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Orchestrating Knowledge Development in an Online Community across Social Media Platforms

Mona Abusurrah

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Declaration

This thesis is composed and submitted to the University of Warwick by the author as a part of acquiring the degree of Doctor of Philosophy in Information Systems Management. The thesis has never been submitted to any previous institute. All the work presented, including texts, data, analysis, and findings, were carried out by the author.

Part of this thesis has been submitted as conference papers, Journal Paper and some are presented:

- *'Creating Ideas in Online Communities across Multiple Social Media Platforms*: The Role of Social Curation' presented at the 10th International Process Symposium. June 2018.

- *'Organizationally Enabled Connective Action in an Online Community with Multiple Social Media Platforms'*. Presented at Warwick Business School, October 2018.

- *'Knowledge Development in an Online Community across Multiple Social Media Platforms'*. Presented at the 11th International Process Symposium. June 2019.

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Abstract

This thesis examines how knowledge development occurs in an online community (OC) that is distributed across multiple social media platforms. Through an in-depth online ethnography, coupled with interviews, the data is conducted on a media firm in Saudi Arabia that proposed creative ways of challenging some social phenomena to encourage change such as the male guardianship law (MGL) and preserving heritage sites from neglect by using multiple platforms accordingly to harness new content for innovative media products. The findings illustrate that OC applied orchestration practices such as profiling platforms, profiling users and then configuring the knowledge development process across multiple platforms accordingly. The analysis showed that the orchestration is establishing the discussion on Twitter to build a collective momentum then shifted to collective ideation using Facebook and Instagram so that a different segment of the OC would engage in more profound knowledge development. The thesis contributions are in twofold. Firstly, the thesis provides empirical evidence of the fluidity of OC across platforms, by showing that OC orchestration, in contrast to other forms of organising, enables fluid boundaries across multiple layers of actors and activities in the OC. This allows a unique set of users to engage in a collective goal for knowledge development to increase the quality of the contribution. Secondly, the thesis demonstrates that knowledge development is applied through the enactment of different types of negotiated dynamics (tension and co-creation) between users and OC moderators in every platform which results on different yet interdependent knowledge that contributes to the innovative outcome. The thesis concludes by discussing the limitations and implications of the contributions for further research.

List of Keywords and Abbreviations

Keyword	Definition in the study
Online Communities (OCs)	Online communities of interest that share identity in co-located activities across social media platforms, flexible and voluntary participation, and engagement in the development of knowledge.
Male Guardianship Law (MGL)	A System requires a woman in Saudi to seek permission from a "male guardian" for everything such as travelling, seeking medical help or obtain an ID or for legal issues.
OC Orchestration	A set of deliberate, thoughtful actions performed by a core organisation as it seeks to configure an emerging process of OC knowledge development that is not bound by organisational boundaries or random crowd membership.
Collective Momentum (CM)	A phase of the knowledge development process that aims to test and disseminate the topic of the discussion.
Collective Ideation (CI)	A phase of a knowledge development process that aims to widen and deepen knowledge development through the creation and sharing of creative content related to the desired innovative outcome.
Orchestrated Tension	The OC orchestrated continued contradictive interaction between users themselves and between users and OC moderators. Resolving the tension can focus interactions on building collective momentum
Orchestrated Co-Creation	The OC orchestrated, continued, synergistic interaction between users themselves and OC moderators' aims for collaboration as a collective goal to focus and deepen knowledge toward an innovative outcome.
Knowledge Development (KD)	The constant dynamic sharing accumulation, transferring transforming and resynthesizing of knowledge by the collaboration of multiple stakeholders and technology to create multiple values overtime in which define different outcomes depends on the distinction of social context.

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Chapter 1
Thesis Overview

This chapter discusses the research rationale and aim. The chapter concludes with an overview and describes the organisation of the thesis.

1.1Justification for the Study

With social media now being disseminated and mobile, there are plenty of opportunities for organisations and users to collaborate, share knowledge and expand the business and social change in more ways than have ever previously been possible (Jenkins et al., 2009; Mjos, 2013). An increasing number of organisations are building their online communities to allow for knowledge collaboration and development on open platforms because this helps increase knowledge creativity and innovation (Faraj et al., 2011; Majchrzak et al., 2017). Online communities (OCs), especially those based on social media, are inherently malleable and open, with a high user turnover (Aral et al., 2013). Under such circumstances, OCs can become fluid and difficult to structure in a 'traditional' manner, that is, in terms of boundaries, authority, closed membership and hierarchy (Majchrzak et al., 2017).

Scholars have urged the investigation of new ways of organising within these OCs, in which boundaries and memberships are open and fluid (Faraj et al., 2016).In addition, there is a need to understand the process of knowledge development in these OCs, in particular, how users interact with OC moderators, their roles, and knowledge collaboration tensions and how they overcome any associated imbalances (Von Krogh and Von Hippel, 2006; Majchrzak and Malhotra, 2013, 2016). For example, there is a need to investigate whether the enactment of different platforms promotes different tensions concerning different types of knowledge (Majchrzak and Malhotra, 2013).

Accordingly, there is a need to investigate the importance of multiple online spaces (multiple platforms) in OCs, where previous information systems studies have only empirically investigated OCs that use single platforms, despite the fluidity of social media suggesting that organisations could adopt an online community with multiple platforms with different options of social media platforms offered to users and organisations, and where content moves from platform to platform and may accumulate and signal to the same topics of discussion (Mjos, 2013). In addition, some

studies of OCs have used social context as an essential contributor to understand OC dynamics and to develop creative knowledge, such as Barrett et al., 2016) in the healthcare field and Vaast et al., (2017) in energy. However, there are limited studies with an emphasis on the way that the social context impacts the development of knowledge in an OC.

This research will investigate a case study of an online community that is disseminated across multiple social media platforms, including Twitter, Facebook, Instagram, and YouTube. The online community is associated with a media firm located in Saudi Arabia that produces creative content such as web series that typically addresses a need related to social change. The firm develops content while taking the tasks accordingly from one platform to another to ensure that different users can participate in different points of content development. All social media platform users use media firm pages as a shared identity while participating. The online community operates by choosing a locally trending hashtag that discusses social issues and, ultimately, turns this hashtag into a web-based series that the OC works to develop by pulling together knowledge shared by OC users across multiple platforms.

I will analyse the OC dynamics, knowledge collaboration and development, OC moderators and user collaboration dynamics closely, as well as the way in which the OC orchestrates its fluid, multiple platforms by tracing and following multiple stories that start from a hashtag on Twitter and end with a web series on YouTube. I will focus on two stories: the dissolution of the male guardianship law (MGL) and taking care of abandoned historical sites (Our Civilisation), as these were successfully developed from random, locally trending Twitter hashtags into web series on the media firm's YouTube channel via the OC and its multiple social media platforms.

I will also analyse several stories that failed to make this transition to reflect upon and enrich the knowledge development process investigation.

My investigation of both stories, from when they unfolded in 2016 through to when they became YouTube series in 2017, will describe the way in which the OC orchestrated the multiple social media platforms involved. I will draw an in-depth netnography for the multiple platforms and semi-structured interviews for users, OC moderators, and firm members.

My contribution to the OC literature will be to show that OC orchestration structures the interaction and the KD process in OCs whilst simultaneously preserving the fluid nature of the OC at all times by maintaining an open boundary and fluid membership,

but without compromising the novelty required to develop innovative outcomes. In addition, this study will be the first to investigate an online community that is located across multiple social media platforms that are interdependent in the manner in which they develop knowledge toward innovative outcomes, demonstrating the importance of multiple spaces in knowledge collaboration and the design of Knowledge development phases. Furthermore, the study will contribute to an understanding of knowledge collaboration different dynamics in OCs by illustrating the different roles of users and OC moderators in developing practices through their development of practices that negotiate and structure interactions with the fluid OC while the knowledge emerges. Specifically, the study will demonstrate the way in which multiple platform spaces and the way those spaces enable different orchestrated knowledge collaboration dynamics.

1.2 Research Questions and Objectives

The research will answer the following research question:

- *How is knowledge developed in an OC across multiple platforms?*

The focus of the study lies primarily in taking a holistic view of the OC orchestration of multiple social media platforms and their users, in which focusing on the orchestration will demonstrate the manner in which OCs are organised to support fluid membership and boundaries, achieved by understanding the type of knowledge that will be contributed through due consideration for:

- The effect of social context on the OC orchestration.
- To investigate the characteristics of different social media platform users within the context of the study.
- to show the Multiple platforms' generativity of features in the social context.
- To illustrate the role of multiple spaces and their configuration.

The second aim of the study will be to consider the orchestrated KD process while emerging into an innovative outcome by showing:

- The emergence of multiple phases of knowledge development across platforms.
- The emergence of orchestrated knowledge collaboration dynamics between users and OC moderators as different practices are developing innovative outcomes.

- The role of multiple platforms in the development of different orchestrated knowledge collaboration.

1.3 Organisation of the Thesis

The thesis consists of seven chapters. Each begins with an introduction that states its main aim and then finishes with a conclusion that gives a summary and the findings and issues.

Chapter two reviews the main literature of the study. This chapter starts with the main literature used in the study that related to the online community, which is then divided specifically into online community fluidity, knowledge development, and collaboration tension and dynamics. Following this, the theoretical underpinnings of the study will be given, which is that of organisational orchestration.

Chapter three demonstrates and discusses the philosophical considerations of the study, which is the Interpretivist Process Theory. Following this, a description and the context of the case study will be given. Then, I will describe the data collection methods of netnography and interviews and the way in which they are conducted, and conclude the chapter by illustrating appropriate analysis tables and procedures.

The findings of the research are organised into two chapters. Chapter four is entitled: Orchestrating an Online Community with Multiple Social Media Platforms. This chapter focusses on OC orchestration practices of profiling users, platforms, and finally configuring the knowledge development process and flow.

Chapter five is entitled: The Process of Developing Knowledge across Multiple Social Media Platforms. This chapter focusses on the phases of KD for collective momentum and collective ideation in multiple online spaces,

Chapter six discusses and positions the research findings in terms of the current literature, starting with a discussion of OC fluidity and structure and the manner in which OC orchestration contributes a new way of organising OCs. The second part of the discussion is related to the knowledge development process and will consider the knowledge collaboration dynamics such as tensions and co-creation between users and OC moderators that structure fluid OC.

Chapter seven offers a number of concluding remarks, which restate the theoretical contributions, practical implications, limitations, and future research.

Chapter 2
The Literature Review

2.1 Introduction

In this chapter, I will review the literature on online communities (OC) and will then focus on the OC fluidity and structure. Following that, I will review the OC spaces of interactions, specifically social media platforms. Then, the focus will be moved to knowledge development in OC, the inner dynamics and collaborations in fluid OCs. Then, I will describe the knowledge gap that led to the formulation of this research and review the research questions. Following that, I will review organisational orchestration and discuss how it complements the OC literature.

2.2 Online Communities (OCs)

OCs have been defined as 'an aggregation of individuals or business partners who interact around a shared interest, where the interaction is at least partially supported and/or mediated by technology and guided by some protocols or norms' (Porter, 2004:32). Researchers have demonstrated a significant interest in online communities as technologically based organisations with dynamic knowledge development from different stakeholders (Butler, 2001; Von Krogh *et al.,* 2003) The range of concepts used to gain insight into OC has expanded over the years, spurred in particular by research in the information systems field: for example, developing knowledge and innovation (Jarvenpaa and Lang, 2011; O'Mahony and Lakhani, 2011), open-source communities (Von Krogh and Von Hippel, 2006; Shaikh, Vaast and Shaikh, 2016), user-generated content and online communities of interests (UGC) and digital platforms (Bharadwaj *et al.*, 2013; Han *et al.*, 2014; Levina and Arriaga, 2014); and value creation (Cornford *et al.*, 2010; Rullani and Haefliger, 2013; Barrett *et al*., 2016; Wang *et al.*, 2016).OC can also be considered a source of innovation, creating value through change due to the fluid nature in which they develop knowledge (Faraj et al., 2011; Jarvenpaa and Lang, 2011; O'Mahony and Lakhani, 2011).

Therefore, the OC concept has recently been considered as a space of knowledge that has been collectively created and is being changed continuously, by digital platforms and their participants (Bateman *et al*., 2011; Haefliger *et al.*, 2011; Levina and Arriaga, 2014). Scholars studying OC have examined the motivation for creating and participating in them extensively, such as looking at the intrinsic and extrinsic,

economic, and technological motivations of participants and their effect on maintaining OC interactions (Hars, 2002; Feller and Fitzgerald, 2002; Osterloh and Rota, 2007; Kankanhalli, 2015). In addition, scholars have focused on the coordination of activities inside OC and their governance such as in relation to the balance of authority (O'Mahoney and Ferraro, 2007), governance style and leadership (Sharma *et al.,* 2002; Johnson *et al.,* 2015; Schaarschmidt *et al.,* 2015)These studies further triggered deeper examination of the nature of OC and their organising structure (Murray and O'Mahony, 2007; Jarvenpaa and Lang, 2011) and fluidity (Faraj et al*.,* 2011; Ransbotham and Kane, 2011). Consequently, the knowledge development processes in such novel forms of organising have been a subject of debate and investigation (Levina and Arriaga, 2014; Faraj and Shimizu, 2018).

Therefore, I define the online community in this study as the space of interaction for an interest that share an identity in co-located activities across social media platforms, flexible and offers voluntary participation, and seeks collaboration in for the development of knowledge. In the next sections, I will explain the idea of OC that shares an identity that spans in co-located places and activities by explaining the fluidity, social media spaces and knowledge development in the context of online communities.

2.2.1 The Fluidity and Structure of Online Communities:

Some scholars have investigated collaboration amongst OC for knowledge development by looking at their structural mechanisms, such as control, closure of boundaries, and positions (Sundararajan *et al.*, 2013). Others have studied how organisations statically grouped participants with similar interests in a structure that supports users to focus on activities around them and leads to a sustainable organising of these activities (Ren *et al.,*2007; Halatchliyski and Cress, 2014). In addition, for a more semi-static perspective of OC, such as semi-hierarchical open source communities (Dahlander and O'Mahony, 2011), combining formal and informal structure in designing teams (Ben-Menahem *et al.*, 2016).scholars have demonstrated the importance of structuring activities around authority, governance and leadership of organisations (Sharma *et al.,* 2002; O'Mahoney and Ferraro, 2007; Di Tullio and Staples, 2013; Schaarschmidt *et al.,* 2015), and stable membership (Ransbotham and Kane, 2011).

However, an increasing number of studies into OCs are now moving away from looking at them as traditional organisations. Rather, OC has been realised to function

as a new form of organising for developing knowledge. This is perhaps particularly the case for open OCs that have knowledge collaboration occurring on an unparalleled scale and scope through involving different levels of stakeholders who create value at different points in time (Faraj et al., 2011; Barrett et al., 2016).

In this study, the fluidity of OCs is particularly emphasised. Fluid OC is "where boundaries, norms, participants, artefacts, interactions, and foci continually change over time" (Faraj et al., 2011). Fluidity in an OC is a composite concept that refers to the fluidity of membership, which enables heterogenic uses with various goals and beliefs to join the OC, various knowledge to be shared and the roles played by members change as people opt-in and out of the community. All of these dimensions of fluidity results in the absence of structure and boundaries (Butler, 2001; (Malhotra and Majchrzak, 2014). Fluid OC is distinct from the traditional perspective of organisational structure online organisations of closed memberships, repeated interaction, sharing goals and maintaining OC boundaries (Bagozzi and Dholakia, 2002; Arguello et al., 2006; Majchrzak et al., 2015).

Thus, recent studies describe OC as a fluid form of organisation that is morphing, yet retaining its shape (Faraj et al., 2016; Barrett et al., 2016). Therefore, OC is noted to have a more changeable and morphing structure that affects membership, governance, coordination, and opening and closing boundaries (Levina and Arriaga, 2014; Shaikh and Vaast, 2016). Nevertheless, some argue that the fluid OC could co-exist with a structure in which the element of structure could be applied temporarily and be partially restructured over time (Faraj et al., 2011). (Hernes, 2014), in his book *Process Theory of Organisation,* discussed how fluidity in online community studies is always being compared to the immutability of structure, and this is problematic in that it separates structure from the process, describing it as a static form of organisation. In fact, he noted that structure goes beyond the network idea of division of static work, tasks, positions, power and leadership. Therefore his thesis emphasises the process of organising in online communities as containing action, practice and routine. In so doing, I consider the importance of structure and action as enabling knowledge development processes.

Further, with the expansion of social media, an increasing number of organisations are adopting social media platforms to build their OC. OC is no longer able to apply the same organisational structure techniques or at least not in the same way due to "media mobility", where media content continuously moves between platforms, people, and

devices; as they move, they accumulate content, comments and discussion (Mjos, 2013). Social media platforms as a "spreadable media" have been mooted to describe how participation in OC facilitates both content sharing and the blurring of content and community boundaries (Jenkins et al., 2009). Social media platforms are inherently malleable and rapidly changing their boundaries and have rapid user turnover (Aral et al., 2013). Organisations are building their OC on social media platforms because they see benefits from the openness in boundaries and membership. At times, this creates tension in knowledge collaborations and yet in some cases, increases knowledge innovation (Faraj et al., 2011; Majchrzak et al., 2017). Therefore, the OC research literature has highlighted the need to investigate the structure of interaction within OC during knowledge development, and that can exist in parallel with their fluidity while nevertheless keeping the interactions open, affecting the novelty required for developing innovative knowledge outcomes (Faraj et al., 2016). As the organisation of OC is seen in the interaction, collaboration dynamics rather than in the traditional structure of membership and boundaries (Majchrzak et al., 2017), the key to open boundaries and membership is the space of interaction, which I turn to in the following section.

2.2.2 OC Online Spaces and Social Media Platforms

OC online spaces are "the digital realm in which participants choose to dwell and engage in online activity" (Faraj et al., 2016). OC communities can be considered online spaces for knowledge to flow through continuous development and change (Faraj et al., 2016). Researchers have recommended theorising about online interaction spaces in terms of their impact on knowledge (e.g., Zammuto et al., 2007; Haefliger et al., 2011). Studies into an online community- and its user-generated content - have demonstrated that online spaces can transcend, share and accumulate knowledge by sharing posts across different platforms (Levina and Arriaga 2014; Jarvenpaa and Lang, 2011).

Combining different knowledge sources that are being shared digitally is important because the tasks required to develop knowledge can be fragmented and then accumulated and combined as an inflow of resources that form innovative outcomes (Jarvenpaa and Lang, 2011; Faraj and Shimizu, 2018). In this sense, OC is unique spaces in terms of their ability to facilitate the combination, recombination and configuration of knowledge (Chiu et al., 2006). Dividing tasks, as pursued in this

study, enables the associated knowledge to grow, combine and sustain the flow of generated knowledge (Tsoukas, 2009; Faraj et al., 2016).

Online spaces particularly have been noted to add the value of enriching knowledge sharing and knowledge development in OC of interest, open-source innovation communities and user-generated content communities (Levina and Arriaga, 2014; Shaikh and Vaast, 2016). For instance, in open source communities, the folding and unfolding of online spaces have enabled fluid OC to structure interaction and enabled some users' to develop more innovative knowledge (Shaikh and Vaast, 2016). Similarly, in gaming OC and communities of interests, online spaces' 'structural folds" allow for users to build memberships that overlap with another community and increase knowledge innovation (Vedres and Stark, 2010; De Vaan et al., 2015).

In the case of user-generated content communities such as social media, online spaces have been referred to as "online fields" in which the concept of social media platforms goes beyond digital platform features into a space of social status production, culture, knowledge development, and power relations that do not just contain conversations but also shape the interactions. Social media platforms such as Twitter, Facebook, and YouTube enable users to contribute, evaluate, and consume content online utilising a set of digital features such as the views statistics, reactions, downloads, and the number of followers, their comments and ratings (Constantinides, 2012; Leonardi and Vaast, 2017). The knowledge development in social media has caught the attention of businesses since they allow the creation of different forms of knowledge with different social dynamics that appeals to multiple audiences, with open membership and different platform (Kraut and Resnick, 2012; Aral et al., 2013; Faraj et al., 2015).

Building on the importance of social contexts such as culture and power, this thesis emphasises how users in social media platforms are also varied in their type of content shared and product (Levina and Arriaga, 2014). Social media platforms affect users' social interactions and unify their interests with their particular features because this affects the way knowledge is produced, accumulated, shared, transformed and transferred (Benbya and Van Alstyne, 2010; Tombleson and Wolf, 2017).

Furthermore, malleable social media platforms affect users through generating collective change and producing knowledge collaboration tension, as the generativity of the platforms and its features generate heterogeneous types of users and thus increase knowledge creativity (Zittrain, 2005). Social media have revolutionised the ways in which organisations can affect the industry, entering markets, societal change

possibilities, and in working closely with users (Aral *et al*., 2013). Some examples of social media platforms are social media networks or UGC platforms such as a spaced blog (Facebook), microblogging (Twitter), content communities (YouTube) and collaborative projects (Wikipedia) (Levina and Arriaga, 2014). These social media platforms enable users to generate content, evaluate it and monetise it (Kaplan and Haenlein, 2010; Aral *et al*., 2013).

Social media platforms offer multiple and distinguished sets of generative technological features that vary between platforms and provide different values (Levina and Arriaga, 2014). These features enable social media platforms to support content generation via user contributions and aid businesses by connecting services and products to users who can comment on rate and vote and edit them (Musser and O'reilly, 2007; Kraut et al., 2012). Eaton et al., (2015) pointedly note that an organisation's ability to generate and create knowledge has been outpaced by the ability to combine platforms with services and products and that this has profound implications for the design of businesses and organisations in the future. For example, evaluating content by liking it or disliking it, counting the number of visitors to, and views of, specific content, free comments, tabbing and pinning contents, following content, rating, sharing media and engaging (Levina and Arriaga, 2014) brings new forms of insight to organisations. Another example of social media features in supporting knowledge development in OCs is the idea of the combinability of outcomes, which refers to the ability of users to build on the contributions of others' outputs, such as mashing videos and software and redefining and designing groups and subgroups (Murray and O'Mahony, 2007; Lessig, 2008; Levina and Arriaga, 2014).

In addition, social media platforms allow horizontal collaboration of users, sharing values, anonymity and support for building communities through the reciprocity of engagement (Levina and Arriaga, 2014).

Social media platforms allow for certain experimentation through giving users the ability to try out novel ideas by allowing comment boxes, feedback, rating ideas, creating pilot programmes and encouraging creative outcomes (O'Mahoney & Ferraro 2007). In addition, social media platforms support fluid membership by evaluating authority, joining and leaving the community, and even supporting inactive members of the community (lurkers) (Kraut and Resnick, 2012). They may gain influence, or weight, by increasing the popularity of the OC and its interaction, such as YouTube,

which is built on counting the number of lurkers as video viewers and including their weight in the community (Ren et al., 2012; Faraj and Shimizu, 2018).

In addition, the social environment affects the way social media platforms function according to their distinctive users as it works by developing various relationships, knowledge and anticipated actions (Markus and Silver, 2008; Leonardi and Barley, 2010; Leonardi and Vaast, 2017; Volkoff and Strong, 2018) The material features of an object or a social media platform do not vary across the social environment (Faraj and Azad, 2012; Leonardi and Treem, 2012). The variation is instead in people's interests and uses within the social environment context as pertaining to the features of these objects or platforms (Faraj and Azad, 2012). For example, social media platforms such as (Twitter) introduce a new type of organising and collective action or connective action (Bennett and Segerberg, 2012) through the investigation of the use of microblogging during the Gulf of Mexico oil spill (Vaast et al., 2017). This example demonstrates the power of social media usage in the social environment for applying social change, knowledge sharing, power, and socialising. Social media encourages knowledge development, including a decentralised process that renders the conversation between online community users emergent and continuous. Therefore, the relationship between users and platform features could create multiple knowledge outcomes, as affected by the social environment (Zammuto et al., 2007; Markus & Silver, 2008; Treem and Leonardi, 2012; Volkoff and Strong, 2013).

2.2.3 Knowledge Development Process in OCs

There is existent debate on the meaning of knowledge, and its scope existed from ancient time. In the context of the organisations, the debate is standing out between the 'epistemology of position' and the 'epistemology of practice' (Cook and Brown,1999). The epistemology of position looks at the knowledge as something the individual has which the epistemology of practice believes that knowledge something that individual's do (Cook and Brown,1999; Newell et al.,2009). the knowledge of position stand treats knowledge as personal property that process data to information according to the individual's subjective experience and understanding (Nonaka,1994; Newell et al.,2009). Knowledge of practice, other hand is constructed in social situations by sharing stories, norms and experiences and allow them to enact knowledge (Nicolini et al.,2003).

In this study, I look at knowledge as situated in the context in which actors make sense and understand what they know and ding social situation to be knowing (Newell et

al.,2009). This is means that knowledge is "the ability to discriminate within and across context" (Newell et al.,2009 a quote by Swan,2008) and "to draw distinctions within a collective domain of action, based on the appreciation of context" (Tisoukas and Vladimirou,2001).

The knowledge in the context of OC has been researched in the context of collaboration process which means development process refers to the creation, sharing, transferring, accumulation and (re)combination of knowledge (Faraj et al., 2011). However, the process knowledge development in OC spans beyond collaboration to include in OC the synthesis of existing knowledge (Majchrzak and Markus, 2013) by different stakeholders (Faraj et al. 2011) who create multiple values (Barrett et al., 2016) and study the outcome of the OC (Wang et al., 2016).

However, the knowledge development process in this study means the constant dynamic sharing accumulation, transferring transforming and resynthesizing of knowledge by the collaboration of multiple stakeholders and technology to create multiple values overtime in which define different outcomes depends on the distinction of social context. In the OC literature, a number of scholars have discussed the importance of investigating the knowledge development process and the way it flows and emerges to develop innovative outcomes and the collaboration dynamic between an organisation and multiple stakeholders (Preece, 2000; Sharratt and Usoro, 2003; Lindkvist, 2005; Pera et al., 2016)as based on common interests and shared goals (Sproull and Arriaga, 2007) across boundaries (Krogh et al., 2012).

