional approach; and, (b) how valuable the new technology was perceived to be. This suggests that the consequences of the introduction of a new technology will relate to how much social change it triggers and how much commitment there is to using it (Venkatesh and Davis, 2000, Venkatesh et al., 2011).

This research is designed to explore the changing (or the perceived changes in) social relations in the Kingdom of Saudi Arabia due to the relatively recent widespread adoption of the internet. This was chosen as an example of a state that is, in some ways, technologically advanced, relatively rich and where a significant portion of the younger population has recently adopted large scale usage of the Internet. On the other hand, Saudi Arabia has a traditional, family-orientated, social system. In particular time spent within an extended family system has traditionally been the bedrock in terms of social norms and expectations.

As young people in countries like Saudi Arabia use the internet they are potentially exposed to very different cultural norms to those of their own society. The various states in the Gulf region are shaped by their own blend of religious and traditional social norms to create their own culture. For instance, members of a Saudi family have very strong social bonds with each other. Such bonds stem from the social composition of the Saudi family, which links children to their grandparents and to a wide range of cousins. This social structure is backed by Islamic teachings, which urge Muslims to keep the ties of kinship. In addition, the tribal system which is still prevalent in the structure of Saudi society, expects Saudi people to be involved in different forms of social activities to maintain the continuity of their social cohesion.

In consequence, researching this field is complex. So far most research into the impact of the internet has been set in the context of rich western societies (usefully grouped as the membership of the Organization for Economic Co-operation and Development – OECD). Even in an OECD context, most of the research about the impact of the internet on

individuals, family and social norms predates the recent expansion of hand-held devices. Outside the OECD there has been less research into the ways in which the technology and culture interact. There is some useful work in the fields of adoption of technology such as e-commerce and e-government (Howard et al., 2001, Peel, 2004, Yildiz, 2007, Etling et al., 2010, Venkatesh et al., 2011), however, these often concentrate on the reasons for technological adoption (Titah and Barki, 2006) rather than the consequences of that adoption.

One major problem in conducting this type of research is that social systems rarely change due to just one changing factor. Equally they are not amenable to a test-retest research design to explore the differences if a given variable is not present. Finally, such studies face challenges in terms of acquiring suitable data. It is possible to measure changing social attitudes using large scale longitudinal approaches, but even then, what is being measured are beliefs about changes in behaviour and social norms. This leads to two major challenges in conducting research in this field:

- i. In the absence of agreed scales, and a test-retest model, it is impossible to track such attitudinal and social changes. The consequence is of having to rely on what people believe, in other words do they believe the changes in social and familial relations can be traced to the level of internet usage?
- ii. Secondly, as discussed, there is a problem of the combination of the technology (the internet and the means by which it is accessed) and the content (i.e. the social norms and type of information it makes available). In turn, this makes it even harder to answer the question of the perceived impact of the internet as there is a need to distinguish between the technology (time spent on line away from family and so on) and the possibility of attitudinal change due to the information and concepts that can be accessed.

1.1 Framing the research problem

Drawing on the discussion above, this research looks at beliefs about perceived changes in familial relationships in Saudi Arabia and considers the role of the growing use of the internet in such changes. Thus, there is a need to consider not just usage of the Internet as such but the

extent to which it brings new social concepts around parenting and family relationships as well the way in which globalisation has the capacity to change traditional social systems. This means the perceived impact of the internet, in isolation from any other changes in a given society, cannot be studied. Instead, what can be studied is whether people believe that Saudi society, especially within the family unit, is changing and, if so, what role do they believe the internet plays in these changes.

Early research into internet usage suggested excess use might lead to addiction (Gross et al, 2002), but at that stage for someone to be on-line also meant they had physically to go to wherever the computer was kept. In effect, it was a deliberate and clear choice and some research suggested that the more time people spent on the Internet the less time they spent with their families, which made them lonely and depressed (Valkenburg et al, 2006). Other studies suggested there was a loss of face-to-face relationships (Campanelli, 2008) and that excessive Internet use is associated with weak family relationships, which leads to having a smaller social circle (Sanders et al, 2000). The same study noted that low intensity Internet users had better relations with their parents and friends compared with high intensity Internet users. This conclusion was borne out by Anderson (2001) who argued that low levels of social engagement are associated with high Internet use.

Some earlier research, such as by Vitalari et al. (1985), reported that home computing may decrease the leisure time with the family. Use of the internet has been associated with increased loneliness and reducing social support (Kraut et al., 1998). Also Sproull & Kiesler (1991) suggest that social interactions and relationships on the internet are not the same as traditional social interactions and relationships. Kraut et al., (2000) monitored family members who used the internet more often to communicate with non-household members and found that they spent less time interacting with their family than before using the internet. Nie et al. (2002) and Kraut et al. (1998) confirmed that the internet could lead to withdrawal from family, friends and society.

Overall, there is some evidence that Internet use diminishes social ties and increases social isolation (Kiesler, 1999; Kraut et al. 1998; Nie 2001; and Nie & Erbring 2000). However, not only are these conclusions challenged in other studies but they are all dated to before the current capacity for easy access using a mobile phone. One possibility is that has created the opportunity for easier access. In effect, it is possible to communicate quickly with people not present in a room while physically being part of a family or social gathering.

Equally, before 2000, Internet usage in Saudi Arabia was limited (Aladwani, 2003) in part as Arabic scripts were not supported on the main software and browsers (Wheeler, 2009). In addition, access could only occur using a computer on a desktop. Saudi data suggests the number of internet users has increased from around 200,000 in 2000 to almost 5 million in 2006 (Kingdom of Saudi Arabia, 2010) and to nearly 8 million by 2009 (Internet Statistics Compendium, 2009b). This early growth was not without concern to the Saudi authorities, some of whom saw it as a means to modernise the economy and to others:

“There is a sense of fear among the Saudis that the use of English entails Westernisation, detachment to the country, and a source of corruption to their religious commitment” (Pons, 2004, p. 80)

Given the geography of Saudi Arabia, internet access via mobile telephony rather than fixed facilities was the main means of expanding usage outside the few large cities (Naqvi et al., 2011). This strategy coincided with the development of a generation of mobile phones that allowed access to the internet. In consequence, the young and educated in Saudi Arabia have come to see internet access as a key part to their lives. However, what is not clear is what impact this is having. The capacity to access the internet while, notionally, at a family or social gathering is new and it is this that is the focus of this research. The new generation of mobile phones not only allow talking and sending messages, but have become the social networking tool of choice.

If, as some claim, the internet is potentially disruptive to family social norms this may have particularly strong effect in countries such as Saudi Arabia where such interaction is seen as a key part of the glue holding society together. Saudi Arabia is considered a traditional society, with a set of assumptions and traditions related to the family and social life. Examples include an expectation that all members of the family meet on a daily basis to talk about family affairs and have coffee, in addition there are weekly meetings with older members of the family and extended family members (Long, 2005). In addition, there are also obligations that go beyond the family at a societal level where there are weekly or monthly meetings and celebrations that one must attend (Long, 2005). This form of interaction is believed to strengthen the relations between individuals and so sustain both family groupings and wider society.

In summary, the internet can be seen as disrupting traditional relationships in one of two ways. At one level, it can take time away from such intra-family social networking by simply allowing individuals to engage in other social networks. It is possible, that with the shift from desktop PC to laptop to hand-held mobile devices the technology is becoming more intrusive. In effect, an individual can be present at a social gathering but allocate their attention to the internet accessed via a hand held mobile. On the other, the internet allows individuals to access social and personal norms distinct from those traditionally promoted within Saudi society. This can be gathered under the rubric ‘globalization’ as it encompasses exposure to particular global brands and assumptions about social relationships.

1.2 Research Methods

As acknowledged above, it is challenging to construct a research design that will disentangle the impact of internet usage from the impact of the content of the internet. Equally, Saudi Arabia, like many societies, is in transition and is facing its own version of seeking to sustain its own social and economic norms in the context of wider globalisation. Thus changes in internet usage are not happening in isolation and any research design needs to take account of the inability to control for other variables.

A second problem is how to measure changes in social and family norms? One option would be a longitudinal survey designed to elicit opinions at various stages and compare any changes to differences in internet usage. However, not only does such a design imply a time scale outside the scope of this research, it still comes to rely on opinions and beliefs.

In addition, there is a problem that what is meant by the ‘internet’ has changed perhaps more quickly than research can be conducted. By around 2000, on-line access usually meant using a fixed computer and e-mail and simple internet browsers but saw the start of interactive options such as chat rooms. By 2014, on-line access is achieved as easily using a mobile phone as a computer in a fixed location and offers a substantive range of methods to communicate and to engage in social interaction.

This changing nature of what constitutes internet usage has influenced a shift in research focus. The early studies, discussed in the literature review can be broadly characterised as

having a focus on the individual. Some of these were designed to measure usage of the internet, others the shifting of attitudes brought on by internet usage and some the relationship between internet usage and behaviour such as addiction. However, as internet access has become more ubiquitous and easier, there is increasing value to considering what the perceived impact is on wider social relations. This places a focus on the attitudes and beliefs of individuals, and, in turn, this drove a need to conduct the research in a real world setting and removed any ability to create a research design that removed unexpected variables.

Given this focus, a two stage research design was constructed. A questionnaire exploring level of usage and attitudes to the internet, family and social norms was circulated to high school and university students of both genders in three institutions. Then, fifty females were interviewed who covered a wider age range to include both younger women and some mothers. These interviews covered their perception of the perceived impact of the internet on family and social relationships. The second group was purely female as, due to social restrictions within Saudi Arabia, it was impractical for a female researcher to interview men.

1.3 Aims and objectives

Aim

The research has main aim relating to the Saudi society, is to investigate the perceived present day influence of the internet on the Saudi family and society.

Objectives

To achieve this there are 3 main objectives relating to Saudi society which will be explored and identified:

1. To explore types and amount of the internet use as reported by participants in a questionnaire survey of young people.
2. To explore the perceived influence of the internet on Saudi family and society in term of social norms, traditions and customs.
3. To explore the impact of internet use on Saudi women's cultural and social opportunities as perceived by younger and older Saudi women.

Table 1-1: Aims and objectives.

Objectives	Issues to explore and discuss	Participants	Methods
To explore types and amount of the internet use.	<p>Time spent online and type of use?</p> <p>Is it internet use attractive to them, if so in what way?</p> <p>Is the internet considered to have any impact on their family relationships?</p> <p>Has the internet affected their opinion about social norms, traditions and customs?</p>	<p>Students age 18 to 28.</p> <p>Males and females.</p>	Questionnaire
To explore the perceived influence of the internet on Saudi family and society in term of social norms, traditions and customs.	<p>Has the internet been seen to influence any change in the type and quality of familial interaction within Saudi Arabia?</p> <p>If so, has it led to disruption or changed traditional means of communication and interaction?</p> <p>If not, is it considered to have had any other effects</p>		
To explore the impact of internet use on Saudi women's cultural and social opportunities as perceived by younger and older Saudi women	<p>Time spent on internet</p> <p>Access to internet</p> <p>Use any social networking</p> <p>Purpose of using internet</p> <p>Internet relationships</p> <p>Post an opinion by real name or anonymous</p> <p>Any perceived impact on family relationships</p> <p>Any perceived impact on attitudes</p>	<p>Young group under 28 year.</p> <p>Old group above 28 year.</p> <p>Female only.</p>	Interviews

1.4 Layout of this thesis

Chapter two sets out a background for this study and reviews social and familial norms within Saudi Arabia. As such, this creates an underlying analysis against which any reported changes can be compared. Chapter three summarises the literature that exists on the potential impact of the internet on social norms and personal attitudes. This is divided into two broad themes. The first considers the research around issues such as addiction and the ways that internet usage, in itself, can disrupt traditional inter-personal dynamics. The second section looks at the potential for the internet to shift attitudes.

In this respect, consideration of the impact of the internet also involves a discussion of the social and personal implications of globalization. This, it has been argued, can be disruptive in several ways. One is in presenting young people in different cultures with a largely American framed model of adolescence and social norms. The second is that families are broken up when members need to travel to work elsewhere. Here the internet allows an ongoing connection with their original society, but also, again, creates the means by which new and potentially disruptive ideas can become widespread.

Chapter four develops the discussion of an appropriate research technique, developing the discussion briefly sketched out in this chapter. This argues that this research has to rely on attitudes and beliefs as to whether there have been changes and the relative importance of the internet as a trigger for those changes. The result was a two stage mixed methods design combining a questionnaire with semi-structured interviews.

The first stage of the research was to issue questionnaires to around 300 young people either in high school or university. These are analysed to understand connections between overall internet usage, how the internet is used (for study, to email, wider information search or social networking). This is then compared to the believed degree of involvement or alienation in family social dynamics and their overall feelings of wellbeing.

Chapter Six then reports the qualitative findings of interviews with a group of women in Saudi Arabia. These included some of the young people who completed the questionnaire, their mothers and other older women. The intention at this stage was to consider if any firm conclusions as to the relationship between expanded internet use and family norms can be reached.

The material from these two chapters is brought together in Chapter Seven. This chapter performs two roles. One is to integrate the two research strands and consider where those findings are mutually supportive or offer variations in response. Equally, using these findings, and the literature reviewed in chapter three, there is a discussion as to the development of a theoretical structure that can be used to explain the reported findings.

Finally Chapter Eight summarises the main findings of this thesis and indicates directions for future research.

Chapter 2 / The Dynamics of Saudi Society

Since this research considers changing social attitudes within Saudi Arabia, this short chapter reviews some of the main features of family structure and mores in contemporary Saudi Arabia. In effect, Saudi Arabia remains a conservative society with an emphasis on family relations (Cordesman, 2003). This chapter aims particularly to explore the nature of Saudi society as a conservative society which has distinctive models of adolescence, parenting and family structures as compared to Western societies. Later in this thesis it is argued that the introduction of outside norms, via the internet or connected with globalisation, has the potential to unsettle these established arrangements (Pons, 2004).

2.1 Introduction

Saudi Arabia is the largest country in Gulf Region but is relatively new (formed in 1932) and contains a number of cities and different tribal groupings. In combination this has led to a complicated social structure with a limited sense of national identity and variations in culture and social norms between tribes and across geographic divisions from South to North and from East to West (Alkhariji, 1983, Alsaif, 1997). It is notable that unlike many other countries, Saudi Arabia and its predecessor regions have never been colonised by western powers. In addition, Saudi society, as with other Arabian countries, has been formed from separate tribes which traditionally created their own layer of culture and customs. This makes for a very conservative community emphasising traditional culture, customs and Islamic values. The result is that: "Saudi society is in flux. Trying to understanding Saudi through its dynamics is like painting a picture of a moving train" (Long, 2005, p.1). Long's notion about the difficulty of studying Saudi society can be attributed to the continuous conflict between global modernisation and the nature of the Saudi society, as well as its historical religious values. Therefore, an outside researcher, like Long, who tries to study or understand a conservative society like Saudi society may find it a challenge to grasp that society's deeply hidden issues. What he would obtain would be a general image, which may be grainy and unclear, even if he had lived among them a period of time. In this regard, Kanuha (2000, P. 444) stated that "an insider researcher enhances the depth and breadth of understanding a population that may not be accessible to a non-native scientist".

One key aspect of Saudi Arabia is its identity as the birthplace of Islam, and, as a result, the two cities of Meccah and Medina contain the two holiest mosques (Achoui, 2006). Thus Islam is fundamental to its existence and Islamic law (shari'a) is at the core of social and economic norms (Long, 2005). In turn this has led to conflicts between traditional social groupings and attitudes and modernisation as: "The interplay of these three themes an ancient desert society infused with Islamic values on a collision course with modernization appears to be relatively constant" (Long, 2005, p.1).

2.2 Key elements of Saudi Society

The Saudi community draws on the traditions and customs from both their tribal past and Islamic values. Domestically, Saudi society balances such traditional norms with inherited customs, traditions and values. In combination there is a balance of a religious culture that controls all social interactions and yet society continues to draw in new ideas and technology (Hull, 1977, Hamdan, 2005, Al Lily, 2011). In particular, social relations are important, both within the family and in terms of wider social interactions, with the morals and norms derived from a combination of local tradition and religious interpretation.

Long (2005) argues that Saudi society is essentially based on tribal structures and this, in addition to Islam, plays a major role of the Saudi society structure formation. In effect, Saudi culture takes into account tribal traditions, customs, and norms in how they behave (Alsaif, 1997, Long, 2005). Achoui (2006) suggests that the social stratification of Saudi society follows tribal lines whilst Al Saif (1997) and Long (2005) stress that tribal links pervade family and social interaction across Saudi society.

2.2.1 Religion

Saudi society has a strong religious basis in terms of professed beliefs, legal structures and social mores. In particular, Islamic law affects most aspects of both social and economic relations and legislation within Saudi society and is drawn from the holy book "The Quran" and the prophet's words or "sunnah" (Alsaif, 1997, Long, 2005). These sources form the

bedrock of the legal system which is called “shari’a” or Islamic law (Achoui, 2006). This gives Islam the role of setting morality, social norms and traditions within Saudi society. These include: “Rites of passage - births, marriages, divorces, deaths, and associated matters such as inheritance, child custody, and remarriage - all of which are essentially family affairs. Although modernization has brought some changes in how the Saudi society is performed, they are still governed by Islamic law (shari’a) and cultural traditions” (Long, 2005, p.65). The implications of basing a legal system and social morals on Islam are profound as: “More than religion, Islam is all-encompassing and cosmic, it teaches that all things animate and inanimate are God’s creation, and all are under God’s dominion” (Long, 2005, p.18).

In consequence, the main basis of transactions between individuals within Saudi society is derived from Islam, and people seek to stay inside the Islamic (shari’a) limits as much as they can. Alzenade (2002) argued that Islam offers a complete set of rules for the individual’s life, relationships and behaviour. Religion also creates a social space as people who live in the same area will meet at a mosque both for religious and social reasons (Khalifa, 1990).

Islamic religious values and norms play a very important role in every Muslim’s identity within Saudi Arabia. However, some authors suggest that exposure to external influences, for example via the internet using social networks, may affect these norms and provide a means for women in particular to bypass religiously derived laws such as gender segregation. As an example, a study conducted by Shen and Khalifa (2010) studied Facebook usage among Arabic college students in the United Arab Emirates and found that female Muslim students perceive Facebook as a social venue and as a “playground” where they could escape the family restriction and authority pressure of gender segregation and enable them to interact with many external people and experiences. Work by Al Lily (2011) considering women’s education, also draws explicit attention to the internet and the ways in which it offers opportunities for them to ‘cross gender lines, with or without the permission of their male guardians’ (p121), thus being seen as a potential challenge to religious authority.

2.2.2 Saudi society family structure

Family structures are a key building block within Saudi society and, as discussed previously, reflect both Islamic and tribal norms (Alamri, 2001). In particular the family is defined as a large and extended set of relationships (Alamri, 2001). Long (2005, p.35) argues that this extended family is a very important structural unit in Saudi society, suggesting that: “Virtually all Saudis consider themselves members of an extended family. Each family member shares a collective ancestry, a collective respect for elders, and a collective obligation and responsibility for the welfare of the other family members”. This creates a wide range of family ties that bind individuals to a range of relatives and creates a social dynamic based on mutual reciprocity (Qatan, 1981).

Family relationships are created by kinship ties based on blood and affinity relationships (intermarriage), and also by marriages between relatives and across a given social strata in a particular community (Siad, 1982). This is important as Alsaif (1997) notes that Saudis prefer to marry either relatives or within a social group from the same area or with similar customs and traditions. Alkhalaf (1993) argues that this practice, and the resultant pattern of regular exchanges and visits between relatives, is important in terms of maintaining social cohesion.

Male parentage forms the basic structural unit of Saudi family structure drawing on both religious rules and customs for its importance, though there is also recognition of the mother’s relationships (Alsaif, 1997). This means, despite the primacy of the male line, relatives are defined by descent from either male or female creating affinity relationships (intermarriage) or kinship (Qatan, 1981). The structural dynamic of Saudi extended family is based on several aspects. Those characteristics are a patriarchal, patrilineal, patrilocal, endogamous and sometime polygamous (Patai, 1969). Long (2005, p.35) defined these concepts as “patriarchal refers to family authority being concentrated among the elders, male and female; patrilineal refers to tracing descent through the male line; patrilocal refers to family members living in close proximity; endogamous refers to choosing spouses from within the same tribe, extended family, or social group; and polygamous refers to having multiple wives” .

In combination, these terms create a society with a number of characteristics, including:

- **Patriarchal:** Saudi society has a great respect for seniority and therefore the elders retain respect from the youth in Saudi society. Moreover the younger family members are required to show a great respect for authority, wisdom, and council of elder family members either men or women (Long, 2005). Metz (1992) has argued that inside Saudi society the patriarchal family, with its cultural and religious values, leads to a situation where “the father or the grandfather had the legal power and social norms, which supported his authority” (Achoui, 2006). There is some evidence this is now changing but it remains a powerful set of expectations for the behaviour of Saudi citizens (Alsaif, 1997, Algharib, 2007).
- **Patrilineal:** relates to how the family name descends down the father’s line (Metz, 1992, Alsaif, 1997), and creates the basic nature of family relationships and structures (Achoui, 2006). In effect, Metz (1992) argues: “Families were patrilineal, the boundaries of family membership being drawn around lines of descent through males. Relations with maternal relatives were important, but family identity was tied to the father”. Nonetheless, female authority is also important. In turn, the mother is expected to help the girls with their problems and to set rules for behaviour. In effect, she is in charge of domestic management and in this role children must listen to their mother’s orders or opinions. Again, these expectations are grounded in Islamic expectations of obedience to parents (Al Saif, 1997; Long, 2005).
- **Patrilocal:** Long (2005) notes that Saudi society members typically live in the same area and within family compounds if possible. Therefore married sons live in or next to the house of their father, and in consequence, married daughters usually reside within or next to their father-in-law’s residence (Achoui, 2006). Traditionally this system of family compounds brings together wider groupings based on region or social class. More recently, this too has started to change but remains an important feature of Saudi society.
- **Endogamous:** Saudis still tend to marry their cousins or other members of the close family in their area, tribe, or region (Alsaif, 1997, Long, 2005).

- **Polygamous:** Islam allows polygamy (marriage of up to four wives), with a condition of justice among the wives in terms of both finances and time, if this condition is not achieved then polygamy is not acceptable. This practice is becoming more and more rare (Long, 2005, Achoui, 2006) mainly due changes in the level of education and economic development.

In consequence (Alamri, 2001) a typical Saudi family consists of parents, and their children, (typically about seven) in addition to any extension of their family through the male line (patrilineal). In effect: “a family might therefore be defined as comprising a man, his children, and his children's children through patrilineal descent” (Mets, 1992, p.65). This gives a complex family structure incorporating particular customs, traditions and social norms.

One important source of family change is coming from the increased educational opportunities for women (see section 2.3 below). Shen and Khalifa (2010) confirmed that female students can broaden their social networks beyond the traditional kinship group and this is leading to much wider social interaction. External influences from different sources such as the internet and general media might also lead to changes of some individual's thoughts leading them to question existing social laws and family expectations, even if it is extremely difficult or may be even impossible to modify the conservative society. In the GCC countries, as a result there has been a substantial shift in the attitudes of Arabic female students according to Shen and Khalifa's (2010) study among the Arabic college students in UAE. In consequence younger women have become more aware of other cultures and ideas. This is echoed by Hamdan 2005 and Al Lily 2011, although both these authors indicated that a respect for the cultural values was retained.

2.2.3 Saudi society customs, traditions, norms, and values

Saudi society is very conservative both religiously and culturally (Long, 2005, Hamdan 2005). The main elements that compose the culture are:

1. **Customs:** are the religious and customary values that set out the norms that people follow in their community. Failure to follow any of these customs can be considered as a rebellion against society (Alsaif, 1997) especially in a society structured on the lines that apply in Saudi Arabia with the importance of kinship and religion.

2. **Traditions:** defined as behaviours related to a particular class or linked to the domestic environment, these traditions are less mandatory than customs (Alsaif, 1997). Therefore traditions are not as strong as customs and there are less serious penalties when someone fails to follow them.
3. **Norms:** defined as the unwritten social system, which consists of beliefs and ideas which are derived from group's ideology and its heritage and religious beliefs. In addition this reflects a group of standard social norms that determine the right and wrong behaviour; and the permissible and impermissible relationships within social culture. However, since they represent the expectations of behaviour, they are important in maintaining a particular form of social relationships (Alsaif, 1997).
4. **Values:** defined as human moral value and Al Saif (1997) argues that values captures the circumstances; principles; subjects which have been given meaning through the history of a given society.

The customs set a number of expectations for behaviour within the family unit. Some critical customs include marrying relatives, frequent visits to relatives, and respect for parents and that the eldest daughter will be married first (Achoui, 2006). Alsaif (1997) and Alkhariji (1981) add that Saudi society traditionally preferred marriage with relatives and in same tribe. This marriage will lead the family members to visit each other more and increase family cohesion (Alkalaf, 1993). Exchange visits between family members are very important in Saudi society. It is an important way to strengthen and build the kinship network, and it helps to enhance links between relatives (Alsaif, 1997). These visits are an important part of this culture leading to regular contact between family members and involving older members (Long, 2005). In addition there is economic and trade cooperation between the relatives who usually form one family business (Alkhariji, 1981, Alsaif, 1997, Metz, 1992, Alkalaf, 1993).

However, some of this is changing. For example, as individuals are married they tend to leave the family home and the network of visits has shifted towards direct family members (such as parents, children, brothers and sisters) but decreased towards other relatives (Alsaif, 1997). This pattern of visits and meetings is important and Alzandani (2002) noted different types of family meeting in Saudi society,

- Daily meeting, when the members of one family meet each other at lunch and dinner time or at sunset to talk and drink coffee.

- Weekly meeting, when the closest family members such as grandparents, parents, and married children meet with each other at a similar time and day either in one of their houses or they rent a special place for this meeting and usually at the weekend. This type of meeting is called *Aldoreeh Alasboeeh*.
- In addition there is a different weekly meeting called *majlis* held by the men of authority and power which brings together family members and friends to discuss different issues (Long, 2005; Al Lily, 2011). Other meetings can include discussions of financial matters between the family members.
- Monthly meetings, when the extended family members meet each other's on a special date every month and they rent a place for this event. Sometimes when the extended family now live in different cities they will manage more than one such meeting per month. This type of meeting is called *Aldoreeh Alshehreh*.
- Annual meeting, when all extended family members meet each other on a special date and again they tend to rent a space large enough for all the members. This meeting usually falls in the summer or midterm holiday and will held in the original city for this family. This type is called *Aldoreeh Alsanoeh*.

These meetings are usually organised by one of the family members who provide all of the requirements such as food and drink. In consequence the role of organizing this meeting tends to rotate around the family group. These family meetings are for all members, female and male and include children. Some families organise meetings on separate days for men and women due to the size of the family. The conversation in these meeting is about the family members and their needs and how to help them to sort their problems out. Some families collect money so as to help any member who might need help.

Research has shown that there might be a conflict between the influences of traditional Islamic culture and modern western cultures among young Arab generation (Solberg, 2002, Al Lily, 2011). As a result of exposure to the internet and social media, it is possible that young Saudi generation might be attracted to foreign customs, and norms that are different from the Saudi society norms which may eventually result in them subtly changing their willingness to accept their inherited culture

2.3 Women in Saudi Arabia

As noted in the previous sections, Saudi Arabia is a conservative country and Islam underlies religious, social and political activities of all its citizens. This has a strong influence on women in the country. Requirements of women and their opportunities within the society, as indicated in recent literature, are outlined below. These will help throw light on the attitudes of Saudi females and highlight the current situation of their education, social rights, differences, prejudices and gender-related challenges.

The lives of Saudi women are different in a number of important ways to those from other cultures. The Kingdom of Saudi Arabia socially is a complex mix of conservative, religious and tribal influences which combine to produce religiously based laws, customs and traditions. This impacts on women as their scope for social and economic interaction is influenced not just by the tribal, social and religious heritage of the country but also varying regional norms.

However, this situation is not static, especially as the Saudi economy developed in the period between 1970 -1990. Al Hazzaa (1993) has argued that this economic boom brought about significant changes in the social and economic opportunities for Saudi women. These changes produced a significant split in religious and official attitudes towards the participation of women in wider society. On the one hand, supporters of greater liberalisation argued for women's participation in all areas without exception, while conservatives argued that work should remain gendered, with no interaction between the sexes. In effect, this debate was originally about workplace participation (Al Hazzaa, 1993). However, Al Majali (1996) noted that many changes also occurred in terms of the role of Saudi women within the family and in terms of social interaction. Al Gharib (2007) has subsequently argued that the shifting role of women is a major change in Saudi society as they have gained some freedoms both within the family and in their interaction with wider society.

One important reason for this is the increased take up of secondary and university education for women (Youssef, 1989; Alily, 2011). However, the situation is not static, and in particular the Government is now pushing for increased female employment in an attempt to reduce reliance on foreign workers (Sadi, 2013; Sadi and Henderson, 2010), a process

described as Saudization. This in turn has led to further differences between the Government which is broadly supportive of this change and conservative religious or tribal norms.

Overall, the result is a complex and changing situation. Social norms and constraints remain very important but more Saudi women are educated to degree level and more are employed outside the home than before. However, despite this only 13% of women are in work and 70% of all unemployed graduates are women (Central Department of Statistics and Information, 2014). The following section will explore the key issues which affect the lives of Saudi women and being insight into the potential or present role of the liberal. It will talk about requirements of women, their rights and restrictions, education, and financial issues. These are chosen because they offer insight into the lives of women of Saudi Arabia. All these topics will also highlight a more flexible view of females' contribution towards their life in Saudi Arabia. It will also discuss the importance of gender in determining acceptable social roles.

2.3.1 Gendered requirements of women in Saudi Arabia

Traditional Saudi interpretations of Islam stresses that the primary role of women is within the family. The reality is more nuanced than this may imply, in that while women are responsible for taking care of children (Saleh, 2009), in addition they take on the role of teaching the new generation the society's traditions and norms (Alarifi, 2004). In effect, women are seen as the backbone of the family and its main driving force. Equally, even within the traditional family norms, women take part in decision making (Almajali, 1996; Algharib, 2007). In spite of such rights, Saudi women are left feeling that a man is the master and controller. This may be due to the society's approach to women and based on the social expectations as to gender roles and relative authority (Alkhateeb, 2010). However, this notional power is not without consequences. The American writer, Ferrari (2012), challenged some popular assumptions with her book "*A look Inside the Saudi Life*" by arguing: "at the beginning I felt that the Saudi woman was oppressed, but then I started to feel pity towards the Saudi man." She found males of Saudi Arabia equally suffered from some negative consequences of gender segregation as the females.

On the other hand, Saudi women are allowed a role outside the family unit. Since the 1960s, they have had to right to pursue their education. Equally women are allowed to sell and buy, work in any field, sign contracts, own all kinds of properties, and invest their own money even in absence of male family members. From this, a woman can take care of her own affairs, be a partner and an employee, hire people and things, and undertake a range of activities with all of her rights in Islamic law (Saleh, 2009). Algharib (2007) noted how this was changing roles within families and the increased levels of female employment were one reason for these shifting roles (Aljwair, 2004). Despite this there is real tension in terms of female freedom as if women do anything considered to be unacceptable this reflects on the family as a whole not only the woman (Mekki, 2004).

More generally, Islam treats the sexes equally in terms of religious value and human dignity as well as in civil and political rights, but also it makes some differences in their duties and rights between them so as to ensure they act in a manner complementary to each other (Alalowe, 2012). In this respect, there is equality between man and woman in Islam. They are not considered duplicates but they are considered complements (Alarifi, 2004). In the Quran it is mentioned that all men and women came from one father and mother so they are the same rights and duties and also that they (both sexes) have the same level of social status and religious status (Mernissi, 1985).

Religious rules still influence female appearance. All students and employees in girls' education must wear demure clothes in campuses (Alkhateeb, 1997). The demure clothes rules are applied at governmental institutes on both genders but from a religious point of view women need to cover all body. Despite this, female take up of higher education is now substantial and they now make up 60% of all students. And despite the fact that men and women are educated separately, this relative change has led to renewed tensions in terms of female participation in social and economic life.

The tradeoff between participation in public life and the need to meet social expectations around modesty can be exemplified in the requirement to wear the full Islamic veil (Amelie, 2012). The advantage is it offers a degree of anonymity which allows interaction with strangers from outside the family group but it also reflects the differential restrictions placed on women in Saudi Arabia. Such practices are anchored in conservative customs and opinions and are intended to protect women. Moreover, it is the attitude of the woman that

also matters. Some women find pleasure in keeping themselves confined to their customs and traditions. They feel society pressure and therefore demonstrating a passive attitude. While, there are women who show significant changes in their attitude especially if they have higher expectations in achieving their goals. They want an independent life and therefore seek for suitable opportunities.

The importance of anonymity is also a factor in terms of the growing usage of computers for inter-personal communications. One advantage of the internet is it allows contact outside the family group even when the individual is physically at home. Girls in particular are restricted in terms of private visits outside the family home and the internet can offer a means to contact friends from school. More generally the internet offers a means to evade gender separation although a number of studies of teenagers in Islamic countries (Al Omoush et al., 2012; Gunuc and Dogan, 2013; Soh et al., 2013) all suggest that on-line social groups (for women) are very close to those they have in real life. So while the internet allows anonymity (Amelie, 2012) and the means for contact with men without the permission of male relatives (Al Lily, 2011), it is not immediately clear if online contact is within permitted social groups or with a wider social network.

The internet has thus given Saudi women the chance to widen their social scope and interact with the other gender (Al-Saggaf, 2004; Teitelbaum, 2002) and has created a space not easily overseen by their family. It offers a means to hide and escape the constraints of family and the reputation rules (Al-Tawil, 2007). Anonymity allows Saudi girls to overcome gender separation by using nicknames and creates a degree of liberty that was not available in the past (Al Lily, 2011).

2.3.2 Women's rights and restrictions

2.3.2.1 Education

As indicated above, increased access to education is one major social shift in recent years. Formal education for Saudi girls started in 1960 when the first primary school for girls was established. Previously female education was voluntary and primarily organised around learning the Quran and Islamic education. The first chance for Saudi girls to join higher education was in 1962. This chance was offered by Riyadh University (currently King Saud University) and the curriculum was limited to arts and administrative sciences. In the

academic year 1971-1972 the general presidency of girls' education established the first faculty for girls, the faculty of education in Riyadh which included arts and religious study departments only. Women's education was under The General Presidency for Girls' Education from 1959 until 2002 (Alily, 2011) and it was only in 2002 that responsibility was transferred to the Ministry of Education. After this the Ministry of Higher Education opened departments for girls in previously male only universities. Many girls also benefited from scholarship programs to different countries. Girls' education became very important for families even if it only spread slowly. Of importance, education for both genders could be presented as a basic right within Islamic society and thus compatible with Saudi mores (Alkhateeb, 1997). The literacy rate of adult females is 79.4 percent while that of adult male is 89.1 while illiteracy rate among female is 20.6 percent (World Bank, 2008). The literacy rate is even higher in urban areas compared to rural areas. The rise in income levels of people at urban regions has led to the improvement in the tendency of middle class population to spend on their children's education and therefore, raising the literacy rate (Evosys, 2015). In fact, Oman, UAE and Saudi Arabia all have significant expenditure on Education as a total government expenditure percentage. Saudi Arabia is even spending about 24.6% in comparison to the other GCC nations (Evosys, 2015). Saudi Arabia is going through massive changes in its approach to education with an aim to produce a knowledge based society.

2.3.2.2 Financial, Property and Employment Related Issues

Formally Saudi women continue to face legal and social constraints as well as the assumption that men are responsible for the shared family finances. Saudi women still face substantial constraints on their actions (Deif, 2008). However, Islamic norms have always accepted some ambiguity in that women are allowed to own property in their own right and engage in paid employment.

More recently, within Saudi Arabia education to degree level has become increasingly common as has progression to the labour market. The range of acceptable jobs has steadily expanded, especially as the Saudi state is promoting the idea of female employment. Computers and the internet are adding to this complex process. Networked computers allow inter-gender co-operative working which reduces some constraints on the types of jobs that

women can do. In social terms, the internet allows women to partially evade traditional restrictions whereby males and females do not mix outside family units. It provides the ability to contact those outside the family group and anonymity allows interaction without breaking social expectations of modesty and no contact with men who are not close kin.

In both work and social life, the advent of networked computers offers a means to avoid many restrictions. In work, staff can interact by sharing work tasks even if they are physically separated. Equally, some Saudi firms are creating all female support departments as a means to work around restrictions on the mixing of genders.

As more women are educated to degree level, more seek in turn to enter the labour market. Equally, the Saudi state is trying to encourage female employment as part of its wider goal of reducing the number of expatriate workers in the country. However, this is leading to some social tensions as aspirations, and the logic of the expectation of working, come up against the traditional social norms.

Some restraints have a practical impact such as laws preventing women from driving a car, the limited number of jobs that they can do, the need for a male sponsor when dealing with governmental agencies, and inequitable laws of retirement and insurance. Again, there are some changes, so employers are now expected to ensure suitable levels of gender separation (Saleh, 2004) rather than the old approach of barring women from some occupations (De Bel-Air, 2013; Flynn, 2011; International Monetary Fund, 2013). Practically this means there is a need to organise work so that inter-gender communication is not face to face, especially in conditions of privacy. Amelie (2012) notes that Saudi women as a result often prefer to work with foreigners to reduce the scope for interaction with Saudi men and resulting family problems. Another issue which remains to be resolved is that employers often pay women less on the assumption that male family members are still responsible for the family's shared income and that women will retain any earnings for their own personal expenditure.

2.3.2.3 Summary

The reality of women's lives in Saudi Arabia is changing. The traditional norms were of a role solely within the family, primarily concerned with bringing up the children and dependent on male relatives for financial support and interaction with the outside world. Any

engagement with the world outside the family home had to be carefully managed so as to ensure that there was no damage to the family reputation and often required the presence of a male relative. However, even in its traditional form there were ambiguities. Women could own property in their own right and earn money from their own work or enterprise. So while, the financial responsibility for the family fell on men, some women had independent sources of income.

More recently three related changes have created new ambiguities. First more women are studying to degree level (and now make up 60% of undergraduates). Second more enter the labour market (even if only 13% of all women are in work) and this is being encouraged by the Saudi government. Third, networked computers and the internet allow flexibility that was lacking when social interaction had to be face to face. At work, it allows inter-gender interaction that would have been impossible. In social terms, the ability to remain anonymous allows women to engage outside their family group both with friends they may see during the day (such as at university) and individuals of the opposite gender.

This ability to evade traditional restrictions has not been studied in a Saudi context. Some existing studies of women's use of the internet in other Islamic countries suggest that it is used to contact those already known in real life. However, even this means that there is time displacement from face to face interaction (retained within the family group) to online interaction with friends from outside the family group.

2.4 Critical review of Saudi culture

Saudi society has a complex social structure which draws on various strands, customs, traditions and norms that differ across family groups due to the influence of the many tribes in the country. Every tribe has its own social traditions and customs which control the member's life of each tribe and are binding upon them. Some may agree with these social traditions, customs and norms but others may not, due to the importance of tribal links in Saudi social life, even if an individual does not agree with these norms they will be expected to accept them in order to remain part of the group.

Over the last few decades, Saudi Arabia has become increasingly urbanised due to an economic boom and many tribal groupings have migrated to the cities (Alsaif, 1997). In

consequence, they have remained important but also become part of the complex shifts in Saudi society as a fast changing country seeks to retain its traditional social identity and simultaneously keep abreast of developments (Alsaif, 1997, Algharib, 2007). In particular, this has seen an attempt to maintain a balance between the traditional cultural, religious and social identity and keep pace with the rapid global development. The combination of multiple tribal traditions, a shift from rural to urban life and the mixing of different social traditions from different parts of the country has led to significant changes in Saudi social attitudes. Some people have become supportive of radical change while others are opposed and fear the blurring of society's identity. Equally others are prepared to accept some changes as long as these fit within the framework of cultural and religious norms.

The result is that Saudi society is shifting from being a closed society with very specific characteristics. The recent rapid opening to the world has led to tension between new ideas and concepts and the inherited social customs and traditions which constitute the community identity. Traditionally, customs, traditions and the religious heritage are considered to be the bedrock of Saudi society. These customs and traditions have restricted the options available to individuals by leaving them little choice but to accept these constraints. However, this is changing as some seek total openness, or attempt to balance new ideas with the customs and traditions, especially those in respect of religious norms. This is leading to the appearance of a younger generation which thinks that the customs and traditions imposed on them are something they are not obliged to follow (Algharib, 2007). The consequence is a struggle between the power of those seeking change and the power of cultural norms (social and religious). In particular, this is manifesting itself as differences across generations.

In response to these rapid changes, Saudi society has sought to assert the legitimacy of existing customs, traditions and religious values but to adapt as appropriate to new norms and expectations. This conservatism makes for very slow change in social norms compared to other countries. In turn, there is a risk that any pressure for change can be seen as rebellion against core norms but, at the same time, younger people are seeking changes that they are coming to regard as normal.

The appearance of the conflict between groups within a society often occurs in the societies where existing cultural norms control the behaviour of the individual and which also experience sudden and rapid changes as in Saudi society (Alsaif, 1997). This tends to lead to conflicts between individual interests and behaviour and what society imposes and expects.

This is particularly important in the context of Saudi Arabia where there has been a traditional expectation of individual acceptance of tribal and religious norms and beliefs. As an Islamic community, social customs and traditions are undergoing change as they are challenged and adapt to new circumstances but this process is bounded by the existing social norms and fundamental religious beliefs of the Saudi state.

People in conservative societies tend to be under more pressure to abide by the social or religious teachings, customs and traditions of their community (Algharib, 2007). The result is to slow the process of change and adaptation to external pressures and to reinforce internal resistance to such dynamics.

2.5 Summary

In its traditional form, Saudi society can be characterised as a network of extended family units. These are formed both by shared parentage and by marriage links. A key part to the family structure is the importance of regular attendance at family meetings and maintaining close ties with siblings and a range of cousins, uncles and aunts. The resulting grouping has a social significance and is also an important building block in Saudi economic activity (Sharma, 2004).

This implies expectations for the behaviour of young adults and adolescents. Although they are expected to be present at family meetings, authority is related to age and gender. Marriage either means moving to a geographically close family unit (for women) or staying in their current family unit (for men). There is no assumption, as is discussed in chapter three, of a gradual shift from being part of a family unit to relative independence (in effect the assumed norm for western models of adolescence).

These social norms are based on a complex set of rules. Some are derived from religious authority, some from traditional expectations of a particular tribe or social strata. The family unit in turn is not just a social unit; it is a basis for economic organisation and also a means to help those in need. Despite this, there is evidence of changes (Algharib, 2007), and the developing of new trends (Alsaif, 1997). The need to look for work means that people may have had to move from their traditional region and in turn that disrupts the expectation of a

shared family approach to decision making (Algharib, 2007). Equally with increasing geographical dispersion, maintaining links with a direct kinship group is prioritised over the wider network of cousins (Alsaif, 1997).

