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# Covid-19 Transition, Could Twitter Support UK Universities

## Abstract

*This paper seeks to conceptually explore the use of social media platforms such as Twitter as a microblog to share Covid-19 prescribed knowledge through developing a conceptual framework of university ecosystem knowledge regime. The framework outlines three ecosystem artefacts; teaching, assessment, and student experience and what knowledge sharing strategies that may help representing these artefacts to the wider community of the ecosystem. The paper provides valuable practical insight to UK Universities practitioners, students and concerned stakeholders on the use of Twitter microblogs to share or retrieve knowledge required to cope with the current Covid-19 transition. The paper sheds light on the unique characteristics of knowledge sharing by UK Universities through Twitter in relation to the current Covid-19 pandemic. The paper also highlights the unconventional use of Twitter by UK Universities to share Covid-19 prescribed knowledge with its stakeholders.*

**Keywords:** Knowledge management, Knowledge sharing, Crisis Knowledge, UK Universities, Covid-19, Twitter.

**Paper type:** conceptual paper.

## 1. Introduction

Among the many sectors that have been radically affected by Covid-19 is the higher education sector (Devinney & Dowling, 2020) where universities were forced to move entirely or partially from classroom education to virtual education. With the rapid changes throughout the pandemic, the majority of universities had to follow “the rule of the game”; a completely virtual work ecosystem in the first few months. As the pandemic seems to have returned in a second wave, academic institutions varied their delivery between a completely online delivery and a blended delivery approaches. Although many universities have resorted to virtual education, some universities have not been able to face the crisis with “enough” preparedness and support due to resource differentials

(Hodges *et al.*, 2020) which reflects the socio-economic complexities of universities (Zighan & Ahmed, 2020). Working from home is still the approach universities are taking for administrative work. As communication is key in pandemics, universities communicated with their stakeholders (academics, admin staff and students) using emails and social media to ensure stakeholders are up to date with university news and actions.

Social media during the lockdown have become more prominent for universities due to the seamless communication and instant notification that they provide. Universities resorted to social media outlets (more than ever) such as Twitter to publish news on campus life, strategies of mitigation, online learning environment, assessment, etc. The increased use of social media reflects the severe changes to modern life during the pandemic contrary to previous discourse where social media were discouraged at workplace (Carpenter *et al.*, 2020) or have been seen as a complementary to other formal channels of communications (Treem *et al.*, 2020).

The new work environment has started to raise questions such as how the relationship now between academics, administrative staff and their workplace looks like? How do students perceive university performance in the pandemic? How have academic discourse of knowledge regime changed? What is the future of knowledge infrastructures in universities in the next five years? These questions can be merged under an overarching question which this article will focus on: how have the knowledge trajectories of university ecosystem changed throughout the pandemic? The reason that this article focuses on such question stems mainly from the paradoxical nature of knowledge codification. It has been well established in knowledge management literature that codifying tacit knowledge into accessible knowledge regimes is highly contextual (See

for example, Nansubuga & Munene, 2019). Extant literature focused generally on formal approaches of codification with less focus on socially dominant environments such as social media.

The pandemic has come as a perfect storm to symbolise the boundaryless nature of university ecosystem; that is to signify the blurring divide between the formal and informal determinants in a socially mediated discourse on university performance. This blurring divide which reflects and entangled relationship between the social and the material sits well with what Orlikowski (2007, p.29) proposed that “there is no social that is not also material, and no material that is not also social”. As the Covid-19 pandemic highlights the stifling nature of our academic work, universities had to reinterpret themselves, their priorities and knowledge regimes in socially mediated platforms. This, alongside with the complexities of knowledge codification, refers to a key characteristic of knowledge; that it is not created from being static, but rather from the active engagement with the world (Barad, 2007). Therefore, in our article, we shed light on the use of Twitter by UK Universities to mark the new shape of knowledge regimes in academia implied by the Covid-19 pandemic.

## **2. Theoretical Background**

### ***2.1. Managing knowledge during the Covid-19 pandemic***

One of the prominent classifications of knowledge is the tacit-explicit where explicit knowledge is knowledge stored in physical storage such as books, computers, etc. and tacit knowledge is situational and stored in practices, routines, and feelings (Chuang *et al.*, 2016). The rapid contemporary developments of technology allowed universities not

only to store but communicate, interpret and assimilate organisational knowledge through social media, *big data* analytics, virtual reality, augmented reality and robotics (Dragicevic *et al.*, 2019). However, we still have to respond to ongoing calls for a better understanding of knowledge created, exchanged, absorbed, stored and disseminated on social media platforms which entails the social aspect of knowledge to be revisited (Treem *et al.*, 2020).