Studies have demonstrated the important role of organisations in developing sustainable collaboration for the knowledge development process in online communities; for example, coordination and governance and maintaining online communities (Sharma et al., 2002; Dahlander and O'Mahoney, 2011; Ben-Menahem et al., 2016; Ren et al., 2007).

Furthermore, several studies have examined the dyadic processes of collaboration and the importance of finding a balance between users and organisations in the process of developing knowledge. For example, some scholars investigated and followed the knowledge shared by online participants in an OC until it was transformed into commercial products and services where the community have control over resources and processes (Jarvenpaa and Lang, 2011; Baldwin and Von Hippel, 2011). The effect of cultural influence is investigated community social backgrounds of users with similar interests are affecting the knowledge developed (Ardichvili et al., 2006).

In addition, OC has studied the collaboration among unexpected allies in the pursuit of social movements and social change (West and O' Mahony, 2008), extensive knowledge contributed and the emergence of effective practices of collaborations (Rullani and Haefliger, 2013; Bogers et al., 2017). The dynamic nature of OC allows online participants with different interests to adopt different roles and contribute strategically over time (Levina and Arriaga 2014) and some users are more generative than others (Van Osch and Stellink, 2012). Therefore, some studies have focussed on heterogeneous users and their different roles in sustaining the process of knowledge development in OC. Barrett et al., (2016) examined how different participants enrol at different times in the OC platforms and, subsequently, contribute to the creation of value. They point out that the types of users and the forms of value produced change over time, as the OC evolves and matures.

In addition, the effective communication between organisations and online members at different levels and with differing interests was found to be an effective method of building a shared identity within the environment (Pera et al., 2016), where developing knowledge can contribute to organisational innovation and development as well as the formulation of marketing strategies in a heterogeneous online community, as achieved by clustering participants with similar interests (Halatchliyski and Cress, 2014) with various interests in generating content (Levina and Arriaga, 2014).

Thus, heterogeneous understanding users and their relationships with organisations and their social environment is important, even before one begins to develop knowledge in OC (Von Wallpach et al., 2016) as incorporating all users within an OC and understanding them is important in the dialogue of developing innovative knowledge outcomes (Kornum and Mühlbacher, 2013). Stakeholders can become engaged and connected in the OC through different phenomenon in the social environment as value and membership evolve knowledge is collectively developed.

Furthermore, some studies consider the disparities between various users in OC; open boundaries are opportunities for developing innovative knowledge as the 'fluid' can be open to members despite disparities (Majchrzak et al., 2017). This fluctuation occurs between users, organisations, different goals and interests as tension in knowledge collaboration (Majchrzak and Malhotra, 2013).

Fluid OC inherently develops tensions as their boundaries are open and the membership is fluid, which affects collaboration resources such as passion, time, the

social embodiment of knowledge, which therefore develop various generative responses for knowledge. Scholars have found that knowledge collaborations tensions are a source of innovative knowledge outcome if they have been balanced, as the organisations interact with different users and finally find common ground and innovative outcomes or various solutions to problems (Majchrzak et al., 2013). In this way, tensions can spur creativity in knowledge (Harvey, 2014). Scholars have generally considered the tensions as various collectives produce persistent elements of collaborations that create collective actions over time which create knowledge collaboration (Faraj et al., 2011; (Hutter et al., 2011).Some dynamics are paradoxical; some are compatible and interrelated (Faraj et al., 2011).

Tension has been defined in the literature as "contradictory yet interrelated elements [of collaboration between collectives] that exist simultaneously and persist over time." (Smith and Lewis, 2011:382). Tensions generate a considerable amount of collective action. For example, passion is one recognised source of tension during collaboration as different individuals could have similar or contradictory passions, and they could affect each other or increase their collective actions toward developing new creative knowledge (Von Hippel and Von Krogh, 2013; Smith et al., 2017). Most of the literature talks about conflicts in organisations. However, I will be focusing on the tension that occurs when users themselves or users and OC moderators' debate on contested topics. This tension then could drive the recombination and bricolage of knowledge (Baum et al.,2001). Current organisational literature has increasingly investigated and adopted the paradox view of tension (Majchrzak et al., 2017), which means that tensions are a subset of conflicting demands that are inherently contradictory, yet interdependent (Smith et al.,2017; (Andriopoulos and Lewis, 2010). Tensions could have a positive and negative effect on knowledge development and collaboration (Majchrzak et al., 2017) Excessive, or a lack of tension can result in imbalance and therefore affect knowledge development and collaboration; for example, excessive passion could leave some participants to become uninterested because they are not emotionally engaged.

There has been some research on preventing an imbalance of tension from occurring. The noted dilemma is that imbalance cannot be predicted as the interaction is constantly emerging in fluid OCs (Majchrzak et al., 2017). Therefore, some studies have adopted traditional organisational thinking by focussing on the resources, actions, motivation and structure to balance tension (Andriopoulos and Lewis, 2010).

Nevertheless, some scholars have opposed traditional thinking to show that in a fluid OC, the tensions are much too unpredictable to merit structured responses (Majchrzak et al., 2017). Instead, they suggest focusing on the dynamic generative responses that occur between parties when the actions are emerging for knowledge development in order to rebalance them with the users' general consensus (Majchrzak et al., 2017; Faraj et al., 2011). It was found that regaining balance by aligning technology use at the right moment, created new roles while users' responses were emerging and boundaries constantly changing (Faraj et al., 2011).

2.3 The Research Gap

Regarding the debate of fluidity and structure, scholars have expressed the need to investigate the way that OC interaction is structured yet fluid so as to develop knowledge without the need to compromise the novel nature of the OC itself and to consider the possibility of fluidity existing in parallel with structure. This would entail keeping boundaries open both permanently or temporarily, or so membership is not restricted, and the opportunities that social media platforms' generativity offers is kept open.

The dynamics noted within OC have increased considerably in recent years due to the proliferation of social media platforms and their open nature, which allows knowledge to be created and recombined continuously, leading to novel ideas. However, studies to date have only examined OC in developing knowledge within a single platform.

For example, a single social media platform may not support all the necessary tools, features for developing required knowledge or the creation of an action that the OC need in producing new knowledge. With a fluid membership and boundaries, multiple roles and varieties of tasks may emerge with the expansion of social media platforms that become used OC spaces for interaction.

Given the fluidity of OC processes of engagement with the multiplicity of possible platforms that can be used to support knowledge development, there is need for much more understanding of the inner work of knowledge development processes across platforms, and between the diverse users as well as how various technologies themselves are consequential in support the OC dynamics.

OCs are not merely user-generated content platforms in which the content emerges arbitrarily, but instead content emerges when users opt to participate in the development of knowledge by focussing their interaction on a certain purpose.

In addition, social context has proved its importance; there are few studies to have placed any particular emphasis on the way that OCs are operating differently in developing innovative knowledge when they are taking the social context seriously while developing knowledge, services or products.

To examine this knowledge gap, I ask the following research question:

- *How is knowledge developed in an OC across multiple platforms?*

To investigate this question, I looked through the organisational literature, especially in open innovation studies that consider diverse stakeholders and networks, and I adopted the concept of orchestration as a research lens.

Orchestration is a term that acknowledges both the need for structure and fluidity in utilising multiple actors across a fragmented and accessible environment of action so that activity is synchronised across the collective (Faraj et al. 2011), "there are engineered processes led by a triggering entity that is instrumental in the initiation and growth of a network" (Dhanaraj and Parkhe 2006, p. 659). In the orchestration innovation studies, a focal firm of influence and leverage orchestrates the distributed capital and capacities of network stakeholders (Adner and Kapoor 2010; Gawer and Cusumano 2002; Iansiti and Levien 2004). Like these innovation networks, fluid OCs can be seen as loosely coupled organisational forms, where users retain some degree of independence and without any hierarchical restrictions. Yet, despite their loose coupling, innovation networks engage in knowledge development activities toward innovative outcomes (Dhanaraj and Parkhe 2006). The activities implicate "high levels of transactional uncertainty and exchange of tacit knowledge" (Dhanaraj and Parkhe 2006, p. 660), similar to knowledge collaboration activities observed in fluid OCs (Faraj et al. 2016).

In the following section, I review the relevant literature on orchestration processes to develop an understanding of OC orchestration.

2.4 Organisational Orchestration

Orchestration is the set of deliberate, thoughtful actions that are performed by an organisation as it seeks to harness knowledge and values through coordinating a loosely coupled network of stakeholders and their diverse interests to ensure the alignment of their goals and those of the organisation (Dhanaraj and Parkhe, 2006; Parida et al., 2019). Actions across a network are orchestrated through the core organisation so as to manage its highly diverse network, community or ecosystem of

actors, not as a form of authority but rather to increase knowledge mobility and transparency between diverse stakeholders and networks. In so doing the orchestrator steers and guides the network toward developing value and innovation (Dhanaraj and Parkhe, 2006; Williamson and De Meyer, 2012; Parida et al., 2019).Network orchestration investigates how the relationship between actors, as well as between networks and communities, emerges, is motivated and adds to the overall organisational or network goals (Parida et al., 2019).

Orchestrators consider the possible actions that actors, networks and communities may produce (Williamson & De Meyer, 2012; Parida et al., 2019). Organisational orchestration has been studied from different perspectives, including developing organisational policies with different network and community stakeholders (Janssen and Estevez, 2013; Janssen and Helbig, 2018), setting future visions, possibilities for aligning actions with different actors' goals (Möller, Rajala and Svahn, 2005; Shaw et al., 2019), knowledge transfer and mobilisation (Shaw and Carter, 2007), coordination, configuration and reconfiguration of networks and communities of actors (Shaw and Carter, 2007; Dhanaraj and Parkhe, 2006). Orchestration enables coordination, negotiation, integration and alignment of differences between diverse networks, communities and individuals, and further allow flexibility in the structure by providing actors with a social and contextually embedded understanding (Parida et al., 2019).

The reason that orchestration seeks to understand actors and the social environment is to build, acquire and deploy decisions according to actors and their collective capabilities, preferences, and knowledge (Winter, 2003; Teece, 2012). Hence, orchestration combines different capabilities to gain a new collective product, service, or knowledge through configuring, modifying or recombining different stakeholders, networks, processes and their associated resources (Teece, 2014).

Therefore, this approach builds unique business processes that can be used to learn more about activities and behaviour patterns in the development of organisation goals (Teece, 2014). Orchestration provides the organisation with the ability to plan in a resilient and flexible manner through understanding the different action possibilities that the distributed communities, platforms and actors may create. The diversity and the effects of the social environments of these actors can then be considered and harnessed to minimise risks and plan alternative routes for achieving goals (Shaw et al., 2019).

In developing my research on OC orchestration, I consider the orchestration processes of a focal firm that is embedded with an OC as well as the loosely structured OC users and potential users. To achieve OC orchestration, such a firm might consider the various ways of structuring interaction for their intended outcome, which in my case is knowledge development in support of an innovative digital media product. This would entail navigating across diverse possible social media platforms and considering how to maintain knowledge collaboration so as to harness creative ideas and energy as well as to how commitment across the users might be developed. Therefore, I define OC orchestration as *a set of deliberate, thoughtful actions performed by a core organisation as it seeks to configure an emerging process of OC knowledge development that is not bound by organisational boundaries or random crowd membership.*

2.5 Conclusion

OCs are an aggregation of multiple actors around a shared interest and has been of interest to most organisational scholars as it follows non-traditional ways of organising. With the advance of technology, especially the adoption of social media platforms in building OCs, a new form of fluid OCs has been under investigation because of the open boundaries, norms, fluid membership and flow of knowledge that characterise them.

In this chapter, I reviewed the online community literature, including the knowledge development process and collaboration, and determined the presence of a gap in the current research. There is a need to investigate the structure of the interaction that is novel for knowledge development and collaboration, which works without compromising the open boundaries and fluid membership. I will look at the knowledge development process in an OC with multiple social media platforms, unlike previous studies which merely investigate single platforms. In addition, there is a need to investigate the way that knowledge collaboration dynamics in different platforms that structure the process in fluid OCs.

Chapter 3
Research Methodology

3. 1 Introduction

This chapter begins with a discussion of the study's philosophical stance. The chapter then provides a chronological description of the data collection methods, approaches and processes.

The qualitative case study approach is adopted (the online community of a media firm as a single case study), and two-story examples were followed inside the OC. Then, a review of the research methods is offered, including netnography and semi-structured interviews with firm members and OC participants, followed by a discussion of the data analysis approach. Finally, the study's ethical considerations are described.

3.2 Philosophical Considerations: Interpretivist Process theory

Process theory is the attempt to study beyond the reason(s) things happen when researching phenomena to investigate how they emerge and develop and grow over time (Van de Ven, 2007; Langley et al., 2013). Process theory is the research's generic 'story', which was crafted after I moved from a description of the events in the phenomenon understudy to one of a deeper analytical understanding (Tannen, 1993). Process theory, according to Tannen (1993), includes a sequence that flows from the beginning to the middle and then ends of a narrative. Then, the events move according to the roles that actors play in the story, as affected by the social context. Finally, the frame of the narrative registers the progress of the process. Process research focusses on empirical phenomena and their emergence, and on the temporal progression of activities (Langley et al., 2013).

Process theory adopts a relational ontology (Tsoukas and Chia, 2002). Relational ontology does not deny the existence of reality but rather takes the position that the real needs 'unpacking' to reveal the complex processes – the sequences of activities and transactions – that are involved in and contribute to the reality. The ontology of process theory asserts that every being, possession or belonging is inherently related to others, regardless of being substantial or elementary (MacKay and Chia, 2013). The ontology considers that while the reality is 'out there', it changes – or, at least, can be changed – through any given process and its relation to other subjects or matter and

that its qualities are changed through these processes (Mesle, 2008;44). Hence, nature is composed of materials that vary in space and time but exist outside this change and stand independently, but the interpretation and the qualities of this object will change according to social interaction (Langley et al., 2013).

Process relational ontology helps to overcome the divide between the empirical and theoretical understanding of organisational and material units and agencies (Langley et al., 2013). For example, in this study, I looked at the relationships between the firm, multiple platforms and their tools, users and moderators. Each of these entities is co-constitutive of the online community and the social context within which they interact. As Derrida stated (quoted from Langley et al., 2013), all properties are, to some extent, not entirely material as their existence depends on relationships and their qualities. Therefore, this process perspective within organisations defines the idea that organisations are always in the 'becoming' stage of existence rather than the 'being'. Thus, processes continually define material things as existing in nature in the form of slowly moving relationships that are relatively stable (MacKay and Chia, 2013; Hernes, 2014). Process thinking recognises that contingency, emergence, creativity and complexity are fundamental to an understanding of organisational life (Mackay and Chia 2013).

Hence, given the adopted process-relational ontology and how this case study is in a constant state of movement that represents a bundle of social relationships, I chose the epistemology of interpretivism as the stance through which to navigate the research. The interpretivism approach does not assume a predetermined reality but rather aims to investigate the social structure, the use of language, conversations and the meaning that relationships create (Easterby-Smith et al., 2008).

Therefore, building theories is the method by which to investigate phenomena rather than testing pre-existing assumptions, and from which the context is inseparable (Burrell and Morgan, 1979).

Since the goal is to understand the online community as a whole, the firm, OC moderators, the users of the online communities, platforms and their usage in the social environment and the way knowledge unfolds, the interpretive philosophy approached the study as not being isolated from its natural setting. In the interpretive approach:

> *"There are liberating forms of interpretations, too; they contrast sharply with interpretations that prove oppressive. There are even interpretations that may be interpretations that impoverish human existence and stunt human growth.*

> *'Useful', 'liberating', 'fulfilling', 'rewarding' interpretations, yes, 'True' or 'valid' interpretations, no"* (Crotty, 1998,p. 47-48).

Interpretivism '*generate[s] or inductively develop[s] a theory or pattern of meanings*' (Creswell et al., 2003, p.9). Therefore, in this research, I relied on the qualitative approach to collect data through netnographic observations and semi-structured interviews.

Interpretivism is seen as an ongoing, dynamic process of meanings that are reproduced by people's social interactions when they act within a given environment (Burr, 1998). It places a greater emphasis on the construction of meanings, especially in relation to the environment.

The axiological assumption of interpretivism is one of seeking an understanding of a phenomenon rather than that of separate, predetermined static variables. Therefore, interpretivism cares about the collective meanings, actions, relationships and the present, dynamic understanding, while studying the knowledge that affects the past, present and future reality (Szmigin and Foxall, 2000).

The central focus of this study is the online community with its dynamic nature, which can be studied in this instance by adopting the interpretive approach. The reason for this is that interpretivism gives 'a new means of investigating previously unexplored questions' (Sandberg, 2005, p.42). Therefore, the study will emphasise the fluid, new way of organising online communities that study the relationships as a whole and need non-static methodologies for their investigation.

Therefore, all forms of observations such as symbolic meanings, networks, relationships, videos, photos and conversations observed, written or recorded are viewed as crucial. To apply this epistemology, I used the grounded theory as a tool to approach the data as it helps to construct relationships and interpret them through theory (Hammersley, 1992; Charmaz, 2000). I will discuss the grounded theory below.

3.3. Research Design: Qualitative Case Study Research

The study has used the qualitative methodology to capture the natural, spontaneous setting of the data to allow for certain flexibility when collecting and analysing the phenomena in question. Qualitative methodologies are seen as the most suitable means of inquiry that can be applied to allow the study of an organisation's activities and processes (e.g., orchestration and knowledge development) (Hakim, 1982; Bryman, 2005). In using this methodology, I was able to observe, understand and analyse

smaller instances that could uncover some more profound and broader understanding of the phenomena (Blaxter et al., 1998). The emphasis here is to clarify the importance of examining relevant details to understand the relationships involved and their associated complexities. These relationships could include small events, individuals, and processes that allow one to arrive at a new understanding of the 'big picture', as facilitated by qualitative inquiry. Therefore, the use of the qualitative method in this study allowed for a flexible means of gathering data.

In the case of the research undertaken through the online community of the organisation by netnography, this captures the subjectivity of the participants and firm members and the way they act and contribute towards the process of knowledge development. Quantitative methods tend to isolate cause and effect and quantify and measure phenomena to allow for deductive reasoning and a generalisation of findings that, sometimes, if operationalised, cannot catch the rapid changes that can occur for such social phenomena (Denzin and Lincoln, 2008). However, researchers adopting a socially constructed reality find the situational constraints that shape the inquiry and determine how the associated social phenomena are given a specific meaning during the processes (Denzin and Lincoln, 2011).

Given the limitations of quantitative inquiry, qualitative research methodologies were preferred for the collection of data, which was achieved in this instance through semi-structured interviews conducted with firm members and participants, in addition to a netnography of online community participation and processes. The data collection was followed by a grounded theory approach of thematic analysis to present the data in the form of a single case study of an online community established across multiple social media platforms.

Other studies have also considered the development of knowledge and values in online communities using qualitative methods to understand the associated process phenomena (e.g., see Barrett et al., 2016; Shaikh and Vaast, 2016). I will also focus on the orchestration of the online community, which is the way the interaction is structured in such a diverse, fluid and open online community (Faraj et al., 2016).

The single case study approach can be used to examine a given phenomenon in considerable depth by extracting data from every available aspect, dividing it into themes and considering the details of the emerging themes and connecting them to the whole to create focused, overall investigation of the case study (Bryman, 2016). The case study approach can be used to explain complex issues in real-life settings (Mills

et al., 2017), and is historically associated with qualitative studies, especially in the social sciences (Robson, 2011)). A case study can be defined as "*an empirical enquiry that investigates a contemporary phenomenon within its real-life context, when boundaries between phenomenon and context are not evident*" (Yin, 2003p.23). The case study approach is also associated with qualitative studies in the social sciences, where it can be efficiently used in conjunction with the social constructivist approach to help analyse data that occurs subjectively due to people's interactions.

The fundamental purpose of case study research is to apply a thorough and profound analysis of the phenomenon and obtain the perspectives of the participants whilst taking the context of the study into consideration (Merriam, 2009; Simons, 2009). Similar to other methods of qualitative research, a case study is designed to allow the exploration of the phenomenon in question from a perspective which is close to its natural setting (Fetters et al., 2013).

As Tsoukas (2009, p.298-299) explained, some small case studies are more in touch with reality and practices, which explains the phenomenon in a sufficiently profound manner as to touch the practical grounds of information systems studies and provide further contributions to knowledge:

> *"The distinctive contribution of small-N studies is better appreciated if it is seen through the epistemology of the particular, rather than through the epistemology of the general. The particular is not subsumed into the general; it rather further specifies the general. Small-N studies help us to define the distinctions through which we understand general processes and by so doing provide heuristic generalisations"* (Tsoukas, 2009, p.298).

By using in-depth contextual investigation, richer and more realistic data can be generated because this focusses the study on entangled events and actors and looks at the temporality of events while they are unfolding and becoming (Tsoukas, 2009). Such as in this thesis, the case study method enables me to choose a unique case study of the OC with multiple social media platforms, investigate stories, and illustrate the process through the lens of its unique context.

3.3.1 Case Study Context: an online community in Saudi Arabia

The research investigated an online community of a firm that specialises in digital media and entertainment, especially video content. The firm started in 2010 as a digital production company in Saudi Arabia and initiated an online community to produce YouTube-based programmes. The online community utilises multiple social media platforms in addition to YouTube, including Twitter, Instagram and Facebook. Every platform has different materiality and participants that contribute to the creation and

crafting of ideas and the content published. It then established a vast base of subscribers, nearly 8 million by mid-2011. By mid-2012, it took a new direction that coincided with the political changes experienced at that time in the Middle East (namely, the Arab Spring). This change began through establishing a presence on other social media platforms and asking for ideas regarding new programmes and aggregating social impact (i.e., following local hashtag trends such as the Male Guardianship Law (MGL) and *Our Civilization*, and relevant and web series content targeting Saudi audiences through creativity.

The social impact that the online community sought was to attract attention and strengthen the force of collective action to close the gap between the parts of the community, such as the equality between genders in the case of MGL, and in the case of the Our Civilization story, closing the gap between the nation and other nations of the world by preserving and introducing cultural and historical heritage, and gaining the attention of the world to encourage tourism, and to UNESCO to list and preserve the abandoned historical sites and ancient languages as part of world heritage.

With the new era of technology and social media, social activities such as hashtag activism (Tombleson and Wolf, 2017) has been dominant in the case of Saudi as a soft, yet highly effective collective social impact. The organisation found that a Twitter hashtag is crucial to building media material for entertainment, recognition and, simultaneously, creating impact. The media organisation has realised that a powerful key to building effective and innovative web series that result in a greater impression and wider impact is to collaborate with users to develop knowledge through creating an online community that uses the various social media platforms to the same cause.

I followed several stories as the unit of observation for knowledge development process but ended up focussing on two in particular (Male Guardianship Law – or MGL – and Our Civilization) as they both resulted in innovative outcomes (i.e., YouTube series) and because I saw signs that the process of developing knowledge was successful and that they had an immediate social impact in the sense of changing public opinion. However, I observed some stories that ended up falling in the middle of the process, such as *planting trees and taking care of the ecology*. The reason for such failures is investigated further during the interviews that I conducted after the netnography. some of the data collected are related to what is called the 'male guardianship law' (MGL). MGL is a law in Saudi Arabia that is informally-based

(traditions, customs and tribal law), unlike the majority of statutes which are institutionalised formally (Human Rights Watch, 2016). This culturally-based law means that all women must have a male guardian; usually, a father, husband or brother, whose permission must be obtained to travel, work, study, undergo medical procedures, obtain any official identification/passport or even file a lawsuit (Human Rights Watch, 2016). There has been some previous effort to tackle this issue in Saudi Arabia, but the concept has never been entirely abolished (Ensor, 2016). It has, however, been widely discussed on social media (Ensor, 2016).

Accordingly, the public has been voicing their opinions through a hashtag on Twitter since the middle of 2016 entitled the 'demand for the dissolution of the male guardianship law'. The hashtag is deleted daily as it has been reported to Twitter but is subsequently recreated by the people. This focussed the firm's attention, who considered MGL to represent socially impactful content, and they decided to bring it to the OC for discussion. The MGL has social consequences for women beyond the problem of equality, such as poverty, illiteracy, exploitation and domestic violence.

For this online community, some of the data collected relate to the campaign of gathering information about unknown and neglected historical sites. This is due to the decades of negligence seen at many of the heritage sites in Saudi Arabia, neglect that extends to the fact that they are barely spoken about or taught in schools, books or even discussed in the mainstream media.

In recent years, there has been a push by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) to increase awareness of several historical sites throughout Saudi Arabia, and the government has been requested to preserve the heritage of some of these sites.

Until now, UNESCO has preserved and recognised just four sites, namely the Al-Hijr Archaeological Site (Madâin Sâlih) (2008), At-Turaif District in ad-Dir'iyah (2010), Historic Jeddah, the Gate to Makkah (Mecca) (2014) and the Rock Art in the Hail Region of Saudi Arabia (2014) (UNESCO, 2017). However, these places comprise only a bare minimum of the civilizations that may have existed in the region throughout antiquity. Therefore, some of the heritage sites are not even known to local citizens, except for those who themselves happen to live very near them.

Therefore, I chose stories as a unit of observation as they reflect the constant dynamic sharing accumulation, transferring transforming and resynthesizing of knowledge by the collaboration of multiple stakeholders and technology to create multiple values

overtime in which define different outcomes depends on the distinction of social context which is the process of knowledge development is all about. the story is identified when data is collected by adopting methods for researching a narrative that unfolds and reflect the knowledge while developed (Czarniawska 2004; Gabriel 2000). Specifically, I considered the establishment of the MGL and Our Civilization as a "critical incident", which is "important from the point of view of the main activity of processes taking place in the site understudy" (Czarniawska 2004:47). Critical incidents are helpful in eliciting narratives from participants (Gabriel 2000), and this is exactly what the digital firm aimed at achieving when they introduced the hashtag #dissolution_of_male_guardianship_law and #Our Civilization on Twitter. Participants were probed to chronologically order events leading to the MGL and our civilization; to discuss the reactions that followed from social actors; to define their position in and around the critical incident regarding their intentions and the resources available to them, and to describe how they expected their intentions to be materialized (cf. Gabriel 2000). The digital firm used prompts to preserve the flow of the narrative plot (e.g. "what happened next?" or "how did you react to that?"). They also invited reflection on different outcomes to the narrative plot (e.g. "what would you change if you had to do this again?"), to enable openness in the interpretation (Czarniawska 2004). Using the interviews with key contributors, as well as employees from the digital firm, we were able to prompt further clarifications on different narrative plots (Boje 2001).