This is important, as one key issue explored in the following chapter is how the internet may affect such arrangements. One impact is in terms of time displacement. In particular with the advent of mobile phones, it is easier to be physically in a room with others but mentally engaged in communication and interaction with those who are elsewhere. The second is as a source of different social norms and expectations. In particular, the internet allows young people to contrast the model of individualism (both social and economic), and of personal space, that has become the norm in the West with the expectations of a social life bounded by an extended family or other such families in a very similar social strata.

Chapter 3 / Literature Review

3.1 Introduction

Regular and significant access to the internet is a very recent development especially in Saudi Arabia. For the most part, before the mid-90s it required a certain degree of technical skill and, up to about the year 2000, access speeds, and thus what could be viewed and downloaded, was limited by the speed of conventional telephone lines. Equally, access usually meant physically being able to connect a computer to a phone line (Firth and Mellor, 2005; Internet Statistics Compendium, 2009).

From about 2000 onwards, these constraints started to lift. First the basic technology became much easier to use removing the challenge of a user needing some degree of specialist competence (Carter, 2008). Second the growth of broadband in the developed countries, grouped within the Organisation for Economic Co-operation and Development, allowed faster and more reliable connections. Third the introduction of wireless technology broke the idea that a computer needed to be physically connected to a phone line. Finally, a generation started to enter their teens and early adolescence who had grown up with Information Technology (IT) and who saw its use as a normal part of their lives (Kraut et al., 1999).

At its core the internet is a communication tool. It allows individuals to contact others, share information, seek information and engage in a variety of social engagements. As such, Tidwell & Walther (2002) refer to Computer-Mediated Communication (CMC) as a method in which humans utilise computers to correspond with another human via both asynchronous and synchronous systems to swap images, text and engage in interactive conversations (Tidwell and Walther, In Press). Caplan (2010) argues that CMC is the main reason for the increased use of internet. In turn, the internet is defined as the networks of linked computers that act to distribute digital information (Caplan, 2010).

However, up to 2008-2010 access speeds in Saudi Arabia were slow and dependent on fixed telephone lines (Kingdom of Saudi Arabia, 2010). Since then there has been a substantial investment in the supporting infrastructure and widespread adoption of wireless based connectivity. This, added to the introduction of more portable laptops and mobile phones, allowed ready access for many, especially in urban areas (Betrah, 2010; United Nations, 2012).

3.1.1 Impact of the Internet on Family and Social Relations

This rapid expansion of internet usage has led to an interest in how the Internet may be affecting the process of growing up, family relationships and of the impact on wider social interactions. Some of this reporting, sees the internet as the latest external threat to the family. In this respect, such scares have been a regular part of the process of adoption of new technologies and modes of interaction such as ease of access to radio, television and computer games (Pearson, 1999). This is important to bear in mind, just as part of each generation sometimes tends to see the latest generation as more criminal, less respectful of the rules than they were (Pearson, 1983), so the process of an adolescent moving from dependence on the parental family group to relative independence is frequently seen as more difficult than in the past (Bahr and Pendergast, 2006; Demos and Demos, 1972; Shapka and Keating, 2005). If this is believed to be the case, then it is easy to lay the blame at the most recent technological shift (Larson et al., 2009; Sanders et al., 2000).

The existing research does indicate that there may be impacts such as the internet reducing time with other family members and leading to social isolation. For example, Vitalari and colleagues in early study (Vitalari et al., 1985) reported that home computing may decrease the amount of leisure time spent with the family. Separate research, in an organizational context, suggested that the internet reduced face to face social interaction but that the new forms of interaction (such as text messages) and relationships are created to replace this (Sproull et al., 1992).

However, the internet is not the only change in human social systems over the last 20 years. What is broadly called 'globalisation' (Chen et al., 2008; Freeman, 2009; Keane, 2003) has progressed at the same time altering economic and social relations. In this respect, the changes attributed to the internet may well be consequences of these wider social changes rather than the internet being a major source of change in its own right. The validity of this argument is explored in this chapter but on balance, it seems reasonable to accept that the internet is both a cause of change in its own right and one of a number of factors challenging traditional modes of interaction and communication.

An early observational study about computers and family life (Kraut et al., 1999) found that as family members used the internet more to communicate with non-household members then they spent less time interacting with their family. Other studies (Nie, 2002) implied that reliance on the internet could lead to withdrawal from family, friends and social relationships. Other research also suggested that some forms of internet use may have a significant impact on family interaction and behaviour (Hughes and Hans, 2004).

From the early literature there are perhaps two main themes. The first is that the internet is reducing intra-family communication (Nie et al., 2002) and is increasing overall levels of social isolation (Kraut et al., 1999). A more subtle version of both of these arguments is that the internet is changing the process of socialisation (Orleans and Laney, 2000) replacing some aspects with new elements. This links back to Fischer's (1997) argument that while technology is important, overall the impact is usually less than was hoped or feared, and that different technologies bring different changes. In effect, the impact is somewhat contradictory and usually less far reaching than either hoped, or feared, when it was first introduced (Fischer, 1997).

3.1.2 Outline of this chapter

This chapter primarily reviews the literature on the impact of the internet in four key respects: (a) intra-family relationships; (b) wider social relationships; (c) whether such changes reflect differences of age, gender or (d) the type of society being affected. To explore these themes means considering issues of identity formation and how parenting styles interact with the expectations of adolescents and young adults. In turn, there is a need to consider how applicable the existing literature is, often based in North America or Western Europe, to a society such as Saudi Arabia. From this is derived an argument that the impact of the internet can be seen as either simply that of time displacement or one where regular users start to absorb social norms different to those of their society. Inevitably these arguments overlap but this provides a structure to set out the main themes.

3.2 *Internet use and Social Relations*

This section is divided into two sections. The first looks at the literature of the impact of the internet on family relations and the second the implications of the internet for wider social relationships and interactions. However, while this helps to organise the discussion it is useful to bear in mind that the two areas are closely related.

3.2.1 *Impact on Family Interaction*

As discussed in the introduction, it is possible to divide the impact of the internet on intra-family dynamics into two broad categories. The first is simply as a displacement of time to on-line activity and away from face to face familial interaction. The second is that the internet is a source of information on alternative models of social interaction and economic norms. In effect, it can be disruptive, in that it allows access to a model of living that is different to that experienced in a given society (Zhou, 2011).

However, it should be noted that although there is a useful distinction between ‘time’ and ‘ideas’, in many instances the two are closely related. Thus the discussion in terms of the impact of the internet combines the idea that time is taken away from face to face interaction and that the internet offers access to information and concepts. Equally this distinction is not widely drawn in the literature, but it is implicit in that it can be assumed the internet offers benefits that are not available in terms of traditional face to face interaction (Kiesler, 2014). One important theme in this study is to test if this is particularly true in a country like Saudi Arabia where, as has been outlined in chapter 2, the current social norms differ from those of North America or Western Europe (this theme is developed later in this chapter).

One further practical problem in studying the impact of the internet on intra-family relationships is not just that it is so new, but also that what it represents changes so fast. Thus widespread easy access via mobile telephones has only really been available since around 2008 and even the period within which this research has been conducted has seen the introduction of various ‘wearable’ means to access the internet (such as Google glasses or smart watches).

As an example of these changes, an early study by Kraut et al (1999) divided internet usage between time spent 'on-line' with a primary focus on information search and usage of e-mail. The former was seen as a one-way process that provided only limited incentives for regular use while e-mail held open the same possibilities for interactive conversations as the use of the telephone. From this they argued:

“the eventual social impact of the Internet may well be more important in the domains of work, school, and family interactions than in the commercial domains that are so much emphasized in the press today” (Kraut et al, 1999, p. 301).

Early research identified that the effect of internet usage is also related to how the computer is integrated into the wider life of a family and layout of a home. In effect, whether there is a need to leave the family group to use a computer, can have an influence on whether or not it becomes used as a means to reduce family contact (Frohlich and Kraut, 2003). In this case, if the computer is in a social space then usage may well be integrated with family activities but if access is via computers in private space this dual aspect is lost. Another slightly contrary line of enquiry is whether internet use was not substituting time spent within the family unit as such, but instead for other distractions such as watching television. An early review study (Kraut et al., 2006) found statistically significant evidence that there was a degree of time substitution between the internet and TV. In effect, those who used the internet for information searching had previously been among the heaviest TV viewers implying a degree of time substitution (i.e. they were still engaged in information search but using the internet not TV), but, on the other hand:

“Using the Internet for entertainment or news (the dominant uses of TV), did not predict above-average declines in TV viewing. In contrast, only using the Internet for meeting new people was associated with declines in TV viewing over and above those resulting from aggregate use. Interestingly this function of Internet use has no parallels in TV viewing.” (Kraut et al, 2006, p. 217)

However, the focus by Kraut et al (2006) on the location of the family computer starts to indicate that recent changes may see different outcomes. First, laptops are now much cheaper, meaning it is feasible in many family situations for there to be more than one internet connected computer. Second, the introduction of smart phones means that the entire concept of needing to go to a particular place, and use a particular item of IT hardware, in

order to be on line, is now obsolete. Access has become much easier, especially if the intention is time displacement (chat/text with friends rather than engage in a face to face family meeting).

Some very early studies on the impact of the internet do suggest that individuals were spending less time with their families (Kraut et al., 2002) and there were suggestions this would increase as the type of interaction possible using the internet became richer and more varied (Cummings et al., 2002). However, the latter paper suggests these would only start to substitute for more conventional friendships and familial interaction when those were already weak. In effect, engagement with the internet could become a way to compensate for something already lacking. This has been supported by a number of subsequent studies (Hlebec et al., 2006) and Punamaki et al. (2009) both found a correlation between intensity of internet use (especially games) and the existing quality of intra-family relations.

One important dynamic in internet usage may relate to differential usage and competence across generations, as it is now more likely that children are more aware of how to use IT than their parents (Eynon and Helsper, 2014). However, other research reveals that parents believe they are sufficiently competent to monitor and guide their children's usage in domestic settings (Shin, 2013). As a tentative conclusion, what may be increasingly happening is that a generation brought up in an IT rich world is using the internet as a tool and place for the process of adolescent identity formation (Mallan et al., 2010) whereby young people start to create a 'self' image independent of the shared image derived from their familial background.

How the internet can be accessed is changing and a relatively recent development has been the capacity to do this via a smart phone (Mascheroni and Ólafsson, 2013; Paus-Hasebrink et al., 2012). Mascheroni and Ólafsson (2013) found that 53% of children in the EU now used smart phones as their primary means of access and they mostly continued to make use of the internet from their own home. However, this takes place in private spaces (often a bedroom) reducing the scope for parental mediation and the survey notes that there has been a substantial increase as a result in the usage of the web primarily for "social networking, entertainment on media sharing platforms, and sharing content" (Mascheroni and Ólafsson, 2013, p. 25). This is relevant as the older research tends to argue that it is interactive usage that tends to be the most disruptive in terms of reducing face to face interaction. Nonetheless,

early research that takes account of the introduction of mobile phones does not support an argument that this has led to significant changes in intra-family relations.

A second important strand in more recent research is to return to the question of social isolation. Again the findings are very mixed, a US study (Hampton et al., 2010) argues that young people mostly communicate with the same group on-line as they do face to face. This tends to make an argument that most usage of social media is within kin-groups or geographically close friends. However, other studies suggest that there are important differences according to age group (Holtz and Appel, 2011). Holtz and Appel (2011) note that the highest usage of interactive IT is the pre-teen age group and argue that this age group are more likely to show signs of introversion and aggression unless their internet usage is matched by close parental involvement. If parents take care to monitor their usage and discuss their response to what happens on line, then the result is to eliminate most adverse behavioural problems. Another recent study (Gunuc and Dogan, 2013) supports this argument that the nature of parent-child interaction is important. If this remains active, then on-line usage does not lead to attitudinal changes but if this breaks down there is a risk of alienation between children and parents.

On balance, more recent research is starting to take account of mobile telephones as an important means of access but does not really alter the impression left by earlier research. Increased internet usage may be disruptive to intra-family relations but there is little evidence of direct correlation. Two studies (Gunuc and Dogan, 2013; Holtz and Appel, 2011) suggest that the nature of parent-child interaction is important but both also looked at either early adolescence or pre-teen age groups where parents might find it easier to exercise more direct control. Some studies suggest that older adolescents are more likely to demand greater independence in their usage (Machold et al., 2012) and that the level of internet literacy of the adolescents is important in determining how harmful their usage might be (Lee and Chae, 2012).

3.2.2 Internet Usage and Social relations

Broadly four hypotheses have been advanced to explain the consequences of internet usage among adolescents (Lee, 2009). These are:

1. Displacement (where the internet use diminishes other forms of socialisation);

2. An increase (i.e. all benefit as the internet creates additional opportunities to socialise);
3. A rich-get-richer model (where those who already have strong social relationships gain the most from on line access); and,
4. A social compensation model where those who lack existing social ties build new ones on-line (Lee, 2009).

The evidence is very mixed for these assumptions and different studies provide evidence for different hypotheses. However, Lee (2009) strongly suggests the rich-get-richer hypothesis is the most feasible although this does not rule out either the idea that all benefit or that the social compensation model is also valid (Punamäki et al., 2009).

Some research has reported that internet use diminishes social ties and increases social isolation (Kraut et al., 1999; Kraut et al., 1998; Nie, 2001; Nie et al., 2002; Nie, 2002). Also Moody (2001) found that if someone engages in a large number of online relationships, this may lead to the replacement of face to face ones. In addition, Sanders et al., (2000) indicated that low internet users have better relations with their family and friends than high internet users who had weaker social ties. But again the evidence is mixed (Kraut et al., 2002), and, importantly, the effect observed depends on how the information is analysed. So Kraut et al (2002) found evidence that usage leads to positive communication and social involvement, reversing the findings of their earlier research (Kraut et al., 1998) that strongly suggested a negative effect. The earlier study had found heavier users became less well socialised and reported increases in depressive symptoms (Kraut et al., 2002). Instead the revised analysis found:

“A ‘rich get richer’ model predicts that those who are highly sociable and have existing social support will get more out social benefit from using the internet. Highly sociable people may reach out to others on the internet and be especially likely to use the Internet for communication” (Kraut et al, 2002, p. 58).

On the other hand, the study also suggested that those with weaker social networks make use of the internet to compensate for this (so offers some support for Lee’s (2009) Social Compensation hypothesis). In this respect, the internet becomes a means to socialise and access information, thus increasing self-reported levels of socialisation and helping to offset

feelings of depression (Kraut et al., 2002). Some further evidence for the compensation model has been found in more recent study (Vergeer and Pelzer, 2009). Vergeer and Pelzer (2009) concluded that internet usage did not harm existing social networks but in turn, neither did internet socialisation help to offset existing feelings of loneliness.

As with intra-family relationships, the correlation between volume of use and reported levels of isolation remains very complex. For example a recent survey of 5,000 regular users of on-line games still found variance in positive and negative effects depending on the reasons, contexts and individual characteristics of the users (Shen and Williams, 2011; Shen and Eder, 2009). However, it did not find any clear correlation between volume of use and changes in the extent the individual socialised outside the context of the game. On the other hand, an older, relatively small, sample did find a correlation between internet use and adolescent depression (Sanders et al., 2000). In combination, this may support the argument that those who become reliant on the internet for reasons of social isolation were more likely to become addicted (Li and Chung, 2006). In other words, those who seek to use the internet as a means of social compensation may find it does not generate the sort of social network that reduces levels of depression and loneliness, but nonetheless does offer some alternative to real life social isolation

Merchant (2006) believes that the online environments with innovative technology offer new challenges and potentials for impression, formation and self-presentation in individuals' communication. He explores online identity with respect to the way identity performance reflects numerous and shifting insights of audience. Further, he says that since we can write online it allows us to attain an identity of an author. Likewise, identity performance and identity changes evolve in the virtual world (Merchant, 2006), a factor which is of relevance to the work in this thesis.

Being online limits these constraints and equally means we can adopt an anonymous personality. Such an approach makes it possible for people to talk about sensitive subjects, for example their medical conditions, sexual orientation and physical abuse, without needing to fear this information will be linked to their real world existence (Leonardi, 2008; Singer, 2009). Turkle (1997) hypothesizes that our familiarity with computers and our online experiences are testing conventional views of identity. In contrast to face-to-face communication, online dealings offer a chance for one to be anonymous (Turkle, 1997) and internet users have the chance to depict, experience, and articulate unfamiliar facets of the

self, and online interaction gives a safe place to create, check, and alter your identities as desired (McCorduck, 1996).

This seems to imply that the need is to separate out just what is meant by internet usage as different forms seem to lead to different social networks. For example those who use email tend to know the individuals off-line, those who use chat often had a wider, but purely on-line, networks (Zhao, 2006). However, Zhao's study points to a major problem when studying such a fast moving field. To gain access to large scale, cross-sectional surveys takes time and in this case the study was based on the US 2000 General Social Survey. In effect, it is reporting on how email was used in the late 1990s rather than in a period when creating an account was much easier and email can be sent from a range of software and hardware. However, recent research has tended to emphasise the extent that much on-line activity is with individuals known in real life (Hampton et al., 2010).

3.3 *Internet use by young people*

Early research into internet usage tended to suggest it was mainly used by older, slightly richer, age groups (OECD, 2002). This reflected the relatively high prices of computers, the cost of connecting from home and that most usage was related to the workplace (Sciadas, 2002). Over time, cheaper means to access the internet, the prevalence of wi-fi, development of smart-phones and the changing nature of the internet (Clarke, 2004) have all combined to mean that young people are now regular users of the internet. Accessing the internet has shifted from the position in the early 1990s when using the internet required some computer literacy to becoming increasingly easy to use. Equally, the means of interaction have steadily changed from the exchange of text based email to social networking (Taraszow et al., 2010). These social networks, for example Facebook, Hi5 and Twitter, are now creating new types of social communication, conversation, exchange and association (Taraszow et al., 2010). At the core is the assumption that users generously share data and information about themselves. However, there is evidence that information tends to be shared with socially similar groups, and this has been found to be particularly strong for women in Islamic countries (Al Omoush et al., 2012; Gunuc and Dogan, 2013; Mazman and Koçak, 2011). Thus the sharing of visual

images is often limited to specific social groups and reflects wider social norms and constraints.

An early study was carried out by Boyd (2007) to explore the use of these networks among young people. He argued that during 2005, online social network sites were commonly in use by adolescents in the United States. All through the country, adolescents were logging in, making detailed profiles, openly expressing their relationships with other members, and writing comments back and forth (Boyd, 2007). Boyd suggested that this swift acceptance of social network sites by adolescents led to various problems such as time wasting, falling behind in their studies and family and ethical issues such as deception of parents as to the nature and volume of usage. Boyd (2007) put forward a notion that as a society, we now need to discover how to instruct adolescents to manage a set of social relations which were impossible when communication was essentially within defined geographical areas (Lee and Chae, 2012).

However, for adolescents in particular, the internet is not just about the volume of usage but has become an important part of their social lives. From this perspective, the process of online identity formation is important to understand both the motivation to use the internet and some of the possible implications.

Online identity is a function of role playing as much as real life but there is no clear view as to how the two interact. Turkle (1995) argues that the consequence is to provide individuals with the environment required to try out different roles. In this she develops Goffman's (1959) idea that personality can transform from one setting to another. Turkle also says that that you can be who you desire to be online. However, Aboujaoude (2011) argues that people to a greater extent perform in real life in the same manner as they would online and this maybe a two way process in that roles played online can have a profound effect on one's own identity of real life. In contrast, Leonardi (2008) argues that there is little or no transfer of identity from online to the real world. Similarly, Ellis (2010) declared that a person can be who they long to be on social networking sites, but that does not influence the individual's identity in real life (Ellis, 2010). Hongladarom (2001) offered the argument to claim that instead of utilizing social networking profiles to illustrate who you really are, a lot of users were making use of their profiles in an imaginative way, to construct a new persona which survives only in the cyber world (Hongladarom, 2001).

Thomas (2000) carried out research to explore how children created their online identities on a particular site. She studied children of ages between 8 to 16 years and observed that children used different avatars to portray different identities (Thomas, 2000). Also, she noticed that the children adopted different positions while in the chat rooms i.e. they behaved sometimes as teachers, sometimes students or sometimes counsellors. They were playing roles that they could represent in their real life either in the present or in the nearby future (Thomas, 2000). While this study might imply a degree of flux in identity, the usage of avatars may well have encouraged young people to engage in exactly this sort of experimentation.

Identity, as defined by Calvert (2002), is the expression of interpersonal attributes (for instance personality characteristics or self-definition) functions and affiliations within values and communities or even moral convictions. However, many physical restrictions on identity such as gender, age, body or race, as well as cultural or social norms (for example background, ethics, linguistic or sexuality norms) become elastic in online settings. As such, in creating an online persona the internet provides both anonymity and a lack of context and this can be used to let people experiment with identities (Calvert, 2002). In this respect, internet usage should be seen as being about identity exploration as much as any other usage (Bauman, 2004). Bostrom and Sandberg (2011) develop this further and argue that online identities are proliferating as people make use multiple online identities.

This provides some evidence that adolescents use the internet quite creatively. The forms of socialisation it enables are different to the traditional ones mediated by family and geographic proximity (Howard et al., 2001). However, this is not a judgement as to the quality or value of such relationships. One finding in this respect is that this enables the use of the internet to allow experimentation with how to present ourselves. This is often a key part of adolescence, especially the formation of a more individual identity (Bahr and Pendergast, 2006) and there is evidence that adolescents use the internet to experiment with different 'selves' and the surrounding social roles (Valkenburg and Peter, 2008). This seemed to be a particularly valuable opportunity for those who otherwise reported themselves as lonely (Valkenburg and Peter, 2008).

So as a young person creates an individual identity, with the emphasis on self rather than family, the internet can become a place for experimentation (Darling et al., 2008; Punamäki et al., 2009; Valkenburg and Peter, 2008). Such experimentation in a face to face

environment can be more difficult as the ability to reject any such image at a later stage may be compromised by the wish to retain peer approval and existing friendship networks (Gross, 2004). Gross (2004) also argues that most personal and potentially intimate discussions occur with friends who are already part of their daily lives. If so, this supports a view that the internet is seen as a potentially separate place to that of real life contacts.

In summary, on-line identity formation offers a place for safe (or at least believed to be safe) experimentation. The evidence is mixed as to the extent that such created identities tend to remain grounded in real world identities (Ellis, 2010) or, perhaps, influence in turn those real world identities. However, the scope to use such experimentation to escape social restrictions is clear; it is possible to present oneself on line using a different gender and nationality with little risk of being challenged.

3.4 Internet use and differences in Gender

The extent that there are significant differences in both volume and type of internet usage by gender is another complex field. A relatively dated study in the US (Bimber, 2000) noted while it appeared as if men spent more time on line than women, this could be explained in socio-economic terms as home access was still expensive and work access usually limited to those (mostly men) taking up well paid jobs. A slightly later study used existing longitudinal data bases (Ono and Zavodny, 2003) and found that the early gap in internet presence was starting to erode in the US by 2000 but that there were gender differences in terms of the volume of time spent on line and how often an individual went on line.

A study that looked at gender differences in the UK and China (Li and Kirkup, 2007) argued that the most significant variation was between the two countries rather than in terms of gender. Thus UK students were found to be more likely to use the internet for study purposes and Chinese students to chat and email. The main gender difference was that men were more likely to play computer games and this was more obvious in the UK part of the sample. This indicates that there potential problems in separating out differences in terms of gender from the differences between different cultures.

More recent research has taken account of the expansion of social networking sites such as Facebook. One study confirmed the argument made earlier, that most use of social networking was within existing friendship groups (Muscanell and Guadagno, 2012) but women were more likely to use Facebook to maintain existing friendships and men to contact new people. However, this finding was substantially mediated by personality. Women with low levels of ‘agreeableness’ tended to seek new contacts even if these were transitory. Men with low levels of ‘openness’ were the most likely to use Facebook to play on-line games.

Another study (Haferkamp et al., 2012) also suggested that men were more likely to use Facebook to make new contacts. This finding was also supported by a Turkish study (Mazman and Koçak, 2011) that concluded:

“Females use Facebook for maintaining existing relationships, academic purposes ... while males use it for making new relationships at a rate higher than the females’. This finding shows that males use social networks mostly for making new friends and relationships while females use it mostly for finding their old friends and keeping in touch with the existing ones” (Mazman and Koçak, 2011, p. 137).

One suggested reason for this finding was that in an Islamic society such as Turkey, young women were unwilling to contact those they didn’t know. This reflected other Turkish studies where women were found to value anonymity on the web and tended to interact with those they already knew while boys looked for contacts with people who shared their interests regardless of real world proximity (Mazman and Koçak, 2011). A Malaysian study found the same level of usage in both genders (Soh et al., 2013) but that, reflecting social restrictions, girls were more likely to access the internet at home or at school while boys also made substantial use of internet cafes. Girls tended to use the internet for social interaction but that both groups were equally interested in using the internet for entertainment. Both these studies suggest, as discussed in chapter two, that an Islamic society may see more substantial gender differences than a western society.

As with the discussion about age, this research suggests that the relationship between internet usage and gender is complex. To some extent there is evidence that the mode of online behaviour reflects cultural norms (Mazman and Koçak, 2011) but the finding that, on balance, young women tend to use social networking to maintain contact within an existing social group is consistent in each study reviewed.

3.5 *Internet usage applied to Saudi culture*

This leads to the question as to whether it is cultural norms that explain much of the differences in internet behaviour rather than age or gender. As discussed in 3.2, intra-family relationships are heavily influenced by different expectations in different countries and there is some evidence that this has a bearing on internet usage and how well that is integrated into existing family norms. Equally some of the studies cited in terms of the influence of age and gender indicate that differences between countries are as important in terms of leading to usage of the internet. This section starts by considering how different models of transition from childhood to becoming an independent adult could alter the implications of widespread internet usage. This is particularly relevant because, as discussed in chapter two, Saudi norms and traditional expectations vary from those prevalent in the West. As discussed later in this section this, in turn, is of relevance as the cultural norms of the internet are strongly influenced by North American and European models of the family and society.

3.5.1 *Different concepts of adolescence*

The concept of adolescence, as a separate phase in human development, is relatively recent (Lee, 1982). Before widespread industrialisation, and the development of compulsory schooling, childhood shifted directly into working life (and of course child labour was common, both inside and outside the family). In Western Europe and the United States, by the start of the twentieth century, this transition was delayed to the ages of 12-15 by the growth of structured primary education and the reduction of child labour in manufacturing industry. As compulsory education has been extended and tertiary education become more common, the concept of a period of adolescence between childhood (Bahr and Pendergast, 2006) and becoming an adult has developed (Liebert et al., 1974). This has become seen as a process of forming a separate identity to that of the original family group (Bahr and Pendergast, 2006).

However, although the concept of adolescence, and of moving away from the original family group, is well grounded in Western models of human development; it is not the norm in other regions and cultures. For example within Saudi Arabia there the convention is of remaining

in a family group till marriage, at which stage one partner (usually the female) will move to a new family group (Algharib, 2007). Thus the concept of identity formation and behaviour, presented as normal in many Western narratives (Bahr and Pendergast, 2006; Laursen et al., 1998; Shapka and Keating, 2005) is not universal.

Even in the Western model, at the core there is a tension between the wish of a child to assert a degree of independence and to form social groups outside the family. On the other hand, the parents may still wish to guide their child in these choices and in particular to see them continue to accept certain key beliefs (these can be religious, social or behavioural). Around each and all these, conflict can arise (Laursen et al., 1998) with in most cases this conflict mediated by a fundamental desire to agree and retain the original family unit as an important part of both the parent's and children's lives (Shapka and Keating, 2005). In addition, even with the largely western research, there are significant gaps relating to culture, social norms and the age span of adolescence (van Hoof, 1999).

If the literature on the impact of the internet is to be understood, it is useful to first consider the more general literature on adolescent identity formation to look at where this is more likely to lead to intra-family conflict, especially when the adolescents are adopting norms from outside their parent's society. One early meta-survey (Laursen et al., 1998) suggests that late adolescence (16-19) is a period marked by a decline in the overall amount of conflict within the family but that those conflicts that do occur are more significant. In early adolescence, children are less likely to accept a 'need to obey' their parents (Darling et al., 2008) and this change is not related to underlying parenting style. Again these studies are OECD (in fact US) centric and do not necessarily reflect what can happen when adolescents are exposed to a very different set of social norms to those of their parents.

3.5.2 Adolescents' expectations of parenting style

This has been partially discussed in chapter two, but this section considers how internet access might alter expectations of parenting styles across the Gulf Region (Dwairy et al., 2006). Dwairy et al (2006) argue that the single largest determinant of adolescent mental health was consistency between expectations and parenting approach. Thus authoritarian parenting in the context of an authoritarian (in the sense of culture not politics) social norms,

has no ill effect and encourages adolescent-family connections. However, such parenting in the context of a liberal culture does cause ill-effects and lower levels of family connections. Thus a mis-match between parenting style and expected cultural norms may be problematic (Dwairy et al., 2006).

Traditionally in Saudi culture, books, family narratives, magazines and Arabic produced TV were all important parts of how a child socialised and absorbed their parental culture (Peterson, 2005). Importantly this also allowed families to choose how to balance traditional and more modern influences. Often the goal was to use education to equip children to deal with the modern world but to do so in the context of their traditional culture (Peterson, 2005).

Even this controlled approach has not always worked as an educated younger generation looks for opportunities that clash with traditional expectations (Dreher et al., 2008). Despite the state censorship, common in the GCC region, the internet potentially offers an uncontrolled environment in which young people will form their own version of a compromise between modernity and traditional values (Valkenburg and Peter, 2008). Again, evidence is limited, but studies of immigrant communities in the US and Canada indicate a high degree of mental distress in second generation Arab immigrants (Amer and Hovey, 2005) as they seek to create an identity that is acceptable to their parents and that fits with their new society.

The finding, that the second generation of any immigrant community faces this dilemma, is relatively common. As discussed below, one problem of the transmission of ideas via the internet is that young people start to face this tension between what seems to be 'normal' for their age group against what their parents see as normal even if they physically still live in Saudi Arabia. However, if, as indicated earlier in this chapter, most internet interaction is with their peer group rather than outsiders, then there will be less transmission of alternative cultural values than feared by traditionalists (Pons, 2004).

3.5.3 Exposure to different influences and beliefs

Against this background, it is possible to see one way in which the internet is a factor in the reported changes of family dynamics in the wider Gulf region. Thus time spent on line is

time not spent in the traditional routine of face to face family meetings. More fundamentally, time spent on line might also see the absorption of values and beliefs that differ from those of the wider society.

Thus the internet potentially allows an even wider group of peers to influence an individual, and not just from a particular geographic or cultural sub-group (Larson et al., 2009), or for an individual to reduce the amount of direct social interaction. As discussed previously, quite what are the consequences remains heavily contested (Hughes and Hans, 2004; Nie, 2001; Nie et al., 2002; Nie, 2002). Nonetheless, there is a consistent argument that the norms presented on the internet are those of North America rather than of a wide range of existing cultures (Kedzie, 2014). In consequence, the internet, combined with the growing influence of non-family peers, may lead to the current generation of adolescents in Saudi Arabia being exposed to a degree of influences that are unprecedented compared to even recent periods.

It is useful to note that most of the studies discussed so far relate to western countries. As such, the findings are informative but may miss the additional implications of internet use in different cultural settings. Though it is easy to over-generalise, many non-Western societies have traditionally had a very different view of the role and nature of children (Patel et al., 2007) with them being very directly situated within the family. This emphasises reciprocal duties (to and from the child) and reciprocal responsibilities rather than rights as individuals, or rights constructed purely on the basis of being a consumer (Patel et al., 2007). Of course, such social systems have a negative side and can often be very patriarchal, stressing control and responsibilities over nurturing (Fernea, 1995) and this can make the process of adolescent identity formation quite challenging (Newman and Newman, 2001; Newman and Muzzonigro, 1993).

3.5.4 Evidence for the impact of the internet in different cultural settings

Some of the work already cited indicates that the cultural norms of a society may have an influence on how young people use the internet. For example, the finding that girls tend to use the internet to maintain contact with known friendship groups is relatively widespread (Amichai-Hamburger and Hayat, 2011; Gunuc and Dogan, 2013; Mascheroni and Ólafsson, 2013; Mazman and Koçak, 2011; Muscanell and Guadagno, 2012). However, Soh et al

(2013) note that the cultural norms of Malaysia affects how young people access the internet (girls doing so either at school or home) and Güzin, and Koçak (2011) note a series of Turkish studies that all indicate that girls feel constrained in contacting those they do not know and a preference for anonymity even when on-line

Broadly the current literature does not support a view that culture in itself is sufficient to explain different patterns of usage. One study that compared Bahrain with the UK (Davidson and Martellozzo, 2012) in terms of volume of usage, type of usage and understanding of risk found little difference in the usage of digital media, but, to support the argument above, social norms led to gendered restrictions on usage derived from social and religious norms. A European study found that variations in usage were determined by socio-economic status rather than due to different countries (Brandtzæg et al., 2011).

However, some studies did find cultural differences. One considering the varying usage of Korean and American students (Kim et al., 2011) concluded that Korean students prioritised maintenance of a relatively small group of contacts while American students had wider contact groups and made more use of the internet for entertainment. A different survey of Korean and American students came to similar conclusions (Choi et al., 2010) and attributed the preference of Korean students for smaller, better developed, contact groups to dominant cultural norms.

While there are no studies that just concentrate on Saudi Arabia, several studies that focussed specifically on young people in Arabic countries offer some relevant findings. One found that, again, there was a preference for contact within existing friendship groups (so their cultural background set restraints) but that usage of social networking sites was seen as a means to escape cultural restrictions (Al Omoush et al., 2012) and valued as such. The argument that the culture of society set limits on the type of usage was supported by another recent study (Abbas and Mesch, 2015), in particular, this study indicated concern to remain anonymous online except when interacting with a small group of contacts already known in the real world.

A study about internet usage in Kuwait and Egypt (Al-Kandari and Hasanen, 2012) found that type of usage had some impact on attitudinal change. Those who mostly used social media for personal contact and interaction reported little change in their attitude to society

and the prevailing political norms. Those who made use of the internet for information search were more likely to report disagreement with existing social norms.

If there is a broad conclusion to this discussion it is that young people's usage of social media appears to reflect the cultural expectations of their wider society. This is not evidenced particularly in type or intensity of usage but instead in terms of the nature of networks they build up. Research in general indicates that female users tend to have smaller contact groups based more on real world contacts regardless of country. This seems to be made more dominant by cultural restrictions on allowable contact outside kinship groups. On the other hand, there is some evidence that female users in Islamic countries make use of anonymity to escape social restrictions. A final, tentative, argument is that to date most internet usage is within their existing society with relatively little evidence for the internet acting as a means of cultural transmission.

3.6 Conclusions

On balance, the evidence of the impact of the internet on intra-family relationships and social isolation is confusing (Hughes and Hans, 2004; Kiesler, 2014; Nie, 2002; Zhou, 2011). Some studies indicate there are negative impacts, others point to the ways that the internet opens the door to different and additional forms of socialisation, and others suggest that the main beneficiaries are those who are already well connected. There is evidence that links the internet with addiction and mental health difficulties, but in the main this indicates that it is those who are already vulnerable may use the internet as the focus of addictive behaviour.

There are other real problems to the existing literature. The great majority of studies use relatively small non-random samples (Hlebec et al., 2006) rather than controlled large scale samples. This is a useful research design, especially where the goal is to study a particular issue in context. However, what is vital is not to forget that generalising from such studies is not easy, nor is it an automatic process (Yin, 2009).

In effect, much of the apparent contradiction may come from variations in research design not from underlying variations in actual activity. On the other hand, the few large scale

studies are hampered by the time-lags (Zhao, 2006). In this case, for example, Zhao's study published in 2006, relies on a survey conducted in 2000.

This might not be so significant if what constitutes the internet was stable. As discussed previously, a number of early studies make a now, rather odd, distinction between the internet as a static information store and e-mail as a means of social interaction (Kraut et al., 1999). As it is, major changes have taken place even in the last few years with the growth of social networking sites only becoming available from 2005, the growth of blogging and the merging of internet and mobile phone technologies all being even more recent. In effect, the academic literature is lagging behind changes and, if it is true to date that the internet has had limited impact on the family and social isolation that is not necessarily true of the next round of changes in terms of technology and means of interaction. On the other hand, Fischer's (1997) basic argument seems to have held true so far, that such changes never quite have the massive impact feared or expected when they are first introduced.

The final gap in the literature is that it is mostly centred on the OECD, especially when it looks at family relations and individual socialisation. More recently China, Taiwan and Korea have been widely studied but there is little that reflects changes in the Arab World. This is relevant, as the technology of the internet (Richards, 2003) is being combined with the other dynamics of globalisation (Shneor and Flåten, 2008) and this may have significant impacts. If parenting styles and social norms are aligned, in the main there is little impact on the mental health of adolescents (Dwairy et al., 2006). If the adolescents become acculturated to Western norms and their parents operate within their own traditional norms then the scope for significant disruption starts to exist.

However, as discussed in section 3.5, in reality there may be little cross-cultural interaction. Most contact and friendship groups appear to be shared both on-line and in real life. This suggests that the main impact on existing intra-family relations is more one of time displacement rather than attitudinal change, especially for girls in Islamic countries.

In summary, this discussion makes it very difficult to identify positive or negative aspects of the internet. For many issues, the key questions are 'who is making this judgement' and related to this is that in many instances the extent of usage is critical. So the idea of the internet as an addiction is only relevant as this can reflect volume of usage (i.e. spending all day online) or what sort of usage (i.e. using the internet to access something like gambling or

computer games) but in reality the two problems are likely to be linked. If the underlying argument, that the internet can either be a source of time displacement or access to new ideas, is used as a framework then the positive and negative aspects can be sketched out.

- Time displacement:
 - Positive aspects: this may have been time used for other non-face to face activity (such as watching television); there is no a-priori evidence that time spent on line has an adverse impact on other relations; can allow ability to interact that is difficult given cultural constraints;
 - Negative aspects: reduces the importance of face to face interaction, this maybe particularly important in cultural situations where time spent within kinship groups is seen as important; too much time online can be indicative of problems such as addictive behaviour; some evidence that online interaction is less rich than face to face and does not reduce existing feelings of loneliness;
- Access to new ideas:
 - Can help with cultural transmission of new ideas and increasing understanding of people from differing cultures, without any adverse influence from these cultures; evidence is that most time online is actually within existing social networks (especially for girls);
 - New ideas can challenge existing social norms; problem can then arise both within social and kinship networks and for authoritarian regimes that wish to control access to information.

Overall, the discussion in this chapter points to a number of themes that are explored in the rest of this thesis:

1. The internet may be changing family and social relations either due to time displacement (i.e. time is spent on line rather than in other social interactions) or attitudinal change (i.e. users may come to accept different social norms to those of their existing society);

2. The research in Islamic and Arabic countries points to a gender aspect in usage. Wider research suggests that girls generally tend to have on-line social networks that match their real world networks, but this maybe even more prevalent in Islamic societies;
3. In turn, women in Islamic societies may use the internet in order to interact without the social restrictions that set boundaries in real life. It maybe that this contradicts the point above, or that while networks are still bounded, the means of interaction are different to what is permitted for face to face interaction.

This means there is a need to capture internet usage encompassing volume of usage, nature of networks and type of usage as well as beliefs as to the extent that internet usage is changing existing social and familial relations. Running across this exploration is the underlying question of whether the internet is leading to changes due to time displacement or attitudinal change. The tentative evidence so far is it is more likely to be an issue of time displacement if on-line networks remain closely aligned to real life networks.

Aims and objectives of the current study

Following the exploration of Saudi culture and the changing role of the internet outlined in chapters 2 and 3, as noted at the end of chapter 1; this study has the following aims and objectives.

Aims

To investigate the perceived present day influence of the internet on the Saudi family and society.

Objectives

To achieve this there are 3 main objectives relating to Saudi society which will be explored and identified:

1. To explore types and amount of the internet use as reported by participants in a questionnaire survey of young people.

2. To explore the perceived influence of the internet on Saudi family and society in term of social norms, traditions and customs.
3. To explore the impact of internet use on Saudi women's cultural and social opportunities as perceived by younger and older Saudi women.

The following chapter outlines methodological considerations and the method of choice to explore the aim of the study.

Chapter 4 / Research Methodology

4.1 Introduction

This research was designed to understand the impact of the internet on family and social relations and social attitudes within Saudi Arabia. As discussed at the end of chapter three, this is a complex field. The key issues are that such research needs to be carried out in the real world, so it is difficult to control for other variables that may affect the observed outcomes. In this case, that means that it is impossible to be sure if perceived changes are reflecting shifting use of the internet or other social changes within the kingdom. Secondly, it is very reliant on capturing attitudes and beliefs as to whether: (a) family dynamics are changing; and if so (b) if this can be ascribed to the growing use of the internet. In addition, as discussed in chapter three, there is an additional complication as to whether any changes being reported are perceived to be a consequence of the internet leading to time displacement (i.e. spending time on-line rather than active participation in a family setting), of attitudinal change (i.e. the internet creates attitudes and expectations that are at variance to the expected norms) or some other, possibly unrelated, factors.

The research design combines a questionnaire with semi-structured interviews. The questionnaire allowed a much larger group to be included and the interviews allowed attention to be paid to the reasons why people believed the internet might be having an impact on their family or social interactions. As such, it can be seen as a form of a mixed methods research design (Creswell, 2008; Creswell and Clark, 2011). However, there remains some debate over exactly what constitutes a mixed method research design (Tashakkori and Teddlie, 2003) and whether or not any combination of quantitative and qualitative data collection tools constitutes mixed methods.

The proponents of mixed methods approaches tend to suggest that a key aspect of a mixed method design is that the quantitative and qualitative aspect occur at different phases in the data collection (Creswell and Clark, 2011). However, in social sciences an essentially quantitative aspect can be used for data collection within an otherwise qualitative study (Yin, 2009b). So for example, data could be collected from people using both an interview and a structured questionnaire. In mixed methods, the assumption is that a quantitative element takes place at a different time (and often comes first). This makes the choice of the two aspects essentially pragmatic (Snape and Spencer, 2003) and designed to meet the

requirements of a particular study. This also argues for the integration where "quantitative and qualitative methods can and should be seen as part of the social researcher's toolkit" (Snape and Spencer, 2003, p. 15).

However, simply combining two approaches carries risks (Bryman, 2006; Pope and Mays, 1995), especially as data gathered from different sources may not be compatible, and resolving this "... is not simply a matter of joining two techniques, or tacking one on the end of a project. Researchers need to be aware of the different types of answers derived from different methods" (Pope and Mays, 1995 p. 44). The particular problem in a mixed methods structure is that some data can be gathered using an empirical design (such as a questionnaire issued to random sample and then interpreted using standard statistical tools) and other data might come from qualitative interviews. As discussed later, an important debate in any research design is how to generalise from the specific findings to wider conclusions. In this sense, the process of generalisation is very different for quantitative, statistical approaches, than it is from a qualitative research design. Thus if different research paradigms have been used at different states in the research design this raises the question of how to interpret the findings.