One way organisational knowledge can be seen is through the lens of sociomateriality of knowledge in digital platforms. Sociomateriality implicates the conceptualisation of knowledge and technology to couple meaning and matter (Nova & González, 2016; Orlikowski, 2007; Paananen, 2020). As during pandemic, communication is critical for organisations to ensure people are reassured, informed, and engaged. In parallel, maintaining the knowledge continuity and restoring the knowledge accumulation would be essential (Shujahat *et al.*, 2019) but failure factors may also hinder knowledge management initiatives (Larsson *et al.*, 1998) as traditional bureaucratic barriers. Social media platforms may effectively help overcome these failure factors and enable communicating knowledge with subscribers to social media accounts where institutions tend to convey messages of various media and meaning to their stakeholder communities, and keep engaged with what the community thinks of and reacts to performance (Magnier-Watanabe *et al.*, 2010).

The socio-materiality of communication is necessarily obvious in this current pandemic due to the radical shift of working patterns i.e. from workplace to home based (Ashcraft *et al.*, 2009). Viewing knowledge as socio-material (Nova & González, 2016; Orlikowski, 2007; Paananen, 2020; Shotter, 2013) should therefore enable us to understand how

universities determine and enact knowledge artefacts to their stakeholders inside and outside of organisational boundaries.

## ***2.2. Knowledge sharing in the space of social media***

Social media allow subscribers to share knowledge that is less formal than organisational channels which Ammirato *et al.* (2019) argue to provide a platform for collaboration and engagement. However, in a study on software developers' giant discussion forum Stack Overflow, Squire (2015) highlights some concerns on how social media is transforming knowledge and information communication. Squire (2015) argued that while knowledge workers found Stack Overflow more efficient in terms of time and quality, some found it restrictive in some of the ways it accepted questions. On a different line of inquiry, Durst and Zieba (2019) summarised risks that face knowledge workers due to social media such as fake and distorted information, fake social media accounts used to troll people, and the distrust atmosphere.

Sundaresan and Zhang (2020) suggested that organisational engagement with social media positively determined how organisations accumulate, manage and transfer knowledge. Previously, Grace (2009) viewed social media as complementary to knowledge management rather than a space where knowledge is managed and argued that its feasibility, ease of access, traceability, and rich content allow for organisations to reap these advantages in the running of efficient knowledge management systems. *Social networking* through online social media may be deemed to be non-mandatory, despite the currently heavy reliance of organisations on it to communicate with their communities (Ammirato *et al.*, 2019; Heavey *et al.*, 2020; Sarka & Ipsen, 2017). As a result, two

knowledge regimes may appear where one is top-down enforced by organisational policies, strategies and routines, while the other is bottom-up, voluntary and unstructured (Qi & Chau, 2018).

The usefulness of social media seems to encourage organisational leaders (e.g. universities) (Birkholz et al., 2015; Rutter et al., 2016) to commit to their knowledge sharing strategies in a less formal environment and as a result reaping the benefit to disseminate real-time knowledge that formal channels can't to reach people (Qi & Chau, 2018; Sarka & Ipsen, 2017; Schlagwein & Hu, 2017). In a study of 20 organisations to examine how social media relate to organisational absorptive capacity, Schlagwein and Hu (2017) presented five different uses of social media that organisations resort to: (1) broadcast, (2) dialogue, (3) collaboration, (4) knowledge management and (5) sociability, however, they argued that some types such as dialogue support organisational absorptive capacity and positively improves performance while sociability does not seem to have the same impact. In addition, the types of social media platforms vary considerably whereas the focus of this paper would be on Twitter as a microblog platform to share Covid-19 specific knowledge with UK universities' stakeholders. Microblogging platforms such as Twitter, allows institutions to bridge the space between their boundaries and online communities (Sarka & Ipsen, 2017) draws knowledge from subscribers on performance (Sigala, 2012).