Therefore, I followed the stories while they unfolded and developed as video content in the online community to constitute begging (Twitter), middle (Facebook, Instagram) and end (YouTube), followed by semi-structured interviews with online community participants from all social media platforms and the firm's members. Following the development of stories, I identified first the details and the background behind every hashtag on Twitter that represents a story. the hashtag considers the beginning of the knowledge development process and the topic of the story. The middle of the story is identified when the stories started to unfold as the critical incident started to be solved through content sharing from actors and that is identified in the second platform (Facebook) where the narrative is observed to be continuing. The middle of the story unfolding when the actors share content more than reacting to foster knowledge development.

The narrative ends either by failing of counties event developing or by the success of producing innovative outcome on YouTube.Before going on to explain the data methods, I will explain the online community context.

3.4 Data Collection Approach, Methods Collection and Analysis Process

The data collection was conducted in two stages (2016/2017 and 2017/2018) using two data collection methods, netnography and semi-structured interviews, and was analysed using a grounded theory approach to coding (Charmaz, 2014). Thus, I simultaneously coded and analysed data during its collection, in which I used netnography as the first data collection method and as a tool to help the initial understanding of the case study process when I first approached the field to mark what was happening inside the online community's social media platforms.

Then, I used semi-structured interviews to give an in-depth understanding of the case study and formalised and specified the codes using the interviews as focussed coding procedures for the study.

However, any new data that emerged from the interviews also went through initial coding to allow comparison with the netnography data.

3.4.1 Analysis approach: Grounded Theory

Grounded theory is a method of analysis that emerged in the Glaser (1965) as its main founders, conducted a sociological study in a hospital and crafted this method to help them extract legitimate, systemic findings from an empirical setting and from which they could theorise (Charmaz, 2014). The reason for using this method of analysis is to create a theory that can be used to interpret the data collected so as to fit with and work within real-world settings (Corbin and Strauss, 1990).

Grounded theory, at its core, is an analysis process that allows the generation of appropriate theory from data by inspecting the data collected to create categories that can be identified through patterns of similarities and differences.

Memos are used to track the analysis and justify every category created, and to develop this into connected theoretical ideas (Walker and Myrick, 2006; Flick, 2018). The grounded theory contains constant comparisons, which is achieved by analysing data through an extensive, rich description of meanings, words and language through the social context of the data. It faces the challenge that a massive amount of data can be generated at different data levels (Walker & Myrick, 2006).

Coding is working as inductive method and forms the main part of grounded theory (Corbin and Strauss, 1990), in which the data, inductively and deductively, is converted from transcript to theory through levels of abstraction through to categorisation. coding is *"conceptualising data by constant comparison of incident with incident, and incident with the concept"* (Glaser, 1992; p. 38).

3.4.2 Data Collection Process

The data collection process took place over one year and five months (see Table 3.1) in three different research environments. The online community's inherent openness and diversity urged me to collect data from various sources (netnography, online, phone and face-to-face interviews) and stakeholders (firm employees, community members and some users). I divided data collection into three phases: (1) planning entry; (2) online ethnography (netnography); and (3) interviewing. Although the phases are distinct, they overlap throughout the research as I revisited the phases throughout the data collection period.

Data Collection Phase	Period	Data - Collection Methods
Planning entry	August 2016 - November 2016	• Pre-understanding: researching online community outcomes, the way it operates. • Scanning social media platforms activities and choosing a specific chain of events.
Online ethnography (netnography)	November 2016 - April 2017	• Two selected stories. • Fieldnotes. • Collecting screenshots of Tweets.
Interviewing	July 2017 - January 2018 (Including the follow-ups)	• Choosing interview participants • Conducting Interviews (online-offline).

Table 3.1 Timeline of Phases of the data collection process

3.4.2.1 Planning and Gaining Entry

I gathered information on the case study (the online community) before the entry to the online community. The research first introduced the YouTube channel that shows different web shows and series produced by the media firm because two of the video clips went viral in Saudi Arabia and had considerable social impact. I investigated the YouTube channel for the related viral webs series and then the firm, which leads to an understanding of the way that firms operate through online communities.

I then investigated the community further, observing that it is based on multiple platforms. Such pre-understanding offered an insight into the likely time needed to

research the case study of the online community (Gummesson, 2000) and the best research methods for use with such investigations. Observing the discussion assisted in identifying the community moderators and when engaging with users. I took notes throughout the study which reflect upon the main activities on multiple platforms, events and stakeholders. I started the general scanning of multiple OC platforms (Twitter, Facebook, Instagram, and YouTube) over a period of three weeks to gain a general sense of the content of OC post events and interactions.

3.4.2.2 Conducting Online Ethnography (Netnography)
3.4.2.2.1 Netnography Concept Background

Kozinets(2002) defines netnography as *'a qualitative research methodology that has adapted ethnographic research techniques to study the cultures and communities that emerge through computer-mediated communication'* (p. 62). Netnography is an ethnography that is conducted in an online setting and is used to carefully investigate the social interaction among a group of people and study the relationships between individuals, individuals and things, practices, systems, and culture in a digital communication context (Kozinets *et al.*, 2010). Instead of shadowing individuals and groups in the manner of ethnography, netnography is conducted through following the digital traces of online users, their activities, interactions, conversations and relationships, and further following the development of activities, all of which is used as data (Kozinets, 2007).

Morgan and Watson (2009) claim that netnography may *'offer a window into the naturally occurring behaviour in a context which is not fabricated by the researcher'* (p. 116). Using netnography in the study seems to be the most suitable decision, in which most of the activities undertaken by the firm are done virtually, that is, in the online community, and the number of people participating is enormous in comparison with the number of firm members (of which there were 11), who would generate enough data alone to research the OC if we had only chosen to conduct the interviews. Even if I were to have undertaken ethnography with the firm members, it would be somewhat isolated from the online process that I wanted to investigate.

In addition, the ontological perspective is to investigate the process of becoming, as the netnography offers this insight to the '*cultural realities... [Of human] groups as they live their activities*' (Kozinets, 2006, p. 282) as showing the activities as they are being undertaken and allows a certain focus on the small practices related to the cultural context.

3.4.2.2.2 Netnography Field Procedure Description (2016-2017)

The data collection process started in November 2016 and continued for six months, ending at the end of April 2017. I started to observe the online community online, and I asked questions such as those stated by Charmaz (2014): "what is the data a study of?", "what does the data suggest?" "Whose point of view?" "What theoretical categories does this data indicate?" etc. I followed both stories (MGL and Our Civilization) and collected traces of data from every social media platform, and I asked some questions such as: What type of knowledge shared? What the difference between platforms? Do the platforms operate all together or in sequence? What type of users and what are the differences between them?

What type of dynamics is applied? What is the role of platform tools? I started to trace posts, starting with Twitter, by following trending hashtags outside the OC and comparing them to the discussion within the OC Twitter page.

I scanned 5430 tweets, which was subsequently narrowed to 456 tweets, that all belonged to the MGL story. The narrowing of the sample of tweets was accomplished by comparing the content of a given tweet to a Facebook post that focussed on the MGL topic on each of the platforms. Instagram data followed because it was linked to Facebook post events. There were around 780 Facebook posts and associated comments.

Following the collection, I started to write the chain of events to make sense of the amount of data being observed. Then, I started to group the text data around the categories phase (main initial code categories) and realised that the knowledge is developed in a chain of interdependent social media platforms to form a process. I decided initially to code each platform to phases in connection with a given platform. I started to draw a basic process that showed the sequence spanning the beginning, middle and the outcome of the narrative through the interaction. I was able to gain a primary understanding that what connects these various platforms is a process that shows the development of knowledge in every platform, and what changes are made to the knowledge in every phase. Following that, I recorded the main reasoning for drawing these categories. Then, as soon as I observed and started to collect data, I considered that as an initial coding for the case study (the online community) (See Table 3.2).

The initial analysis at this stage was conducted for two reasons besides gathering data; firstly, to make sense of the data collected and to understand what was going on in the online community and, secondly, to prepare for the second phase of the data collection (semi-structured interviews), namely to enable me to ask more effective, focussed and fully aware questions in order to gain more information regarding certain interactions within the community that the netnography itself was unable to explain.

In addition, I noticed that the participants were different in each platform. The initial analysis coding gave me the opportunity to understand hidden knowledge development processes before the coding, and also to consider the importance of using another data collection method to investigate the phenomenon in more depth. Through the netnography, I was able to gain sufficient basic information to identify each platform and reflect on its purpose according to the data in hand.

Knowledge Development Phase	Description
Initiation (Twitter)	- Commencing a discussion - Continuity - Narrowing down
Shaping up (Facebook)	- Continuity of transferred discussion - Sharing ideas - Development of knowledge
Execution of Action (Facebook &Instagram	- Developing knowledge further into action. - Using visuals
Outcome (YouTube)	Web series

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Table 3.2 initial coding after conducting netnography in the online community (2016/2017)

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For example, I understood that the discussion of the *MGL* and *Our Civilization* stories started on Twitter as the OC moderators choose this from a trending hashtag outside the community, and subsequently tried to start the discussion in Twitter.

Therefore, I named the phase that included the interaction on Twitter as the initiation phase, followed by the shaping up and execution phases on Facebook and Instagram, then the outcome on YouTube as the primary thinking. However, there are plenty of questions regarding the orchestration and the flow of the process, which were noted as ambiguous and not yet reflected on the process. For instance, how the crowd followed the sequence between platforms and how they continued the development of knowledge regardless of the fluidity and the openness in such platforms, how these phases unfolded in more depth, and why all these multiple platforms are used, how this contributes to the idea development, and how the content is moved between

platforms. Therefore, I conducted the second stage of data collection in light of the netnography, which guided my research objectives.

3.4.2.3 Interviewing

3.4.2.3.1 Semi-Structured Interviews Concept Background

After conducting the netnography, the observations seemed to be giving me a general idea about the case; however, it was not showing me how and why this process of knowledge development was applied to the development of ideas in the OC and what the role of the multiple social media platforms was in this process. Therefore, to ensure a rigorous approach to the research, semi-structured interviews appeared to be the best method for the study to provide more precise and more reliable data to answer the research question.

Silverman,(2016) noted that a considerable amount of qualitative research still depends on interviews as a window to understanding life beyond what the eyes see, and to jointly construct the interviewer and the interviewees' points of view.

Therefore, I used semi-structured interviews to allow the relevant stream of observed topics to guide the questions and yet still provide the freedom to express the views of the interviewees (Bernard, 2012).

However, for the interviews to be beneficial to me, a guide needed to be prepared before entering the field to ensure that I did not waste the interviewees' time (Cohen and Crabtree, 2006; Bjørnholt and Farstad, 2014). In the following section, I will describe how the field entry was designed and prepared in detail.

3.4.2.3.2 Interviewing Field Procedure Description (2017-2018)

As I conducted the netnography and scanned the entire process, the questions of how and why the OC members and participants acted in the way they did and moved between the platforms, what engaged them and how they moved the content, and what the role of the platforms has remained; these could only be answered through interviews conducted on the basis of what had been observed in the netnography. Therefore, interviews were the most suitable option by which to carry out the investigation of the process of knowledge development and to determine the way the process is structured and governed in such a fluid OC.

I started to conduct the interviews using two methods: first, I interviewed firm members by phone and/or face-to-face interviews (See Table 3.3). There were 11 firm members, for whom I conducted interviews in two stages according to their

availability. Four interviews were conducted in July 2017 and seven in January 2018, with an average of 45 minutes per interview.

The second interview method was by direct messaging services (DMS) to the online community through Twitter, Facebook and Instagram, and I chose the most active members in the event I was investigating (i.e., *MGL* or *Our Civilization*), I interviewed 25 users. Both interview methods gave a total number of 36 interviewees.

DMS offered asynchronicity to conversations and established an informality in which I could join in and sign out of conversations flexibly as the texting services are based on a more informal connection with other participants. This informality and flexibility gave me space within which to internalise responses, create a plan by which to change the questions according to the responses given, and gain a deeper understanding of the issue as I had time to rethink any given approach I was using. This type of interview made me reflect upon my experiences during the face-to-face interviews as I felt I should have asked other questions that had not come to mind at that time.

In addition, my questions were phrased at a different level than the actual interview questions (see Kvale, 1996). I wrote the questions that I wanted to investigate about then I designed simplified versions to ask the interviewees as the language of research and the associated analyses are not typically understood by the 'layman' interviewee, where simplicity is vital to a good interview (Yin, 2003). Also, the questions vary according to the position that the interviewee holds concerning the phenomenon being investigated (Creswell, 2013; Yin, 2003). Therefore, the questions I asked the firm members for a given theme were designed from a different angle than the ones for the participants in the OC (See Table 3.4). The focus of the interviews was on the knowledge development process, and the way knowledge collaboration dynamics take place within the OC.

Interviewee position	Position Description	Duration of interview	Type of interview
Production Manager	• Ensuring the content produced is qualified as published material on YouTube.	1 hour 23 minutes	Face-to-Face
Social Media Manager	• Understanding the way social media works such as any updates to the platforms and its policies. • Understanding the widespread trending hashtags in Saudi Arabia.	52 minutes	Face-to-Face
Business Development Manager	• Conducting a feasibility study regarding topic chosen, social impact and profit. • Making sure that the OC works as expected.	57 minutes	Face-to-Face
Marketing Manager	• Responsible for ensuring disseminated to the OC. • Attracting advertisement and sponsors to the YouTube series.	37 minutes	Phone
Content Moderator 1	• Monitoring the interaction and content of Twitter content	34 minutes	Phone
Content Moderator 2	• Mentoring the interaction and content of Facebook	50 minutes	Face-to-Face
Content Moderator 3	• Mentoring the interaction and content of Facebook and Instagram	54 minutes	Phone
OC Content Moderator 4	• Monitoring the interaction on Twitter	41 minutes	Face-to-Face
OC Moderator 1	• Ensuring the interaction link between platforms	50 minutes	Face-to-Face
OC Moderator2	• Ensuring the interaction link between platforms	37 minutes	Face-to-Face
Visual Moderator	• Responsible for the Instagram account and the receiving and the curation of visual content from users.	20 minutes	Face-to-Face

Table 3.3: Summary of the firm's interviewees, given their positions, the duration of their interviews and

the method of interviews in each case

The Thematic Dimension (the researcher questions)	Sample of Interview Questions (Not Exclusive)
Before the knowledge development process (orchestration) - Why hashtags? Who chose them? How are hashtags chosen? How are the social media platforms interactions aligned towards one innovative outcome? 3- How does the firm understand that users in a specific platform will perform a task in a specific way? 4- How is the OC governed and moderated whilst maintaining constant fluidity and openness? **Phase 1 Twitter** **MGL/Our Civilization.** 1- Social media platform materiality and affordances. 2- The motivations of firm members, participants (internal, external). 3- The way they craft the discussions (emotional triggers, the way they move, the role of participants). **The failed story (planting trees and the ecology)** - The importance of content (text) interaction and why (favourite) (retweets) are not counted as interaction? Motivations? 2- How the content is considered a success?	**Firm members** 1- **Before the topic emerges and knowledge development process takes place** Why are you using multiple platforms? How does that add to producing web series? How are you moderating multiple platforms simultaneously? How do you know that the users on platform X will do what you expect? How do you deal with the situation when they do not? 2- **During the process of knowledge development** How do you start a discussion in the OC? Where? How did you come to decide on this topic? Did you consider the participants? How do you understand their needs? How do you make sure they will respond? Why didn't the story of planting trees turn into a web series? How do you understand that stories will not be successful? **Participants on social media** How does this discussion grab your attention? Is there any reason behind the topic, or related to Twitter? How did you decide to participate? How do you think your responses will be considered?

Table 3.4: Sample (not exclusive) of the thematic and interview questions designed before and during the Twitter phase.

Then, I focussed on designing questions to investigate the failed stories that I observed during the netnography to understand the associated cause of failure. In addition, the other main focus in the interview questions was about the way the whole OC is orchestrated, in terms of its diverse users and platforms, without compromising the fluidity of open multiple social media platforms.

However, before asking the interviewees specific questions, I preferred instead to start with the interviewees' own narration of the event I was following (*MGL, Our Civilization*) in order for me to understand what was a most important aspect that the interviewees wanted to share was that would possibly otherwise be overlooked. This technique is called narrative interviewing (Creswell et al., 2003).

3.4.3 Data Analysis Process

Both codings from interviews and netnography have been formed into tables following the Gioia method of analysis, which includes a first-order coding, second-order analysis and finally the general theme (Gioia et al., 2013). The analysis is divided into

two chapters: first, before the knowledge development process, and representing the higher level of the process, which called OC orchestration. OC orchestration main themes include profiling of users, profiling platforms, and configuring knowledge development process (see Table 3.5 and 3.6).

The second chapter of the analysis is more about the process of knowledge development and the knowledge collaboration tension between users and OC moderators across social media platforms. The process includes two phases represents the main analytic themes: collective momentum and collective ideation (See Table 3.7,3.8,3.9 and 3.10). The main themes represent two analytic dimensions which are users (See Table 3.8 and 3.10) and OC moderators (See Table 3.7 and 3.9). Therefore, due to the complicated elements in the analysis, the main themes considered which considered as phases with two dimensions were divided further to sub-themes. For example, Collective Momentum phase theme is divided into sub-themes, including Guiding goals for moderators and conferring goal for users. Every sub-theme in both the moderators and users' dimensions were emerged from the first and second-order (See Table3.7and 3.8). Similarly, in the second theme of Collective ideation Phase in which divided to sub-themes including endeavouring collective ideation for OC moderators and applying collective ideation for users stemming from first and second-order analysis (See Table 3.9 and 3.10). Finally, I formed a knowledge development process model which showed the dynamics and the orchestration across social media platforms (see Figure 6.1).

Data Examples	First Order	Second Order	Theme
Content Editability **Twitter** *"People don't delete their tweets which contain errors or spelling mistakes, they respond with posting new tweet underneath because they don't want to lose the responses [likes, comments, retweets] they have on the old tweet which make the topic trends more"* **OC Moderator** **Facebook** *"We use Facebook to increase the number and the quality of content sharing because of its flexibility in editing, and attaching media content"* **OC Social Media Moderator**	Content editability, content sharing space, content organisation. **Twitter**: Editable content, limited space, accessible hashtags. **Facebook:** un-editable content, unlimited space, less accessible and vertically organised.	Generativity of Platforms	Profiling OC Platforms
Content Sharing space **Twitter** *"Short posts in Twitter enable people to express their reactions more than sharing more stories and experiences. It's not a place to share a solid piece of content that is adopted into developing a YouTube show"* **OC Content Moderator** **Facebook** *"Facebook allows unlimited space for video sharing, and that is great for content. The users will have the space to share and be more creative"* **OC Content Moderator.**			
Content Coordination **Twitter** *"We don't overthink how content will spread as Twitter helps. People could join and leave, but the effect of their tweets remains through trending hashtags that they attached in the post. Nowadays, people may join or go so, on Twitter, the spreading of the topic is what matters for creating a buzz and building interest"* **OC Business Development Manager** **Facebook** *"Facebook helps us to pin chosen content by users and spate posts for content further development and focus. In some scenarios, we could control the visibility of the discussion to limited sit of people. We also like the idea that hashtag on Facebook is not dynamic like Twitter in which help us to keep some discussion low profile"* **OC Social Media Moderator**			

Table 3.5: Data examples and analysis themes of OC orchestration Practices (Profiling OC Platforms)

Data Examples	First Order	Second Order	Theme
Twitter Heterogeneity of Twitter users: *"If you have a set of users that is diverse and comes from different backgrounds from different places, of different ages and stages of life, this will create buzz, and we need this first for creating the show. Twitter will only allow them to participate through brief responses, and that what we wanted from them, to interact and create noise. …………. Therefore, we start with those users first. We designed the introduction to the discussion [users of Twitter page] will be interested in"* **Social Media Manager** **Facebook** Homogeneity of users: *"We observed that people using Facebook were willing to give more to the discussion. We see people have more convergent, high levels of education and stages. We notice homogeneity, not in terms of the same ideas, but in the willingness to change, to do and to turn ideas into reality"* **Online community moderator**.	**Twitter** Heterogeneity of Twitter users: diverse age groups, popularity, individualistic goals, lower level of education. **Facebook** Homogeneity of users: Mostly holds a high level of education, Lower number of users Mostly stick to a collective goal for change. More willing to share and discuss experiences, stories, creative ideas and materials to support the collective goal.	Characteristics of Users	Profiling OC Users
Twitter Kicking off the knowledge development Process *"What we want from people is to interact, create noise. Therefore, we start with those users first on Twitter, as Twitter supports this in its structure. We designed the introduction to the discussion in terms of what they [users of the Twitter page] will be interested in. We use hashtags that are trending and socially oriented to generate discussion"* **Social Media Moderator** **Facebook** Supporting and enriching the knowledge development process *"Moving the discussion to Facebook to improve the discussion and the ideas of the shows more by supporting stories and users' experiences. The users here are supportive. We remove the hashtags for more focussed, less accessible, less followed content. The reason is we want to the content to be accessible to those who make an effort to participate and who have something to say ……. If we used groups, the discussion would be completely open, but the content will be more organised. Also, if we include the hashtag, it may prevent users from having other connected ideas but then being excluded because it is not included in the hashtag……we build question in the broadside of the hashtags and we don't build all ideas on the Twitter discussion."* **OC Content Moderator**	**Twitter** Kick off the process (short, responsive disseminated content). **Facebook** Enriching and supporting the knowledge development process (in-depth and creative content for sustaining, specifying content).	The flow of the process and content	Configuring the knowledge development process

Table 3.6: Data Analysis Examples of OC orchestration Practices (Proflig Users, Configuring Knowledge)

Data Examples	First-order	Second Order	Sub Theme	Theme
"The choice of the hashtags is what matters, I see that they [organisation] want to change things in society, you can see the type of topic they chose to discuss, I used to see the shows they produce, it's all about people, but it becomes newer and relatable" **User**	Signalling trending topic.	Guiding collective emotions	Guiding collective goal	Collective momentum phase, (OC members)
"We use the hashtag as it is an advertisement. We are targeting users in our Twitter account. It is easy for them to access, they can relate to it, and they create a buzz from it. Let's give them something familiar, something they care about from the beginning. They are who we depend on to introduce the content to our community" **OC Business Development Manager**				
"What I like in [organisation name] is that they connect us with what we feel is important, what most of the people already discussed but they eventually will do something about it [content, trending hashtags]. When they point it out here, we know with their help we could achieve something, it will not go to waste between an infinite number of hashtags that are created every day" **User**				
Netnography extract on Twitter #demand the dissolution of the male guardianship law. Question: "What do you think about the dissolution of the male guardianship law, are you for or against this? Why?"	Introducing an open question.			
"We create our voices by the exaggerations of the event and the enlargement of peoples' reactions toward a subject. If we want to showcase our public discussion, we must create a buzz by using users' excitement" **Content Moderator interview.**	Building tension "through encouraging argument and counter-argument to affect the interaction reach."	Guiding collective Motivations		
Field note: In 2-11-2016, the discussion of that talks about the environment and planting trees is deleted from Twitter page after it was created on the 24th October 2016. Although the discussion seemed promising because it was a significant agreement on the initiatives, it doesn't make enough interaction. It appears that OC doesn't count either favourite button or retweets on this phase. Also, it seems although that people agreed with the topic, it's not enough to challenge. Either way, the OC reasons, but what it's observed is that they need a counter-argument for this content to work.	Cultivating continuity.			
Field note: They narrow down users' views by conducting a poll to gain survey responses. The vote was in favour of supporting the discussion, which is some form of change or accepting the status quo.	Constraining possible expressions.	Legitimatizing collective goal		
Field note: *"We're offering space on Facebook. It is getting exciting, and we would love to hear from you there, as we would expect that you could share more stories and opinions with us, and we could gain a deeper insight regarding the #dissolution_of_male_guardianship_law there… we could collaborate to have this on Facebook! See you there."* **OC Content Moderator on Twitter Page**	Legitimise choice of a preferred collective goal.			

Table 3.7: Data Analysis Examples of Knowledge development process, collective momentum phase, OC Moderators

Data Example	First-order	Second Order	Sub Theme	Theme
"The more people have different opinions and try to argue, the more the issue will be taken into consideration. The issue, if it then stays at the surface, will have more chance of peaceful social action from the policy and decision-makers" **User.**	Being aware of the purpose and effect.	Negotiating emotions	Conferring collective goal	Collective Momentum phase, (OC Users)
"by participating in the discussion, our voices can be heard, and we could do a practical step toward change" **User**	Demanding the reach for their voice and opinions.			
"I want to express our issues and working collectively to achieve goals by participating in this page. Because we work here toward creating a show and if we participate in other places, we will be working individually" **User**				
"We saw our efforts had been paid off when some of the shows affected the decision making and, therefore, it's a great way to make a change in other issues we are facing. I have heard that people had participated and their stories and has been shown" **User**.	Experiencing of the previous fate of discussions.			
"I see that everyone here [OC Twitter Page] is excited and the topic is trending. So, I started to feel charged to participate, have an opinion or even support others with retweets" **User**	Sensing energy from each other.	Negotiating motivation		
"The sense of collectiveness is the reason to participate in the discussion. The topic is trending makes you see it again and again, think about it, feel the vibes and the peer pressure" **Social Media Manager**.				
"People like to argue, participate in whatever they find trending. Most of them find the topics rather exciting, mainly because it provokes different opinions and contradicts the norms" **OC Content Moderator**	Enjoying the confronting of ideas.			
"People like to respond to each other's opinions, especially if they were conflicted. Some of them even retweet some least logical or socially accepted just for the sake of argument" **OC Social Media Manager**				
"what I like here [OC Twitter Page] is that we can see our opinions are taken into consideration" **User**	Validating users' voices.	Affirming a collective goal		
"The poll is a good idea to know that the issue has even raised and taken into consideration, and it's not just a conversation. The options of the poll give the people an idea of what may happen in the future. They know that with the vote, that is the end of the discussion" **user**	Narrowing down interaction for closure.			
Field note: The interaction started to lessen as soon as the poll is posted as the users on Twitter began to interpret their reaction by voting on the poll and waiting for the overall result. The interaction started to turn from written responses to registered votes as it easy for users to understand the big picture	Affirming tangible outcome.			