This leads to a second issue of how are the results to be interpreted? In particular, although a mixed method design will make use of data collected in a quantitative approach in this case, such as (a questionnaire), it is not automatically the case that the overall research design (especially in terms of sampling) is such that the enquiry can be treated as positivist or empiricist in design (Sale et al., 2002). Again, this gives various permutations:

- The quantitative element meets the expectations of an empirical enquiry (experimental, random sample etc.) and if so could be interpreted using a positivist approach;
- The qualitative element does not meet the expectations of an empirical enquiry (this is discussed in more detail below) and, in consequence, needs to be interpreted using a broadly interpretivist approach (Creswell, 2008; Sale et al., 2002);
- Even in the first instance, attempting to use both positivist and interpretivist approaches can be problematic as: "one cannot be both a positivist and an interpretivist or constructivist" (Sale et al., 2002, p. 47).

These themes are dealt with substantively in the first section of this chapter. This is then followed by a review of the research methodologies used in existing research in this field. This is followed by consideration of the debates around the philosophy of research, and, especially how to build theory from data and generalise from specific findings to a wider focus. The final sections in this chapter set out the background to how the research was conducted, starting with a discussion about the design and circulation of a structured questionnaire and then how the interview data were gathered and analysed. The empirical data from these two research strands forms chapters five and six respectively.

4.2 Mixed Methods as a research design

4.2.1 Approach and Advantages

Cresswell and Clark (2011) note that mixed methods as a research framework can see the combination of a wide range of practical methodologies and also cover different stages in a research design. So different tools can be used to explore the same research stage or used as the research progresses from an initial exploration to a deeper more focussed enquiry. However, the fact that Mixed Methods can be use to describe either the application of multiple research tools to the same research phase, or using different tools as the research progresses, leads to one of the main criticisms, that it is, in effect, a label that can be given to almost any existing contribution of research approach (Bryman, 2006; Shah and Corley, 2006; Symonds and Gorard, 2008).

Proponents of mixed methods such as Feltzer (2010) argue that the decision to mix quantitative and qualitative approaches as a purely pragmatic decision (Feltzer, 2010). In the context of a mixed methods research design, pragmatism is an important theme and is sometimes argued to overcome the traditional dispute between empirical and qualitative designs and “focuses instead on ‘what works’ as the truth regarding the research questions under investigation” (Tashakkori and Teddlie, 2003, p. 713). This stress on ‘common sense’ is seen as important in allowing data gathered using different research tools to be integrated into a single study.

The key response is that the combination of methods and approaches is not random but that “each emphasizes the overall problem, purpose, and research questions that are guiding the

study” (Cresswell and Clark, 2011, p. 60). In many cases, one data collection method is inadequate. Thus an initial quantitative strand may help to frame the overall research question and a subsequent qualitative approach may be used to explore a critical aspect in more detail. The two strands can be independent (in other words the final analysis treats them essentially as separate enquiries) or interactive (where the results are brought together) in the extent they are connected (Cresswell and Clark, 2011). Combination leads to the challenge noted above (Pope and Mays, 1995) which is how to generalise when one part of the enquiry is from an empirical design and the other from a qualitative approach (this is returned to later in this chapter). The key question to be resolved is when are the two methods to be mixed: at the point of data collection or of data interpretation (Cresswell and Clark, 2011).

Other key issues that need to be resolved include the relative importance of the quantitative and qualitative strands and their relative timing (Cresswell, 2014). If there is a norm, then it is conventional that the two strands are sequential but are designed and “used when the researcher wants to triangulate the methods by directly comparing and contrasting quantitative statistical results with qualitative findings for corroboration and validation purposes” (Cresswell and Clark, 2011, p. 77). A convergent design can be effective when there is a need to gather the data in a limited time period (as was the case for this study). It has the advantage that the two blocks of data can be analysed independently (Cresswell, 2014) using appropriate tools. So, as an example, standard statistical techniques can be applied to the numerical data while an appropriate approach can be adopted to analysing the interview or other qualitative information.

This latter can produce the style of research design adopted in this study. Data for the two strands was gathered sequentially but none was analysed until all the data had been collected. The analytic approaches (discussed in detail in chapters five and six) were identified as fitting the data type and the focus of the research. The process of analysis became interactive between the two strands once the basic analysis had been completed. This means that chapters five and six only make limited reference to each other and there was a need to prepare a summary chapter that drew the research together. Since neither strand met the expectations of an empirical research design (again discussed below), the basic approach to creating a summary and generalising from the findings was to use a narrative style (Attride-Stirling, 2001; Bryman, 2006; Creswell, 2014; Feltzer, 2010; Yin, 2009b).

4.2.2 Challenges of mixed methods approaches

There are several issues which arise when using mixed methodology. One, as briefly discussed above is that there is a danger that the approach comes to be applied to almost any design that uses both quantitative and other methods. This is a matter of definition but has implications. Symonds and Gorard (2008) suggest that while such an approach can be philosophically supported, the real problem lies in combining the outcomes to build an analysis. However, they suggest that this problem can be avoided if the two data collection approaches are reported separately and in particular different tools are used to generalise from the findings. In effect they argue that the label 'mixed methods' may be incorrectly applied if all it refers to is any study that makes use of more than one data collection tool (Symonds and Gorard, 2008). In their critique, the flaw in mixed methods is not the adoption of more than one data collection approach. The flaw is in assuming that this means there is no difference between data collected, if using a quantitative approach (say a questionnaire) and that gathered by interviews (Symonds and Gorard, 2008), as depending on the nature of the sampling approach, one strand meets the expectation of an empirical research design and the other is more interpretivist or pragmatic. In this sense, simply labelling an approach 'mixed methods' is not enough to resolve any further debate about the merits of quantitative or qualitative research and it is important to show how the two parts of the research design fit together.

As such, a mixed-method approach can be complementary. So, for example, a survey can allow the researcher to capture the views of a large, possibly random, sample, and use statistical techniques to analyse the data. In turn, a set of interviews allows in-depth discussion with a small group of people about the key issues and their perceptions. The problem arises not in the conduct and analysis of each strand but in how to combine the findings.

The resulting issue is a risk that the various data strands are not compatible (Saunders et al., 2009; Symonds and Gorard, 2008) and this has particular problems in terms of the challenge of generalising from the research findings. This places an emphasis on the overall research paradigm as identified by Saunders et al (2009) and leads to a need to explore the underlying questions behind the philosophy of different research designs.

4.3 Philosophy of Research

The overall research design needs to indicate how issues of research question, design and the process of interpreting the results interact. Saunders et al (2009) offer a useful overview of this process using their concept of the ‘research onion’ (Saunders et al., 2009). Part of their argument is that the choice of data collection tool between quantitative or qualitative tools is secondary to the importance of clearly defining the ontological framework which provides the framework used to move from investigation to theoretical conclusions. In turn, the epistemological framework is provided by the current state of knowledge in a particular academic discipline. Their ‘onion’ places the underlying philosophy as the outer layer:

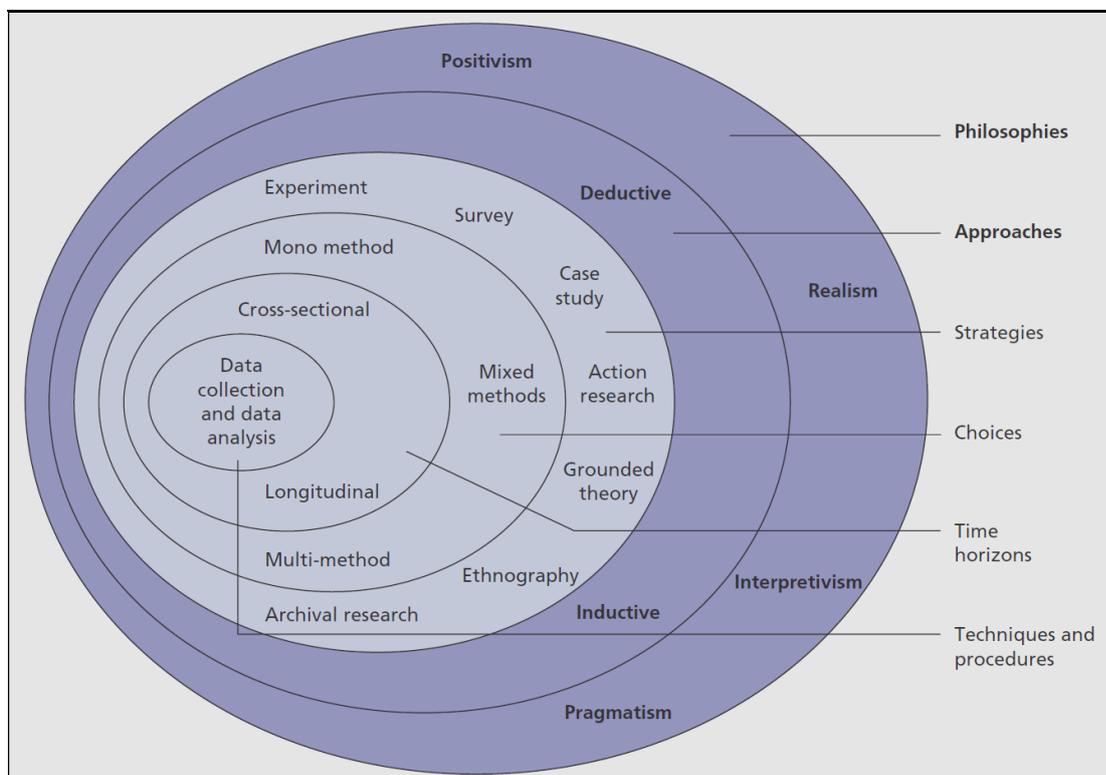


Figure 4-1: The Research Onion. Source: Saunders et al, 2009, p. 108.

The importance of the overarching philosophy is it influences exactly what we mean when we claim an experiment or a study proves or indicates a given finding:

- Within a positivist framework, assuming an experiment was properly defined and carried out, what we are saying is our observations are true and can be applied more widely;
- Within what Saunders et al (2009) describe as interpretivism as being different to the positivist mindset, in that data interpretation is a product of individual and social norms, so the key steps are to identify that framework, and consider the validity of findings in comparison to existing knowledge and the initial assumptions (Bem and Looren de Jong, 2006).

In turn the research approach can be broadly described as inductive or deductive. Inductive reasoning relies on probabilities to indicate the likelihood that a relationship exists between the variables (Easterby-Smith et al., 2008). The essential aspect of this approach is to set out a theoretical framework (however imperfectly structured), the data acquired and the resulting interpretation. Deductive reasoning tends to sit within the positivist and empirical philosophies as it is the control that originates from experimental design that allows such (claimed) certainty of conclusions.

This has implications for the practical research strategy adopted. Deductive research tends to be based on experimental or survey designs. From these perspectives it is feasible that a given research design can use both qualitative and quantitative tools in what is often described as a ‘mixed-method’ design (Saunders et al., 2009). However, in such a case it is important that the researcher is clear as to advantages of each approach (Bryman, 2006) or there is a risk of simply gathering data regardless of the validity of the chosen research tool. In turn this leads to confusion when that data is being interpreted. Other aspects of Saunders et al’s (2009) framework are more pragmatic so the choice between cross-sectional and longitudinal design will reflect both the research goals but also any practical constraints (such as the need to complete a PhD in a set period).

4.3.1 Positivist or Interpretivist Approaches

A positivist research design makes several assumptions that cannot be met In the current study (Worrall, 2002). One is the assumption that a set of social dynamics can be examined separately from the beliefs and attitudes of those to whom it is real (Yin, 2009a). In a positivist research design, an experimental or quasi-experimental, approach allows the researcher to observe behaviour where the only variables are those specified by the experimental construction (Bem and Looren de Jong, 2006). With these conditions satisfied, it is then possible to generalise from the behaviour of the (random) sample to the wider population, usually using some form of statistical reasoning (Lipton, 2004). Underlying this is the key belief that there is an abstract truth and this can be rendered in a manner divorced from the social, political and linguistic norms of a given social system or group. Some empiricists would relax this to claim that a given empirical investigation uncovers an ‘approximate truth’ (Psillos, 1999) and that repeated studies bring this closer to a real understanding (or lead to the refutation of the original hypotheses).

An interpretivist approach differs in a number of critical ways. One key aspect is to acknowledge that the process of understanding and interpretation is done by human beings situated in their own wider world view (personal and social) and that this influences what is seen to be important, how research is conducted and the results interpreted (Bem and Looren de Jong, 2006). One key consequence of the choice is that for an interpretivist design there is no need for the sample to be random, indeed it can be deliberately chosen to provide an insight or to explore a particular issue (Yin, 2009b). In the case of this research, for reasons discussed later, the sample is non-random. Within this, the survey allowed the reporting of the views of a large number of older adolescents and younger adults about their changing internet usage and how it was affecting their social and family interactions. In turn the interviews were in-depth with some of this group, their parents and other older adults. This allowed a detailed study of how they believed the internet was altering family relationship.

4.3.2 *Integrity of the research*

For any research there remain three key questions that need to be addressed (Yin, 2009b) of:

- Validity;
- Reliability; and,
- Generalisability.

Validity requires the researcher to have captured the full views of the participants and to ensure this is appropriately recorded and reported. As such, it is often satisfied by using multiple sources of information, an approach described by Yin (2009) as ‘triangulation’. In effect if different data gathering approaches tend to produce similar answers then the validity of both the findings and any further interpretation is strengthened. In this respect, it is thus quite common to find a quantitative strand (for example a questionnaire) embedded in an otherwise qualitative research design (perhaps relying on interviews). This gives two sources of data and allows each to address different themes and to be used as cross-checks. However, simply adding more data sources is not sufficient (Bryman, 2006).

The second test, reliability, follows from the concept of validity. At its simplest (Easterby-Smith et al., 2008) it means the research has been designed in such a way that a follow up survey would, if nothing had changed, come to similar conclusions. Thus the research design should be clearly laid out so that, if desired, it could be replicated. In that case, if different conclusions were reached in a second study, then the variation should be traced to identifiable changes – of who was interviewed, or the evolution of the internet between the studies. A key aspect is that it is possible for the reader to trace how the data was collected, analysed and interpreted.

In the present study there is a particular issue that affects both these requirements. The questionnaire and the interviews were conducted in Arabic, transcribed and translated into English. Since the two languages are very different, it is important that the process of translation is accurate (Temple and Young, 2004) but, to ensure it is easy to read for English speakers, quotes cannot be literal. The goal is to capture and report the essence of the interviewee’s answers, so there is a process of both translation and interpretation involved in this switch of languages.

In this respect it is important to acknowledge that the quotes from the interviews that form the core of chapter six are all translated from Arabic (Temple and Young, 2004) and that the translation was done by the researcher. The analysis commenced (Santos et al., 2015) before interviews were fully translated so that the material that was coded was then rendered into English. As is discussed later, some tidying of the translation was done to ensure it was easy to read for an English speaking reader but there is also an intention to retain some of the idiomatic aspects where this allows the original voice to be retained. When translating there is always a trade-off between retaining the original (including formulations that read badly in English) and rewriting so they are easy to understand for readers of English. This is discussed in some detail later on, but since the focus was on ‘what’ they said rather than ‘how’ they said it, on balance the translations have been worded so as to be easy to read in English (See appendix for an Arabic transcription and English translation of one interview).

The final challenge to any enquiry is the process of generalisation (Easterby-Smith et al., 2008) and it is this that could be said to be the core to the debate about the validity of mixed method research designs (Creswell and Clark, 2011; Feltzer, 2010; Symonds and Gorard, 2008). In an empirical design this is effectively automatic if the research has been properly designed, relies on a random sample, and usually relies on statistical testing to allow generalisation from the sample to the wider population. So, a questionnaire may be subject to statistical testing and those conclusions can be used to generalise to other situations (i.e. for theory building). However, a critical dynamic in terms of interpretation is whether the sample has been randomly selected from that population so that the research was designed so that any observed variance could only stem from specified factors (Easterby-Smith et al., 2008). It is possible to use a questionnaire distributed to a non-random population, but this has implications for the process of generalisation, in particular it is no longer possible to simply assume that any statistical tests applied to the sample apply, in turn, to the wider population. In this case, generalisation needs to follow the norms and approaches developed within the qualitative research tradition.

It is still possible to use the results of qualitative research design for the purpose of theory building (George and Bennett, 2005a; Goertz, 2006) although the logical reasoning process has to be different (Lipton, 2004). The key concept is what Yin (2009) calls ‘explanation building’ where plausible interpretations of the data gathered are proposed, tested, rejected and refined as new information becomes available. This involves the construction of a chain

of reasoning from observed data to allow the construction of theoretical interpretation and in turn to allow generalisation. Each of these steps, and the related assumptions must be made clear to the reader. Related to this, such reasoning should make use of existing research, and pre-developed hypotheses, to allow a process that Yin describes as ‘pattern matching’. Here, existing research is used to create a narrative structure so that if certain combinations of factors are found, it is possible, using other research, to ascribe the reason for the observed outcome. The material presented at the end of chapter three performs this critical role in this thesis. Attride-Stirling (2001) uses the approach of thematic networks to assist this process.

In practice, as in this thesis, there is a degree of pragmatism involved in the selection of data gathering tools. As is discussed below, the data were gathered in a single field trip to Saudi Arabia and the questionnaires allowed a wider range of individuals to be involved than just relying on interviews. Equally the questionnaires allowed a focus on different age-groups, to explore slightly different issues and to triangulate between the findings of the interviews and questionnaires. In consequence, chapter five concentrates on the questionnaire data, chapter six on the interviews and chapter seven brings these two strands together.

4.3.3 Theoretical concepts for Quantitative Research Design

In terms of quantitative research it is important to draw a distinction between using a method of data collection that allows subsequent numerical (usually statistical) analysis and a research design that fits Saunders et al (2009) positivist or realist philosophy of science. This distinction matters as the latter is usually grounded on one of two research designs (Bem and Looren de Jong, 2006):

- Experimental Design;
- Survey (using a random sample).

Experimental design is used to ensure that no unknown variables might explain observed differences between the dependent and independent variables in a study. It can take place in a controlled laboratory setting or use variants the common medical tool of assigning individuals into a group that receives a new medicine (or technique) and a similar group that does not. A related approach is quasi-experimental (Bryman, 1989) that takes place in a less

controlled environment where the goal is to minimise the extent that unexpected factors may influence the observed results but where the full control of a laboratory setting is absent. Surveys are often used in market and social attitudes research. The intent is to select a random sample that is representative of the wider population and often the data is gathered using a questionnaire (Bradburn et al., 2004; Wilson and McLean, 1994).

In both approaches, a positivist or realist philosophy of science would claim that it is possible to use statistical tests to generalise from the observations to the wider population (Banaji and Crowder, 1994; Morris and Gruneberg, 1978) or to assign causality to an observed relationship between the independent and dependent variables (Bem and Looren de Jong, 2006).

The incorporation of a survey technique (usually a questionnaire) into both case study design and as an element in a mixed methods design is relatively common. Questionnaires have a number of advantages as data collection tools (Bradburn et al., 2004; Sudman and Bradburn, 1982; Wilson and McLean, 1994), including:

- Relatively easy to administer to a large group, increasingly using web based tools (Toepoel et al., 2009);
- Can use a mix of closed questions (i.e. where the respondent has to choose from a set list), semi-open and open questions;
- Can be used to capture attitudes and beliefs, often relying on a likert scale design (Everitt and Wykes, 1999);
- Since the same questions are answered by all respondents, it is easy to compare their answers;
- The results are amenable to statistical analysis.

The weaknesses include:

- There is a risk that the respondents did not understand the question, if so, interpreting the results may lead to misleading conclusions;

- There are risks in design and layout. In particular, if the questionnaire includes options such as ‘if Yes, please supply more information’ there is a risk that the respondent may answer ‘No’ simply to avoid this extra step (Wilson and McLean, 1994);
- There is no scope to ask follow up questions or to ask a respondent to explain why they gave a particular answer.

To address these weaknesses, there is a frequent reliance on both questionnaires and interviews in the overall mixed methods design. The two are seen as complementary (Creswell and Clark, 2011) since the weaknesses in one are often a strength in the other. As an example, interviews are time consuming and hard to set up (whereas questionnaires are usually relatively easy to set up and administer) but interviews allow the researcher to explore the reasons for a given answer in more depth (whereas in a questionnaire the only information is that already provided).

However, while the process of analysing the contents of a questionnaire are similar whether or not the underlying sample is random, the process of moving from the observed results to a wider understanding (i.e. generalising from the findings) varies substantially (Saunders et al., 2009). If the sample is random, it is possible to use statistical reasoning to argue this tells us something about the wider population. If the sample is non-random, then the process of moving from the observed data to wider conclusions has to rely on approaches from qualitative research design such as Yin’s (2009) concept of ‘pattern matching’.

4.3.4 Theoretical concepts for Qualitative Research Design

The analysis of qualitative data needs considerable care in order to meet standards of transparency and disclosure (Huberman and Miles, 1994, Attride-Stirling, 2001, Bryman, 2008). Attride-Stirling (2001) argued that to support the analysis process, the analytic approach needs to set out clearly how the raw data was recorded and organised. Whitehead (2004) suggested that the key to effective qualitative research was to be clear about the underlying assumptions, how the information was gathered and how it was interpreted. In summary, a good qualitative study (Kiernan, 2012) will address the following:

- The experience of the research participants and their interpretation of the events being reported;
- Setting out clearly how the researcher in turn has interpreted that information,
- Construction of an interpretive framework that moves understanding from simply reporting the data to allowing a structured analysis;
- Lastly, the reader's interpretation of the findings will also depend on the interpretive and analytic process adopted (Benner, 1994, Bryman, 2008).

Bryman (2008) argues that the interactive process of analysis between the data and the theory is made easier by clear categorisation of the data (Koch, 1994, Morse et al, 2002). The process of creating categories, deciding what each category should contain (Collier and Mahon, 1993), and their comparison is widely debated in qualitative research (Gerring, 2007). In particular, comparative social studies when the goal is to test if similar features lead to similar outcomes needs to pay particular care to these concerns (Bevir and Kedar, 2008).

Attride-Stirling (2001) has stressed that the methods of analysis (recording, transcription, systematising, enclosing, and so on) are, however, performed by people with their own interpretive framework. Attride-Stirling (2001) pays particular attention to the process of analysis. There are a variety of tools available running from unstructured, such as Grounded Theory (Gerring, 2007), those specific to particular disciplines, such as tools for language analysis (Baldry and Thibault, 2006) and very structured approaches (Griffin and Ragin, 1994). The latter can include tools of analysis that have more to do with statistics and formal logic (Romme, 1995) such as Qualitative Comparative Analysis (Rohwer, 2010) and Process Tracing (George and Bennett, 2005b). In effect, at one extreme is a methodology that argues the only means to make sense of the results is to work from the data, creating categories as the research develops. On the other, are a set of analytic tools that argue they bring some of the rigour of quantitative research into the qualitative domain.

Attride-Stirling's solution is to stress the importance of thematic networks in the data analysis process. Conceptually, thematic networks "aim to explore the understanding of an issue or the signification of an idea, rather than to reconcile conflicting definitions of a problem" (Attride-Stirling, 2001, p. 187). The approach is structured, developing from basic themes to

organise these into more abstract principles and in turn create global themes that allow the researcher to move from analysis to theory building. This can be summarised as:

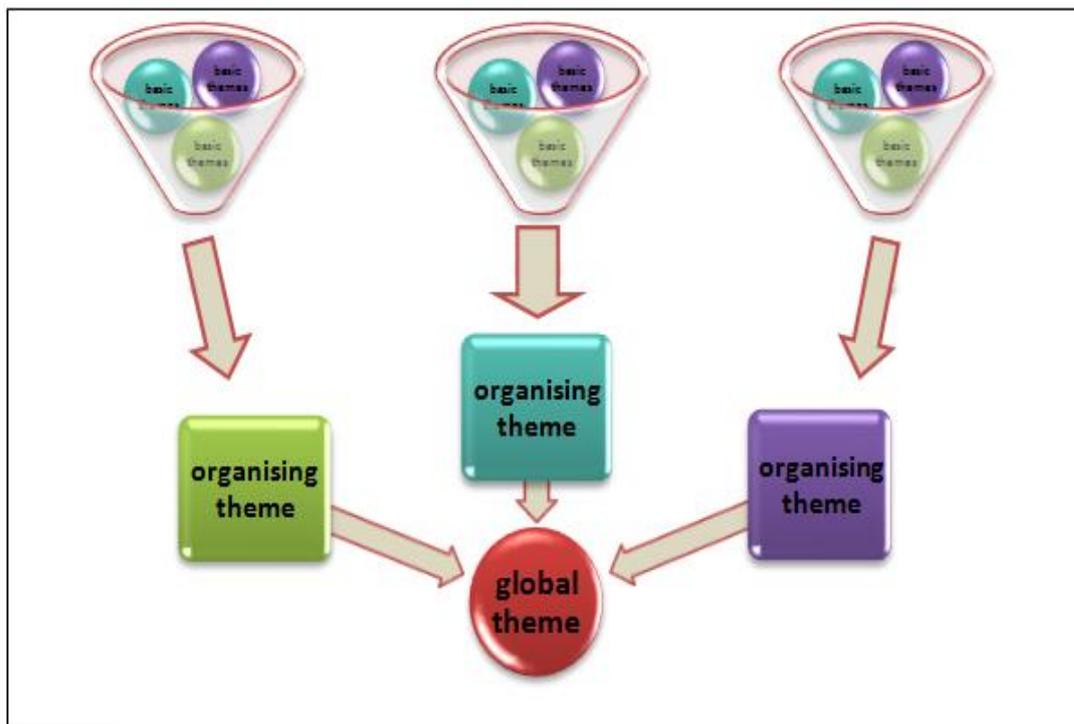


Figure 4-2: Structure of a Thematic Network. (Attride-Stirling, 2001).

The process of constructing such a network commences with coding the raw material. This requires the creation of a coding framework and breaking up the text into that structure (Attride-Stirling, 2001). This is iterative, and the first coding can be very broad and then once the data is organised, further sub-categories constructed (Rohwer, 2010) and material moved between categories as the research framework develops. This leads to the creation and refinement of the themes that will be used in the analytic process. In turn, those themes can be constructed to provide the networks that show how the data is related and how the researcher is constructing their argument (i.e. making meaning) from the raw material (Attride-Stirling, 2001). The process of analysis can be usefully broken down into six phases (Braun & Clarke, 2006, 2012) as:

Table 4-1: Phases in Thematic Analysis

Phase	Description of the Process
Familiarise yourself with the data	Transcription of data, read and reread the data, note down initial ideas
Generating initial codes	Code interesting features in a systemic manner for the entire data set, collate data relevant to each code
Searching for themes	Collate codes into themes, gather all the data relevant to each theme
Reviewing potential themes	Check within each theme in respect of the coded extracts and the entire data set, generate a thematic map of the analysis
Defining and Naming themes	Ongoing analysis to refine the content of each theme and the overall narrative, generate clear definitions and titles for each theme
Producing the report	Complete the final analysis, select extracts, analysis of the extracts, relate the extracts to the research question and wider literature, produce final thesis or paper

The practical application of this approach in this particular study is discussed below and again in chapter six.

4.4 Related Research

The interaction between computer based technology and human beings has been researched from a number of different perspectives. Many early studies concentrated on issues such as screen layout, ergonomics and the design of software. Equally, there was a growing interest in the factors that led individuals to adopt new technologies (Malhotra and Galletta, 1999) with this approach taking a growing interest in the importance of social and cultural factors in terms of technology adoption (Straub et al., 1997).

One typical study of changing internet usage is by Kraut et al (Kraut et al., 2006). They developed their sample by drawing on a population already gathered for a regular US social attitudes survey. They sought to measure changes in internet usage by a test-retest (separated by 6-8 months) research design of those who had agreed to take part. Usage was measured

by the individual completing a scale devised as: “several times a day,” “about once a day,” “3-5 days per week,” “1-2 days per week,” “every few weeks,” “less often,” and “never” (Kraut et al., 2006, p. 206). This information was then combined by the researchers to provide a judgement about overall usage and whether or not this was changing between the survey dates. The questionnaire also allowed the research team to track changes not just in volume of usage but also in terms of what was accessed and how the individuals made use of the internet. Their key goal was to track the inter-relation between internet usage and TV usage rather than the impact of the internet on interpersonal relations. As such, concentrating on measures of volume and the type of usage was adequate to their research design.

In contrast, Frohlich and Kraut (2002) sought to explore how internet usage was being integrated into family life and how interacting with the personal computer (the dominant option at the time of their research) was becoming another part of a family’s domestic dynamics along with the television. In this case they too adopted a test-retest design and drew on two different surveys they had already completed. In each case, data was gathered using a structured interview and these were transcribed and coded to analyse varying patterns of usage.

A different paper by Kraut concentrated less on the level of usage and moved on to consider the impact on social relations. Again this research was designed to make use of existing surveys conducted by the research team in the late 1990s. To this was added a fresh survey that sought to track and re-use the earlier participants (Kraut et al., 2002). This questionnaire included questions that tracked usage as well as the individual’s perception of how internet usage was affecting intra-family communication. This was followed up by a second study where they studied individuals and families who had recently bought a new home computer. In this case, a test-retest model was used over a six month period and some questions were designed to elicit information about “individual differences in extraversion and perceived social support” (Kraut et al., 2002, p. 58). The sample was gained through placing advertisements.

An alternative to the test-retest design has been the use of questionnaires to gather information on the impact of internet usage. So Dwairy et al. (2006) based their questionnaire on variations in parenting style (both in terms of style and consistency) as well as the impact of this on children’s mental health. In a different field, Bui (2009) used a

questionnaire to assess the strength of familial ties in second generation immigrants and their interaction with their host culture.

Overall, as discussed in chapter three, prior research into the impact of the internet has been focussed on either individuals or family groups. The usual data gathering tools have been surveys (Kraut et al., 2006) and/or diaries of time allocation. In the wider field of social attitude research, questionnaires have often been used to gather information on beliefs. Some studies capture specific aspects such as the level of intra-family interaction but rarely venture into the more judgemental aspects such as whether or not the internet has had a wider social effect (Punamäki et al., 2009) and the extent that individual's identity formation is changing due to their usage (Zhao, 2006). Equally while test-retest has been a common design for tracking changes of use other studies have been based on a single point in time (Shklovski et al., 2006).

4.5 Research Design

4.5.1 Introduction

As discussed in section 4.4, the bulk of the existing research in this and related fields can be characterised as using questionnaires and surveys with the goal of both capturing volume of activity and individual attitudes. However, the focus in this study is not why individuals make use of the internet but whether or not current internet use is believed to have had an impact on attitudes and values, family and social relations. As such, changing usage is of interest, but the focus was on how internet usage was affecting individual perceptions of changes in family life. As discussed in the literature review, capturing and interpreting such attitudes is a complex question, not least as:

- It relies on attitudes and beliefs, and there is a tendency to ascribe undesirable changes to a recent, and prominent, factor even if the causal link between, say internet adoption and social change is weak;
- It is vulnerable to other ongoing changes. Unlike in a conventional experimental framework, there is no ability to hold other variables steady so not only may a country

see an expansion of internet usage it may also be undergoing other social, economic or political changes;

- Psychologically people tend to over-estimate the impact of a recent event on a perceived outcome (Larson et al., 2009), described in the psychological literature as the salience effect (Brewer and Weber, 1994; Brown, 1986). In the literature review this was identified by Fischer (Fischer, 1997), as one reason why there is a tendency to over-state the impact of new technologies on social behaviour;
- That there is a risk that simple changes of how social relations are made and maintained will be seen as a loss simply as the process, but not the outcome, has altered (Sproull et al., 1992);
- The final problem is the lack of an agreed baseline against which any claimed changes can be properly measured. People may well report that adverse social changes have occurred but it is often very hard to extract the extent to which this is based on belief rather than evidence.

This led to a research design that accepted that any judgement about the impact of the internet would have to be based on individual opinion (and, as such, vulnerable to individual subjective bias) but the related advantage was that the data could be gathered in a single round of interviews (so the research design is not longitudinal). This provides a snapshot in time, which means other variables, such as access and types of technology available to participants are relatively stable. To obtain sufficient responses and to allow sufficient depth a mixed research design of questionnaires and semi-structured interviews was adopted. Thus, if a respondent made the statement that a given family was disrupted due to internet usage this had to be accepted and there was no scope to explore whether or not that particular family would have had difficulties in any case. The psychological concept of attribution (Brown, 1986) suggests that a given outcome is quite commonly ascribed to a recent change regardless of the existence of other, long standing, potential causes.

It is this background that creates the framework for this research design. This research looks at the familial relationships in Saudi Arabia and considers if these are perceived to have changed significantly in recent years and if so, if the internet is seen as the reason for such changes. Thus, there was a need to consider not just changing usage of the Internet but the extent to which it brings new social concepts around parenting and family relationships as

well the way that globalisation maybe affecting traditional social systems. Given the nature of the research design, it should be stressed that the evidence gathered was self-reported beliefs and opinions of the questionnaire respondents and interviewees.

4.5.2 Method

The choice of participants was split over two phases. The first consisted of 300 participants who completed a questionnaire and the second category was a smaller group of 50 participants who were interviewed. All those who completed the questionnaires were college or university students (aged under 28) and the interviewees were split between those under 28 and those over 28. The advantage of this mixed approach is it allows both a questionnaire survey and in-depth interviews and to capture the views on the impact of the internet on family and social relations in Saudi Arabia from two different age groups.

The group that completed the questionnaires were mostly female (75% of the total) and all the interviewees were female. As noted in chapter 2, social restrictions within Saudi Arabia make it impractical for a female researcher to interview men. This, naturally, has implications for the conclusions that can be drawn in that the attitudes of men are under-reported.

As discussed below, two universities and one high school assisted in circulating and collecting the questionnaires. The interviewees were contacted in part by following up the questionnaires and in part by social contacts or telephone enquiries.

A key part to this research design was that both the underlying questions of whether or not there have been changes in family interaction in Saudi Arabia (and if so, is this believed to be linked to increasing internet usage) and how the younger generation use the internet (and the consequences, if any of this) were covered in both stages of the research design. The questionnaire concentrated on those under 28, but covered both their usage of the internet and their beliefs as to the implications of this usage. The interviews involved a mixed group, some over 28 and some from those who had completed the questionnaire and again explored both changing usage and the believed implications. In effect the priority focus of the two data collection tools varied but both covered current internet usage, how this was changing and what the believed consequences were.

Since the fieldwork was all done during a single visit to Saudi Arabia, although the questionnaires were administered first, there was little scope to analyse those results before conducting the interviews, so overall the data collection in this case was concurrent rather than sequential (Creswell and Clark, 2011). In consequence, the main advantage of using the two data collection tools was to compare the findings at a single time point. This informed the structure of the later chapters of this thesis as chapter five reports the findings from the questionnaire, chapter six from the interviews and chapter seven brings the two sets of findings together.

This can be summarised as:

Table 4-2 : Summary of Research Design.

Phase of the Research	Primary Focus	Secondary Focus	Approach to Data Collection	Sample Characteristics	Data Captured
1	Usage of the Internet	Consequences of that usage	Questionnaire	300 individuals from 2 Universities (256) and 1 High School (44) - all under 28	Demographic; Internet Usage; Beliefs about impact on self, family and social relations
2	family and social dynamics	Linkage to internet usage	Interview	30 interviewees who were under 28 and 20 who were over 28	Beliefs about impact of internet on family and social relations

4.5.2.1 Phase One: Questionnaire

The initial draft of the questionnaire was derived from the themes explored in the literature review. In particular this included:

- Exploration of levels and purpose of internet usage;
- Methods by which the internet was accessed;
- Attitudes to family social events,

The three issues above were identified from chapter three.

Pilot: The questionnaire was initially piloted with a group of 20 participants, who were either relatives or close friends of the researcher (and all were under 28). This initial testing of the design identified some instances where the proposed likert scale (Not at all satisfied, slightly satisfied, satisfied, very satisfied and extremely satisfied) was poorly aligned to the phrasing of the question. These changes led to a substantive revision of section four before the questionnaire was used for the main research

Final questionnaire: this was 7 pages long and consisted of 56 questions (a copy is attached in appendix D in Arabic and in translation into English). It was divided into four broad sections:

1. The first part consisted of 16 questions and focussed on level of internet usage. In addition, this explored if the individual believed the internet might either affect their attitudes and beliefs and/or how they behave in family settings.
2. The second part consisted of 19 questions and explored the relationship of the respondents with their family and whether or not they believed that their internet usage had changed this.
3. The third part broadened the theme in part two and considered their attitudes towards Saudi society and how they felt about those traditions, customs and activities.
4. A final section gathered information on age, gender, occupation, marital status, family size and educational qualifications.

Overall the key variables thus become demographic (in particular age and gender), reported volume of internet usage, type and the purpose of that usage. These are compared (see chapter five) to the reported beliefs about their attitudes and how these are changing.

The recruitment process in the first phase aimed to involve more than 300 participants aged between 18-28. Once the questionnaire was revised; the first stage involved its distribution to university and high school participants aged between 18 and 28. This group was selected as representing the age group most likely to have adopted IT and to make use of the internet.

Also the research in chapters two and three indicated the potential for a clash of expectations between traditional Saudi family norms and the expectations of western adolescence for this age group.

Approval was gained from two universities and one secondary school in Saudi Arabia to approach students to participate. Different approaches to distributing and collecting the questionnaires were adopted in each case:

- At the King Saud University the researcher gained permission to distribute the questionnaires directly to female students. The students were selected in the university hall, restaurant or coffee shop, as well as from the classrooms when a lecture had finished. The researcher explained the purpose of the study and how to fill the survey page by page then listened to any enquiries. There were 166 (55.3%) returned questionnaires, 135 (81.3%) of them females and 31 (18.7%) males;
- At the Princess Nourah University the administration distributed the questionnaires to a sample of male and female students and the total of returned questionnaires were 90 (of which 30% came from females);
- At the high school, the Principal distributed the questionnaires to a sample of male and female pupils, the total of returned questionnaires were 44 (14.7%) males.

The resulting questionnaires were returned by collecting them from those students the researcher had contacted, or through the administration's offices where the University had taken responsibility to distribute them. Each original questionnaire had been numbered so it was possible to track how many were returned. In total 350 were distributed and 300 (86%) returned. Of the returned questionnaires 25% were from men and 75% from female students.

4.5.2.2 Phase Two: Interviews

The recruitment process in the second phase aimed to provide 50 qualitative interviews. Due to gender constraints in Saudi Arabia, the researcher opted to only include females in this phase. The specific problem is that interviewing members of the opposite gender (who are not family members) with any degree of privacy would have been impossible (see chapter 2 for more details about conservative nature of Saudi society).

The interviewees were split into two groups. One was a younger group who were under 28 and were chosen from those who had completed the questionnaires. All those who completed a questionnaire were asked if they wished to participate in the interviews. Those who agreed were then asked if their parents wished to participate and, if so, it was usually agreed to meet them together. In summary, all 30 of the participants who were under 28 had completed the questionnaire and 10 of these involved their parents in the subsequent interview as:

Table 4-3: Interviewee selection (under 28)

Participants selection	No.
Those whose completed the questionnaire, interviewed without their parents	20
Those whose completed the questionnaire, interviewed with their parents	10

Thus five of the older age group were contacted via their children, 4 of the interviewees were selected by telephone contact, and 11 were individually contacted in social settings. In summary:

Table 4-4: Interviewee selection (over 28)

Participants selection	No.
By phone	4
As parents of children who completed the questionnaire	5
From social links	11

The age division at 28 is arbitrary but allows the information taken from the interviews of those under 28 to be compared to trends in the questionnaire responses. In addition, given the relatively recent growth in internet access in Saudi Arabia (Al-Otaibi and Al-Zahrani, 2009; Kingdom of Saudi Arabia, 2010) this allows a rough distinction between those who have grown up seeing it as part of their lives and those who first engaged with the internet in late adolescence or early adulthood.

As noted, the interviewees were identified using various methods. Those under 28 volunteered to be included having already completed a questionnaire. Those over 28 were included as parents of children who had completed a questionnaire, from social contacts or by telephone. This style of purposive and snowball sampling (Atkinson and Flint, 2004) is often recommended when conducting social research in countries where it is hard to generate a conventional random sample from a wider population (Ralston et al., 2011). A purposive sample is one collected due to inherent characteristics (in this case that they were all parents of children who, in turn, made use of the internet) and excluded those who had no access to the internet within their family. Snowballing (Atkinson and Flint, 2004) is the process of steadily building up a sample by working from already known individuals to engage with their contacts.

Once someone had agreed to be interviewed they were provided with an information sheet describing the aims and objectives of the research and signed a consent form (see appendices A and B). The interviews were semi-structured and lasted an average of 20 minutes, with a range of between 15 and 45 minutes. The topic guide consisted of eight broad questions and the full set of questions in Arabic and translated into English are

1. Amount of daily time using the internet?
2. Accessing the internet (mobile phone, laptop etc.)?
3. Use of the internet?
4. Any use of social networking?
5. Internet versus face to face relationships/ friendships?
6. Posting opinions and using real names or remaining anonymous?
7. Any internet impacts on family relationships?
8. Any internet impact on attitudes and beliefs?

(See appendix C).

4.5.3 Data analysis and interpretation

Given the nature of the evidence, two different approaches to data analysis were adopted. The questionnaires were analysed using quantitative statistical analysis and the interviews were analysed using Attride-Stirling's (2001) concept of thematic networks. The analytic outcomes are discussed in context in chapter five and to generalise from the findings meant using pattern matching (Yin, 2009). In effect this considers how well the findings matched both the existing research and the hypotheses set out in the introduction and what explanations could be offered for variances from the original assumptions.

4.5.3.1 Questionnaire Analysis

The questionnaires were first analysed using some basic descriptive statistics to enable an analysis of the make-up of the interviewees. To support this, bivariate correlation analysis and logistic regression tests were performed as appropriate using SPSS (PASW SPSS 20). Once this phase was complete, ANOVA, T test and factor analyses were performed to combine the demographic data with the results of the attitudinal questions. This enabled an analysis of the perceived impact of the internet on the individuals, on family relationship, on the relationships within society and in terms of reported wellbeing. The details on this process are considered in context as part of chapter five.

Four scales were initially planned and used to measure the internet impact on Saudi families' relationship as follows:

- **Scale one:** The perceived impact of the internet on the individuals is determined by 22 questions and statements. The first seven items were answered using numerical scales (1,2,3,4,5,6,7,and 12+ hours) the other statements used a 5 point-Likert scales (based on: Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree)
- **Scale two:** sought to capture the impact of the internet on family relationships and relies on answers to 19 statements, each using a 5 point-Likert scales (Always, Often, Sometime, Rarely and Never)
- **Scale three:** measures the impact of the internet on the society relationships using 13 statements and again each was answered using a 5 point-Likert scales (Strongly Agree, Agree, Neutral , Disagree and Strongly Disagree)
- **Scale four:** the final scale was a wellbeing measure determined by 8 statements, each using a 5 point-Likert scales (Not at all satisfied, slightly satisfied, satisfied, very satisfied and extremely satisfied). Data on wellbeing was collected in order to place other answers in context and explore whether usage of the internet was affecting their health.