To sum up the theoretical underpinning, the use of social media in knowledge management appears to be either explorative or exploitative. Explorative approaches have been used to explore public opinions, tastes, and preferences. Exploitative approaches have been used to broadcast key messages, respond to public's queries and develop

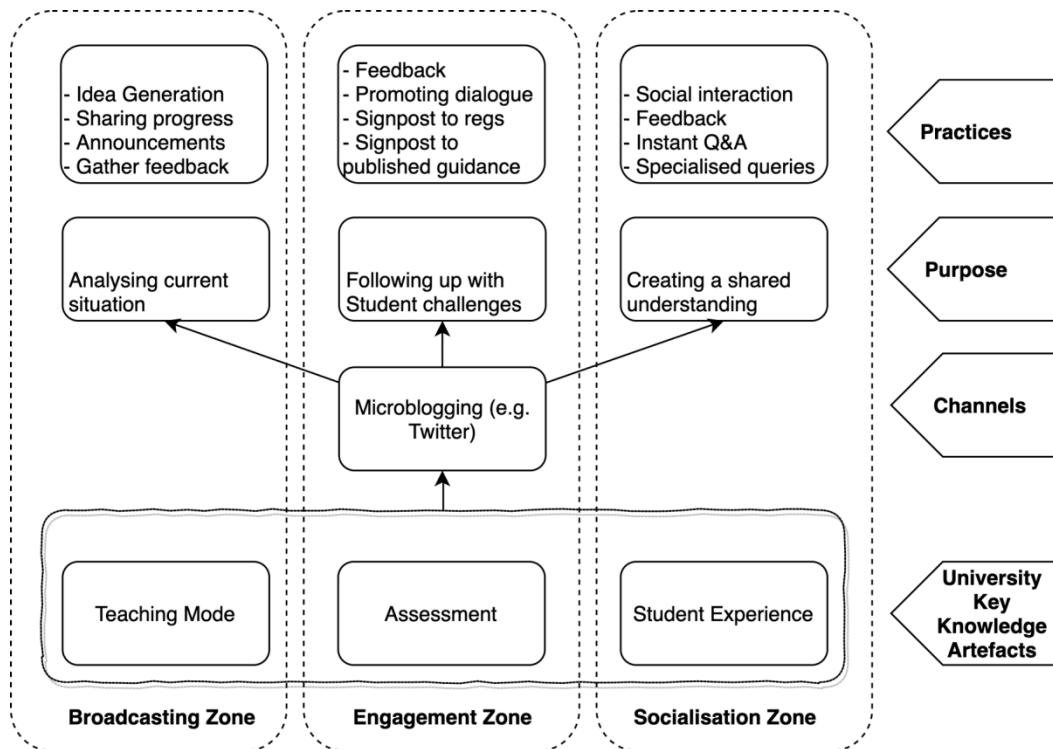
customer driven strategies. Extant literature shows that both approaches have been used passively and that this might be due to the two approaches being used in isolation from one another on one hand, and on the other hand, the inability of either approach to fully mobilise the non-representational knowledge artefacts. In either case, we argue that a social media driven approach would bridge the aforementioned gaps and remedy some of the complexities of knowledge as a socio-material artefact.

### **3. Discussion**

The UK's higher education HE sector is experiencing a dramatic phase of transition implied by the Covid-19 pandemic. The HE landscape has encountered a powerful force for change which will introduce new traditions, some of which are yet to be established, tested, publicised and adopted across the sector. Until progress is made by UK Universities in finding out what works best to cope with the current Covid-19 transition, the creation and sharing of knowledge will remain highly dynamic and critically important to maintain Universities' operations and update its varied stakeholders. However, the nature of knowledge in consideration may be mainly formalised, explicit and prescribed to cope with the impact of the Covid-19 pandemic. In congruence with the above discussion, we make the *proposition* that Twitter as a microblogging social media platform will be utilised extensively by UK Universities to share knowledge amid the Covid-19 pandemic. Not only because Twitter is already used by academics, research communities and universities but also due to its dynamic and interactive characteristics. This proposition conforms with the view of (Sarka & Ipsen, 2017) that emphasises the usefulness of Twitter in allowing institutions to communicate effectively with their associated online communities.



From another perspective, it could be anticipated due to the likely prolonged Covid-19 lockdown limiting conventional professional interaction that *virtual communities of purpose* (Chiu *et al.*, 2006) will be actively created to share knowledge in the form of adaptive measures and experiences of coping with the Covid-19 transition. In the context of UK Universities' Twitter microblogs, the creation of *virtual communities of purpose* may be driven by: (1) the need for knowledge in the form of prescribed Covid-19 adaptive measures to guide UK universities' students, staff and other stakeholders during this phase of major transition. There is also a possibility that UK universities will utilise Twitter microblog for cross-university knowledge sharing. (2) *knowledge workers* (Squire, 2015) who actively seek and share knowledge; some *knowledge workers*, as academic researchers, may resort to creating and interacting within *virtual communities of purpose* to explore these communities and share knowledge with its subscribers. In line with the aforementioned, we make another *proposition* in agreement with (Chiu *et al.*, 2006) that *virtual communities of purpose* will actively interact via UK universities' Twitter microblogs. We offer an explanatory framework (Figure 1) that depicts how UK universities can share knowledge that features their ecosystem through Twitter microblogging platform.