Table 3.8: Data Analysis Examples of Knowledge development process, collective momentum phase, OC Users

Data Example	First Order	Second Order	Sub Theme	Theme
Field Note OC moderators mention the interaction on Twitter and how the topic has attracted attention on Facebook. They include Twitter poll results as evidence of surveying users' interests.	Signalling a reference for the topic.	Crafting collective ideation	Endeavouring collective ideation	collective Ideation phase, (OC Moderators)
Netnography extract from 'Our Ancient Civilisation' story: *"Will you share details of the historic places in your town and would you like the people to know about any background history of* *those old places, stories and photos? We want to create a new show, and I will name it 'Our Ancient Civilisation'. Lots of people want to know more about places and their ancient languages as our poll has shown on our Twitter page. We are interested to know more! For all interested people, this is your area of creativity! Come and join, and will you share stories and information ?"*	Introducing the detailed and specific question.			
"Asking people specifically to share more stories on Facebook as it is space friendly as well as more organised. Therefore, we could categorise what people say and share. When we say to people that they have the freedom to share experiences, they most certainly start to respond as we show the Twitter interaction and poll result to them and they will respond more" **Social Media Manager** *"We use Twitter poll results for the people on Facebook to show them that the content is worth trying. We make them feel special by asking them to share content, and most of the time it works if they have something to share"* **OC Content Moderator**	Marketing to gain content.			
"The stories once shared its effect cannot be retrieved and forgotten as they motivate people to either share more or similar stories or engage with the existing one. It is our chance to have emotional support. We ask people clearly to share stories as a way to start collecting ideas and content for the show. Also, it makes people engage together emotionally" **OC Content Moderator**	Cultivating users' emotions into motivations.	Applying Creative Means		
"Instagram stimulate people when they forget a little about the topic. Also, some ideas of the videos make us, and the users think how we will be doing the show......, what the show will look like, and what is the main point....... Instagram a boost! It always works" **OC Production Manager**	Encouraging creativity in sharing content by introducing different means.			
"There is no point of continuing if people share less despite our efforts. Because if they don't have genuine feelings, experience toward the topic and nothing to share, it will not survive on YouTube even if we thought about the show idea. The people on Facebook are a significant source for the success or the failure of the topic. We need ideas, content and genuine interest" **OC Content Moderator.**	Directing conversations for ideation.			

Table 3.9: Data Analysis Examples of Knowledge development process, collective Ideation phase, OC Moderators

Data Example	First Order	Second Order	Sub Theme	Theme
"the conversation established on Twitter is highly appreciated by the people on Facebook as they realise the importance of the topic early on and quickly gather to support" **OC Social Media Manager**	Influencing the established interaction.	Establishing collective ideation	Users Applying collective ideation	collective Ideation phase, (OC Users)
"it is inspiring to see the poll results that [organisation name] is conducting on every topic as we can see what people think. I sometimes review their interaction on Twitter, and I come to Facebook very excited and charged to discuss and share what I think, and because the people here have some stories to share that I could comment on" **User**				
"People here [Facebook] are ready to engage in the topic immediately after seeing how the topic is active on Twitter. They are less distracted by personal side talk. They realise the importance of the topic and how they are important to topic survival" **OC Content Moderator**				
"I feel privileged that I am from the very few amongst whom [name of organisation] considers our opinions. I know that because I see the community on Facebook is more collaborative in terms of supporting change and being more accepting of different opinions. They have a basic level of understanding, education and willingness to change, which helps me to share opinions" **User**	Establishing the duty as elite changemakers.			
"We want to change, and the only way to be heard is to organise our voices in one place, create something unique and creative to change the status quo" **User**	Realizing the need to legitimize ideas.	Investing in collective ideation		
"Sharing stories and take practical steps towards feeding the content for the show is my priority. We saw how people are already excited, but now I want to think about different ways to share and promote experiences" **User**	Realising the importance of translating emotions to content.			
"I had a perfect time, and it is satisfying to interact with others to create Our Ancient Civilisation and categories of episodes while we are discussing great ideas and the supporting environment from [organisation name]" **User**	Sharing and engaging with conversations to deepen established content.			
Field Note: (Women's Show) As soon as the idea is separated into different posts, plenty of users started to categorise, add to the content shared, and share links from the Instagram page to fit episode topics to the photos and videos.	Supporting and nurturing chosen ideas.			
Field Note: (Our ancient Civilisation) Users started to draw up the timetable for episode according to the map and which areas are near to each other as the presenter needs to reach each in as short a time as possible. Also, users started, according to the timetable, linking previously gathered material and Instagram links to the content of each episode.				

Table 3.10: Data Analysis Examples of Knowledge development process, collective Ideation phase, OC Users.

3.5 Ethical Considerations

As an online ethnographer, there were two ethical considerations: whether the OC under investigation is a public or private space, and whether there was a need to obtain appropriate consent. According to the netnography literature, the netnographer is a professional 'lurker' (Brewer, 2000; Kozinets, 2007). However, this particular form of unrestricted data collection might lead to unwelcome reactions from the OC users. As it is complicated to obtain consent from every individual in these circumstances, I obscured any personal information from each of the screenshots they collected. Secondly, I ensured that consent was obtained from every user and a firm member who was interviewed. Regarding the netnography access for the online community, the researchers observed that the online community is open to public participation and posts, including text, videos and photos, which were for public access and use. However, the researcher did not post any videos or photos for the stories investigated, except those shown in the outcome (YouTube series). During the interviews, I ensured anonymity and confidentiality for any users and community members interviewed via written posts, telephone and face-to-face. In the netnography, I ensured that any indication of the identity of people or the OC was eliminated from the screenshots taken (photos, texts and videos) by removing names, and obliterating or blurring faces and logos.

3.6 Conclusion

This chapter has focussed on the philosophical considerations, case context and the research design and process of data analysis. As directed by the central aim of the study, an interpretive perspective is adopted along with process ontology in order to gain an in-depth dataset. The methodological approach with associated philosophical stance is the case study design of an online community of a media firm in Saudi Arabia that is located across multiple social media platforms and produces web shows on YouTube. I investigated how the knowledge development process is unfolded in the OC and how the process is orchestrated by looking extendedly at two stories, *MGL* and *Our Civilization*. I introduced extended contextual backgrounds to both examples, and investigated a number of stories that ultimately failed during the knowledge development process.

I used netnography to the OC as a data collection method followed by semi-structured interviews for a firm and OC members and users. I analysed the data according to Gioia method and finally described the ethical considerations.

Chapter 4
Orchestrating an Online Community with Multiple Social Media Platforms

4.1 Introduction

This chapter will investigate the orchestration of an online community with multiple social media platforms to develop the knowledge required to gain an innovative outcome. As discussed in the previous chapter, the empirical investigation performed in this study considered a media organisation that is distributed across multiple social media platforms and worked toward creating innovative web series that has social benefits for society as it supports the societal change. The process of OC orchestration allows the organisation to identify the knowledge development process between the platforms and its configurations. Therefore, the organisation follows the idea of orchestration to mark the associated uncharted territory and develop the flow of a process that achieves the desired innovative outcome of knowledge which in the case study is the YouTube series idea and content.

Literature has defined organisational orchestration as the set of deliberate, thoughtful actions performed by the core organisation as it seeks to harness knowledge and values. Orchestration happens by coordinating a loosely coupled network of stakeholders and their diverse interests to ensure the alignment of their goals and those of the organisation (Dhanaraj and Parkhe, 2006; Parida et al., 2019). However, in the case of OC orchestration, the actions are no longer contained within the organisational boundaries, but instead includes the virtual existence and goes beyond its diverse stakeholders and organised teams to include the diversity of platforms as well.

Organisations typically fall into different types of structure such as hierarchical, functional, de-centralised, and centralised and others. In all of these types, organizational boundaries and the stakeholders involved in various tasks are determined. In contrast, orchestration spans boundaries and involves a multitude of stakeholders as tasks and labour become diversely located and digitised.

However, in the case of OC orchestration, the orchestration targets a specific community of interested users. OC orchestration is contributing to help to configure an emerging process of knowledge development that is not bound by organizational boundaries or random crowd membership. The OC is formed through the specific

interests of the community on particular topics, which are orchestrated by an organization.

This chapter will investigate the way that OC orchestration process operate to develop new way of organising knowledge development process in multiple platforms by applying three practices include profiling the OC's multiple platforms, profiling the different OC users in each platform to understand their associated expected content outcomes, and finally configuring the overall flow of the process according to the previous practices.

4.2 The OC Orchestration Practices

The OC orchestration process involves the profiling of platforms and platform users, as well as the configuration of the knowledge development process across platforms.

4.2.1 Profiling OC platforms

Profiling OC platforms is the way by which the organisation classifies platform generativity within the OC social environment. The generativity of the platforms includes content editability, content sharing space, content organisation and accessibility, all of which affect the expected outcome of content shared.

4.2.1.1 Content Editability

Editability affects the amount of content shared. For example, Twitter does not adopt the feature of editability for the shared content.

> *"People don't delete their tweets which contain errors or spelling mistakes, they respond with posting new tweet underneath because they don't want to lose the responses [likes, comments, retweets] they have on the old tweet which make the topic trends more"* **OC Moderator**

As this quote shows, users add additional Tweets to their original posts to correct errors in the originals. The investigation into the way that platforms are used in the context of the OC is essential as less content sharing could result in unpredictability, but the example indicates the corollary to this, namely that content sharing is increased by editing through adding tweets underneath the original submission.

This is due to how Twitter works, as the impressions of other users are registered to the original tweet and would all vanish if the original tweet were deleted. Therefore, un-editability of content could increase knowledge spreading by increasing the response by short reactive posts. However, the spreading of content sharing is not always sufficient for the type of content needed. On Facebook, for example, the editability is significant for deeper and specific knowledge development.

> *"We use Facebook to increase the number and the quality of content sharing because of its flexibility in editing, and attaching media content"* **OC Social Media Moderator**

As can be seen from previous examples, profiling platforms and the way this operates in the social environment of the OC helps develop an understanding of the organisation in order to orchestrate the knowledge development process.

The editability helps the process of content sharing as it helps users to amend posts if they make errors or simply change their mind, and that enhances the quality of content. In summary, the editability of content varies between platforms or otherwise, affect content sharing and quality. The unpredictability of Twitter helped to scale content as the users prefer to amend errors or simply changing their opinions regarding an issue with tweeting new posts rather than deleting tweets and posting again because they want to preserve the reactions (likes, retweets) from the old posts. However, the quality of content on Twitter is merely confined to reactive posts and opinions. On the other hand, on Facebook, the editability has affected the content through increasing its quality.

Therefore, profiling platform through looking at platform feature of editability is significant for online community orchestration as it has shown its effect on content sharing methods and types and therefore, affect the understanding of the best ways to configure knowledge development process afterwards.

4.2.1.2 Content Sharing Space

Sharing space is an essential feature to consider for the organisation while profiling OC platforms for knowledge development.

> *"Short posts on Twitter enable people to express their reactions more than sharing more stories and experiences. It's not a place to share a solid piece of content that is adopted into developing a YouTube show"* **OC Content Moderator**

The limited sharing space available on Twitter is reflected in the number of permissible characters they provide. Twitter, in the previous example, is a platform which has a limited number of 280 characters per post.

The examples showed that such limited sharing space sometimes implies the type of content shared on a given platform. OC content moderators described the content shared on Twitter as merely short responses and are not the kind of content that enriches the knowledge development nor an innovative outcome in the context of the OC.

However, the previous argument does not imply that Twitter is not helping the development of the knowledge process in general but rather in a specific phase of knowledge process. Therefore, the profiling of platforms is highly significant as it shows the organisation when the use of a specific platform is improving the process of knowledge development and when it is implied otherwise. For example, in some cases, twitter help to scale content because users may Tweet a couple of tweets to express their opinions due to the limited sharing space.

> *"We focus on completing the task required [specific to] the short space of social media platform that helps topic to trend."* **OC Content Moderator.**

Limited sharing space is considered to help content scaling because people may tend to post their opinions in a thread of tweets. The example shows that the limited space not just considered a disadvantage for enriching content sharing, but rather helps content to go viral on the way that sharing opinion divided in multiple tweets helps the scaling of content.

However, Facebook is characterised by having an unlimited space for content sharing.

> *"Facebook allows unlimited space for video sharing, and that is great for content. The users will have the space to share and be more creative"* **OC Content Moderator**

The example illustrated that Facebook is a platform which has unlimited content space that is not confined to text and short videos but will allow for sharing high-quality videos which, according to the OC, helps in-depth content sharing.

However, although Facebook offers unlimited sharing space, the organisation may prefer for the non-textual content to be more confined. Therefore, in the case of different type of content such as videos and photos, the organisation used Instagram just as a supportive tool that works jointly with Facebook. One of the reasons to adopt Instagram is a limited video sharing space.

> *"We use Instagram in the middle of the discussions and storytelling [joint with Facebook] for supporting as a tool to encourage people to think creatively and make ideas in a video that doesn't exceed 3 minutes."* **OC Content Moderator**

The example shows that the organisation believes that the limited space of sharing non-textual content on Instagram helps encourage users to be creative in content production to include their ideas in shorter videos. However, Instagram should be joined with Facebook to support more content sharing and creative ideas.

In summary, the limited space on Twitter affect the type of content, and the way content is shared. Limited space could restrict the type of content shared by users to be contained to opinions and responses rather than rich and long pieces of content such

as stories and experiences. However, the limited space could help scale the users' responses due to sharing of multiple tweets to compensate the limited sharing space and therefore, helps the content to spread and gain popularity. Unlike Facebook, the unlimited sharing space of content has enabled more profound, subtle, rich and content sharing. Non-textual content, according to the media firm, is better shared in the platform that restricts content length like videos on Instagram to help increase content creativity and support content. This is so because it confines users to think creatively to provide their message in a limited space and time. This profiling of platforms by understanding the space of content sharing is significant in orchestrating the online community. Profiling platforms helps the organisation orchestrate the kind of content being shared and configure the knowledge development process.

4.2.1.3 Content Coordination

The coordination of content is as well a vital consideration for the organisation when profiling platforms. As the content edibility and space affecting the type of content shared and its quality, the coordination of content goes beyond that to affect the way in which the sharing space and editability operate. An extract from my field notes shows:

> *Some people participating in both hashtags of our civilisation and demand for dissolution of MGL had tweeted more than one Tweet to express their opinions. The number of characters on Twitter is limited by comparison to what people want to share or express. The increased number of tweets affect the rank of hashtag attached.*

The continuous posting of the content may not ultimately trend unless it is grouped and coordinated in a unique way, such as in hashtags. Therefore, the profiling of platforms considers coordination and how the accessibility of platforms affects knowledge development.

Twitter has a certain uniqueness in terms of coordinating content that enables posts to be referenced, easily accessed and naturally trend with a keyword that follows the hash sign (#) to form the hashtag. The hashtag is used on Twitter to spread the content and organise content with a reference point.

> *"We don't overthink how content will spread as Twitter helps, and it will have its impact socially and for the firm. People could join and leave, but the effect of their tweets remains through trending hashtags that they attached in the post. Nowadays, people may join or go so, on Twitter, the spreading of a topic is what matters for creating a buzz and building interest"* **OC Business Development Manager**

The coordination of content in Twitter preserves the participation of the various and changing stakeholders by accumulating their responses for content scaling and then gaining the buzz needed to develop content further. In contrast, Facebook has more vertical coordination of content with less accessibility represented in the ability to create subgroups and change content visibility to everyone.

> *"Facebook helps us to pin chosen content by users and spate posts for content further development and focus. In some scenarios, we could control the visibility of the discussion to limited sit of people. We also like the idea that hashtag on Facebook is not dynamic like Twitter in which help us to keep some discussion low profile."* **OC Social Media Moderator**

Coordination and accessibility of content on Facebook help the organisation in terms of subsequent knowledge development concentration. Instagram, as a supportive tool to Facebook, is offering one place to browse the curated selection of shared photos and videos.

> *"To picture the stories users shared, we ask to provide any material that supports the talk through our page on Instagram to collect and categorise them and put them in one place that easies for the users to go through and support their ideas on Facebook with"* **OC Moderator**

The example shows that coordinated content by Instagram works as a reference for users to support their content on Facebook.

Also, the organisation works as a content navigation tool for users to see their content organised in one place. Furthermore, Instagram offers a private option for the organisation to select and curate from the photos and videos that users intend to share. From the netnography, the researcher determined that the photos and videos are sent to the page via Instagram through private messaging, and are then reviewed by the Media Firm and posted.

Most of the videos shown contained messages in the form of short videos and photos. The photos/videos shared were of expressive or symbolic value to people, places, events or even writing. The cover of the video or photo was connected by the post title on the Facebook page. However, not all sent videos and photos were posted on Instagram

> *"it's important to preserve some of good content and quality videos [on Instagram] to directly share on YouTube as could be distinctive and worth sharing on the episodes, we usually notify the person and write their name on the show credit"* **OC Production Manager**

Instagram gives the option to the organisation to coordinate the content and curate it and gives options to the accessibility of certain content for the advantage of the final outcome of the knowledge development process as it in the YouTube show. In

summary, profiling OC platforms helps to understand that the display of content in every platform affects the type of content shared and the way it's presented. Understanding the differences in platform generativity enables coordination to orchestrate the process of acquiring knowledge as this illustrates the likely outcome of the content expected from each platform.

In summary, profiling platforms in terms of generativity is significant to an understanding of the expected knowledge contributions that will be developed according to the type of the platform and the way it is used within the social context (see Table 4.1).

OC Platform	Platform generativity	The expected knowledge contribution
Twitter	Editability: un-editable content Sharing space: limited sharing space coordination of content: hashtags (visible and accessible)	Short responses Less quality content (responses, opinions) Spread, expanded, viral content
Facebook	Editability: editable Sharing space: unlimited sharing space for text, videos coordination of content: vertical, more options for content visibility (subgroups and post privacy options)	Enriched, focused, creative content Improved content quality
Instagram (as support tool)	Sharing space: limited video length coordination of content: Curated coordination. Visibility: Non-direct sharing content (by DMs)	Short creative content (videos). Coordinated creative content easy to share with Facebook discussion. more inclusive and private content for an organisation to share on YouTube

Table 4.1 Profiling Multiple Platforms according to Generativity and the Expected knowledge Contributions

Similarly, understanding the platform users' characteristics in the social context is essential to identifying the associated knowledge outcome. Hence, the organisation considers profiling users to represent a significant step towards orchestrating the knowledge development process, as the users are the source of content creation.

4.2.2 Profiling users

The organisation orchestrates the flow of knowledge development process by profiling the users of every platform, which results in an understanding of OC users in the social context. The profiling of OC users is to understand the characteristics, the goals and preferences based on the social environment. Every platform chosen by the OC has a unique set of users with different characteristics and interests. Further, the organisation works to profile users' characteristics on each platform by acknowledging and understanding the social environment surrounding the OC. They examine the differences in age group, level of education and, in some cases, the gender according to the topic discussed.

For example, through interviews, organisation members and users identified the way social media platforms work in the context of Saudi Arabia.

> *"If you have a set of users that is diverse and comes from different backgrounds from different places, of different ages and stages of life, this will create buzz, and we need this first for creating the show. Twitter will only allow them to participate through brief responses, and that what we wanted from them, to interact and create noise. ... Therefore, we start with those users first. We designed the introduction to the discussion [users of Twitter page] will be interested in"* **Social Media Manager.**

The previous quote conveys the heterogeneity of Twitter users in terms of age and diversity of backgrounds. The heterogeneity is indicative of raising the tension and creating different room for arguments between users as they may hold a different way of thinking. The example shows that heterogeneity helps content scaling on Twitter, which then becomes a way to attract more OC users for further content development. Furthermore, the type of content will be more responsive, short and opinionated. Twitter users may be considered the most diverse and, therefore, the most active.

> *"Twitter is diverse, and everyone uses it, from teenagers to elders. Therefore, this will include people of different education levels, and it's hard to reach any conclusion from a discussion but rather gain attention for what you want to say"* **Social Media Manager**

The previous example shows the heterogeneity in terms of age and education may help to gain the attention of participants but may not help content development and the building of the collective goal as the crowd is extremely individualistic. Therefore, because of the different characteristics of users in terms of age and education, the outcomes from the platform will be affected in some manner.

As Twitter has the most diverse group of users in terms of number, age and education, the expectation is that the discussion will be far-reaching because the users are active. However, an enriched or focussed discussion is unlikely.

Users on Facebook have more freedom in terms of content space and are willing to take the discussion further by offering new means to deepen and widen new thinking. The reason behind the uniqueness of these users can be explained through the following quote:

> *"We observed that people using Facebook were willing to give more to the discussion. We see people have more convergent, high levels of education and stages. We notice homogeneity, not in terms of the same ideas, but in the willingness to change, to do and to turn ideas into reality"* **OC moderator**.

The previous example shows that the uniqueness of Facebook users is due to the organisation's observation and the identification of a particular user characteristic, namely that of a high level of education -as it described by OC moderator in the

interview- in the context of Saudi, and homogeneity amongst these users. The Marketing Manager, when describing OC Facebook users, added:

> *"People joining Facebook are fewer in number, and that is good in terms of focussing on the topic, but they support change, and any topic that is new brings different views that are socially important and touches their lives, and they are willing to invest their time and effort."*

The example shows that the number of users plays a vital role in differentiating platform users and their effects on the outcome of the knowledge development process; fewer devoted users provides the possibility of being able to provide more focussed knowledge development. Secondly, Facebook OC users have been described as change-makers and as interested in the discussion in the context of the OC and the country. As shown, there is a difference in the characteristics of users on each platform depending on the social environment, which affects the way that users deal with content and, therefore, the possibility of developing knowledge.

Hence, the degree to which social change is supported is significant as it shows whether users are willing to build a collective goal for knowledge development or otherwise, as I examine in the next chapter. However, the organisation understands that Twitter users are inclined towards their individual goals, and therefore tend not to be willing to build a collective goal that could be helpful in terms of knowledge development.

For example, the organisation concluded that not agreeing on a collective goal may be beneficial for knowledge development.

> *"We need Twitter users to not agree on one opinion, but they must have the willingness to argue on public issues"* **Marketing Manager.**

The example shows that organisations may need a group of users like those on Twitter who are inclined to follow their individualistic goals, as this could scale the content further and create additional buzz. Accordingly, profiling each platform's users in terms of understanding the way that the user base is interpreting the social environment and interacting with it is a significant step toward orchestrating OC for knowledge development. In addition, the organisation orchestrates users by using Instagram as a tool to profile certain criteria of users to support some discussions the organisation. For Instagram, the same logic is applied in terms of the uniqueness of the platform users in the context of the country. For example, from the rationale behind using different platforms which include different sets of users is as follows:

> *"Most of the people using Instagram are women, and that was helpful in some of the discussion we had. Also, it [Instagram] has a lot of content makers who create short, meaningful creative media"* **OC Content Moderator.**

Instagram, in the context of Saudi and the OC, has a unique group of user characteristics such as gender dominance and a certain level of talent at dealing with content, which is the central focus of the organisation and the OC. The organisation has realised that Instagram users' characteristics can be helpful as gender plays a significant role in some of the actions that are already established in terms of their interest to each specific gender. Furthermore, the example shows that Instagram users, in general, in the context of the country, are creative and can create more meaningful and precise media for the show.

However, the use of Instagram here as the only tool to provide certain users, not as a standalone phase in developing knowledge as Facebook, has shown its more useful role in term of users and platform characteristics and Instagram can be added to Facebook as an added tool of supporting orchestration. The reason is that Instagram does not contain any sharing space for everyone to contribute, its space that supports personal pages over shared pubic space for interaction, unlike other social media platforms which allow pooled participation in a shared space. Therefore, the personal page on Instagram belongs to the firm and people share their photos by directly messaging the firm's page.

Lastly, the number of users joining each platform acts as an indicator of the likely interaction and collaboration towards knowledge development. The popularity within the social environment may affect the extent to which the content is shared, the way it is shared, and who it is being shared. Twitter is a more popular choice of the platform amongst users in general and accordingly has a greater share of subscribers within the social content of the OC.

> *"People here [Saudi Arabia] are already using Twitter to demand change, and it's the most used social media app amongst different ages and stages"* **Social Media Manager**

Twitter has the highest number of users in terms of number, age in the context in the context of Saudi. The Firm takes this into account when seeking to generate interaction between members of the OC during knowledge development. Twitter users may be considered the most diverse and thus the most active, and whose content influences the social media domain because the number of participants increases the trending of the content bring scale to the OC activity.

Unlike Twitter, Facebook is considered less popular and has fewer subscribers and limited usage.