The advantage to grouping the responses this way is that they allow comparison for example between level of usage (scale 1) and attitudes to family or society and to reported well-being. Thus it is possible to discuss key variables such as the level of internet usage and different types of such usage. The latter is important as an important theme in chapter three was whether the internet simply took time away from other forms of interaction or led to attitudinal changes.

However, as discussed in chapter five, preliminary analysis, designed to test for reliability and validity, used Cronbach's alpha test which indicated that this four groups split failed to capture the content of the responses. As a result, the actual analysis was revised to use a six point scale of:

- Impact on family relationships;
- Engagement with the internet;

- Impact on the individual;
- Impact on social relations;
- Wellbeing; and,
- Cultural attitudes.

The questions were then assigned to these categories according to their respective correlations. Using this revised structure, the first stage of the analysis was a univariate discussion of the means and standard deviation of each individual question. This was followed by a multivariate analysis that explored if the response to each scale varied significantly according to (a) changes in the volume of internet usage and (b) the type of internet usage.

4.5.3.2 Interview analysis

The interviews were analysed so as to understand the impact of the internet on social and family relationships and to extract information that could be used to explain, support or contradict the themes that emerged from the questionnaire analysis. As discussed, Attride-Stirling (2001) stresses the importance of building a narrative interpretation of the findings. A key stage in this is to create categories that can be used to group and analyse the information (Attride-Stirling, 2001).

- According to Braun & Clarke (2006, 2012), thematic analysis is a method in which research data is identified, organized, and analyzed before being reported as patterns (themes).
- The concept of a "theme" is defined as "something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set." (Braun & Clarke, 2006, p.10).
- Braun & Clarke (2006, 2012) (table 4-1) method which consists of six phases was adopted in this project and applied to research interviews in order to analyze the project qualitative data.

In Phase 1 of thematic analysis, the verbal data (interviews) were transcribed and translated (see 4.5.3.3 below). The transcription process is the best way to familiarize researchers with their data even if it seems time consuming (Riessman, 1993). Moreover, transcription allows "repeated reading" of data which enabled the researcher to dissect data and find out specific

patterns. Using this approach, the 50 interviews of the current project have been carefully transcribed, read repeatedly in order to initiate coding process of the data.

In phase 2, following formulation of initial codes of interesting elements of data, the data was sorted out (manually) and organized into meaningful groups (sub-themes) (Tuckett, 2005) which eventually structured the main themes.

In phase 3, the links and relationship between the long lists of extracted data codes and subthemes was further analyzed in order to establish the main themes of qualitative data.

In phase 4, after establishing the research themes, it was important to review the themes by reading them many times to be sure that the extracted data were meaningful, coherent, and make a consistent pattern. Moreover the themes were refined and reviewed by repeated reading to check if they were related to the data set and to add any possible missing data codes. This careful reviewing process of research themes resulted in drawing the project thematic map.

In phase 5, after analyzing the thematic map and confirming that the formed themes are having a coherent pattern and are related to the research question, each theme was given a brief and clear definition and name which describe precisely the scope and content of that theme.

In phase 6, the formed themes were organised and reported in a way which tells the story about the data in a simple but compelling and illustrative way that shows the validity, efficiency, and accuracy of the data analysis.

As for this phase of writing up the thematic analysis, it has been postulated that the best thematic analysis should be consistent, logical, and non-repetitive, and make a sound argument with the research question (Braun & Clarke, 2006).

This is discussed in more detail in chapter six as it is easier to set out the process in the context of the raw data. From this, four over-arching (global) themes were identified of: Family Relationships; Social Relationships; Online Identity; and, Internet Usage. Each of these were then broken down into more detailed themes (see table 6-1) and the first stage of the data analysis was to use that structure to present the main findings from the interviews.

In this case, as an example, comments that included phrases such as ‘parents complaining’ were linked to a group of responses that discussed ‘family structure’ and in terms of the wider

issue of ‘family relationships’. This allows the development of a narrative style of reporting that brings together the detailed discussion of the results of the interviews with the key research themes (Stake, 2006). One advantage to using a semi-structured approach to the interviews is that the same question is posed in each case. While individual responses will vary substantially, this does ensure that each interview covers the key issues and makes it easier to move from the raw transcripts to a structured analysis.

4.5.3.3 Translation

Language is one of the important tools to study and understand a specific culture (Chen & Boore, 2009). In quantitative and qualitative psychology, translation quality depends on several factors that include the translator, culture, language, and back translation (Chen & Boore, 2009).

Furthermore, a competent translator with full knowledge and understanding of the people under study, plays the main role in the research translation quality (Birbili, 2000). Using one translator could increase the reliability in data analysis also the translation consistency is obtained (Twinn, 1997). In general, Temple (1997) confirmed that there a variety of means to produce a valid translation for further analysis with a key question being how important it is to stress faithfulness of the original language or comprehensibility in the new language.

Questionnaire translation

During the process of survey translation, it is important to maintain the same meaning of the research concepts of interest across source and target languages. Saris & Gallhofer (2007a, 2014) proposed two conditions for a questionnaire equivalent:

- First, the participants should understand the research concepts of interest in the same way across source and target languages.
- Second, participants can express themselves within the culture under the study.

It is argued that there is no single method to translate a survey questionnaire (Harkness & Schoua-Glusberg, 1998). However, published general translation guidelines were adopted in the current study questionnaire with main emphasis of avoiding changes in questionnaire content (Harkness, 2003, Harkness et.al. 2010b).

Interviews translation

Qualitative research across different cultures involves transformation of verbal conversations into textual form and translation of these texts from one language (source) into another language (target). The overall goal of translation is to tune the meanings and expressions between the target and source languages in order to ensure accuracy and adequacy of the meanings that will eventually affect analysis of findings.

There is a lack of consistency in the literature in terms of the ideal model or technique of translation in qualitative research. For instance, Regmi, Naidoo, and Pilkington (2010) suggested that the translation of the entire data set prior to analysis is a more rigorous approach than translating only key concepts and categories. However, Chen & Boore (2009) argued that this approach is both expensive and time consuming, and they favour translation of key concepts and categories from data in source language.

In reality, translation is a complex process and a suitable translation model depends on various factors such as research context or discipline and the degree of cultural equivalence between source and target language. In several nursing research studies, for example, no significant differences were found between the categories or themes analysed in English and those analysed in Chinese (Twinn, 1997). Similarly, Lopez et al (2008) found no difference between the themes and meanings generated in the English translation and those found in the Spanish transcripts.

To reduce any discrepancy and improve the reliability and validity of the data, various translation models and techniques have been recommended such as undertaking the analysis in the source language and using two bilingual translators to translate the concepts and categories into the target language, back translation, using an expert panel to resolve epistemological and cultural issues (Chen & Boore 2009). However, the need to adapt some or all of these techniques in qualitative research is debatable and may depend on the research context, the degree of cultural equivalence encountered between the source and target data, and the resources available to the researcher.

In this study, back translation approach was adopted as the highly recommended by researchers on cross-cultural research (Brislin 1970, Werner & Campbell. 1970, Champman

& Carter. 1979, McDermott & Palchanes 1994, Gilmer et al. 1995, Corless et al. 2001, Jones et al. 2001, Maneesriwongul & Dixon 2004) to ensure the conceptual equivalence of the ideas when presented in the target language.

The following translation procedures were adopted to translate the interviews.

Before translation, the interviews were tape recorded and then transcribed verbatim in Arabic. Data were analysed according to the followings:

- First, Data from the source language (Arabic) were analysed, the categories and themes were formed.
- Second, the formed categories and themes were translated by the other bilingual translator, from Arabic to English.
- Third, another bilingual person who is a fluent in both Arabic and English, did the back-translation. Figure (4-3).

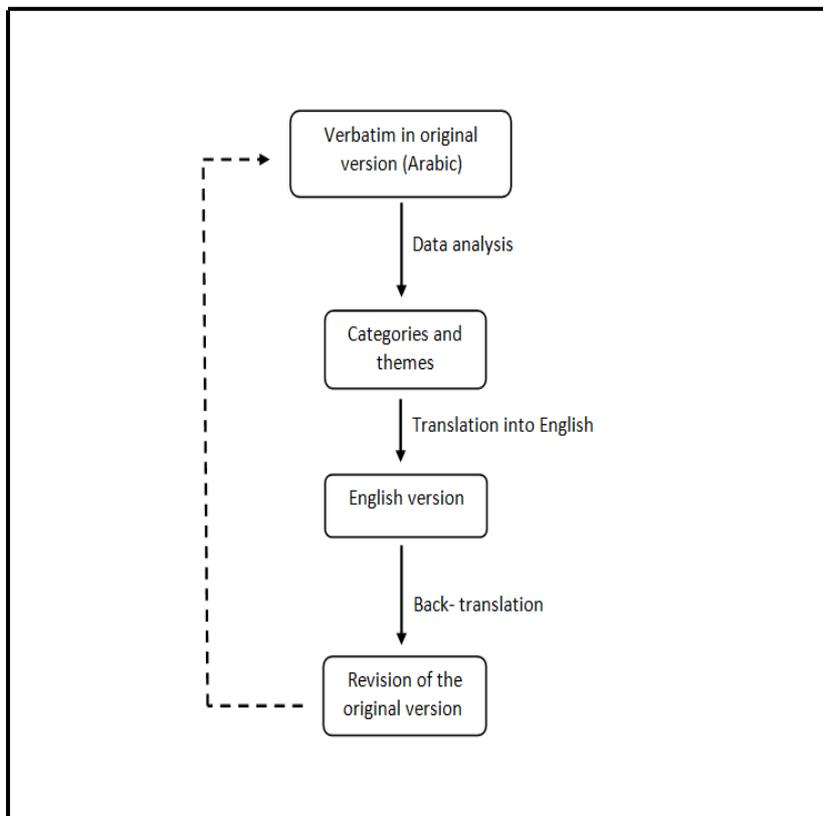


Figure 4-3: Translation Procedures.

The advantage of conducting the coding and analysis originally in Arabic is this is the source language. As such the question of whether to stress faithfulness to the source language or comprehensibility in the target language can be avoided. It also means it is easier to identify key themes that may be expressed in a particular way in Arabic but which might be lost when translated to English.

However, in this study the translation has not faced many difficulties as many of the words either are common and used in both source and target languages (i.e. internet, social network ...etc.) or are easy to interpret the meanings and expressions.

4.6 *Authorisation and ethics*

This research has been checked ethically and has been authorised by both my UK and the Saudi Universities that were involved. All the participants involved in this research read the research consent form and signed two copies of this consent so they can keep a copy with them and the researcher retained the other.

Before collecting the data for this research, ethical approval was obtained from the Academic Ethics Committee in the Faculty of Health, Psychology and Social Care at Manchester Metropolitan University (see appendix G). The ethical application form was completed in a way which would enable a lay person to understand the aims and methods of this research. As part of the ethical approval procedure, the ethical committee has also reviewed the research proposal, consent form, as well as the questionnaire that has been used in the current study.

For the first phase, involving the use of the questionnaire, the targeted samples were mainly university students in Riyadh, Saudi Arabia and the researcher supplied King Saud University and Princess Nourah Universities with a copy of the research proposal, consent form, and questionnaire. Official permission was obtained from both universities before conducting the research and distributing questionnaire there.

As discussed above, different approaches were used at each university. At King Saud it was agreed to collect the data directly from the students. The questionnaire was given to the female participants by the researcher in the university hall, coffee, and restaurant. All the participants who agreed to complete the questionnaire had a verbal introduction of the study's ideas, objectives, and aims; which allowed them to discuss any issues they had. The

questionnaire had been read for all the participants to avoid any confusion before starting. The consent was signed by all the participants. When the participants had finished, the questionnaire was collected one by one.

However, for the male participants the questionnaire was sent to an officer of the university who had a good understanding of the study's focus, objective, and aims that enabled him to give the participants clear information. For male students, the consent and questionnaire was distributed to the students in the lectures. Here again, the limitations on cross-gender interaction outside the immediate family had an influence on the practical conduct of this research.

At the Princess Nourah University questionnaire distribution was organised using their administrative officer. In this case information was supplied and they contacted the other departments to arrange a suitable time to distribute the questionnaire. Once an opportunity was identified, the researcher met with the identified students and provided an opportunity for them to ask any questions. Collecting the questionnaire was the responsibility of the University who then passed the completed questionnaires to the researcher.

For the interview phase, the participants were individually advised of the aims of the research and the contact details of the researcher, and supervisors, was written on an information sheet which has given to all interviewees. These contact details had been checked with the participants to confirm they know how to report any issues. The participants knew that they have a right to stop or withdraw from the interview at any time.

Moreover, to reassure the participants it was explained that these interviews would only be used for the purpose of this study. Also they were told that the interviewees will appear anonymously, and the recorded interviews would be transcribed, translated and kept in a safe place. No-one except the researcher would listen to or use them. Given that all the interviewees were female, their privacy and the security of the data were of primary importance. Efforts were made to ensure they felt comfortable throughout the interviews.

4.7 Summary

As identified in the introduction and chapter three, conducting research into changing social attitudes is a complex process. The key issue is a lack of external anchor points, leaving the research dependent on reported opinions. These opinions cover both whether or not social change is happening and, if so, why it has happened. Both are problematic. As in chapter three, there is a long tradition in human discussion that tends to see each new generation as in some way less disciplined or less aware of social norms than their predecessors. Equally, there is a commonly identified flaw in human psychological reasoning where cause is often attributed to the most recent, or most apparently significant, event. Thus any research into the impact of the internet on Saudi family and social norms has to address these twin difficulties.

The result, as in this research is the adoption of a mixed methods research design based on first administering a questionnaire and then a set of semi-structured interviews. Here the questionnaire was used to broaden the number of respondents as well as specifically capture data on internet usage by young adults. The interviews, in turn, were used to explore attitudes about the internet, reasons for usage and how this was believed to be changing family and social relations.

The detailed analysis of these two data gathering strands is set out in the next two chapters. Chapter five reports the results and findings from the completed questionnaires and chapter six concentrates on the interview data. In turn, chapter seven draws these two strands together and compares the empirical results with the expectations of the literature review set out in chapter three.

Chapter 5 / Questionnaire Analysis

5.1 Introduction

This chapter analyses the questionnaires completed by 300 individuals who attend either a secondary school or one of two universities in Riyadh (the capital city of Saudi Arabia). All the respondents were relatively young (all were under 28) and the goal was to gather information both on the volume and nature of their internet usage. In turn, their beliefs as to the impact of this usage on their familial, personal and social interactions were explored. In effect, this is the first stage of exploring if (a) the internet is believed to have changed these dynamics; and, if so (b) whether this change is due to volume of usage (i.e. time spent) or exposure to different attitudes and belief systems (i.e. the content).

This chapter starts by setting out the demographic information so as to place the later findings in context. It then deals with the extent of internet usage and their beliefs as to the impact on personal, family and social relations of time spent on the internet. The final section then explores whether any believed changes in such relations can be traced to either the volume of usage or access to new concepts and social norms as a result of spending time on line.

One consequence of a Mixed Methods design is how to ensure the two data collection strands are related to each other. The solution adopted here, was to concentrate in chapters five and six on reporting the key findings from each data collection tool. Chapter Seven then sets these findings first in the context of the literature review and then compares the data in order to address the research questions.

5.2 Demographics

This study included 300 young people from two universities and a secondary school. The majority of the study population (75%) were females, and most (71%) were aged between 20 to 28 years old, 29% under 20 years old. Most of them (84.3%) were single and 15.7% were married. Regarding their education level, 85.3% of the study population were undergraduate students and 14.7% were at a secondary school. In this study, 92.0% of the participants reported that their family size was less than 10 members, 7.3% 10 to 19 members, while 0.7%

reported that they had 20 or more family members. All this information was gathered from the personal information sheet that was issued as part of the overall questionnaire.

5.3 *Internet Usage*

5.3.1 *Time Spent on line and activity*

One of the first questions they were asked to complete was how many hours a day did they spend on the internet. The results were:

Table 5-1: Daily Internet usage

How many hours per day do you spend on the internet?	Number	%
ONE	42	14.0
TWO	41	13.7
THREE	61	20.3
FOUR	39	13.0
FIVE	41	13.7
SIX	23	7.7
SEVEN	22	7.3
12 +	31	10.3
Total	300	100.0

In effect, 48% of the sample reported usage of three hours a day or less and 25% that they spent six or more hours per day. The 10% who reported usage of over 12 hours were presumably accessing the internet in some way almost all their waking day.

Table 5-2: Daily Internet usage (summary)

How many hours per day do you spend on the internet?	No.	%
Three hours or less	144	48
Four to five hours	80	26.7
Six to seven	45	15
12 hours or more	31	10.3

In turn, the respondents were asked how much online time they devoted to different uses including their academic studies, email, information search, searching, chatting and gaming and accessing social networks. These categories were defined as:

- Studying – in this case they are using the internet to do online homework or read some articles or other material related to their studies;
- Emailing – is when the user checking, replying or writing emails;
- Obtaining information - when the users are looking for specific information about something (unrelated to their studies).
- Searching – is when they spend time looking for material in different categories or moving from topic to another topic with no particular goal;
- Chatting, Gaming - is when they spend their time on the internet playing games;
- Using social network – is when the user keeps contacting or chatting using applications such as twitter, what’s app, black berry and so on.

Table 5-3 below compares the average level of usage, using the summary categories from table 5-2, with how that time is spent on line:

Table 5-3: Average Internet usage (different reasons)

Time Spent On Internet	Studying	Emailing	Obtaining Information	searching	Chatting, gaming	Social Networking	Total
3 Hours or less	17.5%	20.1%	15.9%	16.11%	14.9%	15.5%	100.0%
Four to five hours	15.1%	6.4%	23.0%	17.0%	17.4%	21.4%	100.0%
Six to seven hours	10.5%	3.5%	36.0%	12.3%	23.7%	14.0%	100.0%

12 hours and more	10.5%	10.5%	0%	18.4%	42.2%	18.4%	100.0%
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Table 5-3 indicates that as the total amount of time spent on line varies, so does the relative allocation between tasks. Thus ‘studying’ takes up proportionately more time of those who make relatively little use of the internet but only 10% of the time for those who spend six or more hours on line each day. On the other hand, if the categories of gaming and social networking are conflated, those who use the internet for 12 hours or more, spend 60% of their time (and this is especially so for the gaming category) on these activities compared to 30% for those who use it for 3 hours or less. Overall, table 5-3 provides evidence that as total usage increases, the relative proportion of time allocated to activities such as chatting, gaming or social networks increases.

5.3.2 Time Spent on Line (variation by age and gender)

This stage of the analysis tests whether there were any significant variations in their total amount according to gender or age.

5.3.2.1 Gender

Table 5-4 shows the average usage of the internet in terms of gender. As is clear, there is no difference in terms of gender.

Table 5-4: Gender and volume of usage

	Gender	N	Mean	Std. Deviation	Std. Error Mean
How many hours per day do you spend on the internet?	Male	75	4.07	2.088	.241
	Female	225	4.01	2.223	.148

In terms of overall usage this indicates that there is no significant difference in terms of gender. Equally, when we look at type of usage we see:

Table 5-5: Gender and type of usage

	study	emailing	Obtaining Information	searching	Chatting, gaming	Social networking
Male	16.1%	16.6%	17.4%	15.4%	16.9%	17.6%
Female	16.9%	16.9%	17.0%	16.5%	16.5%	16.2%

Thus overall, there is very little difference in usage between the two genders. So while, as in table 5-3 above, we have seen that time allocation varies according to total time on line, there is little evidence from tables 5-4 and 5-5 that either total time or time allocation varies on the basis of gender.

5.3.2.2 Age

When we compare age and volume of usage (table 5-6) it is clear that those under 20 spend more time on line than those over 20

Table 5-6: Age and volume of usage

	age by groups	N	Mean	Std. Deviation	Std. Error Mean
How many hours per day do you spend on the internet?	<20 years	87	4.24	2.231	.239
	20-28years	213	3.94	2.168	.149

This provides some evidence that total time spent on line varies by age group with the younger group spending more time than their older peers by a substantial amount (a mean of 4.24 hours compared to just under 4 hours). One possible explanation is that this age group simply has more time to spend online and that extra time is used for social interaction.

However, the difference is not statistically significant as identified by independent sample t-test $t(298) = 1.08, p = 0.282$.

Table 5-7: Age and Type of Usage

	study	emailing	Obtaining Information	searching	Chatting, gaming	social networking
<20 years	16.7%	16.5%	17.3%	15.9%	16.8%	16.8%
20-28years	16.7%	17.0%	17.0%	16.4%	16.5%	16.4%

In this case, the relative time allocation to study was essentially identical between the two age groups but the younger group do use the internet more for information search, chatting and gaming and social networking but the apparent differences are very small.

5.4 Detailed Analysis

This section commences the process of understanding if the respondents believe there have been changes in Saudi familial and social relations and, if so, does the internet play a role. Equally, this allows an initial consideration of the key question as to whether any such disruption is a product of time displacement (i.e. simply spending time on line rather than in face to face interaction) or changing social attitudes due to accessing external information and norms.

5.4.1 Preliminary Analysis

The first goal in analysing the results was to test if the findings were robust. In particular this tests if individuals gave broadly similar answers to roughly similar questions (an essential test of reliability). Given the data format, Cronbach alpha was used as the main tool for this purpose.

The Preliminary reliability analysis of the instrument did not produce meaningful results as Cronbach's alphas were less than the desired 0.70 (Field, 2005). The Cronbach alpha

reliabilities of 15 item Impact of the internet on the individuals scale, 19 item Impact of the internet on family relationship scale, 13 item Impact of the internet on the society scale and 8 item wellbeing measure were 0.59, 0.56, 0.71 and 0.75 respectively. Since the assessment of reliability depends on the correlations between the individual items, it was important to analyze the inter-correlation among items.

Table 5-8: Cronbach Alpha for individual item lists

Measure	N of Items	Cronbach's Alpha
Impact of the internet on the individuals	0.596	15
Impact of the internet on family relationship	0.568	19
Impact of the internet on the society	0.718	13
Wellbeing measure	0.758	8

An examination of the correlation matrix of all 55 items revealed that few items did not correlate sufficiently. Pett (2003) recommended excluding items that have weak correlations ($r \leq 0.30$) with other items from the analysis. Consequently, some items (question numbers 19, 46, 47, 52) were dropped from the analysis: "Do you join your family gathering without any the internet connection?", "I think the internet has many things that don't fit with Saudi society beliefs, & values", "I think that one of the aims of the internet is to change the traditional conservative society", and "I can't stop thinking about the future". This reduced the number of items on the scale available for analysis from 55 to 51. The remaining inter-item correlations were within the accepted range ($r \leq .80$), dispelling any concerns of multicollinearity.

Tests of inter correlations among items supported the use of factor analysis. The Kaiser-Meyer-Olkin (KMO) overall measure of sampling adequacy was .781. Kaiser (1974, p. 35) acknowledged that values above 0.7 are "middling". Bartlett's test of sphericity was also significant ($X^2(1275) = 5824.432, p = .000$), indicating that the correlation matrix was not an identity matrix.

The six factors accounted for a total of 42.308% of the variance with 9.26% attributed to factor one, 7.65% to factor two, 7.17% to factor three, 7.05% to factor four, 6.17% to factor five, and 4.98% to factor six. Catell Scree Plot was used to identify the number of factors to be extracted. Visual inspection of the scree plot indicated six factors to be retained because the plot starts flattening after the first 6 factors. A summary of the Eigen-values and total variance explained by the extracted and rotated factors can be found in appendix E.

The variable loadings on the six factors are shown in appendix E. For samples with 250 respondents, Hair et al. recommended factor loadings of 0.35. This guideline is supported by Field who advocated loadings greater than 0.30 for a large sample size. For a sample size of 300 as in our case, the factor loading should be a minimum of 0.35 to have practical significance (Hair, 2009). Minimum factor loading obtained in factor analysis was .369 which was more than acceptable.

The questionnaire as originally designed (chapter four) had four sub-sections (impact of the internet on individuals; family and society as well as the wellbeing scale), however, the analysis in table 5-9 indicates that there are actually six different groups to the questions and it is more appropriate to use these in developing the analysis. The groups, and question allocation, are described below.

5.4.2 Revised Analytic Structure for the Questionnaire

Factor 1 was labelled Family relationship/attitude due to the high loadings by the items related to family section of the questionnaire. Items loaded on Factor one included question number 17, 18, 20, 21,22,23,24,25,26,27.

Factor 2 was labelled internet impact due to the high loadings by the following items: questions number 2,3,4,5,12,13,14,15,16,28,37. Since Item 37 'I prefer using the internet more than going out.' was also loaded on Factor 3, therefore it was dropped from the analysis.

Factor 3 was labelled individuals identity due to the high loadings by the following items: questions number 6, 7, 8, 9 and 11, 36, 37, 38, 40 and the majority of these items belonged to individuals section. However, Item 10 'I have contradiction between my identity and my opinion' was also loaded on Factor 4 therefore it was dropped from the analysis.

The Factor 4 derived was labelled social relationship/attitude. This factor was labelled as such due to the high loadings by the following items: questions number 28, 29, 30, 31, 33, and 34 39, 41, and 48, where the majority of them belonged to social relationship/attitude section in the questionnaire. Question numbers 33 and 34 that were loaded on this factor belonged to technological impact but they did not seem to fit well in the factor and were subsequently removed.

Factor 5 was labelled wellbeing due to the high loadings by the following items: questions number 49, 50, 51,53,54,55 and 56, majority of the items loaded on this factor belonged to wellbeing section of the questionnaire.

Factor 6 was labelled as culture impact due to high loading by the following items: question number 42, 43, 44 and 45.

Item no. 35 ‘Do you use your mobile phone to get access to the internet?’ did not report required factor loading (≥ 0.35) and was not loaded on any of the factors.

Again, the detailed rotated component matrix can be found in appendix E.

After extracting six factors from factor analysis, seven items were reverse coded as they were loaded negatively on six factors. These items included question numbers 2, 3, 4, 6, 20, 21 and 23. After reverse scoring, reliability analysis was carried out which yielded following results. All six factors had reliabilities greater than the desired 0.70 (Field, 2005). The Cronbach alpha reliabilities of 10 item family relation/attitude scale, 10 item internet impact scale, 8 item individual identity scale, 7 item social relationship scale, 7 item wellbeing measure and 4 item culture impact scale were 0.84, 0.77, 0.71, 0.76, 0.76 and 0.74 respectively.

5.4.3 Outliers and tests for Normality

Composite scores for six factors were obtained by taking average of loaded item scores. Prior to further analysis, the data were screened for possible outliers within each of the six factors. Any case that had absolute z-score greater than 3, was marked susceptible, and excluded from the analysis (Tabachnick & Fidell, 2001). Seven cases were identified as outliers and subsequently removed from the analysis.

The data set was also evaluated for normality. Data distribution characteristics for the sample data, including means, standard deviations, degree of skew, and kurtosis, are reported in Table 5-11 in the next section. All these constructs/variables were measured on multiple items using 5-point Likert-type scales. The mean values ranged from 2.54 to 4.02, with standard deviations ranging from 0.61 to 0.68. These were considered acceptable levels of range and deviation. Both excess kurtosis and skewness were below 1, indicating that there were no serious departures of normality (George et al. 2013).

5.5 Descriptive Analyses

5.5.1 Overview

The discussion in this section presents the mean and standard deviation for all six factors. In addition it covers the relationship between frequency of Internet usage and the impact on individual identity, Family relationship, Social relationship, culture, and Wellbeing.

Table 5-9: Descriptive Statistics for each scale

	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Family Relationship/Attitude	4.01	.66	-.69	.14	-.16	.28
Internet impact.	2.86	.71	-.16	.14	-.26	.28
Individual identity	2.53	.67	.25	.14	-.04	.28
Social relationship/attitude.	3.19	.64	.02	.14	-.30	.28
Wellbeing.	3.82	.61	-.44	.14	-.00	.28
Culture impact.	4.02	.64	-.52	.14	-.11	.28

The Family relationship scale consisted of 10 items indicating the degree to which respondents had someone in their family to enjoy, to talk, to spend time, to love. The scale had reliability of 0.84 and scores ranged from 1 to 5 with 2.5 indicating neutral response and higher scores indicating greater (more positive) family relationship quality. The results of this study indicated that overall internet users reported good relationships with their families with mean response of 4.01 ± 0.66 .

The internet impact scale consisted of 10 items. The scale had reliability of 0.77 and scores ranged from 1 to 5 with 2.5 indicating neutral response and higher scores indicating greater

influence of the internet on the user. The results of this study indicated that overall internet users reported neutral impact of the internet with mean response of 2.86 ± 0.71 .

The Individual identity scale consisted of 9 items. The scale had reliability of 0.71 and scores ranged from 1 to 5 with 2.5 indicating neutral response and higher scores indicating the impact of the internet on the individuals' identity (identity change). The results of this study indicated that overall internet users reported neutral response on this scale with mean response of 2.53 ± 0.67 .

The Social relationship/ attitude scale consisted of 7 items. The scale had reliability of 0.76 and scores ranged from 1 to 5 with 2.5 indicating neutral response and higher scores indicating more socialization gap between the social and internet user. The results of this study indicated that overall internet users reported that 'sometimes' they feel that their thoughts and ideas are different from their parents and others' around with mean response of 3.19 ± 0.64 .

The wellbeing scale consisted of 7 items. The scale had reliability of 0.76 and scores ranged from 1 to 5 with 2.5 indicating neutral response and higher scores indicating higher satisfaction with personal wellbeing. The results of this study indicated that overall internet users reported that they are 'very satisfied with their lives with mean response of 3.82 ± 0.61 .

The Culture impact scale consisted of 4 items. The scale had reliability of 0.74 and scores ranged from 1 to 5 with 2.5 indicating neutral response and higher scores indicating higher internet impact of the culture traditions and norms. The results of this study indicated that overall internet users reported their agreements with regards to the role of the internet to modify existing traditions, view, and breaking traditional barriers with mean response of 4.02 ± 0.64 .

The detailed results for each of these specific scales are set out in the next sections, as noted this represents an elaboration of the original idea that there were four distinct themes in the questionnaire design. The goal in this section is to provide some basic descriptive information for each question (mean and standard deviation) and to discuss the implications of individual question. Section 5.6 then looks at the intersection between attitudes, volume of usage and type of usage.

5.5.2 Individual Scales

5.5.2.1 Family Relationship Scale

Table 5-10 presents the means and standard deviations for the 10 questions (17-27 of the original questionnaire) that were loaded onto the family relationship scale.

Table 5-10: Family relationship scale (individual questions)*

Questions	Mean	SD
17. Do you feel you are an active member in your family?	4.19	0.9
18. Do you share your family to make a decision?	4.16	0.95
20. Do you feel lonely?	3.9	1.06
21. Do you feel isolated from those around you?	4.17	0.98
22. Do you feel you have got a strong relationship with your family?	4.4	0.9
23. Do you feel that the time you spend with your family is boring?	3.97	1.03
24. Do you find someone of your family who you can talk with about your private issues?	3.73	1.31
25. Do you feel comfortable to discuss your special opinions, ideas with your family?	3.74	1.15
26. Do you feel family meetings are meaningful?	3.89	1.21
27. Do you feel that there are a lot in common between you and your family?	3.88	1.09

*overall mean=4.01, SD=0.66 (see table 5-9)

In the main this indicates a relatively positive view of family relations for the young people who completed the questionnaire. In particular, question 22, ‘do you feel you have a strong relationship with your family’, has a high mean and a relatively small standard deviation indicating broad agreement. On the other hand, there are indications of loneliness (Q20), difficulties in discussing certain issues within the family (Q24, Q25) and that time spent with the family is ‘boring’ (Q 23).

5.5.2.2 Internet Impact Scale

This scale effectively measures how the respondents believed that the internet had an impact on them as individuals. Again, the question numbering in table 5-11 follows their original order. Following the analysis in table 5-11, a number of questions, from across the original questionnaire were found to comprise the 10 item Internet Impact Scale, as:

Table 5-11: Impact of the internet (individual questions)*

Questions	Mean	SD
2. I don't think the internet is the outlet for me.	3.35	1.27
3. I don't use the internet to say anything I can't say it in reality.	2.72	1.23
4. I don't find moral or emotional support through the internet.	2.69	1.11
5. There is no direct impact of the internet on my personality or beliefs.	3.29	1.30
12. I feel nervous when the internet crashes, even for a while.	3.28	1.31
13. I feel more confident when I use the internet.	3.08	1.08
14. The internet relations are stronger than face to face relations.	2.32	1.32
15. I feel more comfortable to talk about myself, my issues through the internet.	3.04	1.21
16. My family complains that I spend long time on the internet.	2.78	1.34
28. Do you feel you spend more time online than with your family?	2.68	1.22

*overall mean=2.86, SD=0.71 (see table 5-9)

This presents quite a mixed set of opinions, but it should be noted that the standard deviations are relatively high, indicating considerable divergence from the mean score in the sample. Some interesting implications are the relatively low agreement with the statement '*internet relations are stronger than face to face relations*' (Q 14). This indicates some understanding of the limited nature of online interactions, and the response to '*there is no direct impact of the internet on my personality or beliefs*' (Q 5), also tends to suggest a basically pragmatic usage of the internet as a resource that has little implications for other aspects of their lives. On the other hand, there is some agreement with '*I feel nervous when the internet crashes*' (Q 12), indicates that on line access is an important part of their lives.

5.5.2.3 Individual Identity Scale

This scale indicates how much the individual believed the internet was changing their identity and has 9 items, as:

Table 5-12: Individual Identity Scale (individual questions)*

Question	Mean	SD
6. I can't express my original identity through the internet.	3.07	1.3
7. I can't share any face to face events.	2.34	1.23
8. I haven't got a lot in common with others around me.	2.36	1.08
9. I can't make any relationships easily.	2.19	1.15
11. I feel safe to contact others.(anonymity)	2.96	1.22
36. I don't like to be involved in social events.	2.25	1.09
37. I prefer using the internet more than going out.	2.11	1.1
38. Sometimes I withdraw from social events because I feel it is not turning to me.	2.73	1.16
40. I have difficulty to engage in my society.	3.14	1.07

*overall mean=2.53, SD=0.67 (see table 5-9)

In this case, the bulk of the answers indicate a limited degree of disagreement with the statement, but again the relatively high standard deviations indicate some variation among the respondents. As in section 5.5.3, this indicates that, on average, the internet is not having a major impact on their identities.

5.5.2.4 Social Relationship Scale

This scale captures their beliefs about the strength of their social relationships.

Table 5-13: Social Relationships (individual questions)*

Questions	Mean	SD
28. Do you feel you spend more time online than with your family?	2.68	1.22
29. Is there certain issues or interests that you share with your friends on the internet but not with your parents?	2.97	1.17
30. Do you feel that your older family members (parents, grandparents) do not understand you?	2.89	1.11
31. Do you feel that your older family members (parents, grandparents) don't understand how you think about the world?	2.97	1.12
39. I have got many views and ideas which do not fit with the social norms.	2.78	1.13
41. I think there are many undesirable social commitments.	3.14	1.07
48. I wish I lived in societies similar to those which I see on the internet.	2.96	1.25

*overall mean=3.19, SD=0.64 (see table 5-9)

As in sections 5.5.3 and 5.5.4 there is relatively low mean agreement with the questions but the standard deviations indicate a wide variety of responses. As in 5.5.4, overall this indicates there is little impact on their social relationships.

5.5.2.5 Wellbeing Scale

This section reports on the questions about their wellbeing and individual beliefs as to how well they are coping.

Table 5-14: Wellbeing scale (individual questions)*

Questions	Mean	SD
49. Over all, I am satisfied with my life	4.07	0.96
50. On the whole I feel confident and positive about myself	4.11	0.91
51. I am not afraid to express my opinions even if they are in opposition to the opinions of most of people.	3.97	0.97
53. In last 4 months how often do you felt that you can control your anger?	3.49	1.15
54. In last 4 months how often do you felt that you can control your nervous?	3.42	1.2
55. In last 4 months how often do you felt that you were top in everything?	3.76	0.97
56. In last 4 months how often do you felt you were coping effectively with all changes in your life?	3.75	0.98

*overall mean=3.82, SD=0.61 (see table 5-9)

Overall, this indicates relatively consistent agreement with the questions. In particular, the respondents indicate they are ‘*satisfied with my life*’ (Q. 49) and ‘*confident and positive about myself*’ (Q. 50).

5.5.2.6 Culture Impact Scale

This part of the scale deals with their beliefs as to the impact of the internet on cultural norms.

Table 5-15: Cultural Impact (individual questions)*

Questions	Mean	SD
42. I think the internet has a role in breaking traditional barriers.	3.69	0.9
43. I think the internet plays a very important role in changing a lot of customs & traditions in my society.	3.83	0.95
44. I think the internet is a place to interchange with different cultures, opinions, & views.	4.18	0.85
45. I think the internet help to discover many cultures.	4.34	0.81

*overall mean=4.02, SD=0.64 (see table 5-9)

Again, the scores indicate general agreement with the questions. In this case, though that also indicates a view that the internet has the potential to both allow exploration of other social norms and to change the social norms within Saudi Arabia.

5.5.3 Summary

The original questionnaire design (chapter four) was split into four overall sections designed to elicit the respondents' views about the impact of the internet on themselves, their relationship with their family, their relationship with wider society and their overall sense of wellbeing. When the results were analysed (table 5-10), the responses actually split into six major themes. This analysis follows that revised structure, as does the rest of this chapter but it is worth noting this revised structure is a product of how responses to the individual questions were grouped, rather than a deliberate product of the questionnaire design.

However, even at this level of analysis a number of themes, some of which appear to be contradictory, start to emerge. Overall the respondents indicated they are well integrated into their families, even if sometimes this was 'boring'. In terms of the impact of the internet, they seem aware that on-line interaction and contacts are different to those in real life and that the internet is not a substitute for other relationships. However, the internet clearly is an important part of their lives, hence the feeling of unease if the internet is not available. Tables 5-14 and 5-15 indicate they do not believe that the internet is affecting either their own personalities or their interaction with Saudi society. Equally, table 5-16 indicates general self-confidence and wellbeing.

However, table 5-17 hints at ways in which the internet could have an impact. There is some agreement with the statements about the role of the internet in breaking the constraints of traditional societies and general agreement with the ideas that the internet is an ideal way to discover and explore other social norms. Equally there is some desire that they lived in a society with different norms to Saudi Arabia.

None of this indicates strongly that the internet is proving a disruptive force among the young people who completed the questionnaire. However, it was clear that for some questions there were very high standard deviations indicating that the mean score is not necessarily reflective of the views of a significant minority of respondents. The next section starts the process of

exploring whether these variations in opinion reflect either the overall level of usage of the internet or the type of usage of the internet.

5.6 Relationship between time spent on line and attitudes

5.6.1 Overall Relationship

Section 5.5 has explored some of the data in the questionnaire in terms of each of the identified sub-scales. This is useful, and has yielded some interesting insights. However, it is also important to understand if the apparent trends noted above are related to the amount of time spent on line.

Table 5-16: Descriptive time spent online with type of usage

		N	Mean	Std.Deviation
Family Relationship/Attitude	3 hours or less	144	4.01	.68
	4-5 hours	79	3.99	.66
	6-7 hours	45	3.99	.59
	12 hours or more	31	4.07	.66
	Total	299	4.01	.66
Internet impact.	3 hours or less	144	2.58	.67
	4-5 hours	80	2.98	.56
	6-7 hours	45	3.08	.65
	12 hours or more	31	3.57	.65
	Total	300	2.86	.71
Individual identity	3 hours or less	144	2.54	.69
	4-5 hours	80	2.62	.70
	6-7 hours	45	2.52	.57
	12 hours or more	31	2.27	.61
	Total	300	2.53	.67
Social relationship/ attitude.	3 hours or less	143	3.05	.61
	4-5 hours	80	3.23	.60
	6-7 hours	45	3.37	.64
	12 hours or more	31	3.49	.78
	Total	299	3.19	.64
Wellbeing.	3 hours or less	142	3.91	.64

	4-5 hours	79	3.72	.57
	6-7 hours	45	3.74	.58
	12 hours or more	31	3.81	.65
	Total	297	3.82	.61
Culture impact.	3 hours or less	143	3.91	.63
	4-5 hours	79	4.01	.60
	6-7 hours	45	4.22	.59
	12 hours or more	31	4.29	.73
	Total	298	4.02	.64

This shows the variations in the mean scores for each scale according to the varying total volume of usage. An ANOVA analysis was performed to test if any of these variances were statistically significant.

Significant differences were observed between frequent Internet usage and user reported internet impact, social relationship/attitude and culture. It appeared that those who used internet more scored significantly higher on internet impact $F(3, 296) = 24.082, p < .01$; social relationship $F(3, 295) = 6.092, p < .01$ and cultural impact dimensions $F(3, 294) = 5.038, p < .01$. Post hoc analysis revealed that those who used internet for 12 hours or more reported significantly higher internet impact ($M = 3.4604, SD = 0.64$), higher social relationship/attitude ($M = 3.49, SD = 0.78$) and higher cultural impact ($M = 4.29, SD = 0.73$) as compared to other groups who used internet for 3 hours or less or 4-5 hours. Those who used internet for 3 hours or less reported significantly lower internet impact ($M = 2.52, SD = 0.64$), social relationship attitude ($M = 3.04, SD = 0.60$) and culture impact ($M = 3.90, SD = 0.62$) as compared to all other groups except those who used internet between 4-5 hours and reported similar cultural impact as experienced by those who use it for 3 hours or less. Further analysis in support of these conclusions can be found in appendix E.

Overall this indicates that reported attitudes do vary according to the level of usage of the individual. In particular, the internet, social relationship and cultural scales all show significant variations as usage increases. This means that while section 5.5 indicated that on average, most of these scores tended to a neutral outcome, for some individuals, there is evidence that internet usage is leading to more significant social attitude changes.

5.6.2 Differences on the basis of Gender, Age, Education and Marital status

This analysis was repeated to explore whether gender, age, education or marital status also led to observed variation in the independent variables. The workings are not shown as in each case it was clear these individual characteristics had no systemic effect on the reported attitudes and scores in each scale.

There were no significant gender differences for family relationship/attitude $t(143.738)=0.486$, $p>0.05$; internet impact $t(298)=-0.052$, $p>0.05$; individual identity $t(298)=-0.514$, $p>0.05$; social relationship/attitude $t(297)=-0.170$, $p>0.05$; wellbeing $t(295)=-0.149$, $p>0.05$; and culture impact $t(296)=1.226$, $p>0.05$. In effect, both males and female internet users scored similarly on all six dimensions. Very similar results were found for age, as the independent sample t-test revealed that no significant age differences were observed on family relationship/attitude $t(297)=-0.094$, $p>0.05$; internet impact $t(298)=1.299$, $p>0.05$; individual identity $t(298)=0.971$, $p>0.05$; social relationship/attitude $t(297)=0.059$, $p>0.05$; wellbeing $t(191.340)=0.007$, $p>0.05$; and culture impact $t(296)=0.635$, $p>0.05$. It suggested that different age group scored similarly on six dimensions.