**Figure 1: Covid-19 driven Knowledge sharing in University ecosystem Through Twitter Microblog.**

In this framework, we view the social and the physical realms as inextricably entangled and that one cannot exist without the other (Demetis & Lee, 2016) which entails viewing the university ecosystem from a socio-technical lens that construes the university as a deliberation of social action and *re-action* in the university ecosystem. Likewise, it makes sense to think of the predominance of socio-technical action (i.e. processes that are organised across the university ecosystem) as knowledge trajectories. As social media have become part of our daily life, we found that university's daily knowledge exchange processes are continuously reconfigured within contexts that are marked with various patterns of social and technical interaction and the spatial-temporal organisation of its ecosystem. Interaction with students and academics took place while they were located at different time zones which to some extent encouraged open formal and informal dialogue between the stakeholders of this ecosystem.

As Figure 1 shows, the broadcasting zone that fits with teaching mode involved efforts to analyse the current situation by continuously moving from one practice to another. For instance, universities shared achievements and progress made in teaching activities or changes to the aforementioned including rescheduling lectures, announcing lectures' suspension and access to online content. These practices meant changing the timetabling patterns of students and academics alike, which encouraged universities further to observe tweets and tweet replies as it reflected positively on the university's performance in this particular zone. On the other hand, some teaching arrangements (e.g. existing blended teaching delivery modes) remained stable over time due to the consistence of their structure with the transformations that occurred throughout the pandemic, in which case universities focused on reinforcing this as an achievement that preceded the pandemic.

The engagement zone is a sensitive area because it involves dealing with students' assessment and their prospective employability, which makes Twitter in this context a crucial platform for engaging with students' problems and challenges. In this zone, some university practices involved feedback and reference to instructions or guidelines posted on university websites. The sensitivity of this area entails careful dealing with students' challenges, which prompted universities to reduce answering questions through Twitter platforms, but rather to redirect students to the university's official guidance and announcements (e.g. Q&A) to ensure consistency.

As for the last zone (socialisation zone), the functionalities of Twitter are well aligned and as such can drive universities to highlight positive students' experiences by developing a shared understanding of that positive experience while maintaining the diversity of student perceptions. This can be enacted through a high level of social

interaction including two-way conversations in the form of live Q&A sessions, to feedback and follow up with escalated issues. This zone is a playground for innovative practices due the current pandemic's unprecedented developments, where the need for universities' stakeholders accessing knowledge instantly is crucial. In addition, the reification of the social value through the individual experience of students and staff alike, entails actively accommodating stakeholders' increasing appeal to more correct information and well-informed decisions which requires profound vertical and horizontal conversations across the university ecosystem.

#### **4. Conclusion**

This paper's contribution lies within the knowledge sharing literature. Extant literature focused on stable time in which case our paper extends this literature to include knowledge sharing in unstable time. In this paper we sought to highlight the role of Twitter, as a microblogging social media platform, in facilitating real-time knowledge sharing within UK universities in view of the current Covid-19 pandemic. From a wider perspective, we argue that our awareness of the importance of a university, not only as an educational platform, but also as a boundaryless knowledge ecosystem, stimulates us to think about how Twitter shapes and reshapes university discourse about student numbers and upcoming challenges in light of the current Covid-19 crisis.

University leaders may foresee that the year 2020 marks a major transition in universities' operations and even real challenges for graduates who will find themselves searching for jobs in a new environment marked by the risk of collapse in many businesses. Twitter as a microblogging platform provides an opportunity in which Universities can share explicit knowledge to engage and inform students, staff and other stakeholders on Covid-

19 transitional measures. In line with this argument and based on our observation of sampled UK universities' twitter accounts, we make two propositions: (1) that Twitter as a microblogging social media platform will be utilised extensively by UK universities to share knowledge amid the Covid-19 pandemic. (2) That *virtual communities of purpose* will actively interact via UK universities' Twitter microblogs in relevance to the Covid-19 transition.

Finally, this paper's contribution is twofold: *First*, as it is a conceptual paper, we hope to stimulate further empirical discussions to understand the changes that the UK HE has gone through during the current crisis. *Secondly*, Twitter as a microblog provides an enormous knowledge platform, and for this we hope this paper will stimulate research to investigate in-depth the knowledge sharing conduct within UK universities' Twitter pages.

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