> *"We need to move the interaction away to focus on building content from Twitter with a noisy environment with plenty of different participants to more harmonic place with fewer users and fresh minds with less distraction like Facebook."* **OC Moderator**

As the example shows, the popularity of the platforms among the users is taken into consideration by the organisation in order to understand the content, quantity and survival. The example illustrated the fact that the organisation understands that popularity is associated with a noisy environment, and a lack of popularity can be associated with harmony and concentration on content sharing. Every platform represents a different way in which content development can occur. In addition, the interpretation of popularity in the social environment in the OC is taken from a different perspective, as usually, the popularity indicator is that of increasing amounts of content. However, the organisation shows that the popularity in the social environment is an indicator of content scaling, but then not necessary improve the quality of content while with more subtle less popular platform such as Facebook, become a hub for creative users who are willing to deepen discussion and take it further, share more creative content with the help of Instagram.

In summary, profiling OC platform users helped the organisation to identify the type of content that can be expected to be developed by users. Profiling users classify characteristics such as the heterogeneity or homogeneity regarding their age, number, educational level, creativity and their goals. The orchestration through profiling users is a step besides profiling platforms to help the organisation to configure the knowledge development process flow. Table 4.2 summarises how the different users of available social media platforms were uniquely harnessed by the media Firm to shape the OC's activity within the unique context of Saudi.

OC Platform	Users group and characteristics in the social context	The expected Knowledge Contribution
Twitter	Heterogeneity of user characterises: • Diverse age groups. • A huge number of users • Mostly active. • Diverse individual-centric goals. • Mostly hold a lower level of education than other platforms users	• Personal opinions • Conflicted opinions • Shallow content. • disseminated content
Facebook	Homogeneity of users: • Mostly holds a high level of education. • Less number of users • Mostly stick to a collective goal for change. • More willing to share and discuss experiences, stories, creative ideas and materials to support collective goal.	• Enriched and creative content. • Collective, goal-oriented focused content. • Yield more ideas.
Instagram (as support tool)	Supportive specialised users: • Gender-based content support (Females) • creative base content support (short videos and curated photos)	• Enriched and creative content to support Facebook content .

Table 4.2 Profiling Users in Multiple Platforms according to The Characteristics and The Expected Knowledge Contribution.

4.2.3 The configuration of the knowledge development process

The organisation understands and classifies the actors in the OC, including multiple platforms and users, to understand the expected outcome of the content emerging in each OC platform to finally arrive at the third orchestration practice which to configure the flow of knowledge development process. The profiling was undertaken by distinguishing every platform in terms of recognising every platform and users' characteristics. I observed that with the profiling, the type content shared, and its purpose is changing accordingly.

> *"Twitter will allow people to be responsive and spread ideas quickly as they participate only through concise responses, making topics trending by sharing hashtags"* **Social Media Manager**

This example shows the expected knowledge outcome from Twitter, namely widespread, short and responsive. Another example from Facebook:

> *"Facebook has the space of deep, detailed content provided by people with the freedom to tell long stories or express their entire opinion in detail, so we asked them to share more. We don't include the hashtag anymore to be less accessible and more focussed"* **OC Content Moderator.**

Hence, according to the organisation, Facebook's expected outcomes are a result of in-depth, detailed content that is useful for the knowledge development required to produce an innovative outcome. Consequently, by understanding what type of content might be expected from each platform, the organisation configures the flow of the overall process of knowledge development. Each phase of the knowledge development process will be performed on a different platform.

"What we want from people is to interact, create noise. Therefore, we start with those users first on Twitter, as Twitter supports this in its structure. We designed the introduction to the discussion in terms of what they [users of the Twitter page] will be interested in. We use hashtags that are trending and socially oriented to generate discussion" **Social Media Moderator**

The organisation revealed that Twitter is useful when initially developing content for users as its use is widespread and because of the heterogeneity of users in which creates the buzz that organisation needs to kick start the knowledge development process.

"Moving the discussion to Facebook improves the discussion and the ideas of the shows by supporting stories and users' experiences. The users here are supportive. We remove the hashtags for more focussed, less accessible, less followed content. The reason is we want the content to be accessible to those who make an effort to participate and who have something to say ... If we used groups, the discussion would be completely open, but the content will be more organised. Also, if we include the hashtag, it may prevent users from having other connected ideas but then being excluded because it is not included in the hashtag...we build question in the broadside of the hashtags and we don't build all ideas on the Twitter discussion." **OC Content Moderator**

The researcher infers from this example that the organisation is configuring the flow of the process according to the expected content type that is expected from profiling the users and platforms. The example shows that the content outcome from Facebook interaction comes after the responsive outcome on Twitter. The reason for this is that the Facebook content outcome is more subtle, in-depth specified, profound and more invested in gaining a developed knowledge outcome during the process. The users' homogeneity and their goal are collective in supporting common social causes as it was explained previously. In addition, the way that content is organised would be supported by creative tools (Instagram) expected to help to enrich the knowledge development process.

Table 4.3 shows the OC's orchestration configuration of the Knowledge development process and summarises the practices used in general.

	Twitter	Facebook
Profiling OC Platforms	The unpredictability of content limited space, accessible and loosely organised	Editability of content, creative and unlimited sharing space, confinement inaccessibility and multiple organisation options
Profiling OC Users	Heterogeneity of users Goal: Individual-centric	Homogeneity of users. Goal: collective-centric willingness to embrace societal change
The configuration of knowledge Development Process	Knowledge contribution: Short, responsive spread content to kick off the knowledge development process (Collective momentum)	Knowledge contribution: In-depth and creative content for sustaining, specifying and enriching knowledge development process (collective ideation)

Table 4.3: OC orchestration of knowledge development.

4.3 Conclusion

The OC orchestration for the knowledge development process is done by three practices: profiling OC platforms, profiling OC users to eventually reflect upon the outcome of content on each platform, and finally, configuring the flow of the knowledge development process.

The first content outcome the profiling platforms and users identifies is widespread, short and responsive. This type of content outcome is formed on Twitter in which its unpredictability of content, limited space and loose organisation and accessibility play a role in forming the outcome. In addition, the heterogeneity of the users, due to such factors as the users' various educational backgrounds, ages, and the individualistic instinct for seeking goals play a significant role in forming the spread, active, short and responsive outcome of the content.

As a consequence of the content outcome that is expected to be developed, Twitter has configured the best platform with which to initiate the knowledge development process as a new process will need to expand considerably through responsive interaction to a greater extent than content-driven interaction.

In contrast, Facebook's expected content outcome is far more stable, enriched and creative. The reason for this is that Facebook has unique generativity such as unlimited, editable, organised and less accessible content-sharing space, along with the relative homogeneity of its users and their willingness to form collective goals and pursue societal change.

The organisation configured that Facebook is a suitable platform for knowledge specification and sustaining and enriching knowledge development process and should follow Twitter. Alongside, Instagram is configured as a supportive tool for Facebook as it supports content creativity and helps with additional creative and specialised users.

Chapter 5
The process of developing knowledge across multiple social media platforms

5.1 Introduction

In this chapter, the focus will be on the process of developing knowledge across multiple social media platforms toward an innovative outcome. The process includes two main phases: collective momentum (CM) and collective ideation (CI). I will analyse the dynamics unfolding inside the phases in considerable detail. Every phase takes place in a single platform with different users, who are connected to each other and the OC moderators develop an innovative outcome. The dynamics inside each platform (which I consider to be a 'phase' for the purposes of this analysis) are dyadic in the sense that there is engagement between both the OC moderators and users. Both OC moderators and users interact to exchange knowledge and to simultaneously develop an outcome for each phase.

In the collective momentum phase, OC moderators initiate and guide the collective goal by applying the following steps: guide collective emotions and motivations and legitimise a collective goal. Correspondingly, users simultaneously negotiate the collective goal with the OC moderators through the following steps: negotiating emotions , motivations and affirming the collective goal. These dynamics take place within a single social media platform (Twitter).

The collective ideation phase takes place on a different platform (Facebook). The aim is to develop new ideas around the collectively agreed goal in the previous phase (collective momentum). During this phase, knowledge is deepened around the collectively agreed topic in order to develop an innovative outcome. The OC moderators endeavour to ensure collective ideation through the following steps: crafting, applying creative means, and finally 'harvesting' an innovative outcome. Simultaneously, users correspondingly establish and invest in collective ideation.

5.2 Phase 1 Collective Momentum (CM)

The CM phase aims to test the general interest in a discussion topic by assessing the reach and spread of interest of the idea on Twitter. I will show the practices that OC moderators apply to gain collective momentum for an idea amongst users.

5.2.1 OC Moderators: Guiding Collective Goal

OC moderators apply the following practices to negotiate a method with the users to achieve the collective goal in order to build collective momentum:

5.2.1.1 Guiding Collective Emotions:

The OC moderators start the knowledge development process by signalling a trending topic that people are discussing locally on Twitter. They look for and then insert trending hashtags in Saudi on topics of possible interest. The topic chosen is generally social and contemporary in nature so that people are easily interested and widespread uptake more possible. In so doing, they aim to develop a practice I call 'guiding collective emotions' which occurs during the collective momentum phase.

The OC moderators use the same hashtag to introduce the discussion into the OC Twitter page. Using the hashtag makes it easier for users to connect with it as a familiar topic, and further allows a significant number of people to interact on the OC by accessing the same hashtag from the general Twitter feed.

> *"We use the hashtag as it is an advertisement. We target users on our Twitter page. It is easy for them to access, they can relate to it, and they create a buzz from it. Let's give them something familiar, something they care about from the beginning. They are who we depend on to introduce the content to our community."* **Business Development Manager**

Guiding emotions related to a common hashtag is useful because the associated topics are usually fresh, motivating and exciting, which makes it easy to form collective responses. Furthermore, OC moderators are aware of the importance of the emotions that unify users' efforts.

> *"Hashtags are essential at the beginning of the discussion, and it gives a boost to the established discussion as the topic is still fresh in peoples' minds and the emotions are high, and they are even exited. We direct this excitement, and it's much easy to build a bond with our discussion. We are a media firm, and we need to be up-to-date with our surroundings."* **OC Content Moderator.**

The OC moderators' choice is essential - as illustrated in the previous example - because the users already have a certain connection with the discussion, and it shows them that their issues will be heard and solved if they participate further. The type of discussion chosen is highly significant as well as the media firm is interested in enabling social impact and engender positive change in society. For example:

> *"The choice of hashtags is what matters. I see that they [media firm] want to change things in society; you can see the type of topic they chose to discuss. I used to watch the shows they produce which are all about people, but the shows have become newer and relatable."* **OC User.**

The OC moderators choose trending hashtags that have the potential to influence social issues or concerns since this is where users' interest is actually directed. Also, the reason hashtags were used in the first place, other than guiding OC moderators regarding people's choices, is that hashtags bring new topics with which users can engage and which have an emotional appeal. As a result, more users will end up participating in the discussion, being drawn to have their say on the topic. The OC moderators select a hashtag that they consider will be appealing to users, hoping to engender active conversation and ongoing reactions.

> *"We keep it very simple, we think about the subject, build emotion on it, and we market it very well by playing on people's motivations and emotions. We don't overthink as the hashtags simply disappear and people forget and because, nowadays, people may simply join or leave. However, feelings stay more. We focus on completing the task required [specific to] the social media platform."* **OC Moderator.**

When a new topic is first introduced on the OC Twitter page, it is formulated in the form of an open question which asks people to give their opinions regarding the recently trending Twitter hashtag. This question is effectively reintroducing the discussion to users and shifts their attention towards the hashtag and how it bears on their own personal opinions. One of the questions posed was relating to a national trending hashtag, which was '#demand the dissolution of the male guardianship law[1].'

> The question was: *"What do you think about the dissolution of the male guardianship law; are you for or against this? Why?"*

In the #our civilization story[2]:

> *"Aren't you missing that element of rooting to your own culture? Then, what do you think about preserving ancient sites and languages in your towns?"*

The OC moderators ensure that the question used to introduce the content to the users contains the original hashtag. This attracts the users' attention and directs them to further discussion. The OC moderators' intention is to establish a buzz through the various conflicting, and differences in opinions offered; the more opinions that oppose one another, the greater the buzz and publicity the OC gains regarding the content, and the longer the hashtag will remain trending. In this way, the content begins to establish CM through scaling the discussion.

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[1] The original hashtag of The dissolution of MGL is اسقاط_الولاية#

[2] The original hashtag of The our civilization story is حضارتنا#

Guiding emotions through signalling an exciting and familiar topic, while engaging interest through an open question is done with the intention of moving the discussion towards a collective goal, as an emotional attachment by users to the discussion content maintains their participation. By attaching the discussion to emotions to attract more people the discussion breadth will expand, an important goal for the Twitter platform dynamics. This technique allows the OC to shift users' efforts toward one particular issue and develop it, whilst at the same time limiting the users' interaction within the platform to the activities that the OC moderators support, consequently building momentum for novel knowledge development.

5.2.1.2 Guiding Collective Motivations

In this practice, OC moderators try to build tension for collective momentum, which is distinct from the collective agreement. The central collective goal is that of wide participation, rather than agreement on one particular opinion. Therefore, the OC moderators maintain a steady flow of digital interaction, as well as engendering argumentative, interactive and conflictive opinions as to the basis for novel sources of discussion. Thus, as part of the collective momentum phase, the moderators work practice to 'guide collective motivations' another important practice.

Without argumentative and heated conversations, the associated reactions will decrease, and the discussion diminishes to that of a one-sided argument, which will not be productive for generating ideas in the next phase.

The OC moderators seek to minimise the complexity of the arguments, a significant advantage that is allowed for by the distinct digital features of the Twitter platform interaction. Simple discussion can draw users in to engage with the subject, and make it easy to 'join'.

Building tension by encouraging argument and counter-argument can sustain commitment and participation, bringing novel arguments and increased clashes of opinion. The greater the interaction between users conflictive opinions, the more likely it is to become a source of novel ideas for knowledge development and abundant content at a later phase. Given the limited character length of the user content on Twitter, the media firm thus moderates the responses to maintain a flow. For example, here is a communication exchange related to the dissolution of MGL:

> User 1: "*I know that even if we talk, nothing will change.*"

> OC moderator: *"But we are here to create that change! We have the chance here to talk about it on a much larger platform and reach places! So, let's help each other and hope for the best."*

As can be observed here, User 1's tweet was quite negative and could have easily ended the discussion. Therefore, the media firm 's response was to moderate the discussion to one of encouraging action by reminding the OC user as to the purpose of joining the community and why they like the firm's channel, namely because they are interested in representing local views and their goal is one of change in relation to some social issue or concern.

In the above content, the media firm's encouragement is picked up by another user who is already enthusiastic and who builds on the comment stream further. Thus, continuing the conversation:

> A female user 2 in reply to A female user 1 and the OC: *"Yes! This is a cultural norm at least that came from a dominated majority especially males coming from some dominant tribal areas in the country and if we…"* [Continues in another tweet] *"…argue that our law is tribal, not written laws! We have a valid point."*

I observed that after this interaction the conversation moved back to normal and continued with an inclination towards further discussion after the media firm, and indeed several users, also served to curate the discussion by encouraging others.

Another example can be taken from the Our Civilization story discussion about the OC moderator on the Twitter page, in an attempt to balance the associated discussion and keep it alive. A tweet stated:

> *"We saw the historical sites in the middle and north of the country have dominated the opinions and shared more retweets, what about the south and the site of Raqamat and its very distinguished language? Can we talk more about this?"*

In the above example, we can see the OC moderator's attempt to revive the counter-argument by asking about other historical sites to the south of the country as the flow of the discussion was mainly dominated by the sites in the north. Reviving the counter-argument by OC moderators by turning attention to other historical places that have been overlooked by users, hoping to create different opinions and then an argument. By reviving the contradictory arguments, OC moderators tend to create tension and increase interaction.

In addition, I noticed that the OC Moderators use Twitter features such as retweets and favourite buttons to detect any digression or diminishing popularity of the discussion, which helps to moderate the platform and keep the momentum and action moving toward the desired outcome, of collective momentum. The manner in which OC

moderators cultivate continuity entails gaining a diverse range of views and guarding against overly detracting comments which discourage participation. A user commented:

> *"What probably annoys everyone who uses Twitter the most is the noise from people talking nonsense about unrelated fake links and annoying advertisements. In this Twitter page, we see less. I like how the page is being handled."*

The example shows that digression from a discussion can take the shape of scam content such as fake links, news and advertisements where, on the OC Twitter page, these kinds of distractions are removed by moderators who were given positive responses by the users. Another OC user added:

> *"What I like here is the media firm of thoughts and people. Annoying people are blocked."*

OC moderators use the tools that Twitter provide, allowing users within the OC to report spam and fake links.

Therefore, guiding collective motivation through cultivating continuity that ensures that the topic gains as much written interaction from users as possible; even if the platform enables users to react through specific buttons, this would not be enough to determine an appropriate topic for further discussion as this indicates its likely failure if it continues, and thus that it may not help develop knowledge for the show. Instigating tension through disagreements ensures an interactive dynamic between users around the topic. These are ways by which OC moderators guide emotions and motivations to build CM for developing ideas.

5.2.1.3 Legitimatising Collective Goal

For the users to increase the effort of the interaction and the trust in the online community, the OC moderators apply various techniques to assure users that their interaction is being taken into consideration. To this end, the OC moderators apply voting polls and explicit instructions in the discussion. The poll feature allows for voting through which the OC can scan people's reactions to the subjects much more quickly due to the short responses Twitter allows. This third practise within collective momentum, namely 'Legitimising Collective Goal' helps to bring a form closure to the discussion as well as a quantitative assessment of the topic's potential.

OC moderators will constrain possible expressions by users in order to wrap up a discussion, and when seeking to elicit more specific views and preferences associated with the topic's merits from OC users in a more formal and countable manner.

They narrow down users' responses by conducting polls to resolve the tension that has been built up around the topic by bringing paradoxical opinions of users against each other. Such polls are intended to support the discussion, which requires some form of social change is related to the topic or otherwise an acceptance of the status quo. For example, a vote could query whether the users are in agreement on changing MGL or not. However, the OC will attempt to guide the user's reaction towards one of embracing change, rather than seeking to simply understand and summarise the details of the discussion.

Polls are used to measure the support for a topic, or lack thereof, for example, by counting the numbers supporting the discussion and those opposed to it. The purpose of the poll is not specifically to determine the numeric extent of any support, but rather the more extensive influence and range of views the discussion has produced. According to the Firm, the more people who vote in total, the more effective the discussion and the more widespread the related interest.

The netnography illustrated that polling is used to show the users that their responses are counted, and not fragmented, by some verifiable method. In addition, the results will also specify the method by which the media firm approaches knowledge development around the topic when it is introduced to the second platform, for example how they can frame the topic in a way to garner support.

If a poll result indicates the majority support the associated change, then the OC moderators will show the entire set of results to the users on the other platform as a form of encouragement. If the poll shows otherwise, the media firm will show only partial results, namely those that support change and emphasise the percentage of people that are supportive of the decision for change, as a means of helping people see they are not isolated or alone in their thinking and interests. In this way, they create the case for collective support from other platform users.

In the example of the MGL discussion, the OC was polled to determine whether the users supported a challenge to MGL by soliciting users' opinions. The poll results indicated that the majority of OC members had voted against the change. Yet, the poll feature provided by Twitter informed the OC moderators how they might position the tenure of the idea regarding the MGL topic in the subsequent platform. Nonetheless, the MGL discussion was moved to the next phase of the process, as overall the Firm understood there was a lot of interest and excitement around the idea.

In Our Civilization story, the result of the vote was positive to change the current situation and to support the preservation of historical sites and languages. The full outcome of the vote was shown within the OC and framed as an important topic to develop further.

مع أو ضد اسقاط الولاية للمرأة		ايش رايكم في موضوع حضارتنا وتراثنا ؟	
مع ⊘	42%	مع ⊘	83%
ضد	58%	ضد	17%
2,748 votes · Final results		3,582 votes · Final results	
3:44 PM · 15 Nov 16		2:48 PM · 10 Jan 17	
1,092 Retweets **5,224** Likes		**858** Retweets **2,041** Likes	
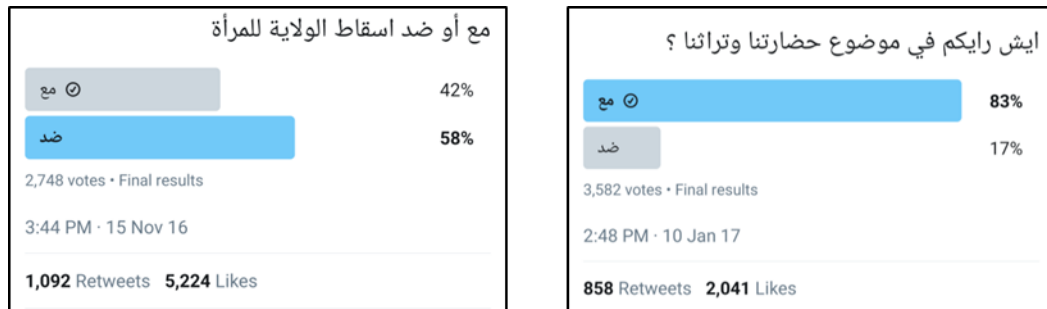
Figure5.1: Poll results on the Twitter page for MGL discussion (left) and Our Civilization (right).

Furthermore, OC moderators legitimised the goal by showing the collective nature of the goal. They outlined the plan to users for developing the discussion by offering another place for more detailed development of knowledge around the topic. Post Extract from Twitter:

> *"We're offering space on Facebook. It is getting exciting, and we would love to hear from you there, as we would expect that you could share more stories and opinions with us, and we could gain a deeper insight regarding the #dissolution_of_male_guardianship_law there… we could collaborate to have this on Facebook! See you there."* **OC Content Moderator**

As illustrated in the example, the OC moderators legitimise the goal after resolving tension by providing the next step in developing the content on a different platform whereby the users' efforts in scaling the interaction are given new consideration. The OC designs an anchor to interested users in order to entice the committed and interested users to continue the discussion on another platform.

They also use this move to indirectly eliminate some users that have little creative energy to add. Another example of anchoring interested users can be seen from the Twitter post regarding Our Civilization story:

> *"As most of the people are excited regarding preserving their culture and diverse language, we invite you to Facebook to give this topic deeper discussion and build profiles of the most important historical places. We need your experience on Facebook to help us to know places better, take photos, videos, and give your experience in reading ancient scripts to build our content."*

The data reveals that Twitter platform features enabled more straightforward moderation and better decision making in the OC through the use of its poll features.

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As stated above, building CM is interactive, with platform users negotiating the collective goal with the OC moderators. Thus, the process of building Collective momentum is not only understood from the perspective of the moderators and the Firm, but also from the users.

Thus, while moderators engage in practices of Guiding collective emotions, guiding collective motivations and legitimising the collective goal, the users respond with their own practices which work in tension with the above. Thus, the user negotiates emotions, and motivations to build tension from contradictive opinions and, eventually, affirm the collective goal that is being legitimised by the OC moderators and tension is resolved as the knowledge development process unfolds. In the next section, I will discuss the OC users' practices as they participate in the negotiation of the collective goal in order to build collective momentum.

5.2.2 Users: Conferring the Collective Goal

Twitter users join the OC page to interact with the topics offered and may be further willing to interact with specific topics and therefore join collective goals related to knowledge development that might lead towards change within some socially relevant issue. Users interact by negotiating emotions relating to the collective goal, negotiating motivations, and finally by affirming the goal. Below I summarise these facets of participation by examining each as an OC practice, which as mentioned above is held in tension with the concomitant practice being led by Firm moderators.

5.2.2.1 Negotiating Emotions

The first OC practice I describe is that of negotiating emotions. Users are aware of the purpose of interaction on Twitter and its potential social effects. They are further aware of their emotions are collectively contained so that they can be addressed, then their goal might be achieved faster and more effectively.

Thus, users are interested in expressing their views in a way that is peaceful and non-confrontational, yet heard. If the topic or issue is important enough to them, then they are willing to engage; the more who engage, the more voice and impact might become possible. However, finding others who care about similar issues is not always easy or possible.

> *"The more people have different opinions and try to argue, the more the issue will be taking into consideration. The issue, if it then stays at the surface, will have more chance of peaceful social action from the policy and decision-makers."* **User**.

This example shows that the importance of emotions being harnessed together as a collective is needed to achieve individual goals. Enough people need to care and the care is expressed in the digital traces made on the OC platform.

> *"By participating in the discussion, our voices can be heard, and we could take a practical step toward change."* **User**

Therefore, when the goal holds emotional importance to the users, they will attempt to negotiate their individual goals to address the common good. Participants do not necessarily come with a specific goal in mind or a solution to a social concern; rather they see themselves as ordinary people who want to work together.

> *"I want to express our issues and working collectively to achieve goals by participating in this page. Because we work here toward creating a show and if we participate in other places, we will be working individually."* **User**

Further, the example shows the emotional trust that the users have built regarding the community as the leading player in change.

Many OC users have been on the platform before and have been engaging with the OC previously, or at least have viewed some of the media productions on YouTube that have already been made. Importantly these media productions display the stories and contents in which their OC, and the normal people within it, have been instrumental in shaping.

> *"We saw our efforts had paid off when some shows have affected the decision making and therefore it's a great way to make a change in other issues we are facing. I have heard that people had participated and their stories and has been shown."* **User**.

The collective goal should hold emotional importance to users as well as the OC itself, and this helps to build CM by focussing as a group on a collective goal.

However, even though emotions are guided by moderators and negotiated by users, sometimes the topic will still fail, not just because it becomes a one-sided argument but, also, because of a lack of written reaction even if the extent of the non-written reaction was vast. I observed topics through our netnography that gained considerable favourable agreement through users clicking the "favourite" button, but which at the same time inspired a few written comments. This shows that mere agreement and joint interest or concern is insufficient for Collective Momentum to arise. Rather interaction needs to unfold between the diverse users as emotional energy and synergy are produced. The agreement does not produce emotion. People need to care enough to argue, and people will argue only if views are somewhat different.