Equally there were no significant educational differences observed on family relationship/attitude $t(297)=-0.668$, $p>0.05$; internet impact $t(298)=-1.140$, $p>0.05$; individual identity $t(298)=-1.264$, $p>0.05$; social relationship/attitude $t(297)=-0.277$, $p>0.05$; wellbeing $t(295)=1.013$, $p>0.05$; and culture impact $t(296)=0.393$, $p>0.05$. It suggested that participants with different educational levels scored similarly on six dimensions. Finally, the independent sample t-test revealed that no significant marital status differences were observed on family relationship/attitude $t(297)=-0.956$, $p>0.05$; internet impact $t(298)=1.108$, $p>0.05$; individual identity $t(298)=-0.107$, $p>0.05$; social relationship/attitude $t(297)=0.430$, $p>0.05$; wellbeing $t(295)=0.907$, $p>0.05$; and culture impact $t(56.866)=2.001$, $p>0.05$. It suggested that participants with different marital status scored similarly on six dimensions.

5.7 Relationship between attitudes and Type of usage

This section takes each of the main ways the internet is used (for study; for email; to obtain information; for on line searches; to play games or chat; and, social networking) and

considers if attitudes vary according to the amount of time allocated to each of these activities. In effect, this addresses the research question that type of usage is as, or more important, as volume of usage in influencing changes in attitudes and beliefs. In each subsection, two tables are presented. The first provides some simple descriptive statistics and the second applies an ANOVA analysis to explore the relationship between type of usage and attitude.

5.7.1 Relationship between Studying and attitudes

This section looks at variations in total time spent studying and whether this has led to different responses.

Table 5-17: Relationship between Time spend studying and attitudes.

		N	Mean	Std. Deviation
Family Relationship/Attitude	3 hours or less	262	4.02	.67
	4-5 hours	17	3.96	.65
	6-7 hours	4	4.1	.78
	12 hours or more	4	3.48	.62
	Total	287	4.01	.67
Internet impact.	3 hours or less	263	2.85	.72
	4-5 hours	17	3.13	.50
	6-7 hours	4	2.90	.11
	12 hours or more	4	3.12	.68
	Total	288	2.87	.72
Individual identity	3 hours or less	263	2.53	.67
	4-5 hours	17	2.54	.69
	6-7 hours	4	2.03	.21
	12 hours or more	4	3.31	.02
	Total	288	2.54	.68
Social relationship/ attitude.	3 hours or less	262	3.20	.63
	4-5 hours	17	3.48	.66
	6-7 hours	4	3.03	.17
	12 hours or more	4	3.42	.50
	Total	287	3.22	.64
Wellbeing.	3 hours or less	260	3.82	.62

	4-5 hours	17	3.78	.56
	6-7 hours	4	3.89	.70
	12 hours or more	4	4.21	.85
	Total	285	3.82	.62
Culture impact.	3 hours or less	262	4.00	.63
	4-5 hours	17	4.37	.61
	6-7 hours	4	3.87	.83
	12 hours or more	4	4.06	.66
	Total	287	4.02	.64

Again, this data was subjected to an ANOVA analysis (reported in appendix E). The results of the analysis of variance suggested that for those who use internet for studying, then frequency of its use did not produce any significant differences on any of the six dimensions. The results of ANOVA revealed that family relationship/attitude $F(3,280)=1.088$, $p>0.05$; internet impact $F(3,281)=1.721$, $p>0.05$; individual identity $F(3,281)=0.296$, $p>0.05$; social relationship/attitude $F(3,280)=1.906$, $p>0.05$; wellbeing $F(3,278)=0.357$, $p>0.05$; and culture impact $F(3,279)=1.402$, $p>0.05$. However one limitation of the analysis of variance with one or more group having very small sample sizes may not have sufficient power to detect any significant difference among the samples, even if the means are in fact different. For example, those who used internet for 12 hours or more reported higher mean on social relationship dimension ($M=4.45$, $SD=0.54$) as compared to those who used internet for 3 hours or less ($M=3.98$, $SD=0.65$) however, no differences were observed.

5.7.2 Relationship between using email and attitudes

In turn, this section looks at whether time spent on email (and similar tools) is related to variations in attitudes.

Table 5-18: Relationship between Time spent on email and attitudes

		N	Mean	Std. Deviation
Family Relationship/Attitude	3 hours or less	262	4.02	.67
	4-5 hours	17	3.96	.65
	6-7 hours	4	4.1	.78
	12 hours or more	4	3.48	.62
	Total	287	4.01	.67
Internet impact.	3 hours or less	263	2.85	.72
	4-5 hours	17	3.13	.50
	6-7 hours	4	2.90	.11
	12 hours or more	4	3.12	.68
	Total	288	2.87	.72
Individual identity	3 hours or less	263	2.53	.67
	4-5 hours	17	2.54	.69
	6-7 hours	4	2.03	.21
	12 hours or more	4	3.31	.02
	Total	288	2.54	.68
Social relationship/ attitude.	3 hours or less	262	3.20	.63
	4-5 hours	17	3.48	.66
	6-7 hours	4	3.03	.17
	12 hours or more	4	3.42	.50
	Total	287	3.22	.64
Wellbeing.	3 hours or less	260	3.82	.62
	4-5 hours	17	3.78	.56
	6-7 hours	4	3.89	.70
	12 hours or more	4	4.21	.85
	Total	285	3.82	.62
Culture impact.	3 hours or less	262	4.00	.63
	4-5 hours	17	4.37	.61
	6-7 hours	4	3.87	.83
	12 hours or more	4	4.06	.66
	Total	287	4.02	.64

Again, this was tested using ANOVA (appendix E). As with studying, variation in the usage of the internet for emailing did not produce any significant differences on any of the six dimensions. Results of ANOVA revealed that family relationship/attitude $F(3,283)=0.927$, $p>0.05$; internet impact $F(3,284)=0.980$, $p>0.05$; individual identity $F(3,284)=2.532$, $p>0.05$; social relationship/attitude $F(3,283)=1.222$, $p>0.05$; wellbeing $F(3,281)=0.570$, $p>0.05$; and culture impact $F(3,283)=1.825$, $p>0.05$. Again analysis of variance with groups having very small sample sizes may not have sufficient power to detect any significant difference among the samples, even if the means are in fact different.

5.7.3 Relationship between using the internet to gather information and attitudes

Table 5-19: Relationship between Time spent gathering information and attitudes

		N	Mean	Std. Deviation
Family Relationship/Attitude	3 hours or less	207	3.99	.66
	4-5 hours	61	4.06	.67
	6-7 hours	23	4.09	.63
	Total	291	4.02	.66
Internet impact.	3 hours or less	208	2.83	.72
	4-5 hours	61	2.94	.70
	6-7 hours	23	2.98	.76
	Total	292	2.87	.71
Individual identity	3 hours or less	208	2.57	.68
	4-5 hours	61	2.42	.59
	6-7 hours	23	2.47	.76
	Total	292	2.53	.67
Social relationship/attitude.	3 hours or less	207	3.18	.63
	4-5 hours	61	3.24	.67
	6-7 hours	23	3.21	.69
	Total	291	3.20	.65
Wellbeing.	3 hours or less	207	3.79	.66
	4-5 hours	60	3.95	.46
	6-7 hours	23	3.87	.57
	Total	290	3.83	.62
Culture impact.	3 hours or less	207	4.02	.64
	4-5 hours	60	4.03	.63
	6-7 hours	23	4.01	.65
	Total	290	4.02	.64

Again, this was analysed using an ANOVA test. For those who use internet for information gathering, frequency of use did not produce any significant differences on any of the six dimensions. Results of ANOVA revealed that family relationship/attitude $F(2,288)=0.435$, $p>0.05$; internet impact $F(2,289)=0.909$, $p>0.05$; individual identity $F(2,289)=1.364$, $p>0.05$; social relationship/attitude $F(2,288)=0.212$, $p>0.05$; wellbeing $F(2,287)=1.731$, $p>0.05$; and culture impact $F(2,287)=.007$, $p>0.05$.

5.7.4 Relationship between Time spent searching and attitudes

Table 5-20: Relationship between Time spent searching and attitudes

		N	Mean	Std. Deviation
Family Relationship/Attitude	3 hours or less	210	4.00	0.64
	4-5 hours	45	3.98	0.75
	6-7 hours	14	4.06	0.68
	12 hours or more	7	4.30	0.60
	Total	276	4.01	0.66
Internet impact.	3 hours or less	211	2.87	0.74
	4-5 hours	45	2.88	0.63
	6-7 hours	14	2.74	0.58
	12 hours or more	7	2.71	0.81
	Total	277	2.86	0.71
Individual identity	3 hours or less	211	2.54	0.69
	4-5 hours	45	2.53	0.64
	6-7 hours	14	2.49	0.52
	12 hours or more	7	2.52	0.99
	Total	277	2.54	0.68
Social relationship/ attitude.	3 hours or less	210	3.22	0.63
	4-5 hours	45	3.24	0.60
	6-7 hours	14	3.22	0.73
	12 hours or more	7	2.86	0.98
	Total	276	3.22	0.64
Wellbeing.	3 hours or less	209	3.83	0.61
	4-5 hours	44	3.93	0.60

	6-7 hours	14	3.95	0.54
	12 hours or more	7	3.69	0.87
	Total	274	3.85	0.61
Culture impact.	3 hours or less	210	4.05	0.62
	4-5 hours	45	3.92	0.71
	6-7 hours	13	3.90	0.65
	12 hours or more	7	3.75	0.85
	Total	275	4.01	0.64

Again, for those who use internet for searching/researching, frequency of its use did not produce any significant differences on any of the six dimensions. Results of ANOVA revealed that family relationship/attitude $F(3,272)=0.527$, $p>0.05$; internet impact $F(3,273)=0.245$, $p>0.05$; individual identity $F(3,273)=0.030$, $p>0.05$; social relationship/attitude $F(3,272)=0.767$, $p>0.05$; wellbeing $F(3,270)=0.584$, $p>0.05$; and culture impact $F(3,271)=1.040$, $p>0.05$.

5.7.5 Relationship between Time spent on gaming/chatting and attitudes

Analysis of usage of the internet for study, email, to gather information or for searches has led to no significant differences in the responses on the six scales in the questionnaire. However, table 5-20 does indicate there may be some differences for those who spend a lot of time on line either chatting or gaming.

Table 5-21: Relationship between Time spent on gaming/chatting and attitudes

		N	Mean	Std. Deviation
Family Relationship/Attitude	3 hours or less	194	4.04	0.64
	4-5 hours	46	3.95	0.74
	6-7 hours	27	3.87	0.73
	12 hours or more	16	4.06	0.60
	Total	283	4.01	0.66
Internet impact.	3 hours or less	195	2.77	0.71
	4-5 hours	46	2.98	0.55

	6-7 hours	27	3.43	0.70
	12 hours or more	16	3.15	0.68
	Total	284	2.89	0.71
Individual identity	3 hours or less	195	2.57	0.64
	4-5 hours	46	2.41	0.62
	6-7 hours	27	2.44	0.83
	12 hours or more	16	2.59	0.74
	Total	284	2.54	0.66
Social relationship/ attitude.	3 hours or less	194	3.16	0.59
	4-5 hours	46	3.18	0.68
	6-7 hours	27	3.54	0.76
	12 hours or more	16	3.47	0.67
	Total	283	3.22	0.63
Wellbeing.	3 hours or less	193	3.83	0.59
	4-5 hours	46	3.75	0.66
	6-7 hours	27	3.81	0.69
	12 hours or more	15	4.02	0.74
	Total	281	3.82	0.62
Culture impact.	3 hours or less	194	4.03	0.61
	4-5 hours	46	4.02	0.59
	6-7 hours	26	4.10	0.81
	12 hours or more	16	4.03	0.83
	Total	282	4.04	0.63

For those who use internet for gaming and chatting, frequency of use has produced significant differences with regard to internet impact $F(3,280)= 8.548, p < 0.01$ and social relationship/attitude dimension $F(3,279)= 3.748, p < 0.05$. Post hoc comparison revealed that those who used internet for 6-7 hours reported higher internet impact ($M = 3.42, SD=0.70$) and social relationship/attitude ($M=3.53, SD=0.75$) as compared to those who used internet for 3 hours or less and between 4-5 hours. In addition, those who used internet for more than 12 hours reported significantly higher mean for internet impact ($M=3.15, SD=0.68$) and social relationship/attitude ($M=3.47, SD=0.67$) as compared to those who used internet for 3 hours or less. However, no such differences were observed for other dimensions.

5.7.6 Relationship between time spent on social networking and attitudes

As with the relationship between times spent chatting or playing games then substantial usage of social media has implications in terms of the believed impact of using the internet and on social relations.

Table 5-22: Relationship between time spent on social networking and attitudes

		N	Mean	Std. Deviation
Family Relationship/Attitude	3 hours or less	203	4.03	0.67
	4-5 hours	55	3.94	0.69
	6-7 hours	16	3.95	0.59
	12 hours or more	7	3.93	0.54
	Total	281	4.00	0.66
Internet impact.	3 hours or less	203	2.76	0.70
	4-5 hours	56	3.15	0.60
	6-7 hours	16	3.49	0.49
	12 hours or more	7	3.26	0.96
	Total	282	2.89	0.71
Individual identity	3 hours or less	203	2.55	0.71
	4-5 hours	56	2.53	0.61
	6-7 hours	16	2.41	0.68
	12 hours or more	7	2.43	0.58
	Total	282	2.54	0.68
Social relationship/ attitude.	3 hours or less	202	3.14	0.63
	4-5 hours	56	3.38	0.58
	6-7 hours	16	3.49	0.74
	12 hours or more	7	3.67	0.61
	Total	281	3.22	0.64
Wellbeing.	3 hours or less	200	3.86	0.61
	4-5 hours	56	3.74	0.63
	6-7 hours	16	3.66	0.69
	12 hours or more	7	3.86	0.40
	Total	279	3.83	0.62
Culture impact.	3 hours or less	202	3.99	0.63
	4-5 hours	55	4.10	0.64
	6-7 hours	16	4.36	0.68

	12 hours or more	7	4.11	0.50
	Total	280	4.03	0.64

For those who use internet for social networking, frequency of its use produced significant differences with regards to internet impact $F(3,278)= 9.908$, $p < 0.01$; and social relationship/attitude dimension $F(3,277)= 4.498$, $p < 0.01$. Post hoc comparison revealed that those who used internet for 3 hours or less reported lower internet impact ($M = 2.76$, $SD=0.70$) as compared to those who used internet for 4-5 hours or 6-7 hours. Furthermore less frequent users also reported significantly lower social relationship/attitude ($M=3.14$, $SD=0.62$) as compared to those who used internet for 4-5 hours. However, no such differences were observed for other dimensions.

5.8 Conclusions

This chapter has reviewed the evidence from the questionnaires issued to younger Saudis who attend either High School or University. These questions were grouped into four sections of: individual beliefs; family relations; social relations and overall wellbeing. The first stage of the analysis looked at the answers in isolation and in comparison to variations in terms of age and gender. The second part considered if there was a correlation in terms of variations in the answers and variations in the level of usage by the individuals.

Six factors were extracted from the exploratory factor analysis that accounted for a total of 42.308% of the variance with 14.878% attributed to factor one, 8.6% to factor two, 6.2% to factor three, 4.6% to factor four, 4.1% to factor five, and 3.7% to factor six. Six factors were labelled as Family relationship/attitude, Internet impact, Individual identity, Social relationship/ attitude, Wellbeing and Culture impact respectively.

After extracting six factors from factor analysis, seven items were reverse coded as they were loaded negatively on these factors. Reliability analysis confirmed that the Cronbach's alpha coefficients were within acceptable range i.e. 0.738 to 0.836. Composite scores for six factors were obtained by taking average of loaded item scores. Diagnostic testing identified seven outliers (absolute z-score > 3), which were subsequently removed from the analysis.

Measures of skewness and kurtosis suggested that there were no serious departures from normality.

To assess the impact of frequency of internet use, types of use, and participants demographics on six dimensions including Family Relationship/Attitude, Internet impact, Individual identity, Social relationship/ attitude, Wellbeing and Culture impact, independent sample t-test and analysis of variance were conducted. No significant gender, age, education, and marital status impact on six dimensions were observed. However, reported frequency of internet use had significant impact on the users, their social relationship/attitude and culture. For those who use internet for gaming, chatting and social networking, frequency of internet use was significantly related to internet impact and social relationship/attitude dimension. It appeared that frequent users experienced greater internet attachment and worsening social relationships. In addition, this effect was more marked for those who made the greater use for gaming, chatting and social networks.

This hints at several related issues that have been explored in the literature review. For most users, the internet can be seen as a shift of time away from other activities but is not reported as having a significant effect on their socialisation within the Saudi family. However, if usage is high and usage is orientated to gaming and social interaction, then this does have an effect on their social relationships.

However, what is not clear from the survey data is whether this shift in social and family relationships is connected to the adoption of ideas from outside Saudi Arabia or simply that the individual has come to prefer on-line to face to face interaction. This is important, as the former explanation might link to the internet shifting attitudes while the second explanation would stress that where the internet is being disruptive it is essentially related to time displacement.

Chapter Six will analyse the evidence obtained from the semi-structured interviews and develop these arguments and questions. Chapter Seven will draw together the findings of all the empirical evidence as well as contrast those findings with the literature review and research questions developed in Chapter Three.

Chapter 6 / Interview results and discussion

6.1 Introduction

This chapter reports the findings of the semi-structured interviews conducted with women within Saudi Arabia. These interviews were conducted shortly after the questionnaires were administered and returned and before the questionnaires were analysed. As discussed in chapter four, the interviewees were selected using purposive sampling as this is ideal in situations where random sampling is impractical and there is a need to focus on particular characteristics. In effect, the first group of interviewees (who were all under 28) were obtained by asking those who completed the questionnaire if they wished to be interviewed. In turn, the parents of some of these interviewees agreed to be interviewed. Further interviewees were obtained by a variety of social networks. In effect the two samples complement each other allowing comparison of response between two age groups. This chapter commences with a short review of the sampling and interpretive frameworks discussed in chapter four. Section 6.2 then sets out the raw data and section 6.3 deepens the analysis.

One consequence of a mixed methods design is how to ensure the two data collection strands are related to each other (Creswell, 2014; Creswell and Clark, 2011). The solution here was to concentrate in chapters five and six on reporting the key findings from each data collection tool. In turn, chapter seven draws together the findings from the two strands.

6.1.1 Selection of Women for the interviews

As was discussed in chapter four, this data was gathered from fifty women. The women were selected using a purposive and snowball sampling (Atkinson and Flint, 2004) approach. This is commonly used in situations where creating a conventional sampling frame is not practical. The key goal was to build up the interview sample across the age ranges but due to gender issues in the Kingdom of Saudi Arabia (KSA), the researcher could only include females in this phase of data gathering, as already discussed in the Saudi women section (see chapter 2). The first group of interviewees (who were all under 28) were obtained by asking those who completed the questionnaire if they wished to be interviewed. In turn, the parents of some of these interviewees agreed to be interviewed. Further interviewees were obtained by a variety of social networks.

The sample was created to ensure additional responses were gathered from the younger age group (so as to match the questionnaire data) and, where possible their own mothers, or alternatively older participants who were themselves mothers. This was important as it allowed the means to deepen the analysis of the attitudes of the young and to capture the views of mothers. Pragmatically, there was a need to complete the interviews during a fixed period of field work in Saudi Arabia. Then, there were 50 women interviewees of whom 30 under the age of 28 and 20 were over 28.

All the young women under 28 had already completed the questionnaire and were self-selecting from the 300 who had returned a questionnaire. Of the 30 young women, 10 agreed to involve their own mothers which generated five interviews with older women who were the mothers of the younger respondents. A further eleven older interviewees were recruited using the social contacts of the researcher and the remainder were found by the researcher making telephone enquiries to contacts provided by those who had already agreed to be interviewed. Other women were selected using purposive sampling (Oliver, 2006) as this allows creation of a group of interviewees who meet key criteria when there is a lack of a conventional sampling frame. As above, this included snowball sampling to derive the contacts as finding one respondent (or group) led to a new interviewee and so on. All of the older group were mothers, in order to ensure that the overall research design captured the views of two generations of Saudis on the impact of the internet.

Once someone had agreed to be interviewed they were provided with an information sheet describing the aims and objectives of the research and signed a consent form (see appendix B). The interviews were semi-structured and lasted between 15 and 45 minutes. The interview consisted of eight broad questions. These were:

1. Amount of daily time using the internet?
2. Accessing the internet (mobile phone, laptop etc.)?
3. Use of the internet?
4. Any use of social networking?
5. Internet versus face to face relationships/ friendships?
6. Posting opinions and using real names or remaining anonymous?
7. Any internet impacts on family relationships?

8. Any internet impact on attitudes and beliefs?

The topic guide was designed to ensure that each interview yielded similar information but the respondent was not pressed to answer in a particular way. Thus each interview took on a different character. The interviews were conducted, transcribed and analysed in Arabic. On return to the UK, they were translated into English. For ease of reading, the quotes in this chapter have been rewritten to sound more natural in English while taking care not to lose key elements in the original meaning (Temple and Young, 2004).

As discussed in chapter four, the issue of translation is an important part of qualitative research. The goal is to balance capturing the words and context of the original interviews with a need to present these so they make sense to a native English speaker. There is no hard and fast rule in this respect, but the nature of the analysis to some extent dictates how these tensions are resolved. If the research is based on a close contextual reading of the answers (say in the form of semiotics), then there is a need to render the responses as close as possible to the original (Baldry and Thibault, 2006). Here the goal was to use the responses to set out the range of opinions expressed by the respondents allowing for a looser translation style, with more of a focus on rendering the answers closer to natural English.

6.1.2 Data Analysis

This stage of the analysis closely follows the methodological and analytical approach suggested by Attride-Stirling (2001). The intention was to use her hierarchy to create a thematic network so it was possible to look at the detail of individual responses and to gather those comments into a theoretical structure. This is a very iterative process as the researcher moves from fragmented data to potential structure and back again. Equally categories are created and removed, or moved to a different theme, as a richer understanding of the themes emerges. Important in this process, is to return to the theoretical model set out at the end of chapter three (Yin, 2009) as the interaction between research question and data is an important part of qualitative research design. Table 6-1 below presents an outline list of the contents of the three thematic levels.

The first step was to code the individual statements so as to enable similar issues to be identified and compared. This structure was then organized into larger groups that drew together similar concepts (i.e. the basic themes) and finally into a small number of larger

thematic issues (the organizing themes). In table 6-1 below, the first column shows the coding structure that was derived from the individual comments. These were then grouped into basic themes, organizing themes and two overarching global themes.

Table 0-1: Interview Analysis Structure

Codes	Basic Themes	Organising Themes	Global Themes
Family Problems Parental Complaints Our lives have changed Dismantled the Family Reduced Family shared time Family Ties Isolated Family members Family conversations using social networks	Family Structure Family Links	Family relationships	perceived Change in relationships
Different ideas as to the desired form of society Tendency to imitate other traditions Loss of some Saudi traditions The culture of young people differs from that of their community Impact of the Internet Refused to attend social events Social problems Using internet when at social gatherings	Traditions, customs and attitude changes Maintenance of social norms	Social relationships	
Spend most of the day online Smartphone's have increased time spent online Internet addiction	Using internet for a long time Control of access	Usage of internet	perceived Impact of the internet
Multiple identities when on line How using a different identity can give more freedom The implications of this for trust on the internet Remaining anonymous Using the internet to talk about subjects that cannot be discussed in real life Social restrictions on women force us to hide our identity	Identity change Anonymity	Online identity	

The four organising themes, *of family relationships, social relations, the nature of on-line identity and access to, and usage of, the internet* were used to structure the balance of this chapter. These criteria were related to the literature review in chapter three where all these were seen as important elements in understanding the impact of the internet on social relations. Using that broad framework, each interview was coded in terms of basic themes and grouped into organizing themes which were used to bridge the gap between these two structures. As the analysis deepened, categories were developed or removed, and material moved between themes as appropriate. The discussion in section 6.2 reflects the final structure that was adopted. In effect, the literature review helped identify some early categorizations, but the structure that was finally adopted was a product of analysis of the interviews.

6.2 Empirical Data

Two global themes emerged from the data and each has two organising themes. These are presented below with supporting information about the basic themes and how these were then used to create the organising themes.

This section follows the structure of table 6-1 and deals with each of the four organising themes (and their related basic themes) in turn. At this stage, the goal is to reflect the range of comments from the interviewees and to analyse each organising theme in isolation. Section 6.3 will then draw this material together to present an overview of the findings from the semi-structured interviews.

One over-arching issue is that for many respondents, usage of the internet has become normalised, possibly even seen as obligatory. Two of the younger respondents described this as *'the internet has become compulsory'* (Alaa) and *'it is compulsory, everywhere, all the time'* (Hanan). A concept shared by Joher, one of the older interviewees, as *'it has become obligatory'*. This may indicate that usage has become relatively common, essential to live with the emerging social and communication norms, but not entirely without consequence.

The links between first global theme with organising and basic themes can be shown graphically as:

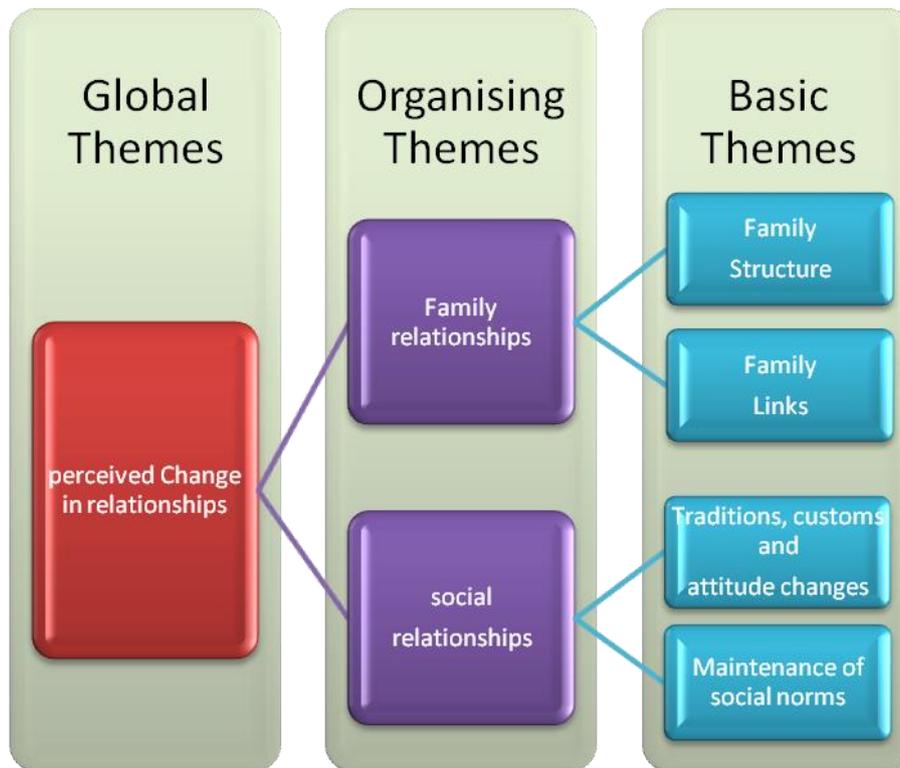


Figure 0-1: Linkage between the thematic levels (first global theme).

6.2.1 *Family Relationships*

Family relationships were identified as a major theme in the literature review. There it was variously suggested that the internet was leading to a new level of “fragmentation” (Kraut et al., 2006) or that it was simply the latest of a series of changes that had reduced immediate contact within families. In this case, some authors claimed that the internet was displacing other distractions, such as watching television (Nie et al., 2002). On the other hand, the bulk of the literature predates access to hand-held internet enabled devices (mostly mobile phones) (Mascheroni and Ólafsson, 2013; Paus-Hasebrink et al., 2012) and took only a limited account of the impact on family norms in societies that did not share the norms of Western Europe or North America. As discussed in chapter two, a particular form of familial interaction is an important aspect to Saudi social norms and as such relationships involve relatively wide kinship groups and are maintained by a routine of regular family meetings.

The organising theme of family relationships was derived from two basic themes: family structure and family links.

6.2.1.1 Family Structure

The first basic theme within the wider framework of family relations was views and opinions about family structure. A common view among the women was to argue that family problems were related to the increased use of the internet by family members. One respondent (Lama) stated that her aunt had complained that her husband was no longer involved in the running of their house as he was busy all day with the internet:

“My aunt’s husband spends all his time on the internet. He is meant to be a mature adult but he spends his time on the internet. He acts as if he does not have children and a wife. My aunt keeps complaining about this neglect”

This statement is anecdotal and second hand and may well reflect a confusion of cause and effect. In other words, the man in question is seen to spend too long on the internet and is seen as neglecting his family duties. The perception that the internet was leading male heads of family to neglect their duties was also identified by Eman:

“Most of my friends complain about the internet because it takes their husbands from them and this leads to problems between them. This has happened to me, I talked to my husband at times when he is on the internet on his phone and he keeps saying ‘yes, yes’, but he didn’t know what I said”

It was suggested that the internet was not just creating a distraction for parents but also leading to them growing apart from their children. This was identified by Bushra, as:

“When one of the parents give all their time to the internet rather than spend time on their family, not only will this affect their relationship as a couple but also how their children live”

To others (especially those under 28) the impact of the internet in creating family problems was not just in terms of being a diversion but that it enabled members of the wider family group to find out about what was going on (in advance of any planned discussion at a family meeting) rather than be discussed when the family were ready. Three individuals (Majd,

Nada and Joher) all identified this to some extent. Of these, one (Joher) was over 28 and the other two under 28. Their comments were:

“With these applications in the smart phone there are a lot of problems happening between the family members and friends, they know everything about you by photo or comment and then look at what can happen!” (Majd)

“It made a problem when one of our family friends said that her daughter was sick and that was why she didn’t come. When I get online I found that she had been at a birthday party and sending a photo. That makes us so angry!” (Nada)

“the special family news spread very quickly, all relatives will know before the family members and that has caused problems” (Joher)

A different problem was that the internet created the scope for what were deemed to be inappropriate social relations, as Alaa identified:

“One of my relatives had big problems which affected their relation when one of the couple discovered that the other one was chatting on line with stranger from different gender”

The view that the internet was creating domestic problems was identified by one of the older interviewees (Fadaih) who said:

“The internet caused big problems between the couples and they have bad ideas about each other ... it makes a problem between the couples”

The impact of the internet on family dynamics can be summarised as: a belief that it is leading to some adults neglecting their family duties; that it is possible for news to spread via the internet that would traditionally have been deliberately chosen to be discussed at a formal family meeting; and, a less specific belief that it was causing problems and allowing for inappropriate interactions.

The increased usage of the internet is blamed for the loss of focus on the family but it is possible that the increased internet usage has been a consequence of other family problems. What is interesting in this section is that the problem is not the behaviour of younger people but of adults. Thus the interviewees tend to suggest that it is adults who are being distracted

from their family roles rather than the children in the sense that time spent on line leads to neglect of family or that the internet undermines traditional controls over the diffusion of information in the family unit.

However, a number of the younger respondents did indicate they faced parental complaints about their usage of the internet. In some instances this was about the volume of use and in other instances it was about when they were using the internet. A typical set of comments from the younger interviewees are:

- *“We sit together but everyone has his phone or laptop and then my parents become bored and start complaining”* (Yusra)
- *“My mum prays against these electronic devices because all my siblings are addicted”* (Tahane)
- *“my grandmother and my mum always bother us and my grandmother tells us to put the electronic devices away as they are wrecking the family”* (Shahad)

Some of this maybe related to generational differences in terms of acceptance of electronic communication devices. Women aged over 28 also indicated that the amount of time being on line was becoming the focus of their children:

“For me my kids are addicted where-ever they go, their electronic devices go with them even at meal times” (Manar)

The common theme in those comments is that the complaints are about the amount of time spent on line and that usage of electronic devices is atomising social relationships. In each case above, the key issue is spending time on the internet instead of being engaged in family life (Gunuc and Dogan, 2013). However Gunuc and Dogan’s research suggests that the extent the internet was disruptive was related to the quality of overall inter-generational interaction. Thus a number of complaints point to the overall loss of traditional family relationships, as:

- *“My mother said that I cannot see their face only feet and hands (she showed how they were sat), they put their headphones and sit dreaming and laughing, most of my friends complain about the same problem”* (Latifah)

- *“My daughters are always in their rooms they don’t care about anything and don’t need their mum anymore” (Nadaih)*
- *“At parties and social gatherings the young girls do not know how to treat others or talk, most of the time they are busy with their phones” (Nadaih)*
- *“I’m sitting all the day in the living room by my own, my kids are in their rooms, if one of them comes to see me it is as a courtesy just for five minutes and still with his electronic device” (Zenah)*

Equally, many of the older respondents noted that even in common social or family occasions, many young people are engaged with their mobile phones, as:

- *“my mum feels angry when we come to visit her and everyone has his own phone ... she said nobody get in to her house with his phone” (Manar)*
- *“My kids are chatting at the dinner table with their phones while they are eating” (Joaher)*
- *“They do not meet each other now apart from to eat, even so if they meet they look like they are not present, just looking in their electronic devices” (Soad)*
- *“We sit together silently, it seems like there is nobody there, just everyone sitting in a corner” (Hend)*
- *“unfortunately, in our family meeting everyone is busy with their electronic devices” (Maha)*

This idea of being physically present but mentally engaged with the internet is described by some interviewees as a separation of mind and body, for example:

- *“They sitting with us as bodies only” (Faten)*
- *“They sit as bodies without minds ... my kids are sitting with me but in the same time without me!! I gave them the food by my hands!” (Mashaal)*

This section indicates some key generational differences. To the younger interviewees, the only important matter is whether or not they spend too long on the internet. However, they

also note the tendency to engage with the internet at social occasions (Bushra, Yusra). To the older respondents, the key issue is not so much the time spent on line as such, but as to how disruptive they believe their children's use of the internet is to their social expectations. A common theme is of being present in body, but not in mind which relates to the argument by Kraut et al (2006) discussed in the literature that internet access was a trade-off compared to both other non-social activities (such as watching TV) and family interaction.

The argument that the internet had led to significant changes in family life was identified by both younger and older interviewees. Of the younger group, two statements were:

"The internet changed our lives; everyone has their own environment and their own group" (Gadeer)

"Our life is absolutely different now than ten years ago before the internet" (Fatimah)

Similarly, three of the older interviewees also ascribed disruption in terms of family life to the internet:

"internet changes our lives, turn it over" (Latifah)

"all this change in our lives from the internet" (Johar)

In each case, the issue is time displacement, with family members now spending time on line, either in their own space or when taking part in notionally shared events. In effect, there is some evidence that individuals across the various age ranges believe that the internet has had a profound impact on family relations in Saudi Arabia. This not just an issue for the older respondents, even the younger women perceive that changes are occurring in intra-family relationships:

- *"the internet has dismantled our family ... all the day we are on our rooms then late on the night when I get down to see my mum, she is tired and wants to go to bed"* (Bushra)
- *"It is really that after we starting using the internet that our family has been dispersed"* (Sarah)

Thus it is not just the older family members who ascribe fragmentation of the Saudi family to the wider use of the internet. As in the next section, there is a strong view that the

consequence has been a disruption to the traditional norms of collective family interaction such as when eating:

- *“the food is next to him while he is checking online”* (Manar)
- *“they are sitting there but look like they are not paying attention, even in the meal time they keep checking the internet”* (Soad)

This section has covered the interviewees’ experiences and feelings in terms of the impact of internet on family structure. One broad conclusion is that both younger and older interviewees are aware that there have been changes, so in that sense it is not a simple generational disagreement. One interesting aspect is the clear identification that this is seen as a problem for adults as well as children. While children are described as no longer participating in family interaction, adults who spend too long on line are seen as neglecting their family roles and duties.

Some of the material is clearly anecdotal (discussions about ‘my cousin’ and so on) and attitudinal in ascribing cause and effect (so the internet usage is responsible for a family breakdown as opposed to possibly being a consequence of that breakdown). However, the theme of fragmentation is common across the respondents and seems to break down into different issues. First is of physical fragmentation, with an image of people in their own rooms and only the most cursory of interaction between them. The second is that even when individuals are physically in the same place, their attention is split between the current situation and accessing the internet (Hughes and Hans, 2004).

This gives two tentative conclusions. One was that, at the least, the perception of a break up of traditional family life due to the internet was widely held. Second, the issue was less that the internet is changing opinions and beliefs but more that it was changing behaviour by removing time previously allocated to social activities into a more private, individual, world.

Several broad concepts emerge from this discussion. While there was no use of time diaries, it is clear that the interviewees all believe that access to the internet has been disruptive to traditional family engagement. Some of this disruption was about the physical location of family members (in separate rooms) but some was about the mental location. The concept of an individual being physically present but absorbed in the internet was frequently repeated.

In this sense, the internet was seen as an ‘intruder’ claiming attention that was previously given to inter-personal interaction.

6.2.1.2 Family Links

The second basic theme within the wider framework of family relations was views and opinions about family links. The particular focus here is less on the impact on the family structure and more how the internet is affecting linkages within the family. As above, there was a belief that time spent on-line has been disruptive to family links. This is not just within the immediate kin-ship group but also affects behaviour in wider family meetings, as noted by one of the younger interviewees:

“no more family ties like there were before, we sit in the big hall everyone using their own device nobody talks nobody knows what you say, if you do talk all of them are too busy with their electronic devices” (Susan, discussing behaviour at family meetings)

Older interviewees also noted a shift of behaviour in wider family meetings:

- *“even the family ties and kinship have been weakened”* (Johaer)
- *“family gatherings are now as bodies only”* (Faten)

Several important impressions emerge from the perception of weakening of family links. First, again, it was not just reported by the older members of the interview group, even if they were very direct in their attribution of family fragmentation to the internet. Second, a number of interviewees stressed that this was leading to change not just within an immediate family or kinship group but in terms of interaction at the wider family gatherings.

However, an interesting alternative view is that while the internet was reported to have changed how family members interact, it has not led to less interaction. Eman, one of the younger interviewees, described how she chatted with her husband while they are together in the same place: *“sometimes when we go out together me and my husband we keep chatting together by the social network”*. Equally at home: *“I’m chatting with my husband using social networks even if we are in same room, I can’t be bothered to tell him a story or show him something so I just send it to him then he will check it”*. This idea of using the internet as an alternative means to converse was identified by younger interviewees:

- *“In the social gatherings I chat with my sisters by social network ... I told my mum to buy a smart phone so we can contact and chat with her”* (Hana)
- *“We sit together, chatting by social network”* (Sarah)

This was not just identified by the younger group. One older interviewee identified how everyone *“even in the house we are chatting online”* (Hayat) and that her family *“discuss what will we eat; and make plans to go out to eat by the social network”*. Older respondents identified how the internet has changed communication practices even in wider family groups:

- *“at parties we do not chat face to face; just keep sending photo to each other or chatting online”* (Dalal)
- *“we do not chat face to face with each other, everything by the internet”* (Hayat)

So while there are claims that internet access in family social gatherings has led to fragmentation, there is also evidence that the internet has simply changed how family members are communicating in such meetings. It is not just the younger family members who are physically present but actually using the internet as a communication tool. This may point to a drop in the amount of interaction (note in the quotes above everyone is indicating they ‘converse’ within the wider family group) more that it is creating different communication networks. This maybe more peer to peer and less mediated through traditional age and gender created hierarchies.

Overall, the material in this section indicates there has indeed been a significant shift in family relations with the internet identified as the main cause. The evidence for change in inter-family relations can be grouped into two categories. The first is largely anecdotal and refers to other people than the interviewee. The second is grounded in the experiences or beliefs of the individual.

Typical examples of the first are *“My aunt’s husband spends all his time on the internet”* (Lama) or *“my young siblings do not sit with us they spend all the time on the internet, when I was little I remembered that I was playing outside and chatting with my parents but they are not”* (Areem). As such, these tend to be anecdotal, or to indicate that a problem (heavy internet usage) exists but only affects others.

The more personal views can be divided in turn into two groups. Some are generic sweeping statements such as “*internet changes our lives, turn it over*” (Latifah) or, more precisely “*Our life is absolutely different now than ten years ago before the internet*” (Fatimah). However, most relate to very specific ways in which it is believed that the internet is disrupting traditional family norms:

- Time spent in separate places - this has already been covered in 6.2.1.1 where the internet is seen as fragmenting the family leading to less social interaction;
- Alteration to family interactions - “*The internet has reduced our family time; we do not sit with each other like before*” (Sarah) and “*The internet has weakened our family ties, we are not together anymore*” (Monerah);
- Atomisation of social relations - “*everyone lives in their own world*” (Fozeh);
- Displacement of attention - “*my kids sit with me but in reality they are not really there*” (Mashaal).

Variations of these four themes were common across the interviewees. The linking concept is the breakup of traditional norms (as such there is no means to test the veracity of this belief but the idea was frequently repeated). In this sense, the internet is not just being blamed because it is new, or the latest change, but precisely because of its ability to hold the attention of many and to be accessed even at conventionally social times in the day (such as meal-times).

However, it is worth noting that some of the on-line activity is simply a different form of family interaction. In general, the common theme is of time disruption and displacement. In the family context there is one instance where the internet is seen as changing attitudes, as: “*before the internet we took all the meals together, tea time together, even if we have to study we brought it with us in the family time ... now look how the girls are crazy about the people from far east, they copy them in everything, they try to learn their language, all this is coming from the internet*” (Yusra). However, this aspect is only rarely mentioned, within the family the issues seems to be one of time displacement.

On this basis, at the least it is believed that there have been changes in family relationships within Saudi Arabia. The clear view of the respondents is one of breakup of traditional forms

of interaction with the internet held to be responsible. However, broadly the evidence is that this is due to time displacement not changing social attitudes. The common complaint is of people spending time on line not that they are absorbing different ideas from the internet. A balanced view is that some internet use is to create other means of family interaction, with some individuals using the internet to communicate with other family members.

6.2.2 Changes to Social Relationships

The second organising theme that was identified from the interviews was the impact of the internet on social relationships. As with intra-family relationships, there is a strong belief that this has been adverse and that it has led to the breakup of traditional norms. This global theme is split into two basic themes of traditions and social interaction.

6.2.2.1 Changing Traditions and social norms

This basic theme captures the extent that the internet has led to people questioning traditional Saudi social norms, adapting their behaviour to what they find on the internet and a wider feeling of being disconnected from traditional Saudi social structures. Overall this is an important section in the interview analysis. So far the focus has been on the internet as a disruption to family structures mainly due to the time allocated and the extent that it has led to a loss of group activities. This section offers evidence that the internet may also be changing attitudes and that those altered attitudes are leading to a break down in Saudi social norms.

Some interviewees (both younger and older respondents) noted that access to the internet was shifting attitudes. Of the younger interviewees, four identified issues such as:

- *“People spend a long time contacting foreign worlds and this gives them different opinions and strange ideas from our community, and they feel that is ok”* (Susan)
- *“It is so dangerous for the community as it brings false and strange ideas”* (Lama)

Some of the older interviewees agreed with these opinions:

- *“the internet has brought strange ideas to us”* (Samar)

- *“they expose themselves to some strange ideas about our community”* (Hayat)
- *“it is changing a lot of thought in our community”* (Soad)

The repetition of the phrase ‘strange ideas’ was important in those quotes and the theme of the internet opening Saudi Arabia to different, potentially threatening, ideas in term of different traditions was also found in a tendency to suggest that this was due to a desire to imitate the attitudes and beliefs they encountered online. Again, it was useful to split the relevant quotes between the younger and older group of interviewees. Three of the younger group identified:

- *“many people are affected by ideas taken from other communities ... some of my friends follow famous people and look at what they doing and wearing and then copy them if it fits with us or not”* (Lama)
- *“they are open to a different world where everything for them is fine and they this means they tended to adapt more and more”* (Busrah)
- *“some people have changed their way, style, speaking, they been more aware and open minded but they try to emulate other communities in a lot of things even if it is not fitting with our communities”* (Alaa)
- *“The girls take everything from the internet even if it is wrong then transfer it to their family and influence them”* (Tahane)

Of the older group:

- *“because they have strange ideas from the internet that differ to our community as they try to fit in with what they find on the internet”* (Faten)
- *“my daughters’ thoughts are influenced by what they see on the internet ... the internet is the only new thing that has come to us, it was the main reason for all this changes ... it is turning our lives over”* (Mashaal)

This indicates a strong belief that observed (or believed) changes in Saudi social relations can be to a large extent traced to the widespread adoption of the internet. The natural consequence of people adapting their beliefs to what they see on the internet is the loss of

adherence to Saudi traditions. One of the younger interviewees, Fatimah, suggested that that *“internet let the people become more aware but at the same time it has changed a lot of traditions and customs”* and added that *“from ten years ago there are gains in awareness and open mind but we can’t deny that there is an impact on our customs and traditions”*. In effect she took a broadly positive view of the changes but acknowledges that there have been consequences.

The older interviewees tended to stress the negative consequences:

- *“young people do not know how to act in parties or gatherings, and they do not care, they are too busy with phones”* (Nadaiah)
- *“internet lets them change their traditions and customs”* (Hayat)
- *“there are many social boundaries and concepts had been demolished after the internet”* (Reem)
- *“my thoughts, my personality and more or less all our lives have been impacted by the internet”* (Gadeer)
- *“internet really have strong impact on the thoughts and personality by 99%”* (Tahane)

This led to a certain degree of generational difference as there was a belief among some respondents that this was leading to young people adopting a culture and behaviours that were different to their community. However, it is noticeable that in each case the respondent is talking about those younger than they are, indicating a view that if a generational shift is happening then it is the age group below their own. Typical of this are the views from the younger group of interviewees as:

“They are contacting people around the world and make a very strong relation with them. They are then friends and that leads them to be affected by cultures different that ours ... the internet really impacts on the young people. Spending such a long time searching, reading and get different information they end with a different culture to ours” (Susan)

“It has had an extreme impact on her personality, my sister’s thinking is really strange ... like she is not from this country ... She has strange ideas, and she does not agree to discuss with us, she is fully convinced by them” (Amal, describing her younger sister)

This idea that such a radical shift in social attitudes is affecting a younger generation is also repeated by a number of the older participants:

- *“internet has let the young people bring something in that is not traditional to our community”* (Hayat)
- *“the young people are doing something outside of our community”* (Hend)
- *“the impact of the internet is so clear, my daughter does not need her mum’s advice or her community anymore, she renounce a lot of things ... not all of the internet is useful”* (Nadaih)
- *“the internet has not improved anything; it is turning society back ... it has a very strong impact ... traditionally children have been guided by their mother, the father ... but the internet had produced a petty generation without any interests or capabilities, they do not think about anything or appreciate anything”* (Mashaal)
- *“the idea of the internet is positive but negative usage makes it worse”* (Fadaih)

Several impressions emerged in this respect and in particular two issues were identified: of ideas coming from the outside and of this affecting a younger age group.

As discussed in the literature review, one reason why the KSA was relatively slow to adopt the internet was the fear that it would allow different (Western or, more specifically, American) ideas to enter the country (Pons, 2004). The material in this section would appear to indicate this fear was reflected in the responses above as there are references to *strange ideas* coming from the *outside*. In turn this is perceived as leading to a loss of traditional social behavioural norms and there is a clear attribution of the reason for such changes to the introduction of the internet. It is identified as the main difference and thus as the main reason for believed changes (Zhou, 2011).

The other impression is the belief that this change is affecting a younger age group than the interviewee. The older respondents (i.e. over 28) may well see the younger age group as homogeneous *young people* who have been affected. However, the younger respondents who mentioned this stress that this is not about them, but those who are younger as Amal refers to her sister and Susan to a nameless ‘*They*’. This, in turn, can be compared to the argument in chapter three that there is always a tendency to see a younger age group as in some way lacking the norms possessed by older groups and then to blame such changes on external influences.

This provides some evidence for a generational basis in understanding the impact of the internet. Many of the younger respondents acknowledge it has changed both their world view and social and/or family relations but this is presented neutrally. Of the older respondents, such changes are more often seen as being negative.

6.2.2.2 Social Interaction

This section looks at the basic themes which indicated a believed impact of the internet on social interaction and, in particular, the various ways that people indicate they would rather spend time online rather than engage in traditional Saudi social interactions. A number of interviewees indicated that younger people were now less interested in the traditional routine of social and family gatherings. Of the younger respondents:

- “*we don’t like going out with our family*” (Bushra)
- “*we don’t like to go to parties or wedding like before*” (Fatimah)
- “*most of the people don’t like going to gatherings like before, now they have their own entertainment*” (Maram)

While Bushra’s comment could be seen as a simple statement of preference, Fatimah indicates that there has been a change (*like before*) and Maram traces this change to the more personalised entertainment available from the internet. The older respondents, in particular, identified this reluctance to attend social events as a notable change:

- *“if there is a party in the house everyone makes excuses so they don’t attend; if we forced them to attend then they will sit for five minutes”* (Zenah)
- *“my son refused to go to any meeting”* (Dalal)
- *“they do not like to go to the big family meetings; they think it is unnecessary”* (Joher)
- *“every week we have to visit my family; now my daughters refused to go with me; they are busy with the internet”* (Azez)

This offers some additional evidence to the discussion about intra-family relationships that easy access to the internet creates an alternative focus for individual social life. As a result, it was suggested by the older respondents that younger people now preferred to stay at home and use their computers. Typical of this was Latifah *“everyone wants to sit at home with their electronic devices”* and Mashaal *“they do not want to chat or go out with anybody; everything is in front of them on the internet”*. This preference for staying in was summarised by Nadaih as:

“for this generation it is no problem for them if they sit six months at home”.

This shift in terms of preferring to stay in rather than go out was seen as leading to social problems. Three of the younger interviewees were quite specific as to the nature of these problems. Nada described how the internet makes problems between the people, as:

“there are a lot of problems that have happened between families and friends, some relatives don’t invite another relative to their party then those who weren’t invited find out from the social network, or friends go out without telling some other friends and so on”.

Majd, also argued that it was a potential source of breaking down relationships, as:

“it has an effect on social lives, many problems have occurred related to the internet, a lot of relations have broken down”.

The use of the internet to spread, or share, knowledge was identified by Reem as:

“the internet, especially social networking, becomes a rumour source in a social community and between the people and it makes a lot of problems”.

If there is a common theme here, it is that the internet makes it too easy to find out what others are doing and that this can then lead to problems if people come to believe they are being excluded.

One of the older interviewees, Mashaal, noted that:

“in the big family meetings or social events everyone takes a corner; looking and laughing with their own electronic device”.

Overall the discussion about shifting social relations mirrors the earlier review of responses in terms of changing family dynamics. In effect, the internet was believed to be disruptive to social norms in Saudi Arabia and in much the same way as it affected family social interaction. Section 6.2.2.2 points to the issue of time displacement (either to preferring to stay at home or engaging with the internet when out) and risks such as loss of privacy within a friendship group as information is easily accessed or breaking up social groups due to individual focus in the internet. However, there are also differences in how changes within the immediate family and in a wider social context are reported.

In different ways, section 6.2.2 offers different views to those in 6.2.1. Here the internet is seen as not just causing a shift of attention but of attitudes with the references to the arrival of ideas from outside Saudi society. Several strands can be identified. In effect those who spend too long on time become vulnerable to external ideas, this leads to behavioural changes and this affects those younger than the interviewee. The latter is important, as even the two interviewees who were under 28 suggested that this change affected younger members of their family. It is also to be noted that most of the statements about the nature of this threat, and the nature of the changes are vague (*strange ideas*) but clearly believed by the interviewees.

This section shifts focus from the impact of the internet within the immediate family group to consideration of any wider social implications. This captures both interaction within the wider family group (such as the regular family meetings) as well as purely social relations (friendships and links outside the family).

Some concepts from section 6.2.1 are repeated. There was a generalised belief that there have been changes such as: *“before, they like going out but now they do not”* (Latifah). There

are similar themes of isolation even when in social settings and of using the internet as an alternative means to communicate, as identified earlier in this chapter.

Some of the issues are in terms of time displacement or about losing control over the dissemination of family information, such as identified by Nada: *“there are a lot of problems that have happened between families and friends, some relatives don’t invite another relative to their party then those who weren’t invited find out from the social network, or friends go out without telling some other friends and so on”*. Equally, there is a clear belief that attendance at traditional social events has declined and that this is due to the availability of the internet, as *“before they would be happy to go out; now they do not like going to family or social events, they prefer sitting at home”* (Soad).

What is different in respect of social relations is the introduction of the theme that the internet is not only disrupting traditional arrangements due to claiming people’s time and attention but also in terms of attitudinal change. Some of this is seen as a deficit or lack of traditional knowledge as: *“young people do not know how to act in parties or gatherings, and they do not care, they are too busy with phones”* (Nadaiah). In other instances there is a clear belief that attitudes have changed but this is expressed in very broad terms, such as: *“young people have imaginations and ideas that do not fit with our community”* (Fadiah). However, in other instances, the argument presented is that the internet is indeed leading to changes of social attitude. Two long quotes from the younger interviewees, already presented earlier, exemplify this argument:

“They are contacting with people around the world and make a very strong relation with them. They are then friends and that leads them to be affected by cultures different than ours ... the internet really impacts on the young people. Spending such a long time searching, reading and get different information they end with a different culture to ours” (Susan)

“It has had an extreme impact on her personality, my sister’s thinking is really strange ... like she is not from this country ... She has strange ideas, and she does not agree to discuss with us, she is fully convinced by them” (Amal, describing her younger sister)

This idea was rarely discussed in the context of changes within the family but it does present some evidence that the internet is not just seen as altering social interaction by providing a new focus of attention but also shifting attitudes.

The links between second global theme with organising and basic themes can be shown graphically as:

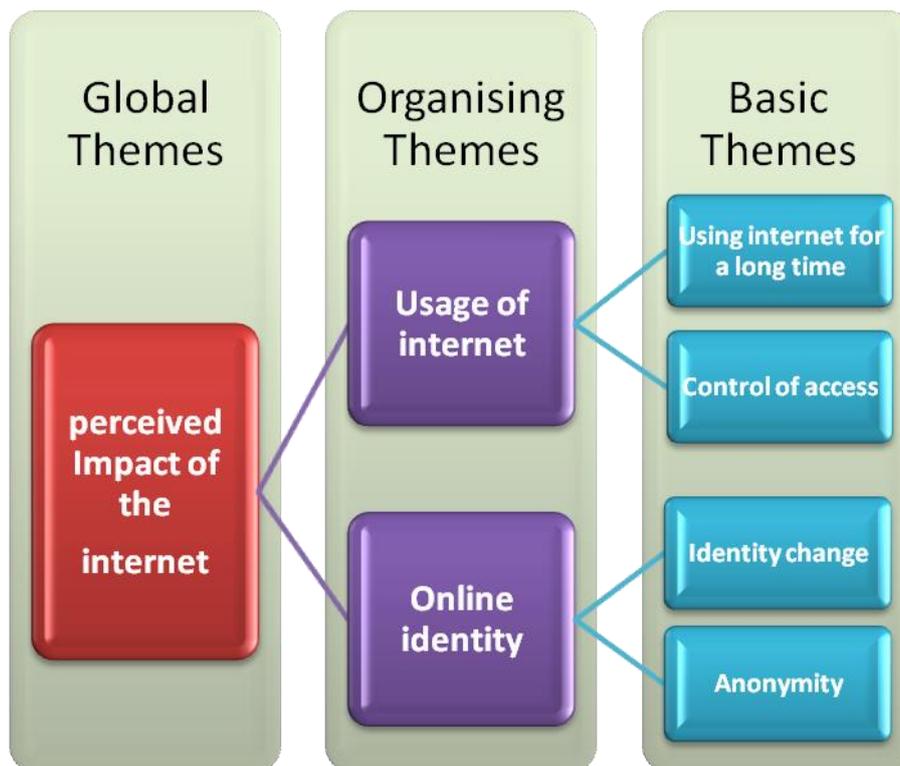


Figure 0-2: Linkage between the thematic levels (second global theme).

6.2.3 *Internet Usage*

This section specifically looks at how the respondents reported they access the internet and the extent that rules are enforced within their family to limit usage. One interesting theme was a tendency by the younger respondents to note that their peers spend a lot of time online but that, with few exceptions (Bushraa and Tahane), the younger interviewees believe that excessive usage is something done by other people:

- *“most people sit all the day on the internet they do not know about the world”* (Lama)
- *“the kids are either sleeping or on the internet”* (Yusra)
- *“my teenager siblings spends all the day online we hardly see them, they forget the meals time ... my sister spends 24 hour on the internet , the internet has become her special friend, she became introverted”* (Amal)

As already identified, the older group also asserted that some family members spent a substantial part of the day online.

The evidence for the impact of smart-phones on usage is limited. Some respondents such as Lama acknowledged they used it for convenience: *“I use my smart phone to access to the internet as it is faster”*. Others such as Yusra claimed that *“everyone has two devices”* and Eman said *“all young people have two smart phones, two programmes, always busy”*. However only two interviewees (both under 28) indicated that they believed that smart-phones were increasing internet usage and that they were using the internet in a wider range of settings:

- *“these devices take the people from the people”* (Nurah)
- *“smart phones have increased internet usage”* (Majd)
- *“my mum is always angry because I used it when we out doing shopping, I keep barging into people”* (Majd)

However, this may understate the consequences of increased mobile phone use as others made the link between the ability to access their phone and their ability (and need) to be online, as:

- *“when my phone battery finishes I turn crazy”* (Tahane)

More generally, some younger respondents indicated that they saw their own level of usage as equivalent to an addiction:

- *“I’m online all the time even when I’m sleeping I keep checking, I’m addicted, before prayer time also I keep checking ... the internet has taken all my family time, before I have free time now all my time online”* (Tahane)

- *“when I go on the internet I cannot get off it”* (Abrar)
- *“I was addicted to the internet until I felt like I did not know my family, I felt disconnected to them”* (Hana)

The older group tended to simply use ‘addicted’ almost as a short hand to describe the behaviour of their children. There is no evidence that the phrase has any meaning beyond representing a complaint at time displacement such as *“the young people are addicted”* (Latifah) and *“my daughters are addicted”* (Mashaal). However, while the three younger interviewees quoted above show how what they believe was an addiction was actually shifting their behaviour; the mothers were less precise about what they meant.

Since the internet is now clearly easier to access (via wi-fi or mobile phones), it is not surprising that a number of family groups have developed rules. However, this is not universal and Nuha noted the contrast between lack of rules in a domestic setting compared to more widely:

“we have not have regimentation in our house so we do not feel any impact, but in the society it has strong impact”

Other, younger, interviewees indicated various ways that internet usage was limited at social or family occasions:

- *“my dad created a rule that is when we gather as a family we must not bring electronic devices with us also if my siblings do not get downstairs for family meetings my dad will be obliged to switch the Wi-Fi off, to force them get down”* (Eman)
- *“in our house there was too much internet usage so we have a rule which bans using electronic devices”* (Madhoe)
- *“in our house we must listen to my parents in family time so they ban us from using any electronic device”* (Turkeeh)

Some of the older respondents also indicated that they set rules in order to limit internet access:

- *“I told my daughter that she could not take her electronic devices when we go to visit her grand mum ... I have to control my kids and ban them from bringing their devices to the family meeting”* (Nadiyah)
- *“I create rules for my kids; whenever I want you come to sit with me do so without any electronic devices ... in the big family meeting the old people ask everybody to put their electronic devices on the side before getting in”* (Mona)
- *“after all of us suffering from the internet at our family meetings, we decided to create rules; in the meeting no electronic devices ... also inside my family; I put rules nobody come downstairs with any electronic device ... for my little son I keep supervising him and if he makes too much usage I withdraw the electronic devices from him for 3 days ... we must put rules in the family and social gathering, also supervise our kids”* (Maha)

In effect, within some families, the response to internet usage intruding into family or social occasions has been to create a set of rules designed to create clear boundaries.

This section indicates some interesting contrasts in terms of patterns of internet usage. For example, many interviewees thought that others (again usually those younger than they are) spend too much time on line. It is noticeable that only two respondents self-identified as spend too long on line themselves (and that three saw their own behaviour as indicating a degree of addiction). Few directly attributed any increase in activity to the use of mobile phones but it is clear from other statements that many use their mobiles as an important means to access the internet.

In terms of actual usage, there is some evidence that for some people this has become the dominant aspect of their lives: *“we cannot see one of my sisters, she spends 24 hours on internet, when somebody try to tell her that’s wrong she feel angry”* (Turkeeh) and: *“when I go on the internet I cannot get off it”* (Abrar). There is some evidence that mobile phones have led to more changes such as: *“smart phones have increased internet usage”* (Majd) and that they have allowed internet usage to spill out into all social occasions, such as: *“my mum is always angry because I used it when we out doing shopping, I keep barging into people”* (Majd). However, in at least one instance, the ability to access the internet using a mobile phone is seen as allowing a particular privilege, as: *“while we are sitting together we are*

chatting using our phones so the others who do not have smart phones just keep looking at us, they do not know what is happening” (Hanan).

While the phrase ‘addiction’ is widely used such as: *“my son is addicted”* (Dalal) and there is a widely held view that the internet is now central to many lives: *“for this generation it is no problem for them if they sit six months at home”* (Nadaih). However, from the comments, there is very little evidence of addiction in the conventional sense of the word. There are exceptions such as Tahane and Hana who both described their own behaviour as indicative of having an addiction but these more precise descriptions of behaviour are relatively rare.

Finally, there was ample evidence of managing internet usage to stop it intruding into social meetings. In some cases, this is enforced among the younger age group themselves, as: *“I invite them to my house then everyone sat with her phone, we don’t talk like before; so now when I invite them I collect their phones”* (Majd). Other rules were to ensure that family meetings were internet free as: *“my dad created a rule that is when we gather as a family we must not bring electronic devices with us also if my siblings do not get downstairs for family meetings my dad will be obliged to switch the Wi-Fi off, to force them get down”* (Eman). There were several references to the older generation (than those who were interviewed) effectively banning internet access, as: *“I told my daughter that she could not take her electronic devices when we go to visit her grand mum ... I control my kids and ban them from bringing their devices to the family meeting”* (Nadiyah). So as with the issue of on-line identity, it is clear there is substantial awareness of the potential problems and many social and family groups are actively managing the situation.

6.2.4 Variations in Online Identity

This section develops the question of identity formation and on-line activity. The basic theme suggests that the interviewees were well aware of the ‘rules’ of the internet, in particular the way in which anybody can shift identity. However, there are positive aspects to this. First Saudi women valued the relative anonymity as it allowed them to interact more freely and it also allowed them to raise issues that were not acceptable within face to face interactions. This starts to present the counter-balance to the material in sections 6.2.1 and 6.2.2. There the internet was often presented as disruptive (in terms of time and shifting attitudes), here it appears as a valuable space that opens up new modes of discourse.

It was clearly accepted by the interviewees that the internet allowed them (and others) to adopt more than one identity. For the most part, this was welcomed, not least in that it created the space in which to discuss matters they were less comfortable discussing face to face. The range of views included:

- *“the internet allow you to be different person ... on the internet it is possible to lie, to change your identity, to be another person, nobody will know that”* (Eman)
- *“on the internet you can appear as a boy, another person then tells what you want but would not do so face to face”* (Miram)
- *“it is ok to have two identities ... you cannot apply internet relations to reality so it is ok if I use more than one identity, when I am fed up I need to get out of my reality and use an online identity”* (Nuha)

These quotes indicate that at least some of the respondents are well aware of the ambiguity of internet identities, and are quite prepared to use this to their own advantages (Merchant, 2006). However, several respondents were aware of the differing consequences of this degree of freedom for trust on the internet. Lama offered one perspective, in terms of how her parents are worried about their children:

“my parents been scared about the internet’s impact on their kids mentality, you cannot trust anybody in the internet”.

Eman identified why she did not trust anyone on-line:

“I do not believe anybody on the internet and I know that nobody believes me, I don’t trust anybody on line ... even if they put their names still I do not trust or believe them”.

This mixture of concern and care in placing trust in online relationships were identified by a number of respondents. The younger respondents seemed aware of the gap between a possibly assumed internet relationship and those forged in real life. Examples include:

- *“it is not like face to face relation you cannot see the expressions”* (Rana)
- *“internet relations are not like those in reality. Reality is more strong”* (Gadeer)

- *“maybe he is a fake person, not like in reality”* (Areeam)

The responses from the older interviewees were more mixed. Some shared the rather matter of fact understanding that a purely on line relationship was different to one that took place in real life. A few saw this as safe, and trivial, but there was an undercurrent of more profound concerns:

- *“there is no credibility in these internet relationships, just for fun”* (Faten)
- *“I am scared of these online relationships”* (Samar)
- *“it is so dangerous, never been like a real relationship”* (Hend)
- *“it is impossible to be real on the internet; it is a precarious place and they can disappear”* (Mashaal)

There is a different and important side to this. If the interviewees were aware that they could not automatically trust what someone else said, the inverse was it provided them with greater freedom too:

- *“I feel free to say anything”* (Eman)
- *“girls use the internet more than boys to say things cannot say it in real, they feel free”* (Maram)

Thus anonymity was especially important for the younger age group. The common reasons are to be able to talk about things when they do not wish to be identified and to keep a clear separation between their on-line activities and real world identity roles (Valkenburg and Peter, 2008). Typical of these comments are:

- *“We can be much more open by appearing anonymous”* (Tahane)
- *“I appear anonymous to protect myself; I don’t want anybody to know me”* (Nada)
- *“It is not in our traditions to put your name and also it is undesirable so it is better to be anonymous ... it makes me feel more confident to post my opinions”* (Alaa)

In this respect, a number of the older interviewees gave very similar reasons for preferring to use the internet anonymously:

- *“I always use it anonymous even on the work website; to protect myself”* (Nadaih)
- *“Our community will put you down, but those in the internet will give you transparent opinions, that is why I use it anonymously ... by appearing anonymous you can talk about and discuss issues”* (Faten)
- *“being anonymous is very useful as you can hear unbiased opinions”* (Nedaa)

In this respect, it is clear that to the respondents it is natural to hide their identity when on line. Some do this for fear of the consequences (and to gain the freedom to talk about difficult matters) and for others it is a means to access opinions unmediated by constraints of gender. As discussed in the literature review, one important part of adolescence is testing the idea of ‘self’ against the more social construct of being part of a family group (Machold et al., 2012) and that the internet is valuable in this regard. One reason for wishing to both use the internet, and to do so behind a different identity (or anonymously) is to talk about difficult matters that are hard to discuss face to face. Of the younger interviewees, this was expressed as:

- *“I use the internet when I feel angry or want to talk about any problems which I cannot talk about in reality because online nobody will criticise you or your family”* (Eman)
- *“in front the people you will get criticisms and all of them know you”* (Nurah)
- *“we can talk about any subject even if we cannot say it in reality ... some issues we cannot talk about in social or in family groups”* (Maram)

One of the older participants also stressed the value of the internet as a place for discussion, and Faten stated that

“I knew one girl who tried to discuss a particular subject in a social setting but she was attacked by a very strong criticism. When she put it in the internet she found acceptance and discussion”,

The quote from Faten reflects the research of Leonardi (2008) in that the internet can be a useful place to talk about sensitive issues with less fear that your comments will be linked to your real life existence. This leads to an important theme; in effect the internet is seen as a

means to escape Saudi restrictions, described by Bushra and Fatimah as “*suppression*” and to many others as ‘*the restrictions*’. This was again identified by a number of younger respondents:

- “*there are restrictions so we found the internet is an outlet for us, you can talk without observation*” (Maram)
- “*girls use internet more because they are suppressed in the house*” (Tahane)
- “*social restrictions force us to hide, especially girls because it is hard to use your real name*” (Nurah)
- “*I use the internet to say anything I cannot express in social settings because of the restrictions*” (Tagreed)

The material in section 6.2.3 goes some way to indicate why the internet is a popular alternative and mostly provides positive reasons to explain why, for many, it provides a welcome outlet that is not available within conventional social or family interaction. Sections 6.2.1 and 6.2.2 tended to indicate this was potentially negative (time displacement, and, to a lesser extent, changing attitudes) disrupting both traditional family and social norms.

Here, it is possible to identify why so many women (and mostly the younger ones) in this sample from Saudi Arabia find the internet an attractive option. It offers a degree of freedom to discuss matters and act in a manner that is incompatible with the social norms (and this is identified not just by younger interviewees). This fits with other research that indicates that the usage of social networking sites is seen as a means to escape cultural restrictions (Al Omoush et al., 2012).

Equally they appeared as sophisticated users of the internet, well aware that if they can shift identity, or hide behind anonymity, than so can other users (Turkle, 1997). But, as identified in the literature review, this is not necessarily negative. The anonymity can be used to both escape social restrictions (Abbas and Mesch, 2015), for example on going out from the family home unsupervised (Al Omoush et al., 2012; Gunuc and Dogan, 2013; Mazman and Koçak, 2011) and the apparent anonymity can be used as a means to widen social discourse (Güzin, and Koçak, 2011). In effect, as Hongladom (2001) argued, it is possible to create an

internet persona that has no linkage back to real life (Amelie, 2012), thus creating a space for an otherwise unacceptable degree of socialisation outside the family.

Overall, the material in this section offers a useful counterweight to the concerns expressed elsewhere as well as indicating just why spending time on line is such an attractive option for many. The discussion in sections 6.2.1 and 6.2.2 tends to identify the negative aspects of internet usage without offering an explanation as to why it may be such an attractive point of attention especially for the young in Saudi Arabia. The evidence in section 6.2.3 offers strong evidence as to why this attraction exists.

In terms of identity, the younger respondents clearly use the internet to experiment: *“on the internet you can appear as a boy, another person then tells what you want but would not do so face to face”* (Miram), with their identity and the roles they can play. This concept is acknowledged in the wider literature (Darling et al., 2008; Punamäki et al., 2009; Valkenburg and Peter, 2008) and given restrictions, especially for girls, on interaction outside the family then the internet becomes an important way in which they can interact and experiment. This also tends to reinforce the wider research (Mazman and Koçak, 2011) that girls use the internet for reasons of social interaction, again as a means to sidestep social restrictions.

Equally they are well aware that other people maybe also be experimenting: *“for a real relationship you should be able to see and meet the person”* (Shahad). However, it is clear that the internet offers a source of freedom of expression otherwise denied. This is reflected in various ways such as using anonymity for protection: *“I appear anonymous so nobody knows me, I feel better”* (Fatimah) and this was not just a feature of the younger interviewees: *“Our community will put you down, but those in the internet will give you transparent opinions, that is why I use it anonymously ... by appearing anonymous you can talk about and discuss issues”* (Faten). The latter point is important, as it opens up a wider range of social interaction: *“most of my friends use the internet as an outlet and to say anything they cannot say it in reality”* (Tahane). Equally, the internet was seen as a means to avoid social restrictions: *“I use the internet to say anything I cannot express in social settings because of the restrictions”* (Tagreed).

In combination this offers one reason why the internet is attractive to many of the female interviewees. Some usage may be trivial but for many it offers a means to gain a degree of freedom of expression not available in any other setting. However, as noted in the earlier

discussion about the lives of Saudi women, the internet has widened the scope for Saudi women to interact with those outside their family group (Al-Saggaf, 2004; Teitelbaum, 2002), anonymity means there is less fear that such interaction will be linked back to the family (Al-Tawil, 2007) leading to a relative degree of freedom (Al Lily, 2011). On this basis, it is easy to understand why many of the interviewees see the internet as an attractive option, even if it does disrupt previous family and social dynamics.

6.3 Conclusions

This chapter has reviewed the evidence from the interviews that were conducted. The entire sample was female. Some had completed a questionnaire as well as being interviewed, others were mothers of students, and other interviewees were contacted from personal contacts or referrals. The overall goal was to construct a sample that allowed the collection of views from two age groups (under and over 28) to allow the analysis to consider if opinions shifted across the generations. The first stage of the analysis was to use Attride-Stirling's (2001) concept of building categories from the interview transcripts.

As discussed in chapter three, the original Arabic transcripts were coded to produce the basic themes (table 6-1). These were reviewed and amended as a better understanding emerged of common themes and major issues. In turn the basic themes were clustered into the organising themes. The goal here was to bring together material that was related and to allow a narrative style of discussion. In this chapter, the organising themes have been used as the main level of reporting as in practice it was easier to present a coherent argument at this level. In turn, the organising themes were clustered into four global themes.

This clustering identified the four main areas of family relations, social relations, on-line identity and internet usage. The bulk of this chapter presents the information using these headings and develops an analysis using this strand of the research design. From this it is possible to set out a number of tentative conclusions:

- It was widely believed by the interviewees (across all age groups) that the internet has altered both intra-family and wider social relationships in Saudi Arabia;
- When the discussion was focussed on intra-family dynamics the main reason for this was believed to be time-displacement. This was sometimes physical (people in their

own social space rather than communal areas) and sometimes mental (people using the internet while at family gatherings);

- In the social sense, concern was expressed about time displacement but also in terms of the adoption of ideas from outside Saudi Arabia. This was often expressed in generational terms and ascribed to those younger than a given interviewee;
- There is some evidence that the ability to access the internet via mobile phones has led to usage spreading into a wider range of settings and across more aspects of life that were previously exempt (visits to older relatives or when out shopping). Equally there is evidence of some family groups creating their own rules to manage internet usage when the adults wished to focus on face to face interpersonal interaction.

However, this is not to say that internet usage was invariably seen as a problem, even though there were various examples cited (mostly in section 6.2.4) of rules created to limit use and in particular exclude personal internet usage at social gatherings. More significant though is the evidence in section 6.2.3. From this it is clear that the internet offers an attractive and valuable space for the female interviewees allowing far more freedom of expression than is available in conventional social spaces. This was not just limited to the younger respondents as there was evidence that professional women also value the anonymity of on-line interaction (Nadaih and Faten provide examples of this in the material cited earlier). In this respect, the issue of anonymity is very important. The interviewees seemed to be very aware that they could not really trust any (otherwise) unknown contact but this create space in which they could act outside the bonds of social constraints.

On balance this leaves a complex picture. Respondents believed that the internet had disrupted family and social relations. Perhaps the dominant argument is that this has occurred due to time displacement and there is some evidence that the spread of mobile phones has increased the extent that individuals are present at a social occasion but still engaged with the internet. There was some evidence for attitudinal change but this was often expressed in terms that were vague or attributed to someone else (and usually that someone else is younger than the interviewee). Since chapter three has identified such a tendency to see a younger generation as different, less socially aware, less engaged with tradition, then there is a need for some caution in interpreting these comments. This is not to suggest that the reported views are not genuinely held but the motif of a younger generation less well

attuned to social mores has a long tradition in human societies. In this sense the correlation of the arrival of the internet and a younger generation finding their own means to fit in with the social norms has perhaps led to an assumed causal link. On the other hand, it maybe that the relative freedoms offered by the internet has amplified this normal cross-generational misunderstanding, in effect the underlying trend is repeated in many societies but the extent may reflect shifts in this particular situation.

From the researcher's own perspective the findings in this chapter appear to be realistic. The main impact of the internet is to claim time from other activities. Equally the relatively recent adoption of hand held devices means it is much easier for an individual to be physically present but with their attention split between the internet and any people they are physically sharing space with.

However, this is not just a negative issue. IT in general opens a number of opportunities for women in Saudi society. In the context of work organisation it is easier to maintain separation of the sexes when networked computers provide a shared working space. At a social level it is clear that many Saudi women, especially the younger generation, value the internet as a place where they can interact without the restrictions of gender being dominant.

In this respect the internet can be seen to be relatively neutral. More generally, it is also clear that the internet has created a space that is valued by many respondents and equally many families and social groups have developed rules to limit and manage usage. However, the combination of normal adolescent growing up and adaptation may be made more obvious due to the ease of access to the internet in recent years in Saudi Arabia.

Chapter 7 / Outline of Key Arguments

7.1 Introduction

This chapter draws together the material presented in chapters five and six and compares those findings to the expectations from the literature review. This section is organised around the two key global themes to this research: (a) perceived changes in family and social dynamics (and the possible impact of the internet in creating these); and, (b) shifts in internet usage and any implications that might follow from this. One consequence of using a mixed methods research design is that the two strands of data collection need to be deliberately brought together to ensure they are mutually supportive. This helps address the risk identified by Bryman (2006) that otherwise the two strands do not properly contribute to the overall research analysis.

To place the findings in context, this chapter commences by summarising the literature review set out in chapters two and three with the goal of exploring, in the light of the findings in chapters five and six, whether or not it is possible develop a theoretical explanation as well as to analyse the results reported. This is important as it then allows consideration of whether it is possible to generalise from the findings or regard them as a one-off analysis of the impact of technological innovation in one particular instance. It also assesses if it is possible to move from consideration of these relationships in contemporary Saudi Arabia to explore if wider implications can be drawn for the impact of technological change on society.

In terms of interpreting the findings, given the nature of the research design there is a need to accept (critically) the views reported by the respondents. This is an important step, in effect, what is being measured is perceived changes (if any) in family and social relationships and the perceived role (if any) of the internet in triggering this. The implications of this constraint are considered in chapter eight. However, the tests set out at the end of chapter three are an important part of the process of interpreting the findings. In effect, Yin's (2009) pattern matching is an important part of the process of moving from qualitative and non-random quantitative data to allow a degree of theory formation.

7.2 Themes in the Literature Review

7.2.1 Technology adoption

Although the literature review in chapters two and three point to a number of factors that could affect the impact of technological change on a social system, it does not, as such, identify a coherent theoretical explanation. The issue of technology adoption has been studied from a variety of perspectives such as at the level of individual choice, or within organisations or of users adopting functions such as e-commerce or e-government (Davis, 1986, Heeks and Stanforth, 2007, Bussell, 2011, Venkatesh et al., 2011). In this literature the focus is on the adoption and spread of technology sometimes also considering rejection or under-use (Hall, 2001, Hall and Widén-Wulff, 2008) and various theories are advanced to explain the adoption process.

In summary, these theoretical models tend to stress that adoption is driven by a combination of the degree of choice (if there is little choice, then technology will be adopted, even if unwillingly), how easy it is to use, how valuable the technology is perceived to be and how much trust can be placed in the provider (Heeks and Bailur, 2007, Goldfinch et al., 2009, Venkatesh et al., 2011). This research strand offers an understanding of the adoption or rejection of technology but offers limited insights into the impact of technology. From chapters two and three it is possible to seek to create the outlines of such a model of the impact of technology and to then compare this tentative approach (with all its gaps) with the findings from chapters five and six).

7.2.2 Social norms in Saudi Arabia

Chapter two argued that the traditional norms in Saudi society are family centred (with the family defined as a kinship group wider than the immediate parental-child relationship). Drawing on a mixture of tradition, religious interpretation and tribal norms (Long, 2005) this has produced a set of expectations. Of relevance to any study of the impact of the internet in Saudi Arabia, is the traditional importance of regular meetings within a kinship group (Al Saif, 1997) ranging from weekly and monthly meetings between the family as well as a pattern of visits and social interaction (Long, 2005). There is some evidence that the impact of moving for work has broken up some of this structure as family members have moved

away from their traditional home area (Al-Dosary and Rahman, 2009), however, the importance of this pattern of meeting was stressed consistently by the interviewees in chapter six.

The other side of this social norm is the importance of roles allocated on the basis of age and gender. In effect, family matters are resolved by the older members and there is a separation of roles and responsibilities of female and male family members (UNICEF, 2009). In particular, female members of society are strictly limited in terms of interaction outside the family home and in their influence over family and wider social affairs.

In combination, this creates several ways in which the internet could affect these traditional norms. First, simply by providing an alternative focus to the routine of face to face family interaction, internet usage could be seen as disruptive, even if it does not lead to ‘foreign’ ideas being adopted (Pons, 2004). Second, usage could be attractive to those marginalised on the basis of age and gender as the internet offers a different way of interacting with others that is not achievable within normal social confines.

This offers two possible theoretical constructs. First, if a society is heavily dependent on the importance of face to face interaction, any technology that can replace this may be disruptive. Second, if a society effectively limits the scope for socialisation of certain groups, any technology that allows this to be circumvented may be attractive.

7.2.3 Adolescence and parenting

These two areas were discussed in chapter three and all capture aspects of when individuals may feel they do not belong to a social group (family or society) and the implications of this feeling of alienation and difference.

As discussed in chapter three, in many ways the idea of adolescence is relatively recent (Liebert et al., 1974). In a western setting it has become identified as a period where an individual gradually exits one family group and enters a period of relative independence and that this may end with them creating a new social unit. Psychologically it is held that this sees the young person develop a focus on their own identity rather than just accept that of their parents (Klimstra et al., 2010). This can lead to considerable tensions within any family

but such tensions are usually mediated by a desire on both sides to maintain family ties (Shapka and Keating, 2005).

Linked with the concept of growing up and adolescent independence is the issue of parenting. The evidence in this respect, is of the importance of consistency between what the young person experiences in their family environment and what are seen to be the social norms (Dwairy et al., 2006) in the wider GCC region. Thus, before the advent of the internet, parenting in the GCC region could be described as authoritarian (Peterson, 2005) with an emphasis on the importance of older family members in determining what was acceptable. Families could, to some extent, control exposure to different ideas that clash with traditional expectations (Dreher et al., 2008) by limiting access to print media and the fact that most TV was produced within the Arabic speaking world. However, as discussed in chapter two, this model of parenting is at variance to the western model of adolescence as a period of growing independence. In particular, in Saudi Arabia, young people tend not to leave their family group until marriage and at that stage young women will move to a new family group while young men will stay within their original family home (Long, 2005). In this respect, the internet maybe an important influence compared to traditional Arabic produced TV as it is easier to access websites that present a very different adult-child relationship than the traditional norm in Saudi Arabia.

Practically, there is a gap between the western model of adolescence and development and that traditionally adopted in the Gulf Region (Dreher et al., 2008). With the internet, the previous model of being able to control the introduction of different concepts as a child grew up has been lost (Peterson, 2005) as it is easy for anyone with access to observe different concepts of adolescence and different behavioural expectations.

This allows an elaboration on the concepts of set out in section 7.2.2. Drawing on this literature, it can be assumed that the greater the gap between young people's expectation of parenting and social norms and what they experience then the more likely there will be an increase in tensions within the family unit. Section 7.2.4 now moves on to consider ways in which the internet can directly facilitate these changes.

7.2.4 The internet and social identity

This section summarises the material from chapter three on how the internet is held to influence identity formation. This is a contested field with some research simply arguing that the role of the internet is to allow more of the same (in other words if someone runs the risk of addictive behaviour, the internet may well make that easier but it does not, as such, cause addiction) or to enable a new and different mode of interaction (in other words the internet is a fundamental shift in the process of human interaction). There is also the argument (Fischer, 1997) that few new technologies actually deliver all the benefits hoped for or the problems sometimes feared.

Specifically in terms of identity formation there is evidence that people exploit the relative anonymity of the internet to create multiple identities (Crawford, 2003) and that these ‘experimental identities’ are used to allow different interactions. As such this reflects the older arguments of Goffman (1959) of how we create identities for specific social situations. Overall, there is evidence that adolescents are very aware that an on-line identity can be false but equally can allow experimentation (Bahr and Pendergast, 2006) and that adolescents use the internet to experiment with different ‘selves’ and the surrounding social roles (Valkenburg and Peter, 2008). This seems to be a particularly valuable opportunity for those who otherwise reported themselves as lonely (Valkenburg and Peter, 2008).

This indicates one of the positive aspects of the internet and a reason why it might be attractive to people. It offers the means to interact with others, to a large extent freed from the constraints of immediate social norms. This gives another building block to the argument that the more constrained real world social norms are, the more attractive will be the relative freedom of the internet. As identified in chapter three, within Islamic countries, it is clear that young women in particular are attracted by this. They are often constrained in leaving the family home to socialise and the ability to freely interact without regard to gender can be limited. Social media accessed via the internet offers a means to evade both these barriers.

7.2.5 The internet as a source of change

Chapter three offered two ways in which the internet could be disruptive to existing social norms. One was simply in terms of time displacement and the second was a means to access ideas that challenged local social norms. As discussed in sections 7.2.3 and 7.2.4, from one perspective, the internet offers an attractive means to escape constraints but time spent on line may mean less time spent on other forms of social interaction.

Overall, the evidence for either interpretation is mixed and contested. There is a strong argument that internet usage reduces face to face communication (Kiesler and Kraut 1999; Kraut et al. 1998; Nie 2001; Nie and Erbring 2000) and presumably this weakens social ties. Other studies though have suggested that the internet neither weakens existing social ties nor compensates for feelings of loneliness (Vergeer and Pelzer, 2009). Other studies suggest that the trade-off is not between the internet and face to face interaction but between the internet and other activities such as watching television (Kraut et al., 2006). As discussed in chapter three, Lee (2009) offers a model that includes four ways in which internet usage may affect wider socialisation as:

1. displacement (where the internet use diminishes other forms of socialisation);
2. an increase (i.e. all benefit as the internet creates additional opportunities to socialise);
3. a rich-get-richer model (where those who already have strong social relationships gain the most from on line access); and,
4. a social compensation model where those who lack existing social ties build new ones on-line.

The literature offers some support for all but the second assumption (Whang et al., 2003, Zhao, 2006, Lee, 2009, Punamäki et al., 2009). In effect, the internet may well offer the means to either compensate for gaps in existing social relationships or to extend those relationships. Equally it may or may not diminish face to face interaction in favour of spending time using the internet.

If the impact of the internet in terms of time allocation is disputed, its impact as a means to transmit new ideas is even more so (Wheeler, 2009). The classic fear of many authoritarian regimes is in terms of external ideas disrupting existing societal dynamics (Pons, 2004) and

with new technology used to evade state restrictions (Etling et al., 2010). Equally some of the discussions of parenting suggest that it is exposure to new ideas on the internet that leads to greater differences between adults and children (Fernea, 1995, Loch et al., 2003, Larson et al., 2009b) rather than any particular parenting style as such.