I followed this story, which surprisingly ended a few days after being posted on the OC, and I completed our first analysis as to the reasons behind the failure:

> *On Nov 2nd, 2016, the discussion that talks about the environment and planting trees had been deleted from Twitter page after it was created on the 24th October 2016. Although the discussion seemed promising because it saw general agreement on the initiatives [2412 likes&, 368retweets] it didn't create enough interaction. It seems that the OC doesn't count either the favourite button or retweets at this phase. Also, it seems that although people agreed with the topic, this was not enough challenge or emotion. They may need a more buzz and contradictive opinions for this content to work.*

However, for the same example, the social media manager gave another reason for the sudden failure of the topic:

> *"Our purpose is addressing social issues and representing them in a way that could make a difference. Therefore, not having a written response from audiences is a sign that the discussion will fail afterwards. The favourite button and retweeting is important in terms of counting the overall acceptance of the discussion, but the idea is not enough to continue. Afterwards, we need people to talk, to share stories and to work, and the favourite button is like nodding during a conversation in that it is not necessarily an indication that you want to continue taking further."*

The examples showed that it is crucial at this phase for the interaction on Twitter to produce written responses from users which determine the validity and the popularity of the discussion. For example, the reaction buttons may indicate that users may agree, but it may not be the kind of subject that will encourage them to share stories afterwards. This is because there are no contradictory opinions and argument that creates tension, and therefore more opinions will be posted. Therefore, negotiating emotions – garnering enough interested people in heated debate across a spectrum of views - is not enough in itself to build collective momentum, and indeed users may negotiate and then question their motivations.

5.2.2.2 Negotiating Motivations
To build collective momentum, the users should enjoy the discussion as a means by which to build some form of a collective goal. They can do so by monitoring reactions from other users:

> *"I see that everyone here [OC Twitter Page] is excited and the topic is trending. So, I started to feel charged to participate, have an opinion or even support others with retweet"* **User**

Here we see that users adapt their motivations from others, and their reactions are a significant motivator for others to carrying the collective goal. This can be considered an OC practice of negotiating motivations.

> *"The sense of collectiveness is the reason to participate in the discussion. That the topic is trending makes you see it again and again, think about it, feel the vibes and the peer pressure"* **Social Media Manager**.

Monitoring the reactions from other users helps build collective peer pressure that encourages other users to participate and develop their own interest and views in relation to the topic under discussion. By seeing the posts of other OC users, individuals who may be neutral or lurkers can start to question their own motivations and interest in the topic.

However, there is a particularly important reason for garnering more motivation to participate. Key to the majority of discussions succeeding in creating collective momentum is that of enjoying confronting ideas and arguments and particularly being able to do so in a safe context.

> *"People like to argue, participate in whatever they find trending. Most of them find the topics rather exciting because it provokes different opinions and contradicts the norms"* **OC Content Moderator.**

The enjoyment of creating different arguments is one of the reasons for the topic scaling, and indeed the dynamic in the OC continues to build the desired collective momentum. While confrontation is not the social norm in face to face and public spaces, in online settings this is acceptable.

> *"People like to respond to each other's opinions, especially if they are conflicted. Even some of them retweet some least logical or socially accepted just for the sake of argument"* **OC Social Media Manager.**

Conferring opinions and creating an environment for discussion is the main goal that must be achieved to build CM for knowledge development. However, users may need additional affirmation if they are to invest in a collective goal as they may want to see that their discussion can become productive and fruitful, or in other words more than just a healthy discussion on social media. The OC assures that the discussion is taken into consideration and, in the next section, I will show the users' reactions to the OC techniques used to affirm the goal.

5.2.2.3 Affirming a Collective Goal

The users will seek to participate in collective goals and build momentum when it is clear that their voices, interactions and efforts are being validated. Thus, another OC practice in which they engage is affirming a collective goal.

> *"What I like here [OC Twitter Page] is that we can see our opinions are taken into consideration"* **User.**

This example shows that participation in the OC page goes beyond regular participation on social media. Consequently, the users look for further affirmation that

their voices are tangible, legitimate and, therefore, countable. Voting in a poll is one of the preferred ways of participating in the OC that enables users to see that their opinions are being taken into consideration. It gives dignity and weight their views and whether others have been persuaded or convinced through the discussions.

> *"The poll is a good idea to know that the issue is raised and taken into consideration, and it's not just a conversation. The options of the poll give the people an idea of what may happen in the future. They know that with voting, it's the end of the discussion"* **user**

Users interact more when there is the affirmation of a tangible outcome to the discussion. For example, an observation from the field:

> *The interaction started to lessen as soon as the poll was posted as the users on Twitter began to interpret their reaction by voting on the poll and waiting for the overall result. The interaction started to turn from written reactions to registered votes as it easy for users to understand the big picture.*

Narrowing down interaction to a poll gives the users a sense of closure and sets boundaries to the discussion.

> *"People need some choices to reduce their opinions to limited scenarios as they feel we would see it more. Also, it will be more applicable in a web series"* **OC Production Manager.**

The boundaries give users the impression that the discussion is contained, well-considered and thought about, from which one might predict it has a future. In summary, OC moderators and Twitter users simultaneously build CM to test the novelty of the discussion and in order to yield knowledge through OC practices of negotiating emotions, motivation, and legitimising the collective goal.

5.3 Phase 2 Collective Ideation (CI) through Facebook

The collective ideation phase aims to widen and deepen knowledge development through the creation and sharing of creative content related to the desired innovative outcome. This phase shifts user interactions onto a different platform (Facebook) and uses an additional platform Instagram as creative ideation tool. For example:

> *"In the beginning, we look for lots of participants to create a buzz on Twitter. However, we need to move the content away from this with fresh minds in place and to have less distraction and more fruitful and concentrated thoughts."* **Social Media Manager**

In this second phase of knowledge development, the OC moderators and the users expand their insights around the same topic taken from Twitter so as to deepen the content. The material features of social media platforms such as Facebook and Instagram are of particular importance to achieving a creative level of ideation. In addition, the OC users who gravitate into these platforms are unique; together this

allows for a much more extensive sharing of detail than is otherwise possible on other platforms such as Twitter. This phase is based on Facebook as the main platform for ideation, to support overall knowledge development.

The collective ideation phase is dynamic and interactive as the OC moderators and users negotiate and engage with and apply or deny participating in ideation simultaneously. In the following section, I will first introduce the practices the OC moderators' use to craft the goal to form an innovative outcome, followed by a description of the users' interactive OC practices.

5.3.1 OC Moderators: Endeavouring Collective Ideation

OC moderators apply the following practices to negotiate a method to achieve a collective goal and build collective ideation with the users:

5.3.1.1 Crafting Collective Ideation

The OC moderators start collective ideation by asking the users a detailed question on Facebook.

Netnography extract from the 'Our Ancient Civilisation' story:

> *Will you share the historic places in your town, and would you like the people to know about any background history of those old places, stories and photos? We want to create a new show, and I will name it 'Our Ancient Civilisation'. Lots of people want to know more about the places and their ancient languages, as our poll has shown on our Twitter page. We are interested to know more! For all interested people, this is your area of creativity! Come, and share your own stories?*

The question manifests the specific requirement for collective ideation in details as the collective goal is stated clearly. in this phase, the goal (for example, a show about ancient sites) has already been established, and the ideation needs to be crafted by OC moderators to create a specific innovative knowledge outcome (web series). Therefore, there is clarity in the detailed requirements, such as requiring users to share stories and experiences about the specific topic. The detailed question is a further step toward crafting collective knowledge development. Furthermore, the OC moderators offer detailed questions in order to market and gain a diverse, and broad audience.

> *"Asking people specifically to share more stories on Facebook as it is space friendly as well as more organised. therefore, we could categorise what people say and share. When we say to people that they have the freedom in sharing experiences, they most certainly start to respond as we show the Twitter interaction and poll result to them and they will respond more"* **Social Media Manager**

This example shows the importance of the sharing medium and the users' ways of thinking regarding marketing the topic to attract more content. It also shows that the

tOC moderators craft the responses by illustrating and reflecting on the previously shared content and the way it had gained collective momentum in the previous phase's interaction.

Moreover, OC moderators attract users by asking them for more content. For example:

> *"We use Twitter poll results for the people on Facebook to show them that the content is worth trying. We make them feel like special people to ask them to share content and most of the time it works if they have something to share"*
> **OC Moderator.**

The example illustrates that asking people to share personal stories makes them feel consequential and unique, and thus helps the collective ideation. In addition, the OC moderators explicitly signal a reference to the topic from the Twitter interaction at the CM phase, mentioning the tangible interaction represented by the voting poll at the end of the phase. OC moderators start the Facebook discussion in the following way an extract from the 'Our Ancient Civilisation' story:

> *The majority of people in this society have expressed their interest in supporting the preservation of the heritage sites, at more than 83%. Some users have shared that some members of their families can read the ancient languages at the historical sites in the village. , If you are willing to take a short video and share it with us on Instagram, it has the chance to be shared on the channel.*

Hence, it is essential for moderators to reference the previous platform's interaction to notify new platform users about the discussion initiated on the other platform to signal continuity and that the users' efforts are being taken into consideration, even on the new platform. This encourages users to building a discussion.

I observed that the results of the polls for both the MGL and the Our Civilization stories were different, in the sense that the associated results showed the majority were against the change in the former case, whilst the opposite was true for the latter. However, in both cases, the OC moderators used the poll results to formulate the questions that introduce the content to the OC on Facebook, in which it will ultimately support the content and the associated change. For instance, the majority of results for the MGL poll were against this change, and yet the media firm only mentioned the percentage of users willing to change, and subsequently focussed on that.

On the other hand, in the Our Civilization story, the OC moderators kept the results the same because the result of the poll showed positive support for change and therefore it emphasised this in the question.

> *As some of you requested a space to share stories and inspirational, motivational situations of struggling women and girls who are being affected by the law with us, we are opening this creative space for you!! We have more*

than 42% of people supporting this issue. Let's listen, share, inspire, and most importantly let's create creative photos and videos to represent what you feel for this [MGL]. Imagine! And create. We will also announce this on our page on Instagram! **OC Content Moderator**

As the previous example illustrates, the OC moderators try to build co-creation tension through encouraging users to participate with certain content by moderating poll results and explaining how they could participate. The way that the OC moderators support content and change may result in users who believe that their efforts have been secured, with hope for ultimate social influence being achieved through the OC, despite the possible threat of the majority being against the change in question. By framing the questions in such a manner, the majority who supported the status quo was gradually influenced by the open discussions. A frequent OC Facebook user who was initially against change commented:

"I like how the [media firm name] thinks and makes us see the others' points of view, whether or not we support the idea of the discussion. It makes sense to me as I am [now] subscribing here for a change."

5.3.1.2 Applying Creative Means

The OC moderators direct attention towards Instagram as an additional tool to broaden users' thinking to share ideas. Visual material is encouraged so as to understand the idea and for the purposes of clarity, and indeed to further build co-creation tension to users' thinking. In this way, actual change become visualised as possible and more anticipated. I noted some users may prefer to express their ideas or content to share in the form of videos or photos rather than through words. Also, in the case of the Our Civilization story, field documentation from some users was particularly interesting as it highlighted visually the areas, inhabitants and the culture.

'' The Idea of Instagram is turning normal talk to very creative video or photo message. It's about imagining change and imagining the Idea of the show" **OC Visual Moderator.**

Imagining the end outcome is an effective method that OC moderators use to project collective goals as achievable and increase the effort towards ideation.

"Instagram stimulates people when they forget something about the topic. Also, some ideas of the videos make us, and the users think how we will be doing the show......, what the show will look like, and what is the main point....... Instagram is a boost! It always works" **OC Production Manager.**

Instagram builds this creative side to the process and deepens ideation and variety by influencing users' thinking. The users' interaction on Instagram in this OC allows the sharing of videos and photos, per se, to be more about invoking users' creativity. At

this phase, users start to visualise the opinions and stories through the OC's invitation to share short videos and photos on Instagram, by gathering materials to support their points of discussion and their opinions.
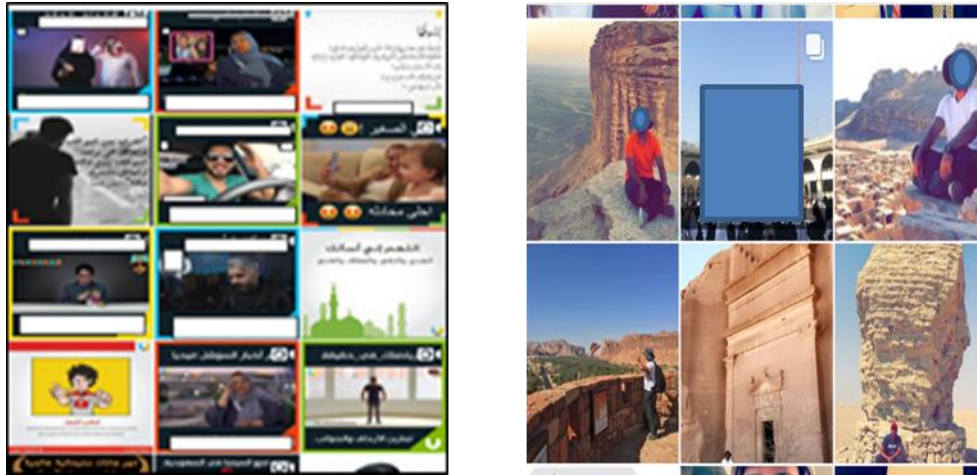
Figure 5.2: Screenshots of users' participation in the OC Instagram for MGL content (left) and Our Civilization (right)

From the netnography data, I determined that the photos and videos are sent to the page via Instagram through private messaging, and are then reviewed by the media firm and posted. Most of the videos shown contained messages in the form of comedy or simply as personal stories; some were interviews of acted scenes.

The photos shared were of expressive or symbolic value regarding people, places, events or even writing. The post title connected the cover of the video or photo shared by users on the Facebook page. Under every video and photo description of the topic, the OC page on Instagram is direct links to the discussion on Facebook.

> *"Instagram's material is always infused and thrown into the main discussion. ……. We sometimes post the links to users' participation on Facebook for users to see. Some of the users do that by themselves when they try to make a point, or afterwards when the discussion is about the content of episodes in some topics, though not in all"* **OC Content Moderator**

The justification for using Instagram to share videos and photos instead of Facebook are threefold in the netnography. First, there are plenty of OC users on Instagram who may not use Facebook, and this allows such users to participate; second, Instagram may be useful to the firm as the length of any video that can be posted on it is limited, which thus suggests the idea of delivering short video content saves the media firm the time required to montage the videos and photos that might be used in the final product; and, third, Instagram allows all the visual materials to be stored in a single

place. However, crafting ideas is still a critical means of ensuring the survival of the discussion.

> *"Sometimes, the discussion lacks clarity in people's minds, and it [the discussion] goes in different directions [too many unconnected points in the discussion]. Even if we tried to regain the users' attention, some still lose attention again because the discussions have different ways in which they can be approached and open further [different discussions]. We monitor this [discussion scope and people's attention], especially on Facebook, and if the discussion is not clear till here, this means it will not be, and it will be terminated"* **OC Content Moderator**

As the example shows, the content is sometimes fragmented and is difficult to express in a couple of points of discussion and to turn it into reliable content that develops ideas for a YouTube series.

This phase is crucial to the OC, and the relationship between users, content and platforms may result in multiple ideas that are hard to develop into one product idea. Plenty of suggested content may make the development of ideas shallow. For example:

> *"People sometimes want to include a lot of things in one show and refuse to develop the suggested ideas further when we ask them to do so. Sometimes, they lack the scope of things and how these work in the channel. So, they start either through a lot of unconnected ideas or keep liking the posts. As soon as we see that people are stuck in this loop, we don't waste much time [in terminating the discussion]"* **OC moderator.**

Crafting collective ideation will fail if the discussion lacks scope because the focus will be lost in the sense of being able to develop more fruitful lines of thought. Also, users' motivation will be lost because of such confusion, as they will not know where to contribute. Notably, the fact that is cultivating users' emotions are the main focus on applying creative ideation means for crafting collective goal, one example of which is to attract their attention through stories.

> *"The effects of the stories, once shared, cannot be retrieved and forgotten as they motivate people to either share more or similar stories or engage with the existing one. It is our chance to gain emotional support. We ask people clearly to share stories as a way to start collecting ideas and content for the show. Also, it makes people engage together emotionally"* **OC Content Moderator**

Such stories, experiences, photos and videos will motivate further discussion. Correspondingly, the ideation will continue as a thread of interaction, and the OC moderators will maintain this. An example from the MGL story thread:

> User 1: *"I am good at studying, and I want to specialise in cancer research! I presented my research and gained a scholarship to complete my research abroad! With the law of guardianship, I am stuck, because my brothers are busy at work and no-one volunteered to come with me."*
> User 2: *"But in the case of studying, you can go alone, right?"*

User 1: *"No, my scholarship has this condition in the contract!"*
User 3*: "Even though you need to travel permission?"*
User 4: *"I think your story is inspiring! How talent is wasted and will continue to be wasted because of that law."*
User 5: *"The problem is not just the law itself! Sometimes, it's the mentality of people! I came from another city to work in the capital! My city is employing women, and they have complete rights, and we don't look down upon them. But when I moved to my new job in the capital, I was culturally shocked about how men are, sometimes making women work on the company system using the men's usernames because they want the work to be credited to them, not the women. I think using this law has changed the mentalities of people and makes them look down upon women and even leads to their efforts are wasted."*

The final decision was a show for women's issues in general.

User 1: *"What do you think about creating a women's show? That would talk about and discuss your problems?"*
OC Content Moderator: *"Yes! We could support production, but we need more creative people and ideas for the idea to reach further afield. So, the show idea is accepted, but we need to work on the details more [User2]! Any suggestions?"*

Moreover, stories sometimes go beyond motivation and ideation of content to as its been illustrated in the previous example, the concept of the show was changed completely. As previously mentioned, most people on Facebook are inclined to like the discussion and write long arguments and ideas and are generally prepared to support the idea of embracing change.

An example from the Our Civilization thread:

User 1: *"I am thinking about dividing this discussion to subtopics about the sites, areas as it will be easier to follow and see how much people will join.*"
User 2: *"What do you think about the historical languages as well, not just the places?"*
User 1: *"This is exactly why we need to divide this into groups, we can come up with different ideas on presenting what we have and why it's important."*
User 3 *"Yes, maybe different areas have different interests on how they want to present themselves and also how famous the area, Look how "Madain Saleh" has different importance, history, and culture than the "Taymah"! All equally important, but one could support language, and one has a susceptible history, and this needs to be addressed carefully so as not to hurt feelings."*
OC moderator to User1: *"We could use your suggestion, but the reference will be this discussion after we gather data about every site and connect Instagram as well. It is easier for all of us to document some of your journeys to the sites, talk to locals, take photos, and send it to us on Instagram and we will share it on our account. Don't forget to refer here and present what we have and how we could present this on YouTube."*

After two days:
OC moderator *"We have material for five ancient sites so far, what do you suggest for the show "User comparisons between sites, different cultures."*
User2 *"That is boring! Also, it will start fights."*
User3 *"Episode for every site."*
User1 *"Not a new idea."*

User4 *"What about presenting a unique story of people encountering sites, people who aren't local, about their journey? Or probably, locals will also have sentiments about this place, some interesting stories to share. As from the materials I so, we made some progress."*

The OC moderators and users agreed on the format, and the final product was a show with the same name as the original hashtag. However, on some occasions, even if the ideation for a show is clear, but there is a still lack of sharing and commentary, the discussion will be terminated.

For example, through our netnography, I observed a discussion, labelled with a hashtag that magnified social problems. The hashtag initially discussed the problem of social media contributing only noise and giving the illusion that people face a large number of social issues and that the general situation is continuously getting worse. In fact, this might not be the case.

I observed this hashtag during the building collective momentum phase, where it survived until the ideation phase and formed around a show that discusses weekly social issues with a comic flavour. However, the idea itself did not gain much further interaction or validation, even though the number of likes reflected a majority acceptance. On the other hand, the users expressed the thought that sometimes they felt that an idea was 'complete' in the sense that they do not have much further to offer.

"Sometimes you have some discussions where you don't know what to add! If it's just produced, it will be fine" **User**

The OC moderators, on the other hand, may terminate the discussion for different reasons.

"There is no point in continuing if people don't care or don't have genuine feelings or experiences about the topic. The people on Facebook are a crucial source of our success. We need ideas, content and genuine interest." **Social Media Manager**

Therefore, users' interaction in terms of the materials and commentary they share is crucial to the discussion's survival, despite having a clear perspective of the ideation. Developing knowledge through sharing is crucial to the completion of the discussion and achieving a successful outcome.

5.3.1.3 Harvesting Innovative Outcome

After developing in-depth content and ideas, the process of narrowing down the discussion toward the outcome takes place. I observed that, after choosing the idea, the OC moderators start separating the shared knowledge from mainstream conversations by moving them onto an independent post on Facebook in which they pin the idea at the top of the page as a reference for further knowledge development

"The topic is highly complicated for people, and it's all connected. If we want to talk about women in general, there is a lot to cover, we have enough materials to go through, videos and photos that will be used, but our team will do this ......what matters is that we have content, the rough idea of a show and lots of videos and photos. As soon as we get this rough idea, we separate it from the main discussion to distinguish and drive attention towards it. People will typically have a lot to share, but we pin the main story in a different post to make people focus and understand that the choice has been made" **Production Manager.**

The OC moderators make sure to distinguish the content for users to give increased clarity and to the process of knowledge development.

"We have different ideas that have been suggested, but we chose women to show as the materials shared on Instagram was perfect for this idea. People still talk specifically about MGL, so we showed the idea in a different post, we fix it in the top of the page as you see and create a group to harvest more focussed content to foster the idea of women show specifically. We had lots of requests to join this group, and most of the people started to focus their attention towards its" **OC Marketing Manager.**

As this example shows, to harvest a specific outcome, the OC moderators have to distinguish the discussion and divert users' attention to wrap up the interaction and focus on developing the goal. For example, after pinning the idea to the top of the Facebook page, the OC moderators leave sufficient space below the pinned idea for users to discuss it in detail. Both shows were developed according to the topics users wanted to discuss, apportioning these topics to possible episodes. However, not all stories work in the same manner; I noticed that in the MGL case, although there was plenty of material being shared, the topics are not arranged in episodes but rather all data had been collected in a single place under the pinned idea on the Facebook page. To produce the final show ideas are separated into different discussions to allow for further effort in developing and focussing on the idea. OC moderators craft the collective goal by harvesting the outcome because it legitimises the preferred idea and enables the OC to halt, or at least pause, the discussion and announce the idea that will be further developed.

Field notes:

When the OC moderators separated the idea of the Women show as an extension of the discussion on MGL, they summarise the points that users shared for the reasons for their choice. Also, they included links from the Instagram page (users' posts) that support the reasons for selecting women show. It's a way to show the users that their ideas are not neglected, in addition to reminding them of the purpose of choice.

As an example, I observed that in the Our Civilization story, some users suggested that the media firm's show presenter should travel to meet some of the people involved in person, which did indeed happen.

Users started to draw up a timetable for episodes according to a map they made to include which ancient sites areas were near to each other as the show crew needs to reach them in a short time as possible. Also, users started - according to the same timetable - to link previously gathered material and Instagram links to the content assigned to each episode. The previous techniques that the OC moderators used to harvest outcomes enable the chosen content to be reviewed as the OC further develops it, and then curated and released as a YouTube show.

Then, the previously developed episodes' content is curated by the media firm team.

> *"all discussions that people prepare or otherwise must be revised, curated and produced after writing a strong scenario that is suitable for our YouTube audience and for the quality that the channel is committed to providing"* **Production Manager.**

Interestingly, this phase did not end with the final product (the YouTube show). Feedback was received on the YouTube channel and could be considered part of the buzz that can enhance the idea further depending on the users' participation in further developing the YouTube content. Thus, posting in the YouTube comments section did lead to further initiatives on the topic, though it was not the focus of my analysis.

5.3.2 Users: Applying Collective Ideation

Users on Facebook develop OC practices to negotiate the application and ensure the emergence of collective ideation.

5.3.2.1 Establishing Collective Ideation

The willingness to share content is vital for the ideation to take place. The users respond by being drawn into the ideas that the OC moderators applied.

> *"It is inspiring to see the poll results that [organisation name] is conducting on every topic as we can see what people think. I sometimes review their interactions on Twitter, and I come to Facebook very excited and charged to discuss and share what I think in addition to the fact that the people here have stories to share that I could comment on"* **User.**

The users interacted as compelled by the outcome of the previous collective momentum phase, which was manifested by the OC moderators in the new platform. The reason behind the users' excitement is that they realise the content they were sharing was being taken into consideration, especially when OC moderators shared the voting poll results for the interaction for the other platform. In addition, users collaborated because they understood the importance of the discussion.

"the conversation established on Twitter is highly appreciated by the people on Facebook as they realise the importance of the topic early on and quickly gather to support" **OC Social Media Manager.**

Users realised the importance of the established collective goal as their support was giving it a high chance of being successful. Moreover, users go beyond the importance of the collective goal to the more particular sense of being privileged to be selected for their ideas.

"I feel privileged that I am from the very few that [name of media firm] considers our opinions. I know that because I see that the community on Facebook is more collaborative in terms of supporting change and more accepting of different opinions. They have a basic level of understanding, education and willingness to change, which help me to share opinions" **User**

The collective ideation is mostly established by the feeling of commitment from users who feel they are 'elite' groups, that is, that they are the agents of change. The users feel an associated sense of duty as they feel they have something important to share.

"I like how [organisation name] take the discussion from the hectic, noisy place on Twitter and think about investing time and effort to ensure our opinions and stories are valued" **User**

As the quote illustrates, the users feel it essential to gather on a different platform, that they are valued as a small group of contributors, and that their contribution will be useful to the outcome. Furthermore, users establish collective ideation as they understand the importance of collective effort towards the legitimisation of the knowledge they provide for the goal.

"We want to change, and the only way to be heard is to organise our voices in one place, and create something unique and creative to change the status quo" **User**

The users realise that the creation of unique ideation is achieved by organising their effort through the platform to achieve their goal.

5.3.2.2 Investing in Collective Ideation

Users invest by connecting their collective emotions to the content as they realise the importance of the emotions to deepening ideas.