This leads to an inconclusive answer. The internet can be disruptive for individual social relationships, it can be constructive and it can be neutral. Equally it can lead to the flow of different ideas across national borders and that such ideas might lead to greater dissatisfaction with how such societies are traditionally organised. However, all these statements seem to be subject to challenge and perhaps to apply in some situations more than others. In the context of the material presented in chapter six, it seems clear that the internet has shifted some beliefs but that people are not fundamentally challenging the basis of Saudi society. Equally women are using the relative anonymity of the internet but are not necessarily demanding such restrictions end in social interactions. Of course, the nature of the interviewing process may have reduced the willingness to raise such essentially 'political' concepts, but there is no evidence in the material gathered of substantial demand for more profound changes.

7.2.6 Summary

As discussed, there is no consistent view in the literature as to the impact of technology on existing social norms and relationships. However, there are a lot of relevant themes offered by the literature review in chapters two and three. To some extent these can be categorised as suggesting a technology will be disruptive if it (a) enables different patterns of socialisation; and, (b) offers something that the existing social arrangements do not (or are believed not to do). In effect, this argues for a view that the impact of technological change will depend on how much the new means of interaction vary from the older methods as well as whether or not the technology offers something that was missing and is seen to be desirable.

More specifically, this review has identified a number of important themes and these are listed below as they are an important building block for the rest of this chapter:

- From chapter three, it was argued that if a society is heavily dependent on the importance of face to face interaction, any technology that can replace this mode of interaction may be disruptive. Also, if a society effectively limits the scope for

socialisation of certain groups, any technology that allows this to be circumvented may be attractive;

- From the literature on adolescence and parenting (chapter three) it can be assumed that the greater the gap between young people's expectation of parenting and social norms and what they experience, then the more likely there will be an increase in tensions within the family unit;
- The literature on social identities on line indicates that this is mostly seen as a positive opportunity to experiment and there is awareness that others are doing the same. In effect, the more constrained real world social norms are, in terms of what is permissible, the more attractive will be the relative freedom of the internet.

Section 7.2.5 briefly summarises the mixed evidence on the impact of the internet on social norms and interactions. This ranges from a view that the impact is minimal to suggesting the internet is leading to time displacement and/or an influx of ideas from other countries. In this respect, chapter three suggested that the wider debate around globalization and the linkage to the internet could be relevant as a reason for potentially changing attitudes in a country such as Saudi Arabia (Dreher et al., 2008). But, from chapter six, there is very limited evidence for such an assumption.

This allows the creation of a theoretical framework that can be reviewed using the data in chapters five and six. First the degree of perceived disruption may rest on the gap between traditional modes of interaction and that allowed by easy internet access. Related to this, interest in using the internet maybe related to what opportunities the internet allows in terms of social interaction than is available in any other manner. This leads on to the consideration of two ways in which the internet may alter previous norms for social interaction. The first is as time displacement and the second is in terms of attitudinal change. The conclusion to chapter three used Yin's (2009) concept of pattern matching, to propose two tests that would allow identification of which of these effects was present (and it is feasible that both are having an impact). These are:

- Evidence for the first of these would be indications of the use of the internet for social networking, email and chat between individuals who potentially would know each other off-line. In effect, it is usage to access a social group outside the family but within the wider social and cultural setting;

- Evidence for the second would be indications of internet use to access information and make links outside the potential group of off-line contacts. If so, the expectation is that the pattern of usage will be different, that the on-line social group will be separate from the face to face social group and that attitudes will indicate a contrast between what happens in Saudi Arabia and what is perceived to be the case in other social systems.

The next section in this chapter reviews how much the material in chapters five and six supports the argument that the impact of the internet can be related to either creating new modes of communication or offering something valuable. In turn, consideration is then given to whether this impact is in terms of time displacement or attitudinal change. Section 7.4 then considers how much the conclusions to section 7.3 can be linked to new technology (such as smart phones).

7.3 Perceived changes to family and social interaction

7.3.1 The impact of the internet

As discussed in the introduction and in chapter four, what was measured in this research was the perceived impact of the internet on family and social relations. This approach was partly a construct of how the research was organised which made a longitudinal test, retest style of design inappropriate. However, given the focus, even in a repeated survey, in the absence of clearly agreed indicators of ‘social interaction’, even state sponsored social surveys, rely on reported opinions when seeking to gauge social change and shifting attitudes.

The questionnaire (chapter five) sought to capture views of a younger age group on the impact of the internet in terms of individuals’ family and society. The interviews (chapter six) covered the same issues but with more emphasis on changing relationships within family units and in terms of the broader society as well as engaging with a wider age range. Here the goal is to test the evidence for the two propositions put forward in section 7.2.6 that the internet may be seen as more disruptive if it offers a means of communication at variance to traditional norms and offers something identified as being valuable. Section 7.3.2 will then explore, assuming there has been a shift in attitudes and interaction, whether this can be ascribed to time displacement or attitude change (or both).

7.3.1.1 The impact in terms of difference to traditional norms

Chapter two presented a narrative of traditional family and social norms in Saudi Arabia as relying heavily on regular face to face interaction within the family and a strongly patriarchal and age structured hierarchy.

From chapter five it is clear that the respondents felt that they were well integrated with their family (table 5-10) and that overall the internet had little impact on interaction or social attitudes (table 5-11). In table 5-10, the average scores for questions such as being ‘an active member of your family’ or having ‘a lot in common with your family’ all indicated the mean score was one of agreement (4.19 and 3.88 respectively). The fact that for the younger group family meetings were described as boring (a score of 3.97) and that they felt lonely (3.9) may simply reflect their status as adolescents. In terms of the impact of the internet it is notable that most respondents disagreed with the statement that ‘internet relations are stronger than face to face’.

The interviews reported in chapter six offer evidence that usage of the internet as a means of communication creates a tension to traditional Saudi social expectations. This theme re-occurs throughout that chapter in different ways, it was clear that many of the interviewees were convinced that easy access to the internet had altered the expected norms of social interaction.

Less commonly cited, but still an important theme, was the suggestion that the internet had changed wider social values. Sometimes this was expressed with a lack of context but other respondents connected the changes to a significant reduction in family interaction. There were a few instances where it was suggested that the internet had enabled relationships to form that were at variance to expectations in particular in terms of interaction with the opposite sex.

In summary it is feasible to see the model of communication offered by the internet as something different to that of traditional Saudi family and social interaction. The latter relies on face to face interaction, is mediated by status but requires a wider group to be present. Internet communication is essentially a personal activity. This can take place in a separate place to other family members or at a family occasion using a mobile phone (physically present but mentally engaged with the internet). However, as discussed below, this can be over-emphasised, there are instances of using internet enabled communication simply to carry

on conversations with an existing social or family group. In this sense, the internet offers different means to continue to communicate with the same group of people.

7.3.1.2 The impact in terms of the internet offering something valuable

The evidence for the perceived value of the internet is mixed. Again individual question responses were interesting and most respondents were neutral in their response to questions such as ‘I feel more comfortable to talk about myself, my issues through the internet’. Equally, there was no clear agreement with or rejection of the questions ‘I feel more confident when I use the internet’ and ‘I feel more comfortable to talk about myself ... through the internet’. This may indicate, as Lee (2009) argues, that the internet is neither a cause of social isolation nor does it allow an individual to overcome social isolation. This theme was not wholly captured in chapter five, but became obvious in chapter 6, when the interviews were analysed.

There was evidence for the belief that social isolation is common, with very strong agreement with the statements such as ‘do you feel lonely’ and ‘do you feel isolated from those around you’ (which reinforces some of the answers in table 5-9). So as with section 7.3.1.1, there was strong evidence for loneliness in a family setting in the answers to chapter five but less evidence that this feeling of isolation was related to internet usage. In effect, what this may be reflecting is a certain degree of alienation of young people towards a set of social norms that give considerable weight to the views of older family members. Equally, from the questionnaire responses, there was relatively little evidence that the internet was a solution to loneliness or isolation (table 5-12). However, of importance (table 5-15) is the view that the internet does offer something important, in particular as a place to exchange views (Q. 44) and to explore how other people live (Q. 45).

However, chapter six offered some differing views on the relationship between the internet and loneliness. One argument is that it causes loneliness by breaking up family groups, This was perhaps the traditional worry about the internet, that not only does it lead to time displacement but it creates loneliness as individuals retreat into a more individualised world. To some of the younger interviewees the solution was obvious, that other family members should buy the requisite technology. In this view, what has happened is not a reduction of

social interaction but a shift as to how this interaction takes place, with the participants engaged with each other but with the interaction mediated via social networking.

On the other hand, the strongest evidence that the internet is attractive as it offers something missing was presented in section 6.2.3.1. The female interviewees offered a range of reasons why spending time on line is attractive and the common theme was one of greater freedom.

The quotes provided strong evidence as to why usage of the internet was attractive. In effect, rightly or wrongly, the interviewees stated that it allowed anonymity and with this came escape from some of the gender restrictions in Saudi Arabia. Thus, as suggested by the questionnaires, this may not overcome existing feelings of loneliness or social isolation but it still opens up wider possibilities for interaction than otherwise exist.

Taken together, section 7.3.1 offers evidence that the internet is seen to be both disruptive to traditional means of communication and highly attractive in the relative freedom it offers. However, as above, there is evidence that while the internet changes the means of communication it does not necessarily change who is engaged in the communication. The next two sections then consider if these differences can be seen as time displacement or attitudinal change (or both).

7.3.2 Time displacement

The first test is to consider if the changes indicated in section 7.3.1 can be attributed to simply spending time on the internet rather than interacting face to face. From the questionnaires, was some agreement with the statement ‘my family complains that I spend too long on the internet’ and it was those who spent six or more hours online each day who were most likely to encounter parental disapproval. Equally, most respondents agreed with the statement ‘do you feel you spend more time online than with your family’. This was slightly contradictory, but does suggest some degree of substitution of time previously spent with other family members for time spent online.

Overall chapter five supports a view that the respondents perceived their internet usage to be reasonable, and broadly accepted within their families (in particular table 5-10). In addition, there was little self-reported belief that it had an impact on the personalities (tables 5-12 and

5-14), but, as discussed, for both these tables, the standard deviation was relatively high, indicating a wide range of opinions.

Chapter six offered a contrasting view, but it also captured the views of an older age group. Here a common theme was of individuals either avoiding family occasions to spend time online and remaining in separate rooms. The alternative complaint is of taking electronic devices to family events such as at meals. These themes were repeated by many interviewees indicating a widespread belief of a significant shift of time allocation and that this can be traced to being able to access the internet.

In addition, many respondents suggested they were less willing to take part in family or social occasions, preferring to spend time on line. It is suggested that this is leading to a preference to spending time by themselves rather than in social occasions. This may also suggest that access to the internet has become a means of challenging the assumed power of the older generation to dictate how social interaction takes place.

In some cases, the level of usage is believed to approach addiction. One respondent admitted to spending most of the day online while others saw the problem as affecting other family members. Of note, most identification of excessive on-line behaviour as addiction relates to someone other than the interviewee. However, two respondents (Tahane and Hana) described their own behaviour in these terms.

One result was a number of families created rules to limit usage, especially in the context of formal meetings. This can include removing access to ensure attendance. Equally there were examples given of simply banning internet devices from family.

Returning to the evidence in chapter five, there is evidence (table 5-16) that the volume of usage is important. Where individuals make substantial use of the internet, they are more likely to report that the internet makes an impact on their wider activities, that it alters their social relations and leads to greater questioning of social norms. This part of the analysis offers strong evidence that perceived shifts in social attitudes mirrors the extent of internet usage.

On this basis, there is evidence that the internet was believed to be disruptive due to shifting time allocation and/or loss of attention even when physically present. Some of the behaviour

was described as addictive but this description (especially of own behaviour) was relatively rare.

7.3.3 Attitudinal change

The second test is to consider if the changes indicated in section 7.3.1 can be attributed to attitudinal change as a result of using the internet.

In chapter five, there was disagreement with the statement ‘there is no direct impact of the internet on my personality or belief’. However, table 5-20 indicates that attitudes vary with usage and in particular those who use the internet for longer than 6 hours a day were more likely to agree with statements that the internet had an impact on their personality. In addition, heavier users were also more likely to indicate that the internet altered their attitudes to Saudi society. The type of usage was more important in this regard than the volume of usage. So heavy use in terms of ‘studying’ or ‘searching’ led to no significant change of attitude but heavy use for gaming/chatting and for social networking did lead to reported shifts in attitudes.

Chapter six, especially in section 6.2.2 also offers some evidence for attitudinal change, rather than time displacement, as a consequence of internet usage.

Thus, it is argued that the internet has had a direct impact on social attitudes and, as with Mashaal (above), these changes are directly attributed to the internet as the most recent technological change in Saudi Arabia.

Overall there is less evidence for attitudinal change compared to the regular complaint of time displacement. The questionnaire responses indicate that any such shifts are connected both to the volume and the type of usage (table 5-20 and table 5-21). The interviews tend to stress time displacement rather than attitudinal change as the main way in which the internet is perceived to be disruptive to traditional norms. There are clearly expressed views about attitudinal change but these seem to be secondary to the concerns about loss of traditional interaction.

7.3.4 Summary

The arguments above have summarised the material from chapters five and six in respect of two main arguments. The first put forward the proposition that the internet might be more disruptive depending on how different the mode of interaction online was to traditional expectations. The second argument was that the internet might be more disruptive depending on how much it offered that was not available any other way.

There is evidence in section 7.3.1 for both these propositions. The personalised, one to one mode of communication that the internet encourages is at variance to the traditional social model of communication seen as desirable in Saudi society. Secondly, it was clear that for female members of Saudi society, the relative anonymity of the internet was a welcome escape from tradition restrictions.

This offers two reasons for the perceived impact of the internet on Saudi society. There is ample evidence from this current study. That the interviewees felt that it had led to significant changes. On balance it is feasible to read the argument in sections 7.3.2 and 7.3.3 as justifying a conclusion that the impact has been both in terms of time displacement and attitudinal change. Having said that, the evidence presented is that the main impact has been in terms of time allocation. The most frequently expressed view has suggested that the internet is thought to have led to individual family members spending more time on their own, less time in social events and when present, engaged with the internet rather than the people around them.

The next section develops the other major theme in this thesis as to whether or not these trends have become more marked with changes in technology, in particular the use of mobile hand held devices.

7.4 Type of usage and the implications

The analysis in chapter five indicates that attitudes vary not only by usage but also by the type of usage. In particular, those who spent the most time either using the internet for chatting and gaming or on social networks reported the greatest impact on themselves as individuals and on their social relationships. One reason for this higher level of usage may be the growing availability of mobile phones allowing a greater presence of the internet into

daily lives. There are some clues supporting increased usage in the interviews and access to a mobile phone sometimes gave privileged access over friends who lacked one.

Lacking any means to survey actual usage, or the means of access, this leaves the question as to whether mobile phones have altered the interaction with the internet unanswered. Clearly for some, mobile phones are important, and some of the discussion about how disruptive the internet is believed to be refers to the use of mobile phones, for example in the context of family meals. This provides weak evidence for the argument that easy access to the internet via mobile phones might further increase the problem of time displacement.

The debate about whether a new technology is disruptive. And if so, how, can be sketched out. In effect, it can divert time from previous uses. This was discussed in chapter three where it was noted that there have previous instances of concern about women reading books (as this deemed to divert time from attending to family duties), to television and now to the internet. In this strand of argument, what matters is the loss of traditional (and presumably essential) time allocations between different activities. The alternative impact, again as discussed in chapter three, is that new technology allows access to new ideas and social attitudes. These two concepts can be mapped onto the categories presented in chapter six as:

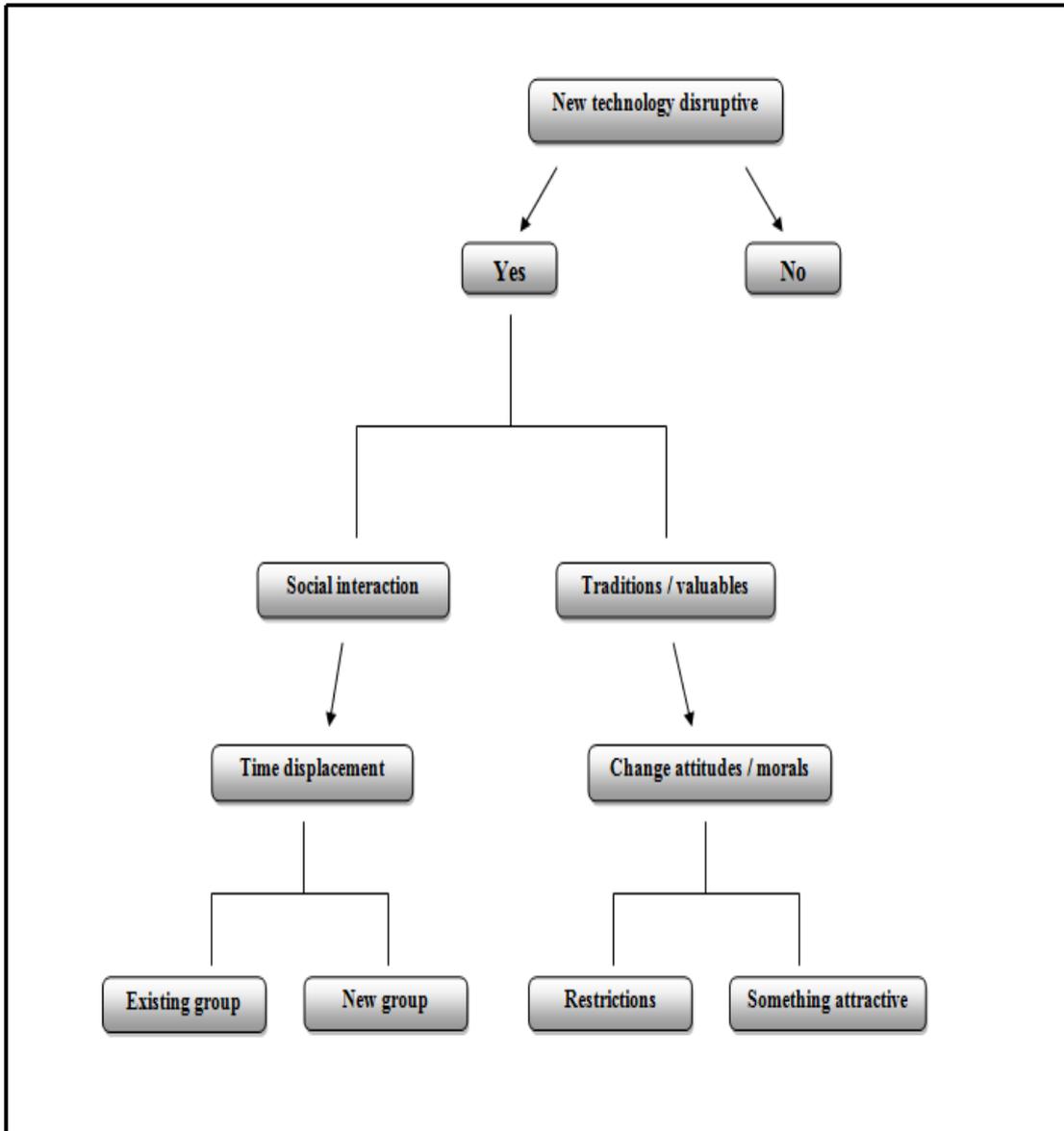


Figure 7.1: Potential implications of new technology.

7.5 *Generalisation*

One challenge in any research is considering whether the findings have any relevance in other situations than that studied. Yin (2009) advances the argument that this task can be achieved by what he calls explanation building. Doing this requires:

- Offering an initial theoretical formulation drawn from the existing literature;
- Comparing the findings of a given case against that formulation

Ideally this is then repeated on an iterative basis across multiple case studies, each allowing a revision of the theory and adding fresh evidence. Chapter Seven has created a theoretical formulation using the literature. That formulation can be broken down into two distinct elements of:

- It is assumed that a new technology will be more disruptive, if it either allows a means of social interaction at variance to traditional norms or it offers something that is missing from those traditional norms;
- In the case of the internet if it is disruptive to traditional social norms, then this disruption will be in the form of time displacement and/or attitudinal change.

Before developing this analysis it is useful to explore what is meant by disruptive in this sense. While the word often has negative connotations ('disrupting the existing social order'), the intention here is to use it in a neutral sense. In other words it captures the feeling that things have changed and that traditional modes of interaction have altered. As is clear in chapter six, and above, this change has perceived positive and negative aspects. On one side, is the complaint about less attention to family and social interaction, on the other is the clear impression that women can use the internet to broaden their social interaction beyond that traditionally accepted. Both are disruptive, in that they reflect a change to the previous norms.

Section 7.3.1 summarises the evidence from chapters five and six that the internet is indeed believed to be disruptive by many of those interviewed. One reason for this was it enables a shift from communication in social gatherings to a much more individualised mode of communication using technology. Secondly, chapter six in particular, offers evidence that the internet allowed the respondents a degree of freedom in terms of interaction than was

available in any other way. In summary, the internet both alters traditional modes of interaction and offers something attractive.

The evidence on whether the disruption can be traced to time displacement or attitudinal change is mixed. There is substantial evidence for the first proposition with many respondents indicating they believed that people were using the internet when they would have previously have had to rely on communication in social settings. There is less evidence for attitudinal change. The questionnaires indicate it is only those who make substantial usage (over six hours a day) of the internet who report any shift in attitudes. The interview information in this respect is often anecdotal rather than specific (and tends to imply that attitudinal change happens to the 'other' people not the interviewee). This perhaps leads to a conclusion that the main impact of the internet has been in terms of time disruption but the evidence for any impact in terms of attitudes is more mixed. At this stage the theoretical model is not sufficiently formulated to allow any view as to why this may be the case and whether it is unique to this study or an outcome to be expected more regularly.

However, in terms of Yin's (2009) explanation building approach the combination of the literature review and the empirical results allow some degree of generalisation. What can be asserted is that technology may have a disruptive influence if it both changes a core part of the traditional social norms and it offers something that is not easily available any other way. So the technology is attractive to use and if it is used it will have wider consequences. These propositions can be supported by the findings in this case study.

What is less clear is why this disruption can occur. One possibility is that it is simply in terms of time displacement and the evidence here is that this is the main consequence. People are using the internet and in doing so, making less use of traditional social means of communication. The second possibility is in terms of attitude change, as people adopt views and opinions from outside their society. There is some, but not limited, evidence for this impact in this study in particular in chapter five that it is those who both make substantial use of the internet and do so for gaming, chatting or on social networking who report some changes in attitudes towards Saudi society. What this study cannot address is why the impact is weighted towards time displacement. This may be due to the nature of the sample, the nature of Saudi society at the time of the study or maybe something that has universal applicability. Developing this concept is one item considered in chapter eight.

7.6 *Conclusions*

This chapter has drawn together the literature review in chapters two and three with the results of the questionnaire (chapter five) and interviews (chapter six). This combination first allowed a re-appraisal of the major themes in the literature review and how this allowed an interpretation of the empirical findings. Revising the literature allowed the postulation of an argument along the lines of:

- Saudi society has a traditional family group structure and important parts to this are regular social meetings of family members and that decision making is dominated on patriarchal and age bases;
- There is no reason to believe that the dissatisfaction reported by the younger female interviewees is simply a product of internet access (since the existing social norm allocates them a relatively minor role) but that the internet may allow them the means to escape social restrictions (in effect, it is an attractive alternative);
- This alienation within the existing social system can be partly addressed by internet usage as that allows anonymity and role playing denied in real life.

This allowed the construction of the two element model suggested. That the internet can be disruptive if the mode of interaction is different to that of traditional norms and it allows access to something believed to be attractive (or that is missing in traditional social interaction). The empirical evidence offers support for these propositions. One of the main complaints about the consequence of internet usage is framed in terms of time displacement and that people engage in an individual mode of communication rather than the traditional social mode. Equally it is clear that the internet allows the female interviewees to socialise in a much freer way (anonymous) than they can within the constraints of real life.

Broadly, there is evidence in the questionnaire for both aspects, with heaviest use of the internet (in particular when combined with social media and/or playing on-line games) having an impact both on the individual and on their social relations. However, the interviews suggested a slightly different set of issues. In effect, the internet was more a means for time displacement, and to access a wider social network than was available due to the restrictions on women in terms of face to face social interaction. There was only limited indication that the internet was leading to substantially different social norms.

Chapter 8 / Conclusions to this thesis

8.1 Summarising the Content

The first part of this chapter is a short summary of how this thesis relates first to the literature review (especially as presented in chapter three) and the background material contained in chapter two. Section 8.1.2 follows this by restating the chosen research methodology. Strengths and weaknesses in both the prior theoretical base and the research approach used are evaluated later in this chapter.

8.1.1 Concepts drawn from the existing literature and background material

This dissertation has investigated whether the changing, and increasing, internet usage in the KSA has had any direct impact on the family/society relationships and if it might lead the individuals to neglect the social networks leading to a weakening of social ties. The focus is on Saudi Arabia, a country that has only relatively recently seen large scale take up of the internet and where it is believed, or feared, that the internet has brought in new concepts, norms, and customs. In turn, this is believed to have led to conflict between the family members and a loss of social traditions.

However, as discussed in chapter three, this is a complex and contested field. On the one hand there is a long tradition of ascribing negative social change to the introduction of new technology and the arrival of external attitudes. Even in the context of the internet, in OECD countries it is not clear it has had the impact either hoped for or feared in the early stages. One common suggestion is that the internet, as such, is not addictive but may allow those vulnerable to addictive behaviour an easier means to fulfil their desires. On the other hand, most of the current academic research predates the widespread availability of mobile phone based internet access and there may be a case to argue that this allows a new level of attention to the internet (as opposed to social or family interaction) than was feasible when internet access meant using a PC or laptop.

Equally, as is discussed in chapter two, Saudi Arabia has a traditional form of social society, in particular emphasising the importance of regular interaction within kinship groups based on an extended family. However, the easier access offered by mobile phones, the relatively late, but now substantial, take up of the internet offers a very different mode of

communication. This effectively contrasts the individual mode of communication key to the internet and the social mode of communication key to traditional Saudi norms. As argued in chapter 7, this may be relevant in that the impact of new technology is possibly related to the gap between what it enables and what it replaces.

A related problem was the question of whether or not to make use of non-academic sources. In many academic fields this is not a major issue, some reliance will be placed on non-peer reviewed sources, such as reports from generally respected sources but the bulk of the relevant information can be found in conventional academic books and journals. There are two reasons why this approach may be limiting in this sort of research. First, the technology being studied is evolving quickly, mobile phones and 3 or 4-G modes of access are new but being rapidly adopted. This means that formal studies often report on an earlier technological base and find it hard to keep up with the speed of change. Second, as discussed, especially in chapter four, in the end there is a reliance on capturing attitudes and beliefs given the lack of more formal measures.

However, despite these attractions, in this study such informal sources have not been used. The primary reason is the lack of careful clarification of sources and limits and the over-reliance on statement and assertion. As stressed several times, there is a regular problem of over attributing a given outcome to a recent social change, or, as in this field, identifying the reasons for social problems with the recent expansion of internet usage. This makes this source of information much too unreliable to be relied on in an academic study.

8.1.2 Methodology

In methodological terms understanding the impact of the internet creates a number of problems. First, even if a longitudinal test/retest method was used, the reliance would still be on attitudes and beliefs. Some early studies, reported in chapter three, were concerned with changing usage and could rely on time diaries, take up of the internet, number of computers per household and other quantifiable factors. Here, there is no abstract measure of social change that could be applied and it was thus necessary to rely on people's opinions, first as to whether or not they believed that social changes had happened and, second, whether or not they believed the internet was responsible. This meant a mixed methods design was adopted using both a questionnaire (reported in chapter five) along with a series of interviews

(reported in chapter six). The two samples were built up using purposive or snowball sampling. This is important both for the analysis of the findings and in drawing any wider conclusions from the data.

This research was intended to investigate the perceived impact of the internet on family and social relationships in different aspect directly from the participants. The participants of this study were divided into two groups. The first was a younger group (aged from 18 to 28) with 300 participants who filled out the questionnaire. These were studying at a high school or one of two universities and contain both male and female respondents. The questionnaire was primarily designed to determine how many hours they spent online and for what purpose as well as to explore the impact of their usage on themselves, their family relations and social attitudes.

The second stage was a series of interviews. This only included female interviewees and the sample was built up in two ways. One portion was drawn from those who had completed the questionnaires (so were under 28). The second portion was of individuals aged 28 and over. A few of these were parents to those interviewed in the first group, some were obtained by personal contact, others by referral and finally some by contact using telephone lists. The interviews contributed two elements to the overall research design. The first was to compare views across the generations about the internet and its impact and the second was to understand the nature of usage, how this was changing and what were believed to be the social and familial consequences.

8.2 *Summarising the findings of this research*

The purpose of the current study was to determine the level of changes in the family/social relationships in recent years as substantial internet usage has commenced in Saudi Arabia. In particular, whether or not this has had direct or indirect impact on the traditions, norms and customs of the social systems inside Saudi Arabia? If there were to be any such effect, it was suggested this would be either in terms of time displacement and/or changing attitudes. The former would presumably be evidenced by people preferring to spend time online rather than engage in the traditional round of social and family meetings. The latter would be evidenced by growing alienation from these norms and the adoption of a different world view to that traditionally promoted within Saudi Arabia.

On balance, chapter seven suggests there is evidence for the first impact (time displacement) but only weak evidence for shifting social attitudes. Returning to the questions posed at the beginning of this study, it is now possible to state that there is a believed to be an effect on the family / society relationships principally due to time displacement. The evidence in chapter six indicates that the female respondents found spending time on line an attractive means to escape existing social restrictions. What is less clear though is whether this usage will not just impact on the individual's relationship but it is going to change some attitudes like traditions, norms, and roles. However, the evidence in chapter five does suggest it is those who make the most use of the internet who report the larger shifts in their own attitudes and believed changes in acceptance of cultural norms (table 5-19). In addition, substantial usage of the internet for gaming, chatting and social networks led to reported changes in their own relationship with the internet and their social relationships (tables 5-30 and 5-33).

To some extent, as discussed in chapter five, this study has shown that there is not a direct impact on the relationships with lower levels of internet usage, but for those who make substantial usage, there is a significant impact on their family/social relationships. Thus there is some support for the wider view in the literature that internet usage is potentially problematic once it reaches a particular level.

A different theme was the clear reason given by female respondents for using the internet. It in effect offers a space where they can be anonymous and thus escape social restrictions. There is no strong evidence in either chapter five or six that this is leading to a shift in acceptance of their restrictions in face to face interaction but it does point to one way in which the internet might become connected with shifting social attitudes.

Finally there is some evidence that the growth in mobile phone access may lead to even greater time displacement. On the other hand, it is clear from chapter six that a response in many family and social units is to effectively restrict such access. In effect, the potential problem has been recognised and new social rules adopted to minimise the problem. This is perhaps typical of the ongoing theme that major technologies end up being less disruptive than hoped or feared as social rules adapt.

In summary, there are a number of main findings:

- There is some correlation between volume of usage and impact on social and family interactions;
- In the main, this impact is around time displacement rather than attitudinal change;
- All the female respondents were clear that a major gain of the internet was the ability to interact anonymously and thus evade social restrictions;
- There is some evidence that mobile phone access is making the time displacement problem more profound. On the other hand, there is also evidence of the development of new social rules designed to limit this consequence.

From this, it is possible to reconsider the theoretical framework. Perhaps the strongest element identified is that if a new technology is both attractive (in offering something not available otherwise) and its usage alters existing modes of interaction then it will have an impact. In this research there is evidence that the internet is attractive – at its simplest as a study aid, but also for socialisation and to play games and so on. More importantly, a common response by the female interviewees was to stress the way it enabled them to sidestep the traditional restrictions on how they can interact and when they can interact with others. Thus even if evidence for underlying attitudinal change is limited, the internet, as a technology, can be seen to shift the social norms in Saudi society due to this combination of attractiveness of use and the implications of that use. Not only does it enable a new set of social interaction, it does so in an individualised manner distinct from the social gatherings those constitute traditional Saudi interactions in family settings.

As discussed earlier, mixed methods is a contested research approach. However, the advantage of any research tool that combines quantitative and qualitative data collection is the ability to capture the opinions of a wider range of individuals on the one hand and the explore their attitudes in depth on the other. Thus the quantitative element can help explore ‘what’ is going on in a society and the qualitative element opens the way to explore ‘why’ (at least at the level of the beliefs of the respondents).

In this study, the qualitative aspect has been particularly importance as it allows a richer interpretation of the quantitative data. More importantly it has offered new insights, in

particular the way in which Saudi women see the internet as a means to side-step social restrictions.

8.4 *Research contribution*

As discussed in the introduction, research in this field is problematic. First there is a lack of a coherent theory linking technological change to social and attitudinal change. Second, almost by definition, such a judgement is going to be based on attitudes and beliefs. It may be possible to identify some quantitative abstract factors that can be measured but fundamentally most social change is a product of belief that things are different. Within the OECD, research on the impact of the internet has produced a range of somewhat contradictory findings with this not helped by the speed that the internet has changed, in particular with the recent adoption of mobile phone based access and the adoption of tablets and 3 and 4-G means to connect to the internet.

This study extends this research in several ways. First it considers what might be the impact, not within the OECD, but in a society that has traditionally adopted very different forms of social and familial interaction. Second, it is based on accepting the validity of opinions. This is not the same as arguing that everything that people says is true, but that, especially in a field such as social attitudes, their beliefs are important as a reflection of their experiences. In a non-traditional society, it is feasible the internet could have one of two (or both) implications. The first is time displacement, quite simply spending time online rather than in traditional forms of social interaction. The second is in terms of attitudinal change, in particular, adopting western views of social and economic norms in place of those traditionally prevalent in Saudi Arabia.

This research offers some evidence for the first assertion and contradictory evidence for the second. Not least, there is no strong evidence for widespread attitudinal change (although this has happened for those who make substantial usage of the internet), but even in this respect there is an apparent contradiction. Female respondents report they value the anonymity of the internet as a means to escape social restrictions but there was no presented evidence that this leads to an outright rejection of those norms in face to face settings. Given how fundamental gender roles are in Saudi Arabia (as discussed in chapter two) this is maybe not a surprise, but it does indicate that people may look for a means to escape social restrictions without actually directly challenging those restrictions.

Overall, this does support a view that ongoing research into the impact of the internet needs to take account of issues both within the OECD (as a convenient shorthand for societies that broadly share one consensus about social and economic norms) and in more traditional social systems.

Taken together, this research suggests that technology is more likely to promote isolation, loneliness, and changes in social identity and attitudes in cases where usage is relatively high. This adds to the existing body of literature that has identified a similar correlation (if not causation) between volume of usage and change of attitude. There does seem to be a point at which usage becomes more than just time displacement and starts to have an impact on individual attitudes.

Whilst this study did not confirm that there is a direct internet impact on the family/ society relationships with average usage, it did partially substantiate the argument that heavy usage has an impact on their relationships. Also it did confirm that this leads to some changes in the individual's attitudes, ideas, and traditions.

Finally, this study does point to a significant difference in the lives of female respondents between their on-line and real life interactions. The latter reflect the traditional norms but the former, as it allows anonymity, allows a much greater sense of freedom of expression.

8.5 *Limitations of the current study*

Finally, as in all research there are a number of important limitations that need to be considered. One is in terms of sample selection. The researcher is female and a Saudi national so this allowed a degree of access into Saudi social norms but also presented limits. Saudi society is a very conservative society and people are friendly but on the other hand they set a very high value on privacy in the family or society issues. Also to make contact with a female outside one's family or friends is difficult and mostly will be faced by rejection even if the researcher is the same gender. This particularly affected gaining the trust and co-operation of the older interviewees in this study. Indeed some refused to be interviewed telling the interviewer "go do the interview with your mum", others did not want to be recorded and said "why you don't write it and we will help you". This reaction was one reason why the sampling was driven by personal links being provided either from the researchers own network or from those who had already been interviewed.

Even in terms of sending out the questionnaires, the high school and one of the universities were much more supportive than the other university. In that instance, it was not possible, for example, to speak to students in a classroom setting to gain their agreement to complete the questionnaire.

The final consequence of the sampling problem was that there were no male voices in the interviews. The evidence in chapter five is that there were few significant differences between male and female answers to the questionnaires. Nonetheless, this does represent an important gap. Not least it was impossible to explore with male interviewees whether they found the internet attractive for the same reasons as given by the female interviewees. A related issue is all the respondents live in Riyadh, the Saudi capital. This means there was no discussion with people who lived in smaller towns or rural settings.

Within elements of the wider qualitative research tradition the issue of reflexivity is seen as being important (Watt, 2007). As noted previous, the nature of Saudi society creates several practical challenges. The more obvious is the significant difficulty for any researcher in interviewing members of the opposite sex. However, the nature of family and social ties, combined with a culture of not discussing issues openly with strangers, leaves problems even when the interviews are with the same gender as the researcher.

As discussed about it all over this thesis, the author is a creation of her surroundings. She is a Muslim Saudi woman, who is also a daughter, wife and mother. The hopes of such an individual are described in chapter two. Currently, she is a student abroad, handling the daily life challenges of living and working in a setting which is quite different from her hometown and where she will eventually return.

This has embraced experiences of living as well as working in a country with different language, facing difficult behaviour from some UK natives, hardships in being acknowledged and racism, in addition to her struggles to make friends and growing a social circle.

The field of study and the resultant report which given here comes up from these complementary and sometimes contradictory experiences. From time to time, this proved to be challenging while moving between the cultures of two countries, particularly when there is so much diverse anticipations and experiences of gendered behaviour. A further issue is that, in having young children of her own, who also reside in the UK, but they will also go back to Saudi Arabia and integrate within the expectations of that culture, the practical dynamics of

managing internet access and the challenges this poses are a practical real life challenge.

The thesis has investigated perceptions of how the internet has impacted and modified Saudi society. It is limited by the constraints inflicted and acknowledged as a component of being a woman and it is not written within a content of femininity, Although as discussed in chapter two the influence of feminist theory on Saudi culture and traditions has been addressed, despite of this being unfamiliar to the daily life experience of her life in Saudi Arabia.

The researcher maintained a research diary to facilitate reflections to be compiled and re-checked regularly throughout the research, keeping professional and personal reflections apart. This diary, together with the data collection and process of analysis has let the author to follow her research journey and increased her self-confidence. Reflections based on the decisions with progress of the study were a vital element of the research. Reflexivity within the research permitted the author to reflect and become accustomed to her role in the procedure of generating and analysing data (Watt, 2007). This may signify that the study cannot be reproduced directly, nevertheless as Saudi women the internal nature of the researcher in an opposition to the outsider views of those, for instance, Long (2005) which is an optimistic contribution in gaining knowledge, understanding and approving opportunities as well as limitations faced by the women in the country.

Overall, a number of caveats need to be noted regarding the present study which can be summarised as;

- Researchers find it a lot more difficult to deal with the social phenomena in traditional countries (developing countries) using the same tools, and methods which are used in developed countries.
- Gaining consent to be interviewed is not easy and depends on the individual understanding the purpose – this can lead to skewing the sample to those who are willing to participate.
- The gender issues in states such as Saudi Arabia are another limit to building a broad interview sample.
- In countries such as Saudi Arabia it is not easy to be willing to express yourself openly when talking to a relative stranger.
- There is a particular problem with researching the internet in that it is changing so quickly. As such it is hard to compare research over time as the nature of what is

being studied tends to alter. A similar survey, conducted 10 years ago, would have seen access dependent on telephone lines, carried out from fixed PCs or laptops, and only a few would have had access. In addition, access speeds in Saudi Arabia were very slow, thus further limiting usage. It is not impossible that the next 10 years will see equally profound changes in both the means to access the internet and the type of interaction available.

- In addition, there is a problem that the internet is not the only social change in society at any one time. The Saudi economy is altering, there is growing emphasis on ‘Saudization’ of the work force (i.e. less dependence on foreign workers) and more Saudis are travelling abroad to study or work. These are all potential sources of changes to social attitudes and it is difficult, if not impossible, to isolate the impact of one cause of change from the others.
- There is a problem in measuring attitudes. There is a shortage of formal tools, there is a reliance on individual beliefs (which may be wrong, even if genuinely held) and while it is important to critically review what is said, in the end, this type of research has to take the reported views seriously as there is no other source of relevant information.

8.6 *Recommendations for further work*

It is recommended that further research be undertaken in the following areas: family relationships, inter-family changes, and family/society interaction, and into behaviour changes both inside family groups and in wider society in response to globalization. Future research should therefore concentrate on the investigation of the impact of the technology on the family and society. Related to this, is to pay more attention to adapting research methods which might be more suitable for other societies.

There are a number of important points which need to be considered; first the importance of transparency, credibility and caution in the research especially in terms of conducting a study within a society which has different expectations of privacy and may be less understanding of the goals of this type of research. In addition, there is a need to think about how to conduct this sort of in-depth social attitude research in a society with strict gender separation.

An interesting development would be to adopt a comparative research design between individuals within the same society with other individuals in different societies to find out if

there are any differences between such groups in term of changes in attitudes, relationships, traditions and norms. Existing comparative studies are currently largely reliant on completion of on-line questionnaires and focussed on quantitative measures (for example the various Pew Global surveys or those conducted by the Internet Statistics Compendium) and lack the depth offered by face to face interviews. As such there is a need for research that can take account of the complexities of a society and its response to the internet rather than rely on more quantifiable measures.

In general, this study offers a number of useful findings. The basic research method acknowledges the problems of research when dependent on attitudes and beliefs and was constructed to gather this information in a way that could be tested. Thus the interviews and questionnaires could be compared and the basic interview analysis relied on working from the data back towards assumptions rather than looking for confirmation or contradiction of the original hypotheses.

In terms of findings, there is substantial evidence that the internet is proving disruptive in terms of time displacement. There is no clear evidence about attitudinal change (except possibly for those making the heaviest use). On the other hand, it is clear that spending time on line is attractive for many Saudis, especially for women as a means to sidestep social restrictions. Equally there is some evidence of the emergence of rules in family and social settings that are designed to limit internet access in particular circumstances.

Appendix A

The impact of changing usage of the internet on family and social relations in the Kingdom of Saudi Arabia.

I would like to invite you to take part in this study. So you need to understand what this study is for, why it is being done and what it involves for you.

Please read this information sheet carefully. If there is anything you want to ask about or if you need more information don't hesitate to contact me.

Title of the project

The impact of changing usage of the internet on family and social relations in the Kingdom of Saudi Arabia.

What is the Aim of the study?

This research aims to investigate if there is any change in the Saudi family relation during the recent years. Then it will find out what this change is and why it has happened, in particular if the recent growth of internet uses is responsible.

Why you have been invited to take part in the study?

You study in the selected high school, university in Saudi Arabia. So I have permission from the head of the school, rector of the university to ask you, if you agree to take a part in this study.