"Sharing stories and take practical steps toward feeding the content for the show is my priority. We saw how people are already excited, but now I want to think about different ways to share and promote experiences" **User**

As the previous example describes, the users realise the importance of translating their emotions to content through stories and personal experiences. In addition, sharing emotional content will result in additional discussion and ideas, and is thus a means by which to enrich the conversation.

"Some people are committed to sharing videos. We have a video for on the [Taymah] historical site about a participant who videoed his grandfather

reading the ancient language from the stone live. We will show this in one of the episodes" **Content Moderation Manager**

The users share and engage with conversations to deepen the established content and realise that the stories are how to stimulate further content sharing and encouraging others who know.

The effect of ideation goes beyond the OC participation. Therefore, users invest in collective ideation to reach the desired outcome.

"I like the speedy, productive interaction we are having here [on Facebook] as we are few people but proactive when someone posts a story" **User**

Furthermore, as soon as OC moderators legitimise content or ideas, the users start to commit to them and respect the collective decision. The following example from the netnography notes demonstrates the above:

Field Note: (Women Show)

As soon as the idea is separated in different posts, plenty of users started to categorise, add to the content shared, and share links from the Instagram page to fit episode topics to the photos and videos.

Field Note: (Our Ancient Civilisation)

Users started to draw the timetable for episodes according to the map and which areas were near to each other as the presenter needs to reach them in as short a time as possible. Also, users started, according to a timetable, linking previously gathered material and Instagram links to the content of each episode.

I noticed that the users respect the collective decision by supporting and nurturing the outcome of the process by further developing knowledge through ideating and organising content.

Table 5.1 summarises the activities and practices of the OC knowledge development process across both phases. The activities of moderators from the Firm and OC users are separated as they respond to each other in a dyadic fashion. Through this interaction, they enable knowledge collaboration dynamics that feed into the knowledge process.

Knowledge development Process	OC Moderators	Users
	Guiding Collective Goal ⟷	**Conferring Collective Goal**
Collective Momentum (Twitter)	Guiding collective emotions • Signalling trending topic • Introducing open question (task)	Negotiating emotions • Being aware of the purpose and the effect • Demanding the reach of opinions • Experiencing the previous fate of discussions
	Guiding collective Motivations • building tension • cultivating Continuity	Negotiating Motivations • Sensing energy • Enjoying the confrontation of ideas
	Legitimizing collective goal • Constraining possible expressions • Legitimizing the choice	Affirming collective goal • Validating opinions. • Narrowing down interaction to closure • Affirming tangible outcome
	Endeavouring collective ideation ⟷	**Applying collective ideation**
Collective Ideation (Facebook)	Crafting collective ideation • Signalling references to the topic • Introducing specific detailed questions (task) • Marketing to gain content	Establishing collective ideation • Influencing the established interaction • Establishing the Duty as elite changemakers • Realizing the need to legitimize ideas
	Applying Creative means (**Instagram**) • Cultivating users' emotions into motivations • Encouraging creative sharing • Directing conversations for ideation	Investing in collective ideation • Realising the importance of translating emotions to content. • Sharing and engaging with conversations to deepen established content. • Supporting and nurturing chosen ideas
	Harvesting innovative outcome • Separating yielded ideas from mainstream conversations. • Legitimising the choice of the preferred outcome • Reviewing chosen outcome	

Table 5.1 Knowledge Development Process, and Knowledge Collaboration dynamics between OC moderators and Users across Multiple Social Media Platforms

5.4 The effect of the innovative outcome of the process of knowledge development

I observed that the OC moderators bring some of the associated YouTube comments and suggestions back to the OC to apply further development to the content, as in the MGL story discussion in the comments section, users had further thoughts about the content. For example, an OC moderator posted on the Facebook page

> *"More than ten comments on YouTube feedback came for episode three asked about the same issue of a pay rise and how this issue is in the wider middle east and asked us to develop more examples from different regions beyond Saudi. Anyone from other countries wants to share some stories regarding the issue?"*
>
> User: *"I would suggest looking again at which other issues we discussed earlier also touched upon the Middle East in general so we could have more content on YouTube!"*

Our Civilization show, there were ultimately two far-reaching effects on society. The first was that the presenter of the show, as well as a couple of OC participants who developed and provided knowledge of ancient languages, were invited to Dubai to do an independent show on the ancient history of Dubai in the UAE with the sponsorship of the same media firm. This second show has recorded seven episodes so far, with a total of 1.13 million views.

The second effect was that an academy teaching ancient languages such as Syriac, Mehri, Himyaritic, and South Arabic, has been recently established as a response to the success of the show, and has been sponsored by the media firm to increase the general knowledge of the related history and civilizations.

As the last example shows, there is the possibility of knowledge content editing even after it has been uploaded to YouTube, as the media firm consider the YouTube comment section to continue forming the OC and its process of developing content.

In this way also, the users' connection is maintained on Facebook throughout the process, even if the YouTube show is made, as users are considered to be the knowledge developers.

YouTube shows have had an impact on society. The collective number of viewings of Women's Show episodes has already reached 11.67 million, since its posting in 20XX. Our Civilization has achieved even more views, 24.16 million, with a total of nine episodes. The impact of the shows does not stop there, as at the time the eighth episode of the Women's Show was published, another important event occurred in Saudi Arabia to which it is believed that digital social activism was a key contributor. In

April 2017, there was a significant reformation to the MGL law in Saudi Arabia, with most of the associated restrictions being abolished by official decree; this is called the MGL unofficial system, as to date there is no associated legislation published by Human Rights Watch. The decree has been applied in government offices and hospitals, and it revokes all previous conditions relating to MGL.

The impact of the Our Civilization story has reached the Department of Tourism, which changed some its rules regarding the preservation of historical sites and has started to build a list of such sites, as published at the Saudi Commission for Tourism and National Heritage, in 2018. However, the effort in this regard needs to be more a case of focussing on preserving some of the ancient languages in the area.
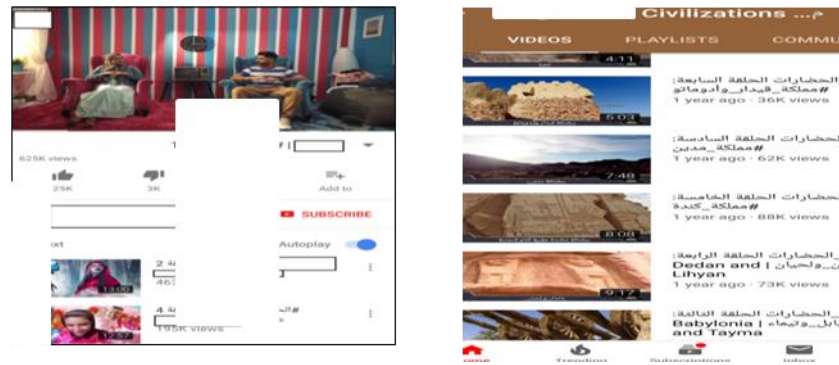
Figure5. 3: Screenshots of the YouTube Women show (left) and Our Civilization show (right) on the OC YouTube channel

5.5 Conclusion

The knowledge-development process across multiple social media platforms has two phases, each of which takes place on a different platform. The first is collective momentum and aims to create interaction dynamics to test the novelty of discussions in developing knowledge. Both OC moderators and users interact to create collective goals by aligning emotions, motivations and then finally agreeing on a collective goal to create collective momentum.

Second, collective ideation aims to deepen knowledge through ideation to create the final innovative outcome. At this phase, OC moderators and users interact and apply creative means to develop knowledge content, encouraging creativity, connecting emotion and harvesting innovative outcomes.

Chapter 6
Discussion

6.1 Introduction

Contemporary fluid OCs is a distributed form of organisation in which knowledge and interaction occur on an unparalleled scale and scope between multiple stakeholders at any point in time (Faraj et al., 2011; Barrett et al., 2016). Therefore, OC structure is embedded in interactions, unlike traditional organisations and OCs in which the structure is embedded in boundaries, authority, closed membership and hierarchy (Majchrzak et al., 2017). OC research literature has described the need to investigate the structure of the interaction in OCs that is novel in terms of knowledge development, yet that can exist in parallel with this fluidity and nevertheless keep these interactions ongoing; this compromises the novelty required to develop innovative knowledge outcomes (Faraj et al., 2016).

In the first part of this discussion, I contribute to the OC literature by showing how OC orchestration structures the interaction and the knowledge development process in OCs whilst preserving their fluid nature by maintaining an open boundary and fluid membership without compromising the novelty required to develop innovative outcomes. OC orchestration is embedded and made possible in specific social contexts which enables the profiling of users, platforms, and the configuration of the knowledge development process by predicting associated contributions to knowledge.

In the second part of the discussion, I will discuss the contributions enabled by OC orchestration and expand on the knowledge development process across multiple platforms and collaboration different dynamics in detail.

Most studies of knowledge development in OCs have investigated the context of a single platform (Barrett et al., 2016; Shaikh and Vaast, 2016; Jarvenpaa and Lang, 2011) with little if any, emphasis on how knowledge is developed using multiple platforms.

In addition, knowledge collaboration inside OCs allows stakeholders to play a variety of roles that have not yet been completely examined, especially in terms of creating tension or overcoming imbalances in knowledge collaboration tensions (Von Hippel and Von Krogh, 2013; Majchrzak and Malhotra, 2016).OCs develop persistent dynamics that are created when a collective collaborate in some action over time which

creates knowledge collaboration (Faraj et al., 2011; Hutter et al., 2011). Some dynamics are developing tensions because collectives have different goals, and some are compatible and interrelated (Majchrzak et al., 2017). However, there is a need to investigate whether the enactment of different platforms promotes different dynamics with regard to the different aspects of developing knowledge (Majchrzak and Malhotra, 2013).

I contribute to the literature on OCs and knowledge development by examining the process of knowledge development and demonstrating the uniqueness of the different platform spaces and the emergence of different orchestrated dynamics for collaborations that structure the knowledge development process toward an innovative outcome in a fluid OC.

My analysis shows users, and OC moderators apply different practices across the two phases and build different knowledge collaboration dynamics that are important to the development of knowledge across fluid OC. For example, Users and OC moderators guide and confer collective goals to build what I call an orchestrated tension, which is required to achieve collective momentum in Twitter. I defined orchestrated tension in this study as the OC orchestrated, continued, contradictive, interactions between users themselves and between users and OC moderators that aim to focus on reactions as a collective goal to gain momentum. The second dynamic is orchestrated co-creation as OC moderators and users negotiate to endeavour and apply collective ideation. I defined orchestrated co-creation in the study as OC orchestrated, continued, synergistic, interactions between users themselves and OC moderators which aim to achieve collaboration and agreement regarding the collective goal to focus and deepen knowledge toward an innovative outcome. Both dynamics work to structure the process of knowledge development toward an innovative outcome without compromising OC fluidity or restricting membership. Multiple platforms enable two different knowledge collaboration dynamics to be built and therefore develop interdependent phases of knowledge development.

The structure of this chapter will be as follows: I will start the discussion about OC fluidity and OC orchestration and its practices, which draws primarily from the findings presented in chapter 4. In the second part of the discussion, drawing on findings from chapter 5, I will consider the knowledge development process across multiple platforms and the development of the two different knowledge collaboration dynamics.

6.2 OC Fluidity and Structure: the role of OC Orchestration

As discussed in Chapter 2, the OC boundaries and resources developed from the intentions and negotiation between different parties in the online community (Faraj et al., 2011a). In this manner, the OC can shift and expand from their traditional structures to go beyond the idea of controlling membership and repeated interaction, convergence, goal sharing and boundaries (Arguello et al., 2006; Ransbotham and Kane, 2011; Majchrzak et al.,2015). However, OC is still able to maintain their shape, which shows that at least some structure still exists and that OCs are not mutually exclusive, but rather co-exist (Faraj et al., 2016). Indeed, some studies have shown that fluid OCs can be temporarily structured by opening and closing boundaries in online platform spaces (Shaikh and Vaast, 2016). However, the question remains as to what type of non-traditional structure can exist in parallel with this fluidity and nevertheless keep interactions open in an ongoing manner without compromising the novelty required to develop innovative knowledge outcomes (Faraj and Shimizu, 2018).

I contribute to the OC literature by showing how OC orchestration structures the interaction and the knowledge development process in OCs while preserving the fluid nature of the OC by maintaining open boundaries and fluid membership. In so doing, the novelty required to develop innovative outcomes is not compromised.

6.2.1 OC Orchestration as a new method of structuring fluid OCs

In this study, the findings show that OC orchestration is a novel method of organisation that can structure the interaction in an OC without changing its fluid nature by closing boundaries or restricting membership, even temporarily by moving discussion across different platforms. Due to the distributed nature of OCs across multiple platforms, I found the orchestration concept helped examine how diverse users can also be collectively organised in a bottom-up manner. Orchestration in management studies requires the coordination of multiple distributed spaces of knowledge, such as different networks or organisations, to work together by facilitating and designing tasks according to the actors involved and their associated potential, mobilising knowledge between them to achieve innovative outcomes (Dhanaraj and Parkhe, 2006; Parida et al., 2019).

In this study, the OC was built across multiple social media platforms and orchestrated to develop one innovative knowledge outcome. The multiple platforms in this study

are spaces for interaction and are essential to developing innovative knowledge as different users and platforms participate in its construction. Studies into the online community- and user-generated content have demonstrated that online interactions spaces can transcend, share and accumulate knowledge by sharing posts across different platforms (Levina and Arriaga 2014; Jarvenpaa and Lang, 2011).

Different digital knowledge sources were combined because the tasks required to develop knowledge was fragmented across platforms and then accumulated and combined as an inflow of the resources required to form the intended outcomes. As OC are unique spaces in terms of their ability to facilitate the combination, recombination and configuration of knowledge, in the social context of the study in Saudi Arabia we found that different types of users with different social norms and characteristics use the platforms in quite disparate manners. The reason the organisation uses multiple platforms in the context of the study is to include different users in developing the YouTube show at different points in the process.

My research found that OC orchestration entails certain practices to understand the types of knowledge contribution that can be developed in every online platform space. OC orchestration practices are those of profiling users (users' interests and characteristics) and platforms (each platform's features) within a specific social context, and finally configuring the OC knowledge development flow by designing each task for each platform accordingly

6.2.1.1 OC Orchestration Practice: Profiling Users

Studies into OC fluidity and structure have emphasised the necessity of understanding users' characteristics (Shin and Rao, 2012). The literature has shown that knowledge contribution is bound by users' motivations, such as common interests and goals (Sproull and Arriaga, 2007; Faraj et al., 2016), and certain unmet intrinsic and extrinsic needs (Baldwin and von Hippel, 2011; Kraut and Resnick, 2012; Krogh et al., 2012). Also, the positions of expert users in the online community network is crucial to ensuring valuable contributions to the community's knowledge (O'Mahoney and Ferraro, 2007; Sundararajan et al., 2013), such as socially embedded and epistemically marginal individuals that prove to be the 'one' who made a valuable contribution to knowledge (Safadi et al., 2018).

My findings build on these insights by showing that in the case of the fluid OCs it is hard to understand its users without an understanding of the social context they interact in. The reason for this is that users could have individual motivations and interests,

but the social context surrounding the OC is common ground to all users and may reflect the specific mutual characteristics they have in common when using a particular platform. Social media platform users (e.g., Twitter and Facebook) in any given country may not have the same user characteristics as others. Social network user characteristics are influenced by social context. The use of social media in Saudi Arabia is an effective means by which to demand social change through collective (and connective) action (Bennett & Segerberg, 2012). This is because it is hard for social demands to be acknowledged in other mediums such as voting or channels that seem traditional in other countries, such as European ones. Besides, some people are not aware of their level of social demands until they see what others share on social media and make connections about mutual interests.

Moreover, some previous social demands posted on social media (trending hashtags) have had a successful impact, resulting in social change. Therefore, social media trends have become normalised as an effective method for acquiring change in some contexts more than others. Accordingly, some social media platforms become more popular than others, or specifically for certain type of users in society with specific characteristics. User characteristics become embedded in the social media platforms and their use, as users inherently follow this virtual demography. Therefore, the study found that there are general characteristics that each platform's users have in common in its particular social context, which subsequently affects the type of knowledge contribution they might produce.

For example, in this research in Saudi Arabia, on Facebook, the homogeneity of users in terms of high levels of education, willingness to share, and their common collective goal of embracing social change, have affected the expected type of knowledge contributions in terms of being more in-depth, creative, specialised, enriching and sustainable regarding the development of an innovative knowledge outcome. On Twitter, by contrast, the extreme heterogeneity of users in terms of their age group, lower levels of education and individuality with regard to goals produced a shorter, shallower and more reactive type of knowledge contribution that was likened to a 'buzz'. Every characteristic on every platform that the majority of users have in common therefore affects the type of knowledge that might be contributed. This finding has shown that users' characteristics are essential to an understanding of the most likely types of knowledge contributions. And the OC orchestrates users by profiling them according to the surrounding social context to gain a general

understanding of them, as they may be continually changing due to the fluidity of OC boundaries. Therefore, the media firm have realised that to understand the social context, users' demands and virtual demographics in the social media are the keys to successful OC orchestration. OC orchestration is made possible because of the social and cultural context, which resulted in the users of each platform having unique characteristics distinguishes their contribution to knowledge development.

This shows that social media users are affected by the social, cultural and political narratives of their particular context, and this affects the way they might be structured and the content they produce.

However, social media platforms also have different technological tools that could affect knowledge contributions and, accordingly, OC orchestration profile platforms and the way these are used within the social context of the study. As such OC orchestration highlights the need to take more seriously the 'social' in understanding social media.

6.2.1.2 OC orchestration Practice: Profiling OC Platforms

This study found that the generativity of platform features' affects the expected type of knowledge contribution, as do the users' characteristics. Research into online communities and innovation has shown the importance of having diverse sources to gain valuable knowledge contributions that go beyond users or human actors in general (Bogers et al., 2017). Digital social platforms afford how users can develop different forms of knowledge and, further, connect them in unexpected ways (Faraj and Shimizu, 2018). Technological generativity "produce[s] unprompted change driven by large, varied, and uncoordinated audiences" (Zittrain, 2005).

However, there is a need to understand how platforms are interpreted by users in the social context too, therefore, understand how this affects the knowledge contributions so developed (Faraj and Shimizu, 2018).

My study highlights that following the development of knowledge is the key to understanding the complementary relationship between platform features and their use in a social context. In this study, the features of multiple platforms, including those of Twitter, Facebook and Instagram, were shown to affect the expected knowledge contributions according to how users engaged them as enabled and constrained within their context. The research found that Twitter features enabled the non-editability of content, and the coordination and accessibility of loosely coupled hashtags.

These platform features affect the expected types of knowledge contribution in terms of gaining shorter, diverse, wide-spread content. The diversity and opposition of perspectives enabled sustained interaction.

On Facebook, the expected knowledge contribution was one of being more enriched, in-depth and sustainable due to the high content editability, unlimited sharing space amongst more like-minded users and more accessibility options. The use of platform features in the social context played an important role in influencing the use of digital tools when developing different types of knowledge contribution. The social context influences the use of a given platform's features.

For example, the non-editability of Twitter tweets affected the trending and spread of content to a large extent, as users in Saudi Arabia prefer to add further tweets to rectify their mistakes rather than deleting the outdated originals as they prefer to preserve the reactions (retweets, favourites) they gained on the original posts. The way users think influences the firm understanding of the generativity of features in a way that may not have this same effect if it were presented in a different context. The same applies to the heterogeneity of Twitter users in Saudi, which may increase tension and arguments and thus produces more responsive content, especially considering that Twitter is the most popular social media platform in Saudi Arabia. Also, Instagram is a gender identifier according to the Saudi context (mostly female users), and in my study was found to act as a tool to increase creativity in the OC by building up a portfolio of pictures that others could easily respond to, being restricted, as it is, in terms of the length of any videos shared by users. Instagram acted as a creative push in the MGL story as the female majority helped to create extensive visual content that simulated the situations that women experience due to the existence of this law. Therefore, OC orchestration situated to the context, as achieved by profiling platforms, is crucial to an understanding of the associated knowledge contributions. Therefore, investigating users and platforms within the social context is equally important in terms of their effects on the overall knowledge contribution.

6.2.1.3 OC Orchestration Practice: Configuring the Knowledge Development Process

Understanding the flow of knowledge is vital in OCs because formal approaches typically adopted in traditional organisational structures, including control, modular tasks, formal memberships and explicit traditional motivation techniques, are replaced with openness, temporality, and bottom-up flow of determining tasks, and structure

(Bagozzi et al., 2002; Ransbotham & Kane, 2011; Ren et al., 2007; O'Mahony and Ferraro, 2007). It is important to understand what types of knowledge, as shared over time, are useful to developing innovative outcomes for the online community and in indicating the role, the firm may have in coordinating tasks and the flow of knowledge without imposing a rigid structure (Majchrzak and Malhotra, 2016; Faraj and Shimizu, 2018).

However, looking closely at the enactment of knowledge flow and studies of online crowds, phases of knowledge development on a single platform, as presented to the same group within a crowd, is dependent on changing the task objectives to influence the associated flow of knowledge. For example, in a study of the literature on crowdsourcing, the knowledge flow can be identified through following the task in every crowdsourcing study, and the researcher was able to identify that crowdsourcing follows the same trajectory by designing contradictive task objectives and contributing conflicting opinions, finally justifying them and thus creating the seeds of innovative ideas (Majchrzak and Malhotra, 2016).

However, in my study, the argument is that OC orchestration can help firms predict knowledge contributions by understanding users and platforms before designing the knowledge phases. In this way, they can orchestrate multiple interdependent tasks in different manners across the diverse online spaces as identified, understanding the way they operate in Saudi Arabia or another respective context. Consequently, the OC was able to enact the knowledge flow process according to the OC orchestration so that innovative media shows were developed with, and for, an attentive audience.

Not all users may respond to the tasks in a given way, and it is important to understand that, in my research, OC orchestration has configured knowledge development differently within single platform spaces, namely collective momentum on Twitter and collective ideation on Facebook. Each online space will have a different cadre of users, and suitable platform features for developing knowledge in a distinct way to simulate the virtual demography of social media platforms (online space), though in my study only a limited selection of these platforms were examined. These insights build on the current emphasis on taking the materiality of platforms seriously to understand knowledge flows.

For example, the space for the phase collective ideation on Facebook was the homogeneous space in users' goals and characteristics and worked to develop creative content. However, space can be open without compromising the quality of the content

or changing the nature of the OC, as this openness was also important for knowledge flow. The online spaces in this study were, in this sense, complete; each stands on its own, with separate users on separate platforms, yet is nevertheless connected to the overall process within an OC. However, online spaces do not always promote homogeneity in interaction within the online community. For instance, online spaces could also create certain tensions that are themselves important to the creation of innovative knowledge outcomes, assuming the users are heterogeneous in terms of their goals, approaches and abilities (De Vaan et al., 2015). Hence, online spaces can also be considered "space[s] of conflict and competition" (Bourdieu, 1985, quoted from Levina and Arriaga, 2014). Thus, the need for careful orchestration that harnesses these tensions is important. In our study, Twitter acted as a space for creating tension in the process of developing knowledge to generate collective momentum amongst an otherwise heterogeneous set of users. The tension created in this space allowed the OC orchestrators to test the novelty of the content in terms of subsequently developing innovative outcomes.

6.3 Knowledge Development across Multiple Platforms

Existing research on OC has focussed on the knowledge development process and collaboration (Shaikh and Vaast, 2016; Levina and Arriaga, 2014; Jarvenpaa and Lang, 2011; Faraj et al., 2011, 2016). This includes research into dyadic (Shaikh and Vaast, 2016; Jarvenpaa and Lang, 2011) and multilateral interactions across multiple stakeholders (Levina and Arriaga, 2014; Faraj et al., 2011, 2016). The multi-stakeholder role has been approached through the lens of value creation (Barrett et al., 2016) and creating tension for knowledge collaboration (Smith et al., 2017; Hutter et al., 2011; Smith and Lewis, 2011).

However, the majority of the empirical studies in the OC literature have examined knowledge development from the perspective of a single online space of intentions (that is, a single platform) (Barrett et al., 2016; Shaikh and Vaast, 2016; Jarvenpaa and Lang, 2011), with little emphasis on how OCs develop knowledge across multiple platforms. In addition, there is a need to examine the variety of roles that users perform beside developing knowledge (Majchrzak and Malhotra, 2016) and showing more practices in building and balancing knowledge collaboration tension inside the OC and using it to boost knowledge development (Majchrzak and Malhotra, 2016) across multiple interdependent platform spaces.

In my study, the multiple platforms played significant roles. Therefore, I build on the above literature, particularly on knowledge development process across multiple platforms, by demonstrating the importance of multiple platform interaction spaces on knowledge flow and knowledge phase enactment and building knowledge collaboration tensions.

The orchestrated knowledge development process in my study is divided into two phases: collective momentum on Twitter, and collective ideation on Facebook (with assistance from Instagram). According to the orchestration, the dynamics in every platform is different, and the knowledge development process needs different dynamics to develop an innovative outcome. Therefore, the different users in every platform and OC moderators and their requirements at every phase created orchestrated tensions.

Tension means the persistent interaction that is created when the collective collaborates in action over time. These tensions are of particular importance as they act as guidance to achieve the orchestrated knowledge development process. For example, to create collective momentum, users and OC moderators negotiate through performing certain practices which work to create orchestrated tension. The orchestrated tension is the continued contradictive interaction between the users themselves and between users and OC moderators and aims to focus on disseminating collective reactions as a collective goal to gain momentum. Consequently, in the collective ideation phase, users and OC moderators negotiate to perform practices that work to resolute tension for co-creation to develop intended outcomes. The co-creation dynamic is the continued synergistic interaction between the users themselves and OC moderators and which aims to gain collaboration and agreement regarding the collective goal to focus and deepen knowledge toward an innovative outcome.

I argue that these orchestrated tensions will add different dynamics to the knowledge process in which it is kept structured and governed in the fluid OC as the tensions and resolutions for co-creation are configured through orchestration to maintain the dynamics and collaborations emerging toward an innovative outcome. As such, neither moderators nor users are in control but mutually shape the process and final content. The multiple online spaces allow different negotiations between users and OC moderators for tension and resolutions to emerge and develop knowledge to an innovative outcome.

6.3.1 Orchestrating Tensions by Guiding and Conferring Goal for Collective Momentum

OC moderators and users develop certain practices to negotiate together with the development of collective momentum on Twitter. Collective momentum tests whether the knowledge is worth the collective effort of development into an innovative outcome and whether it has the reach for potential social impact. To create successful collective momentum, the OC moderators try to guide the collective goal(s) of users and users negotiate whether to confer the collective goal or abolish it. The negotiation between OC moderators and users builds an orchestrated tension that leads to collective momentum. The orchestrated tension means the OC can continue toward creating contradictive interaction between the users themselves and between users and OC moderators. In so doing, they aim to focus on spreading and disseminating the collective reactions as an overarching collective goal and so to gain momentum for developing OC knowledge.

If the interaction does not create tension, it will thus not generate collective momentum, and therefore the knowledge development process will fail to continue despite significant interest and engagement.

Orchestrated tension thus occurs by seeking to balance the OC moderators' guidance towards a collective goal and the users conferring it. Importantly users do not start with any particular goal, much less a collective one. Firstly, Orchestrated tension is initiated when OC moderators start guiding towards a collective understanding of the goal by harnessing users' emotions. For example, they may ask an open question in Twitter that has an inherent emotional reference (social hashtag). The question asks users' opinions and uses the platform features, such as the hashtag, that can represent activism regarding a particular social issue (Tombleson and Wolf, 2017). Hashtag activism is a type of hashtag used in social media, especially on Twitter (as it is trending-friendly) that supports and advocates debate about particular social issues (Tombleson and Wolf, 2017). Trendiness in hashtags is key to helping the spread of content and then establishing a widespread collective momentum. The OC moderators practice is to hook users emotionally through stirring their interest in making some social impact relating to the issues represented by the hashtags.

For example, in the Our Civilization story, users had to determine whether to stop the neglect and lack of maintenance of historical sites that had been allowed to continue over the years. This might entail seeking recognition and protection from UNESCO to

ensure the preservation of the sites, and possibly to ensure some further cultural, artefact and language preservation. Choosing trending hashtag discussions about this issue draws users in emotionally to a debate and hooks users into participating. The shaping of a collective goal in the OC is thus situated and emerges interactively using the social context to promote collective action. Users, on the other hand, confer the collective goal by judging the choice and questioning their emotions. For example, users have the right to question the purpose and the effect of their involvement, such as demanding that their voices be heard in the matter, whether the participation is worth the effort, or whether their previous participation in this OC has paid off.

As for the people in Saudi Arabia, the main channel through which these social issues is heard is through their impact on social media and thus the increasing buzz around the issues. If users do not find many other users are emotionally attached to the issue .by sensing their constant participation via tweeting, they may become discouraged or disinclined themselves and begin to perceive participation as wasting time in terms of making any real social impact. This urge on the part of both OC moderators and users to guide and confer collective goals through creating a reaction, regardless of consensus, builds arguments as different opinions are raised regarding particular social issues. These different opinions, that is, the buzz, builds paradoxical tension which helps knowledge innovation (Majchrzak and Malhotra, 2016). For example, paradoxical tension starts through-provoking different opinions which creates a clash that results in the hashtag trending extensively. Acquiring a trending hashtag is the main purpose of creating collective momentum.

Secondly, tension is orchestrated by motivating debates on a contested topic. For example, OC moderators guide users' goals after building tension to legitimize their participation. Orchestrated tension can then be harnessed to allow for clearer development of knowledge and to maintain a certain balance in the tension.

OC moderators use platform features such as voting polls to legitimise the interactions between users due to the latter demanding some tangible affirmation that their participation is of use in developing knowledge and momentum, and thereby balancing the tension, so that oppositional points are constantly being expressed and encouraged. In addition, if the tension is not sustained, it will become imbalanced. Such imbalance has been discussed in the literature as it has negative consequences on creativity (Faraj et al., 2011), which could be caused by either reduced tension through low interest (lack of interaction) or excessive tension, in the latter case where the interaction

becomes noisy or overly emotional, causing users to abandon the discussion altogether (Faraj et al., 2011; Majchrzak et al., 2017).

Some topics (e.g., the story about planting trees) failed to build orchestrated tension and became imbalanced because there are only registered affirmative reactions in the post (retweets, likes), without any actual written oppositional reactions that build tension from contradictory opinions. Purely affirmative reactions create an imbalance in the tension, which reflects a consensus towards the topic while at the same time without creating any impact on the topic that might lead to it trending. Such written, overly positive responses affect the development of collective momentum negatively. Another example, representing excessive tension, is that some users express their opinions regarding the noise on Twitter and how it is more productive if the topic is moved to Facebook as a means of maintaining a focus on discussing practical solutions. Also, they were happy and were further motivated when they saw the results of the poll on Twitter and the way that the responses were gathered to show the overall interests of users.

The previous example shows that an imbalance of tension may occur when orchestrated tension is not suitable for certain users. The previous example shows that an imbalance of tension may occur when orchestrated tension is not suitable for certain users. The reason is that the imbalance in tension occurs when it is hard to predict its consequences as the members are constantly changing, and their engagement is unpredictable (Majchrzak et al., 2017).

Therefore, in media firm OCs, the change of platform space is significant to the knowledge being developed as users, platform features and negotiation dynamics are constantly changing. However, dividing the topic into phases and separating it into different orchestrated online spaces for interaction is suitable for the users in terms of showing that knowledge collaboration tension can be balanced even if users are constantly changing through the change in online space (platforms).

In summary, building orchestrated tension while knowledge is emerging will increase the chances of achieving greater dissemination of knowledge while guiding the interaction to a collective goal. The orchestrated tension structures the knowledge collaboration dynamics. The tension practices are understood because the OC has orchestrated the knowledge development process. Therefore, the OC has used tension as a method to guide the knowledge while emerging into an innovative outcome.

6.3.2 Orchestrating Co-creation towards Collective Ideation

OC moderators and users develop certain practices to continue negotiating the development of collective ideation on Facebook and use Instagram as a tool to orchestrate co-creation toward collective ideation (see Table 5.1). The collective ideation phase is intended to widen and deepen knowledge development through the honing and sharing of creative content related to the desired innovative outcome, and with the potential to achieve the desired social impact after that.

To create successful collective ideation, the OC moderators start endeavouring to motivate users to deepen their insight and ideas while users negotiate as to whether they should apply the collective ideation and invest their efforts and ideas in it, or otherwise.

The negotiation between OC moderators and users in this phase are more in harmony as their interaction orchestrate co-creation. The orchestrated co-creation is the continued synergistic interaction between the users themselves and OC moderators and which aims to have collaboration and agreement regarding the collective goal to focus and deepen knowledge toward an innovative outcome. During co-creation, the dynamics revolve around deepening and extending the insights around the specific topic, fostering ownership and harmony between users who each have their own way of thinking.

Firstly, OC moderators attempt to craft collective ideation, which is achieved through attaching the voting poll results to a detailed question (task) from the collective momentum phase to signal reference to the interaction and orchestrate the feeling of considering users' opinions and showing them that they have been chosen to co-create the knowledge. In addition, attaching poll results transfers the collective momentum that has been built on Twitter to Facebook into a more homogenous, less noisy environment to focus purely on ideation through building consensus.

On the other hand, users also negotiate the detailed task and the benefits of interaction and the way they contribute through creative ideas as elite users. As the OC moderators apply creative means for involving Instagram and asking users to visualise their ideas, the visualisation through Instagram enables co-creation, as both OC moderators and users attempt to broaden and extend their ideas further. For example, the users choose to invest and translate their emotions into creative content (videos, photos), videoing themselves, empathetically explaining their stories and building on the stories of other, recounting experiences regarding the MGL or historical sites law, where some want

to post videos and photos (memes) or others want to display the enacting of everyday life from the point of view of women in MGL or through videoing ancient places.

In the case of MGL, users increased the co-creation through creativity and changed the idea of the discussion to create a show not just to deal with MGL but to support women in general, whereby the OC moderators changing the idea and the discussion as users demanded the promotion of a bricolage of ideas. As the situation for women in general needs to change in Saudi Arabia, users thought to legitimize ideas further and so be more beneficial to society by investing in changing the way people think of women as second-class citizens. The ideas were attached to considerable emotion and the need for change. The users went beyond the change of regulation to a change in the way some people in society think. OC moderators, co-creating with the users, have realized innovative, separate ideas from the mainstream conversation and prepared it as publishable YouTube material, an outcome that can provoke the thinking of others and challenge prevailing norms. Building co-creation tension through the negotiation between users and OC moderators towards a clear goal by broadening and extending knowledge through creative means will eventually develop an innovative outcome in such fluid OCs.

In summary, orchestrating co-creation while knowledge is emerging will increase the chance of achieving a deeper and innovative knowledge while guiding the interaction into focussed, the innovative outcome — the dynamic of co-creation structures the knowledge collaboration by the negotiation practices between users and OC moderators.

The research shows that the knowledge development process needs different dynamics in every phase of developing knowledge. Because knowledge needs different collectives with different characteristics, different platform tools have different interactions at different points of time to develop an innovative outcome. However, to structure the interaction while the knowledge is emerging, the OC focusses on investing in understanding the knowledge collaboration dynamics in every knowledge development phase. As the OC will face a heterogeneous mix of users with different individual goals, they will build orchestrated tension. The research has shown the way that the OC can use the orchestrated tension in structuring the interaction toward developing knowledge by developing dyadic practices between users and OC moderators. Similarly, if the OC has faced a homogeneous collective in their goal, and

the way to let the interaction focus more deeply on ideating toward the goal is through sustaining well-balanced dyadic practices between users and moderators.

Therefore, applying the negotiation practices between OC moderators and users has structured the interaction in the fluid OCs across multiple platforms. Building different dynamics through negotiation such as orchestrated tensions and then resolve it toward co-creation works to increase knowledge creativity and collaboration according to the goal in each phase. This can achieve a knowledge outcome without restricting OC boundaries and membership.

Figure 6.1 shows the OC orchestration enables the knowledge development process and its phases across multiple platforms through its practices and enables different dynamics according to the orchestration which entails ongoing tension and co-creation between users and OC moderators.
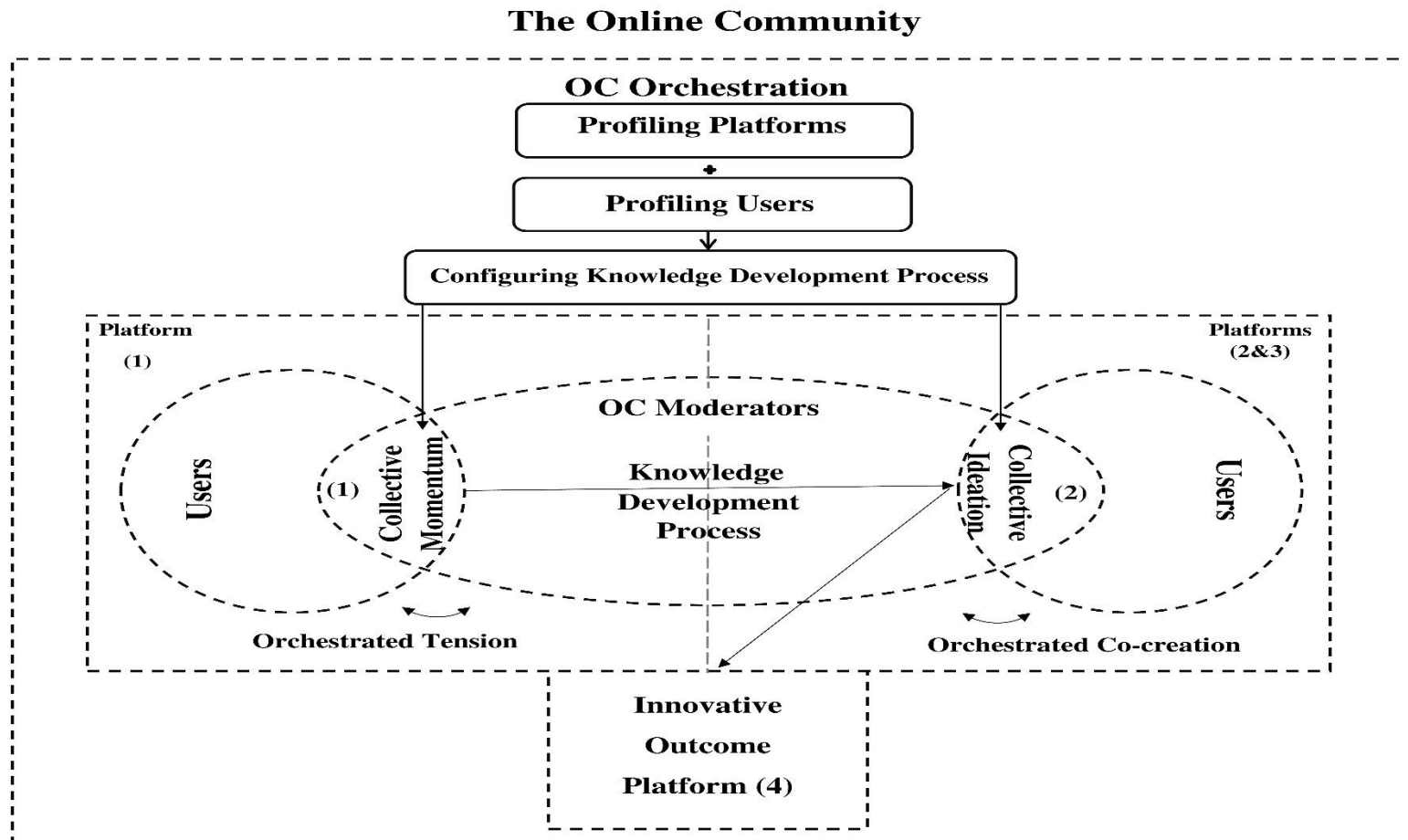
The Online Community

Figure 6.1 Orchestrating Knowledge Development in an Online Community across Multiple Platforms

6.4 The Impact of OC orchestrating of Knowledge Development on the Societal Level

Regarding the Our Civilization story, the Neolithic heritage site of Al-Ahsa Oasis, which is located in the eastern part of Saudi Arabia and which includes historic fortresses, mosques, wells, canals and other water management systems, was successfully recognized by UNESCO in 2018 (UNESCO, 2019). This historical site has been recognised, discussed and an episode published on the OC YouTube channel (in 2017). In addition, in September 2019, Saudi Arabia started to issue tourist visas for the first time following the country's plan to preserve and develop its historical sites (Saudi Tourism, 2019)

Regarding the MGL, in August 2019 the MGL law was abolished completely. Women now have all appropriate rights such as the right to study, work, seek health treatment, obtaining passports, and travel without male consent (Graham-Harrison, 2019)

These results and societal level impacts on changes in Saudi can be traced (at least) in part to the collective OC activity. This activity is not only centred around the knowledge output, of a new web series but also the interests and views that were garnered and aroused throughout the knowledge development process. This process served to create an immediate and receptive audience for the output or final object of knowledge but also heightened the interest in wider society for the issues by finding and harnessing momentum in the various practices.

6.5 Conclusion

This research found that orchestration represents a novel way of structuring a fluid online community across multiple social media platforms without forcing a change in its nature by closing boundaries or restarting the flow of membership. As users and activities are continually morphing, OC orchestration is required to profile users and platform tools and connect them to the broader social context, which can help to understand and configure expected knowledge contributions. Accordingly, the OC orchestration, with the help of multiple online spaces for interaction, can enact the knowledge process flow in the fluid OC by designing knowledge development phases across platforms with different practices inside every phase negotiated between users and OC moderators. The negotiation between users and OC moderators can create different types of knowledge collaboration dynamics in each knowledge development phase. Orchestrated tension dynamics develop collective momentum and orchestrated co-creation dynamic to develop collective ideation. Therefore, My second contribution is showing that there is different OC orchestrated dynamics are applied and negotiated between users and OC moderators to structure the knowledge process during emergence in fluid OC toward an innovative outcome. Those dynamics are orchestrated according to users, platforms and their expected knowledge contributions in the social context. The multiple platforms helped the appliance of different practices through separating tasks to every platform.

Chapter 7
The Research Conclusion

7.1 Introduction

The final chapter restates the academic contribution to the online community literature made by this research. The chapter then discusses the research implications, limitations, possible practical implications and areas of future research.

7.2 The Theoretical Contribution

My first contribution is that OC orchestration structures the interaction and the knowledge development process in the OC while preserving its fluid nature by maintaining an open boundary and fluid membership without compromising the novelty required to develop innovative outcomes. The orchestration structure the interaction by profiling users, profiling platforms, and configuring the expected knowledge development process by understanding the expected knowledge contribution. The OC orchestration is made possible because it is embedded in the social context of the OC.

My second contribution is showing that there is different OC orchestrated dynamics is applied and negotiated between users and OC moderators to structure the knowledge process during emergence in fluid OC. The knowledge development process is divided to across platforms into two phases: collective momentum to test and spread knowledge, and collective ideation to deepen and to develop knowledge to gain an innovative outcome. Every phase is improving different dynamics of collaborations that is in alignment OC orchestration of users and platforms and type of knowledge expected in the social context. The OC orchestrates the dynamics into enacting different tasks and negotiated by practices that users and OC moderators apply to build an outcome of every phase. For example, Users and OC moderators were guiding and conferring collective goals to build the orchestrated tension that is required to achieve collective momentum, followed by endeavouring and applying collective ideation means making orchestrated co-creation that is needed to deepen ideas to arrive at an innovative outcome. Multiple platforms have enabled different knowledge collaboration dynamics to be constructed and therefore develop interdependent phases of knowledge development.

7.3 Theoretical Implications and Future Research

OC orchestration, as a new form of organizing, has multiple implications for some theories such as collective and connective action. First, OC orchestration offers the opportunity to investigate social change-oriented organisations away from polarising opposites such as traditional organisations versus fluid OCs enabled by emerging technologies. Grassroot social organisations can only begin as dynamic OCs to become skilled, bureaucratic organisations. In contrast, others follow separate and sometimes overlapping, social goals, such as beginning with the objectives of societal change and progressing towards maintaining shareholder principles (Young et al., 2019). This conversion is compounded by the emergence of emerging technologies when dynamic OCs undergo shifts in the way they participate in technical sharing to tackle important issues, but also in the platforms and apps they use to exchange resources. As this study of OC orchestration in Saudi Arabia has shown, this conversion is not the product of accidental and unpredictable actions by an unknown crowd (Dolata and Schrape, 2016). Rather, this conversion is the result of OC orchestration by an external moderating organisation and a core set of OC participants. This hybrid form of organisation (Pache and Santos 2013; Puranam et al. 2014) has greater organising capacity than either a local social organisation or a third sector organization because it cultivates evolving connective and collective action through the complex experiences of online crowds, the social technologies of networks such as Twitter, Facebook and Instagram, and the context-specific societal issues impacting the crowd. Crowds may have the capacity for progressive social change; digital platforms may provide opportunities for information sharing, and societal issues may provide a bond that connects the two together. Nevertheless, without OC orchestration, the interaction between these three components may be missed. More work needs to examine this hybrid form of organising across a more extensive set of OCs and organisations as they try to participate in technical sharing on significant challenges (Majchrzak et al. 2016).

Further research could explore how multiple OCs and organizations from the public, private and third sectors orchestrate processes of knowledge collaboration towards environmental policy changes such as in climate change. Second, OC orchestration could be extended to examine non-human actors such as bots because they are

increasingly driven by intelligent algorithms and participating in digital organizing (Young et al., 2019). Organisations can deploy bots as actors that start an action and enforce values, communications or leverage a group's efforts for greater impact" (George and Leidner, 2019, p. 9). However, users of social media such as the use of bots Twitter, Facebook and Instagram could believe that content is generated by humans and not bots (Salge and Karahanna, 2018) because bots are increasingly learning to respond and behave like human beings (Lazer et al., 2018). Therefore, future research should focus on artificial intelligence consequences as we move to the age of intelligent algorithms (Faraj et al. 2018). Further research needs to examine the orchestration of such intelligent bots in the process of knowledge collaboration. This will include the non-ethical dark side of the use of bots in spreading fake news, spreading the ideas of terrorist acts or any unethical social action and understand their role in research projects that are inclined to the consequences of such orchestration.

In addition, there is a potential opportunity for future research in terms of looking extensively at the affordances perspective and how it works toward enhancing OC orchestration, as the affordance studies generally remain tightly focused on the relationship between users and technology with only slight consideration of the wider complex context (Leonardi and Vaast, 2017). For example, questioning the methods in which there is a dearth of wider contextual agencies – external to the OC affordance processes – may involve deciding the affordances of an OC. Affordances have been acknowledged to be enacted at multiple levels and can be usefully conceptualized as being part of a wider constellation which goes beyond agent-object dyads (Costall, 2012).

7.4 Practical Implications

This research has some practical implications for organisations that aim to build an online community of interests, whether they seek to develop products, services or knowledge. Organisations could creatively cultivate the culture, and the social context surrounds the OC and orchestrate it to pull crowds and add creative, relatable ideas to their services, products and knowledge and build a stronger local community. In addition, greater connection to the social context may result in more innovative services, products or knowledge and goes beyond that to reach social, environmental,

cultural or political impact as the business needs to involve itself beyond profit to take more social responsibility.

Moreover, organisations that may want to reach public consumers and not only specialised markets and niche products and services or not dealing with sensitive knowledge may consider building OCs in the available social media instead of building separate independent platforms as the former is more accessible and reachable by many users, especially the public who have more understanding of and are more in touch with social needs, especially those on platforms such as Twitter (hashtags of trending news, needs and hopes). This is because, in the social media platforms, the user base is already established with fewer costs, as not all products, services or knowledge need a specialised interaction space. OC orchestration practices help the practitioners in terms of how they may understand users' 'characteristics and potential behaviours in different platforms concerning the social context and configure process for developing outcomes.

Besides, adopting multiple platforms in OCs helps practitioners to develop their products, services or knowledge in various places and to align the proper users with fitting tasks and enabling them to develop their practices and govern the interaction. Different platforms also enable organisations to shift the narrative (rebalance knowledge collaboration tensions) and introduce it to a different set of users as a way to help the business strategy. Multiple platforms help to test the business strategy before investing in the knowledge development process.

7.5 Limitations

As with all studies, this research has some limitations. The media firm OC is a unique community built across social media platforms and strongly related to the social context situations; thus, the findings of the study may not be widely applicable, but some elements and general findings may be applied as shown in the practical implications.

The study limitation is unfolding in specific Saudi setting in which was the primary enabler for the crowd to enact in such unique way in response to knowledge collaboration which makes the study have limited generalisability. For example, first, the crowd were enthusiastic about supporting social change, and they were willing to

participate in collective action. However, as it is seen that the organisation OC orchestration was a fundamental step toward knowledge collaboration among collectives in which is using hashtags that are already trending nationally with social issues was an element of generalisability in some studies. The reason is that hashtags are working as a tool to hook users to be participating and working as predicting mechanism of what users are interested about especially if the online community was to support social, environmental or political issues. For example, applying the use of hashtags to support the climate change movement to orchestrate crowds towards an action. Another example of the limitation that is related to the social context of the study is that the use of social media platforms and its configuration in knowledge collaboration process is associated with the way that users are behaving in such context. Therefore, some OC may not need to use multiple platforms or even if they use them, it's not necessary to be using the same-named social media platforms or in the same configuration. However, the study showed that the way the OC orchestration is operating in this study is to profile its users and platforms and then to configure the knowledge collaboration process based on the context of OC. The setting is significant for OC orchestration to take place.

As in many ethnographic studies, the purpose is not to find a representative online community, but to find insightful theorising that emerges from the uniqueness of small studies that shed light on some elements that might otherwise be overlooked in generalizable data. However, such a limitation is related to the philosophical stance adopted, which is itself linked to the interpretive approach.

Furthermore, despite the interviews conducted, including the users and firm/OC members, other stakeholders might be involved. Still, the firm members may not be fully transparent during the interview as anxiety concerning privacy was the main reason. Also, due to the complexity of an open and fluid OC, it is complicated to investigate all high volumes of interactions and relationships and offline relations beside process all OC posts and comments. The reason is that this research has limited time and resources. Therefore, I decided to set boundaries to the research and investigate two stories in detail and utilise the main activates and focus on building specific interview questions. Moreover, The OC business plans for making a profit are

not covered in the study as the main focus was not to investigate the business model but looking at the process, which leads to another type of values.

7.6 Conclusion

The final chapter has reviewed the theoretical research contributions, first, of OC orchestration as a novel form of organising in a fluid OC and its application in the three practices of profiling users, profiling platforms, and configuring knowledge collaboration process. The second contribution is related to the knowledge development process in OCs with multiple online platform spaces, showing that knowledge needs first to build collective momentum to test and spread the content. To gain momentum, users and OC moderators apply practices to build paradoxical tension. Second is building collective ideation to develop an innovative outcome in which users and OC moderators develop co-creation tension.

Then the chapter discusses the theoretical implications and possible future research of OC orchestration on connective action and its applications in some social, environmental issues such as climate change. Then the chapter discusses the future OC orchestration in examining the area of artificial intelligence such as the use of software bots in orchestrating non-human actors, possible spreading of fake news or such political harmful agendas such as terrorist acts. Also, future research recommends looking at affordances and the role of the broader context

In addition, the chapter discusses practical implications for businesses to consider to take the social context seriously to develop innovative services, products and knowledge that is unique and close to the consumers. Also, the practical implication recommends establishing OCs in social media as this is more approachable, accessible, less costly and reachable by many as it has a ready base of users, though with the appliance of orchestration practices.

Moreover, the chapter discusses the limitations to the reach regarding the generalizability of data, applicability, limitations regarding the data sources and research coverage

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