Do I have to take part?

- No you don't have to, but if you decide to take part in this study you need to read this information sheet carefully before you sign the consent form.
- If you don't want to take part or you want to withdraw at any time; it is up to you.

What will I have to do?

All participants will be given a copy of questions to answer them. Answering these questions will take about 20 minutes.

Are there any risks to me taking part in this study? Definitely No.

What are the benefits to me taking part in this study?

This study will benefit to improve family/ society relation so you will be contributing in this study.

Will my answers be kept confidential?

Yes, all your information will be dealt with confidence and I will follow an ethical practice. All information about you (name, age, and address) will be removed so that you can't be identified.

All study data will be kept in safe place.

What if there is a problem or I have any questions about the study?

If you have any question or there is anything not clear please contact the researcher:

Asma Alolyan on 00966(504448383)

Email: ASMA.ALOLYAN@stu.mmu.ac.uk

If you have any complaints, you can contact my PhD supervisor:

Dr Jois Stansfield on 0161(2472577)

Email: J.Stansfield@mmu.ac.uk

What will happen to the results of the research study?

The research results might be published in an educational journal. In this study no participants will be identifiable.

Who is funding the study?

Saudi Arabia government is funding this study.

Who has checked that the study is OK?

The study has been approved by the MMU and Local Authority ethics bodies.

Appendix B

Consent form

Title: The impact of changing usage of the internet on family and social relations in the Kingdom of Saudi Arabia.

Name of Researcher:

- 1/ I have received a copy of the information sheets of this study which had explained to me then I read it and understand it.
- 2/ I have got enough time to consider my decision to consent to take a part in this study.
- 3/ I know that I'm free to withdraw at any time without giving any reason.
- 4/ I give my permission for the responsible individuals from Manchester metropolitan university to look at my data which had collected during this study.
- 5/ I agree to take part in above study.

Name of participant: _____

Date: _____

Signature: _____

Name of researcher: _____

Date: _____

Signature: _____

NB: copy for the participant, and copy for researcher.

Appendix C

Interview guide

1. Amount of daily time using the internet?
2. Accessing the internet (mobile phone, laptop etc.)?
3. Use of the internet?
4. Any use of social networking?
5. Internet versus face to face relationships/ friendships?
6. Posting opinions and using real names or remaining anonymous?
7. Any internet impacts on family relationships?
8. Any internet impact on attitudes and beliefs?

Appendix D

A. Impacts of the internet on the individuals:

hours									
Questions	1	2	3	4	5	6	7	12+	
1. How many hours per day do you spend on the internet?									
a. <i>How many hours per day do you use the internet for studying?</i>									
b. <i>How many hours per day do you use the internet for emailing?</i>									
c. <i>How many hours per day do you use the internet to get information?</i>									
d. <i>How many hours per day do you use the internet for searching?</i>									
e. <i>How many hours per day do you use the internet for gaming and chatting?</i>									
f. <i>How many hours per day do you use the internet in blogging or social network (facebook, twitter...etc)?</i>									

Sentences \ Options	Strongly agree	agree	neutral	disagree	Strongly disagree
2. I don't think the internet is the outlet for me.					
3. I don't use the internet to say anything I can't say it in reality.					
4. I don't find moral or emotional support through the internet.					
5. There is no direct impact of the internet on my personality or beliefs.					
6. I can't express my original identity through the internet.					
7. I can't share any face to face events.					
8. I haven't got a lot in common with others around me.					
9. I can't make any relationships easily.					
10. I have contradiction between my identity and my opinion.					
11. I feel safe to contact others.(anonymity)					
12. I feel nervous when the internet crashes, even for a while.					
13. I feel more confident when I use the internet.					
14. The internet relations are stronger than face to face relations.					
15. I feel more comfortable to talk about myself, my issues through the internet.					
16. My family complains that I spend long time on the internet.					

B. impacts of the internet on family relationship:

options How often	always	often	Some time	Rarely	never
17. Do you feel you are an active member in your family?					
18. Do you share your family to make a decision?					
19. Do you join your family gathering without any the internet connection?					
20. Do you feel lonely?					
21. Do you feel isolated from those around you?					
22. Do you feel you have got a strong relationship with your family?					
23. Do you feel that the time you spend with your family is boring?					
24. Do you find someone of your family who you can talk with about your private issues?					
25. Do you feel comfortable to discuss your special opinions, ideas with your family?					
26. Do you feel family meetings are meaningful?					
27. Do you feel that there are a lot in common between you and your family?					
28. Do you feel you spend more time online than with your family?					
29. Is there certain issue or interest that you share with your friends on the internet but not with your parent?					
30. Do you feel that your older family members (parents, grandparents) can't understand you? 31. Do you feel that your older family members (parents, grandparents) don't fit with your thought?					

32. Do you feel that there are some opinions you are afraid to talk about with your parents?					
33. Do the technology advancements like smart phones, taps...etc increase the time which you spend on the internet?					
34. Do you think the technology advancements make the life easier by connecting you with all the people in world?					
35. Do you use your mobile phone to get access to the internet?					

C. impacts of the internet on the society relationship:

options Sentences	Strongly agree	agree	neutral	disagree	Strongly disagree
36. I don't like to be involved in social events.					
37. I prefer using the internet more than going out.					
38. Sometimes I withdraw from social events because I feel it is not turning to me.					
39. I have got many views, ideas which don't fit with my social norms.					
40. I have difficulty to engage in my society.					
41. I think there are many undesirable social commitments.					
42. I think the internet has a role in breaking traditional barriers.					
43. I think the internet plays a very important role in changing a lot of customs & traditions in my society.					
44. I think the internet is a place to interchange with different cultures, opinions, & views.					
45. I think the internet help to discover many cultures.					
46. I think the internet has many things that don't fit with Saudi society beliefs, & values.					
47. I think that one of the aims of the internet is to change the traditional conservative society.					
48. I wish I lived in civilized societies similar to those which I saw on the internet.					

D. wellbeing measure:

Sentences \ Options	Strongly agree	agree	neutral	disagree	Strongly disagree
49.Over all, I am satisfied with my life					
50.On the whole I feel confident and positive about myself					
51. I am not afraid to express my opinions even if they are in opposition to the opinions of most of people.					
52. I can't stop thinking about the future.					
53. In last 4 months how often do you felt that you can control your anger?					
54. In last 4 months how often do you felt that you can control your nervous?					
55. In last 4 months how often do you felt that you were top in everything?					
56. In last 4 months how often do you felt you were coping effectively with all changes in your life?					

Participant Preliminary information

Your age is: ____

Your gender is: Male female

Your occupation: student employee Non- employee

Your education qualification: High School University

Your marital status: single married

Your family member's number: ____

We kindly ask you provide us with your contact details (phone no., email...etc) to enable the researcher to reach you if needed, all personal details will treated as confidential and will not be released to any party. (Optional):

APPENDIX E

Table :Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
2	7.588	14.878	14.878	7.588	14.878	14.878	4.723	9.260	9.260
3	4.386	8.600	23.477	4.386	8.600	23.477	3.905	7.656	16.916
4	3.202	6.278	29.755	3.202	6.278	29.755	3.657	7.171	24.087
5	2.379	4.664	34.420	2.379	4.664	34.420	3.600	7.058	31.145
6	2.133	4.182	38.602	2.133	4.182	38.602	3.151	6.178	37.323
7	1.890	3.706	42.308	1.890	3.706	42.308	2.542	4.985	42.308
8	1.848	3.624	45.932						
9	1.661	3.257	49.189						
10	1.496	2.933	52.122						
11	1.316	2.581	54.703						
12	1.258	2.466	57.169						
13	1.157	2.269	59.438						
14	1.110	2.176	61.614						
15	1.022	2.003	63.618						
16	1.009	1.977	65.595						
17	.974	1.910	67.505						
18	.920	1.804	69.309						
20	.873	1.713	71.022						
21	.854	1.674	72.697						
22	.807	1.583	74.279						
23	.759	1.488	75.767						
24	.721	1.413	77.180						
25	.714	1.401	78.581						
26	.671	1.315	79.897						
27	.655	1.284	81.181						
28	.598	1.172	82.353						

29	.575	1.128	83.480						
30	.563	1.104	84.584						
31	.531	1.041	85.626						
32	.517	1.013	86.639						
33	.492	.966	87.605						
34	.481	.943	88.548						
35	.442	.868	89.416						
36	.433	.849	90.265						
37	.423	.829	91.094						
38	.405	.795	91.889						
39	.379	.744	92.632						
40	.355	.695	93.328						
41	.348	.683	94.010						
42	.343	.673	94.684						
43	.336	.659	95.343						
44	.303	.594	95.937						
45	.294	.577	96.513						
48	.279	.547	97.060						
49	.271	.530	97.590						
50	.242	.474	98.064						
51	.222	.436	98.500						
53	.210	.411	98.912						
54	.201	.394	99.306						
55	.192	.376	99.682						
56	.162	.318	100.000						

Extraction Method: Principal Component Analysis.

NB: (question numbers 19, 46, 47, and 52) were dropped from the analysis.

Table: Rotated Component Matrix^a

	Component					
	1	2	3	4	5	6
2. I don't think the internet is the outlet for me.		-.512				
3. I don't use the internet to say anything I can't say it in reality.		-.383				
4. I don't find moral or emotional support through the internet.		-.540				
5. There is no direct impact of the internet on my personality or beliefs.		-.500				
6. I can't express my original identity through the internet.			.465			
7. I can't share any face to face events.			.636			
8. I haven't got a lot in common with others around me.			.622			
9. I can't make any relationships easily.			.533			
10. I have contradiction between my identity and my opinion.			.428	.405		
11. I feel safe to contact others.(anonymity)			.474			
12. I feel nervous when the internet crashes, even for a while.		.511				
13. I feel more confident when I use the internet.		.524				
14. The internet relations are stronger than face to face relations.		.515				
15. I feel more comfortable to talk about myself, my issues through the internet.		.559				
16. My family complains that I spend long time on the internet.		.605				
17. Do you feel you are an active member in your family?	.536					
18. Do you share your family to make a decision?	.559					
20. Do you feel lonely?	-.500					
21. Do you feel isolated from those around you?	-.491					
22. Do you feel you have got a strong relationship with your family?	.765					

23. Do you feel that the time you spend with your family is boring?	-.622					
24. Do you find someone of your family who you can talk with about your private issues?	.493					
25. Do you feel comfortable to discuss your special opinions, ideas with your family?	.697					
26. Do you feel family meetings are meaningful?	.644					
27. Do you feel that there are a lot in common between you and your family?	.752					
28. Do you feel you spend more time online than with your family?		.582				
29. Is there certain issue or interest that you share with your friends on the internet but not with your parent?				.621		
30. Do you feel that your older family members (parents, grandparents) can't understand you?				.722		
31. Do you feel that your older family members (parents, grandparents) don't fit with your thought?				.719		
32. Do you feel that there are some opinions you are afraid to talk about with your parents?				.637		
33. Do the technology advancements like smart phones, taps...etc increase the time which you spend on the internet?				.431		
34. Do you think the technology advancements make the life easier by connecting you with all the people in world?				.372		
35. Do you use your mobile phone to get access to the internet?						
36. I don't like to be involved in social events.			.447			
37. I prefer using the internet more than going out.		.470	.369			
38. Sometimes I withdraw from social events because I feel it is not turning to me.			.378			

39. I have got many views, ideas which don't fit with my social norms.				.375		
40. I have difficulty to engage in my society.			.479			
41. I think there are many undesirable social commitments.				.393		
42. I think the internet has a role in breaking traditional barriers.						.511
43. I think the internet plays a very important role in changing a lot of customs & traditions in my society.						.604
44. I think the internet is a place to interchange with different cultures, opinions, & views.						.759
45. I think the internet help to discover many cultures.						.708
48. I wish I lived in civilized societies similar to those which I saw on the internet.				.376		
49. Over all, I am satisfied with my life					.423	
50. On the whole I feel confident and positive about myself					.583	
51. I am not afraid to express my opinions even if they are in opposition to the opinions of most of people.					.452	
53. In last 4 months how often do you felt that you can control your anger?					.660	
54. In last 4 months how often do you felt that you can control your nervous?					.686	
55. In last 4 months how often do you felt that you were top in everything?					.670	
56. In last 4 months how often do you felt you were coping effectively with all changes in your life?					.712	

Table: ANOVA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Family Relationship/Attitude	Between Groups	.133	3	.044	.101	.959
	Within Groups	129.269	295	.438		
	Total	129.401	298			
Internet impact.	Between Groups	29.613	3	9.871	24.082	.000
	Within Groups	121.329	296	.410		
	Total	150.943	299			
Individual identity	Between Groups	2.683	3	.894	2.002	.114
	Within Groups	132.257	296	.447		
	Total	134.941	299			
Social relationship/ attitude.	Between Groups	7.244	3	2.415	6.092	.000
	Within Groups	116.925	295	.396		
	Total	124.169	298			
Wellbeing.	Between Groups	2.071	3	.690	1.846	.139
	Within Groups	109.573	293	.374		
	Total	111.644	296			
Culture impact.	Between Groups	5.928	3	1.976	5.038	.002
	Within Groups	115.305	294	.392		
	Total	121.233	297			

Multiple Comparisons								
LSD								
Dependent Variable	(I) Internet_use	(J) Internet_use	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
Internet impact.	3 hours or less	4-5 hours	-.38958	.08928	.000	-.5653	-.2139	
		6-7 hours	-.49458	.10934	.000	-.7098	-.2794	
		12 hours or more	-.98233	.12676	.000	-1.2318	-.7329	
	4-5 hours	3 hours or less	.38958	.08928	.000	.2139	.5653	
		6-7 hours	-.10500	.11930	.380	-.3398	.1298	
		12 hours or more	-.59274	.13545	.000	-.8593	-.3262	
	6-7 hours	3 hours or less	.49458	.10934	.000	.2794	.7098	
		4-5 hours	.10500	.11930	.380	-.1298	.3398	
		12 hours or more	-.48774	.14944	.001	-.7818	-.1936	
	12 hours or more	3 hours or less	.98233	.12676	.000	.7329	1.2318	
		4-5 hours	.59274	.13545	.000	.3262	.8593	
		6-7 hours	.48774	.14944	.001	.1936	.7818	
	Social relationship/ attitude.	3 hours or less	4-5 hours	-.18499	.08790	.036	-.3580	-.0120
			6-7 hours	-.32064	.10761	.003	-.5324	-.1089
			12 hours or more	-.44131	.12473	.000	-.6868	-.1958
4-5 hours		3 hours or less	.18499	.08790	.036	.0120	.3580	
		6-7 hours	-.13565	.11731	.248	-.3665	.0952	
		12 hours or more	-.25632	.13319	.055	-.5184	.0058	
6-7 hours		3 hours or less	.32064	.10761	.003	.1089	.5324	
		4-5 hours	.13565	.11731	.248	-.0952	.3665	
		12 hours or more	-.12067	.14695	.412	-.4099	.1685	
12 hours or more	3 hours or less	.44131	.12473	.000	.1958	.6868		

		4-5 hours	.25632	.13319	.055	-.0058	.5184
		6-7 hours	.12067	.14695	.412	-.1685	.4099
Culture impact.	3 hours or less	4-5 hours	-.10215	.08779	.246	-.2749	.0706
		6-7 hours	-.31488	.10704	.004	-.5255	-.1042
		12 hours or more	-.38298	.12407	.002	-.6272	-.1388
	4-5 hours	3 hours or less	.10215	.08779	.246	-.0706	.2749
		6-7 hours	-.21273	.11696	.070	-.4429	.0175
		12 hours or more	-.28083	.13272	.035	-.5420	-.0196
	6-7 hours	3 hours or less	.31488	.10704	.004	.1042	.5255
		4-5 hours	.21273	.11696	.070	-.0175	.4429
		12 hours or more	-.06810	.14617	.642	-.3558	.2196
	12 hours or more	3 hours or less	.38298	.12407	.002	.1388	.6272
		4-5 hours	.28083	.13272	.035	.0196	.5420
		6-7 hours	.06810	.14617	.642	-.2196	.3558

Table : Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	95% Confidence Interval of the Difference	
						Lower	Upper
Family Relationship/Attitude	4.128	.043	.486	143.738	.628	-.12282	.20281
Internet impact.	1.897	.169	-.052	298	.959	-.19163	.18186
Individual identity	.157	.693	-.514	298	.608	-.22260	.13038
Social relationship/attitude.	.767	.382	-.170	297	.865	-.18445	.15505
Wellbeing.	1.802	.181	-.149	295	.881	-.17397	.14942
Culture impact.	.002	.961	1.226	296	.221	-.06321	.27218

Table : Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	95% Confidence Interval of the Difference	
						Lower	Upper
Family Relationship/Attitude	.000	.986	-.094	297	.925	-.17332	.15746
Internet impact.	.625	.430	1.299	298	.195	-.06041	.29499
Individual identity	.001	.971	-.684	298	.495	-.22687	.10986
Social relationship/ attitude.	3.589	.059	.059	297	.953	-.15716	.16687
Wellbeing.	7.490	.007	1.356	191.340	.177	-.04453	.24023
Culture impact.	.226	.635	.170	296	.865	-.14663	.17430

Table : Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	95% Confidence Interval of the Difference	
						Lower	Upper
Family Relationship/Attitude	.019	.891	-.668	297	.504	-.28386	.13994
Internet impact.	.966	.327	1.140	298	.255	-.36018	.09598
Individual identity	.587	.444	1.264	298	.207	-.35399	.07709
Social relationship/ attitude.	1.137	.287	-.277	297	.782	-.23921	.18016

Wellbeing.	.778	.378	1.013	295	.312	-.09578	.29905
Culture impact.	.917	.339	.393	296	.695	-.16454	.24668

Table: Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	95% Confidence Interval of the Difference	
						Lower	Upper
Family Relationship/Attitude	1.058	.305	-.956	297	.340	-.30619	.10597
Internet impact.	1.327	.250	1.108	298	.269	-.09700	.34702
Individual identity	.358	.550	-.107	298	.915	-.22177	.19891
Social relationship/attitude.	2.082	.150	.430	297	.668	-.15797	.24626
Wellbeing.	.080	.777	.907	295	.365	-.10553	.28580
Culture impact.	4.530	.034	2.001	56.866	.050	-.00021	.46312

Table: ANOVA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Family Relationship/Attitude	Between Groups	1.441	3	.480	1.088	.355
	Within Groups	123.710	280	.442		
	Total	125.151	283			
Internet impact.	Between Groups	2.648	3	.883	1.721	.163
	Within Groups	144.130	281	.513		
	Total	146.778	284			
Individual identity	Between Groups	.411	3	.137	.296	.828
	Within Groups	129.969	281	.463		
	Total	130.380	284			
Social relationship/ attitude.	Between Groups	2.322	3	.774	1.906	.129
	Within Groups	113.683	280	.406		
	Total	116.005	283			
Wellbeing.	Between Groups	.412	3	.137	.357	.784
	Within Groups	106.904	278	.385		
	Total	107.316	281			
Culture impact.	Between Groups	1.727	3	.576	1.402	.243
	Within Groups	114.560	279	.411		
	Total	116.287	282			

Table: ANOVA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Family Relationship/Attitude	Between Groups	1.233	3	.411	.927	.428
	Within Groups	125.441	283	.443		
	Total	126.675	286			
Internet impact.	Between Groups	1.511	3	.504	.980	.402
	Within Groups	145.860	284	.514		
	Total	147.371	287			
Individual identity	Between Groups	3.428	3	1.143	2.532	.057
	Within Groups	128.144	284	.451		
	Total	131.572	287			
Social relationship/ attitude.	Between Groups	1.501	3	.500	1.222	.302
	Within Groups	115.831	283	.409		
	Total	117.332	286			
Wellbeing.	Between Groups	.662	3	.221	.570	.635
	Within Groups	108.892	281	.388		
	Total	109.555	284			
Culture impact.	Between Groups	2.199	3	.733	1.825	.143
	Within Groups	113.681	283	.402		
	Total	115.879	286			

Table: ANOVA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Family Relationship/Attitude	Between Groups	.378	2	.189	.435	.648
	Within Groups	125.349	288	.435		
	Total	125.727	290			
Internet impact.	Between Groups	.930	2	.465	.909	.404
	Within Groups	147.814	289	.511		
	Total	148.744	291			
Individual identity	Between Groups	1.236	2	.618	1.364	.257
	Within Groups	130.971	289	.453		
	Total	132.207	291			
Social relationship/attitude.	Between Groups	.178	2	.089	.212	.809
	Within Groups	120.858	288	.420		
	Total	121.036	290			
Wellbeing.	Between Groups	1.309	2	.655	1.731	.179
	Within Groups	108.539	287	.378		
	Total	109.848	289			
Culture impact.	Between Groups	.006	2	.003	.007	.993
	Within Groups	117.376	287	.409		
	Total	117.381	289			

Table: ANOVA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Family Relationship/Attitude	Between Groups	.693	3	.231	.527	.664
	Within Groups	119.163	272	.438		
	Total	119.856	275			
Internet impact.	Between Groups	.376	3	.125	.245	.865
	Within Groups	140.045	273	.513		
	Total	140.421	276			
Individual identity	Between Groups	.042	3	.014	.030	.993
	Within Groups	128.278	273	.470		
	Total	128.320	276			
Social relationship/ attitude.	Between Groups	.942	3	.314	.767	.513
	Within Groups	111.410	272	.410		
	Total	112.353	275			
Wellbeing.	Between Groups	.659	3	.220	.584	.626
	Within Groups	101.486	270	.376		
	Total	102.144	273			
Culture impact.	Between Groups	1.297	3	.432	1.040	.375
	Within Groups	112.645	271	.416		
	Total	113.942	274			

Table: ANOVA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Family Relationship/Attitude	Between Groups	.818	3	.273	.623	.601
	Within Groups	122.088	279	.438		
	Total	122.906	282			
Internet impact.	Between Groups	11.932	3	3.977	8.548	.000
	Within Groups	130.288	280	.465		
	Total	142.220	283			
Individual identity	Between Groups	1.298	3	.433	.983	.401
	Within Groups	123.257	280	.440		
	Total	124.554	283			
Social relationship/attitude.	Between Groups	4.391	3	1.464	3.748	.011
	Within Groups	108.940	279	.390		
	Total	113.331	282			
Wellbeing.	Between Groups	.864	3	.288	.751	.523
	Within Groups	106.226	277	.383		
	Total	107.090	280			
Culture impact.	Between Groups	.115	3	.038	.094	.963
	Within Groups	113.030	278	.407		
	Total	113.145	281			

Multiple Comparisons							
LSD							
Dependent Variable	(I) game_Chat_internet	(J) game_Chat_internet	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Internet impact.	3 hours or less	4-5 hours	-.21030	.11181	.061	-.4304	.0098
		6-7 hours	-.65362*	.14007	.000	-.9293	-.3779
		12 hours or more	-.37769*	.17739	.034	-.7269	-.0285
	4-5 hours	3 hours or less	.21030	.11181	.061	-.0098	.4304
		6-7 hours	-.44332*	.16538	.008	-.7689	-.1178
		12 hours or more	-.16739	.19798	.399	-.5571	.2223
	6-7 hours	3 hours or less	.65362*	.14007	.000	.3779	.9293
		4-5 hours	.44332*	.16538	.008	.1178	.7689
		12 hours or more	.27593	.21521	.201	-.1477	.6996
	12 hours or more	3 hours or less	.37769*	.17739	.034	.0285	.7269
		4-5 hours	.16739	.19798	.399	-.2223	.5571
		6-7 hours	-.27593	.21521	.201	-.6996	.1477
Social relationship/ attitude.	3 hours or less	4-5 hours	-.01793	.10247	.861	-.2197	.1838
		6-7 hours	-.37175*	.12835	.004	-.6244	-.1191
		12 hours or more	-.30899	.16253	.058	-.6289	.0110
	4-5 hours	3 hours or less	.01793	.10247	.861	-.1838	.2197
		6-7 hours	-.35382*	.15149	.020	-.6520	-.0556
		12 hours or more	-.29106	.18136	.110	-.6481	.0660
	6-7 hours	3 hours or less	.37175*	.12835	.004	.1191	.6244
		4-5 hours	.35382*	.15149	.020	.0556	.6520
		12 hours or more	.06276	.19714	.750	-.3253	.4508
12 hours or more	3 hours or less	.30899	.16253	.058	-.0110	.6289	
	4-5 hours	.29106	.18136	.110	-.0660	.6481	
	6-7 hours	-.06276	.19714	.750	-.4508	.3253	

*. The mean difference is significant at the 0.05 level.

Table: ANOVA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Family Relationship/Attitude	Between Groups	.447	3	.149	.336	.799
	Within Groups	122.858	277	.444		
	Total	123.306	280			
Internet impact.	Between Groups	13.763	3	4.588	9.908	.000
	Within Groups	128.717	278	.463		
	Total	142.480	281			
Individual identity	Between Groups	.423	3	.141	.300	.825
	Within Groups	130.761	278	.470		
	Total	131.184	281			
Social relationship/attitude.	Between Groups	5.271	3	1.757	4.498	.004
	Within Groups	108.186	277	.391		
	Total	113.457	280			
Wellbeing.	Between Groups	1.077	3	.359	.936	.424
	Within Groups	105.418	275	.383		
	Total	106.494	278			
Culture impact.	Between Groups	2.373	3	.791	1.965	.120
	Within Groups	111.134	276	.403		
	Total	113.507	279			

Multiple Comparisons								
Tamhane								
Dependent Variable	(I) Social_Networking_Internet	(J) Social_Networking_Internet	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
Internet impact.	3 hours or less	4-5 hours	.38713*	.09384	.000	-.6390	-.1353	
		6-7 hours	.72642*	.13295	.000	-1.1140	-.3388	
		12 hours or more	-.49606	.36708	.781	-1.8859	.8938	
	4-5 hours	3 hours or less	.38713*	.09384	.000	.1353	.6390	
		6-7 hours	-.33929	.14700	.159	-.7545	.0759	
		12 hours or more	-.10893	.37240	1.000	-1.4873	1.2694	
	6-7 hours	3 hours or less	.72642*	.13295	.000	.3388	1.1140	
		4-5 hours	.33929	.14700	.159	-.0759	.7545	
		12 hours or more	.23036	.38413	.993	-1.1324	1.5931	
	12 hours or more	3 hours or less	.49606	.36708	.781	-.8938	1.8859	
		4-5 hours	.10893	.37240	1.000	-1.2694	1.4873	
		6-7 hours	-.23036	.38413	.993	-1.5931	1.1324	
	Social relationship/ attitude.	3 hours or less	4-5 hours	-.23815	.08877	.051	-.4767	.0004
			6-7 hours	-.35224	.19057	.403	-.9201	.2156
			12 hours or more	-.52585	.23549	.327	-1.4049	.3532
4-5 hours		3 hours or less	.23815	.08877	.051	-.0004	.4767	
		6-7 hours	-.11409	.20070	.994	-.6983	.4701	
		12 hours or more	-.28770	.24376	.854	-1.1537	.5783	
6-7 hours		3 hours or less	.35224	.19057	.403	-.2156	.9201	
		4-5 hours	.11409	.20070	.994	-.4701	.6983	
		12 hours or more	-.17361	.29641	.993	-1.0812	.7340	
12 hours or more		3 hours or less	.52585	.23549	.327	-.3532	1.4049	
		4-5 hours	.28770	.24376	.854	-.5783	1.1537	
		6-7 hours	.17361	.29641	.993	-.7340	1.0812	

*. The mean difference is significant at the 0.05 level.

Appendix F

Sample of interviews (translated)

Group A: under 28 years

Nuha interview

-**Researcher:** Hi. Is it Nuha?

- Yes. I am Nuha.

- **Researcher:** can I ask you about the internet. What do you think people here in Saudi Arabia use it for?

- For everything!

- **Researcher:** like what?

- Anything in daily life. People use it for searching about things or for their study or entertainment.

- **Researcher:** can you be more specific and tell me what is it mostly used for in your opinion?

- I think the major use is a learning resource and for getting more knowledge and information in general.

- **Researcher:** do you surf the internet on daily basis?

- Yes.

- **Researcher:** How many hours?

- On average I spend 6 hours a day. But my emails and social network accounts are on my laptop and they are open all the time. I tend for instance to check my email every half an hour.

- **Researcher:** I know that you a college student. Tell me what do you do when you go home? How do you use the internet?

- I usually have lunch and stay in my room. I keep my laptop in my room and when I go outside my room I also carry it with me.

- **Researcher:** do go online using your laptop or your Smartphone?

- My laptop.

- **Researcher:** so what is major reason for spending 6 hours a day online?

- In fact I mainly use the internet for my study.

- **Researcher:** what about holidays or weekends when you don't have study?

- Hmm I mainly use it for downloading and reading books. Sometimes I watch YouTube videos.

- **Researcher:** do you think you have more freedom on the internet to put your opinions or thoughts and talk about things that you cannot talk about in your family?

- may be. Especially in twitter.

- **Researcher:** in twitter, do you use real name in your account or prefer to use a fake name?

- No I use my real name.

- **Researcher:** a lot of Saudi girls who I met they told me that they use a fake name in social networks to express their opinions. What do you think?

- I don't know. But I and my friends don't have any problem with showing our real identities on twitter. Those who hide their real names when they express their opinions on the internet are afraid of being known and blamed by our conservative society.

- **Researcher:** what is the most popular social network that you use? Facebook or twitter?

- Of course twitter.

- **Researcher:** do you think the internet has effect on the Saudi family relationships?

- I think it has a positive effect.

-**Researcher:** How?

- I think the internet increased freedom of expression and communication between people in Saudi society. It is true that family members sit together with everybody holding his laptop or smart phone. However, People now share social issues and talk about everything and this create more opportunities for the family to share public issues and chat about them.

- **Researcher:** do you have a family gathering for evening coffee?

- Not every day. But when we do I have to carry my laptop with me! Yes. I am addicted to the internet.

- **Researcher:** do you think that limit your participation and social presence with your family?

- Hmm not really. In my perspective, because I am not very talkative when I sit with others, the internet helped me to be more sociable because when I find interesting stuff on the internet I talk about them and share them with my family.

- **Researcher:** do you believe in online relationships or friendships? Are they equivalent to real life friendships?

- There is no one answer to this question. I might find people on the internet who resemble my way of thinking and the way I look to life and things. However, real life friendships or relationships are much better in fulfilling my emotional needs.

- **Researcher:** is it possible for you to have a friend from the internet?
- I think the internet friends are for the internet. There may be strong feelings and friendship between people on the internet but I personally do not prefer to take such a relationship into another level and make a real friendship. Online friends are for my online world and real friends are for my real worlds!
- **Researcher:** so you have two different worlds?
- I don't see a problem with that. Sometimes you need to escape your real world or life.
- **Researcher:** ok. Let's talk about your family and the internet. Did the internet affect your daily family relationships?
- Yes. I think it did.
- **Researcher:** in what way?
- you know for example when I come home after college and it's lunch time I sometimes don't have lunch with my family because I had an internet chat with my friends on the internet and my parents end up with having lunch alone.
- **Researcher:** so you think the internet has altered your family relationships?
- In case of my family it did but not to a large extent because my family don't have that strong rules in the house in terms of family gatherings. My parents are not strict and they don't complain about that.
- **Researcher:** what about the effect of the internet on the Saudi families in general?
- I think many Saudi families have some kind of conservative pattern of family gatherings and social events and I definitely believe that the internet has disturbed that shape of family relationships.
- **Researcher:** Last question: do you think that the internet has an effect on people's personalities?
- A lot. And in my case, it was a positive one. But it can have a negative effect in children or teenagers or people who are not well educated. I know a girl who became more violent because of the materials she was exposed to on the internet. I know another girl whose religious belief has been changed in a negative way. But these are rare examples in my opinions. But overall, I believe the internet positive effects on individual's personality are far more than the negative effect.

Group B: 28 years and above

zenah interview

-Researcher: Hi. Is this zenah?

- Yes. I am Zenah.

- Researcher: Hi. What do you think people in Saudi Arabia use the internet for?

- I think they use the internet mostly to search for information or to read newspapers or for entertainment. Children use it for gaming.

Researcher: and how many hours you spend on the internet?

- Only when I need to. I cannot give you a number of hours. I go online when I need to find a new recipe for cooking or to find out about new fashion or buy clothes.

- Researcher: so you are not addicted to the internet.

- No.

- Researcher: and do you use laptops or Smartphone's to go online?

- Most of the time I use a laptop.

- Researcher: and what do you search for when you go online?

- I like to read about social issues in our community and how to solve them. I also like browsing cookery, fashion, and religious websites.

- Researcher: and do you put your opinions or thoughts about these issues?

- No. not really.

- Researcher: what is the main social network that you use?

- Twitter. I just started using it.

- Researcher: do you think people can make online friendships?

- Yes I do.

- Researcher: do you think online relationships can be as strong as real life relationships?

- Not really. But it can be useful for many purposes. For instance if I have a girlfriend in another country she can guide me to nice places to visit in her country..to see

- **Researcher:** So do you believe in online friendships?

- Personally I don't take them seriously. They are not as real as real life friendships.

- **Researcher:** do you believe that the internet in Saudi Arabia has affected the family relationships?

- I strongly believe it did.

- **Researcher:** Can you talk more about this effect?

- I noticed that our family social gatherings have been changed because of the internet. Imagine that my kids stay most of the time in their rooms on online gaming. When I call my son to chat with him he only comes for 5 minutes. He always looks in a hurry to leave me and go back to gaming in his room!

- **Researcher:** and you stay alone at home while your kids in their rooms?

- Unfortunately yes. Even if some of my daughters or sons come to sit with me they bring their laptops with them. They are physically sitting with me but their minds are not.

- **Researcher:** what about meals times. Does the family eat together?

- No. not anymore. We used to have meals together. But after the internet things changed. I have to go and chase them and knock on their doors to come down for dinner. But we end up with everybody eating in his room.

- **Researcher:** what about coffee time in the evening?

- We don't meet as a family for coffee as other Saudi families do. But when we do everybody is busy with his mobile phone or iPad.

- **Researcher:** do you think as a mother that the internet has any effect on kids' personalities or thoughts?

- I am sure it did.

- **Researcher:** How?

- take gaming for example. Kids will be violent if they play games that have violence. And if they read about certain issues or visit certain websites they adopt new opinions.

- **Researcher:** did your child become violent because of gaming?

- I think so. Even when he replies to people in football issues on social network he uses strong language in his conversations.

- **Researcher:** so you believe that the internet can increase violence?

- Yes. And another thing my kids became careless. They tend now to escape family gatherings and social commitments. For instance you expect your son to help you when you have a social event or when you invite people for dinner at home. But what happens is that my kids come up with different excuses to not attend and helping me or their father. And even when they attend they stay for half an hour to please me and they start to disappear from the gathering one after the other.

- **Researcher:** do you think this social withdrawal is because of the internet?

- I think so.

- **Researcher:** so do you believe that the internet has a negative effect?

- I cannot give a general statement. But on social and family levels I think the internet has a negative effect.

- **Researcher:** Thanks Zenah for your time.

- Thanks.

APPANDX G

Application Number.....

(Faculty coding)
(Nov 2006)

Date...31/3/2001.....



MANCHESTER METROPOLITAN UNIVERSITY FACULTY OF HEALTH, PSYCHOLOGY AND SOCIAL CARE

APPLICATION FOR ETHICAL APPROVAL

Introduction

All university activity must be reviewed for ethical approval. In particular, all undergraduate, postgraduate and staff research work, projects and taught programmes must obtain approval from their Faculty Ethics committee (or delegated Departmental Ethics Committee).

APPLICATION PROCEDURE

The form should be completed legibly (preferably typed) and, so far as possible, in a way which would enable a layperson to understand the aims and methods of the research. Every relevant section should be completed. Applicants should also include a copy of any proposed advert, information sheet, consent form and, if relevant, any questionnaire being used. The Principal Investigator should sign the application form. Supporting documents, together with one copy of the full protocol should be sent to the Administrator of the appropriate Faculty Ethics Committee. (Deirdre Connor, Room 140, Admin Building, Didsbury Campus., M20 2RR. Email: d.connor@mmu.ac.uk, Tel: 0161 247 2330)

Your application will require external ethical approval by an NHS Research Ethics

Committee if your research involves staff, patients or premises of the NHS (see guidance notes)

Work with children and vulnerable adults

You will be required to have a Criminal Disclosure, if your work involves children or vulnerable adults.

The Faculty Academic Ethics Committee is expected to meet once or twice a term and will respond as soon as possible. Applications that require approval by an NHS Research Ethics Committee or a Criminal Disclosure will take longer - perhaps 3 months.

1. DETAILS OF APPLICANT (S)

1.1 Principal Investigator: (Member of staff responsible for work)

Name, qualifications, post held, tel. no, e-mail

Dr. Asiya Siddiquee
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Elizabeth Gaskell Campus
M13 0JA
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Prof. Jois Stansfield
Professor of Speech Pathology
Elizabeth Gaskell Campus
M13 0JA
Tel: 0161 247 2577
J.Stansfield@mmu.ac.uk

1.2 Co-Workers and their role in the project. (E.g. students)

Details (Name, tel. no, email, Course)

None

1.3 University Department/Research Institute

Department of Psychology.

Faculty of Health, Psychology and Social Care.

2. DETAILS OF THE PROJECT

2.1 Title:

The impact of changing usage of the internet on family and social relations in the Kingdom of Saudi Arabia.

2.2 Description of Project: (please **outline** the scientific background and the purpose of the research project, 250 words max.). If applicable, please state the hypothesis of your study. Otherwise clearly state its aim.

This research looks at the familial relationships in Saudi Arabia and considers if these have changed significantly in recent years. If such changes have happened, the goal is then to consider what factors have changed and in particular if the recent growth in internet access is responsible. So far the researches are patchy and indicate that normal internet usage is not changing family behaviour, but there has been little similar research into the impact on more traditional societies such as Saudi Arabia. In this case though, there is a need to consider not just usage of the Internet as such but the extent to which it brings new social concepts around parenting and family relationships as well the way in which globalisation is breaking up traditional social systems.

To do this means:

Understanding if there is any evidence for changes in family dynamics and are the current generation of 18-25 year olds particularly alienated from their society, or is this just a manifestation of normal adolescent identity formation;

Then will looking is this due to exposure to different expectations around parenting style and different social norms for adolescent behaviour. There is evidence that it is when a mismatch occurs between expected and received parenting that is when intra-family tensions are at their highest. This can be explored both from the views of 18-25 year olds in Saudi Arabia.

These two hypotheses will lead the research to explore whether the internet is a reason or a mediator. That is need to determine if time spent on line is the main reason, or if the problems stem from the concepts and values presented then it is more likely the internet is a mediator.

Describe what type of study this is (e.g. qualitative or quantitative; also indicate how the data will be analysed) Additional sheets may be attached.

Mixed methods will be used to address the questions in this study. Quantitative methods such as surveys will be used to describe the data; that will be summarising these data in form of tables, charts, percentages and averages. This data would be categorical, when the survey is carried out. It is more likely the research will require inferential data analysis. Qualitative methods will used (widely semantic analysis), that would include unitisation data, categorisation, recognising relationships and developing categories to facilitate it.

2.3 Are You Going To Use A Questionnaire? Yes

Please attach a copy if you consider it will raise ethical issues

2.4 Start Date / Duration Of Project.

16/4/2010.

2.5 Location Of Where The Project And Data Collection Will Take Place.

Saudi Arabia

2.6 Nature/Source of Funding.

Saudi Arabia government.

2.7 Are There Any Regulatory Requirements? NO

If yes, please give details, e.g. from relevant professional bodies

3. DETAILS OF PARTICIPANTS

3.1/3.2/3.3/ How many/ Age/ Sex

200-250 / GROUP 1: 18-28 years old/ both male and female.

GROUP 2: 28-50 years old/ female.

3.4 How will they be recruited?

(Attach a copy of any proposed advertisement)

Schools, colleges and University departments will be contacted by talking to the head of school/ college (Dean of University faculty) to take permission to invite students to take a part in this study.

Also university ill asked to send an email all students to invite them to be participant in this study.

In addition the older family will be invited through their young relatives to ask them to give their views.

3.5 Status of participants (e.g. students, public, colleagues, children, hospital patients, prisoners, including young offenders, participants with mental illness or learning difficulties.)

The participants will be selected from universities and high school students and their families.

3.6 Inclusion and exclusions from the project (indicate the criteria to be applied).

Inclusion: Saudi-Arabian young people aged 18-28 and their older family members

Exclusion: anyone outside the age range. Non- Saudi nationals

3.7 Payment to volunteers (indicate any sums to be paid to volunteers).

None

3.8 STUDY INFORMATION:

Have you provided a study information sheet for the participants?

Please attach a copy of this information sheet

Attached

3.9 CONSENT:

(A written consent form for the study participants MUST be provided in all cases, unless the research is a questionnaire.)

Have you produced a written consent form for the participants to sign for your records?

Please attach your consent form.

Attached

4. RISKS AND HAZARDS

4.1 What are the risks to the participants? (Give details of the procedures and processes to be undertaken.)

None anticipated

4.2 State precautions to minimise the risks and possible adverse events.

Not applicable

4.3 What discomfort (physical or psychological) danger or interference with normal activities might be suffered by the participant(s)?

None anticipated

4.4 State precautions been taken to minimise them:

Not applicable

5. WHAT ETHICAL ISSUES DO YOU THINK YOUR STUDY WILL RAISE?

None

6. SAFEGUARDS /PROCEDURAL COMPLIANCE

6.1 Confidentiality

- (a) Indicate what steps will be taken to safeguard the confidentiality of participant's records. If the data is to be computerised, it will be necessary to ensure compliance with the requirements of the Data Protection Act.

All information about the participants will be handled in confidence.

The questionnaire returns and all other data from the study will be kept in a locked filing cabinet and / or password protected computer and the information from these will only be available to the researcher and her supervisory team.

- (b) If you are intending to make any kind of audio or visual recordings of the participants, please answer the following questions:

Not applicable

- a. How long will the recordings be retained and how will they be stored?
- b. How will they be destroyed at the end of the project?
- c. What further use do you intend to make of the recordings?

6.2 INSURANCE

Are there any insurance or indemnity arrangements in place in the case of negligent or non-negligent harm, other than normal University policies?

No

Please note: the University holds insurance policies that will cover claims for negligence arising from the conduct of the University's normal business, which includes research carried out by staff and by undergraduate and postgraduate students as part of their course. This does **not** extend to clinical negligence...

6.3 NOTIFICATION OF ADVERSE EVENTS

(Indicate precautions taken against adverse reactions.)

If adverse events do occur, please state the processes/procedures in place to respond to these.

I will seek advice and support from my supervisors.

In the case of clinical research, you will need to abide by specific guidance. This may include notification to GP and ethics committee. **Please seek guidance for up to date advice**, e.g. see the COREC website at www.corec.org.uk

SIGNATURE OF PRINCIPAL INVESTIGATOR/
PROGRAMME LEADER (for taught programmes) :

DATE:

.....

SIGNATURE OF ETHICS COMMITTEE CHAIRPERSON:

DATE:

.....

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