MOOCs without borders. Investigating the dynamics of a contextualised approach to scalable online learning, inclusion of displaced populations and conditions of poverty.

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May 2021

This thesis is submitted in partial fulfilment of the requirements
for the degree of Doctor of Philosophy.

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This thesis results entirely from my own work and has not been offered previously for any other degree or diploma.

Signed:

Abstract

MOOCs, Massive Open Online Courses. This form of scalable education has gained a reputation for providing anytime, anywhere access to knowledge across the globe. Through the ubiquitous presence of the internet as the mechanism by which to deliver courses, MOOCs are primed to break down barriers of access to education between nations and population segments. However, is the ecosystem of MOOCs really developed for anyone, anywhere? With wars, national conflicts and natural disasters setting a record for the largest number of refugees and displaced populations ever recorded along with millions of people around the globe who continue to live in conditions of poverty, are indeed "MOOCs without borders" and can they provide much needed educational opportunities to transform the lives of these less privileged populations?

This research investigates the plight for these populations by reflecting on the concept it has termed as "MOOCs without borders". It examines the contexts of such populations and their nations which are heavily tasked to minimise gaps in the attainment of knowledge, through providing inclusive, adaptable and therefore contextualised education at scale. Reflecting on this, this thesis investigates the dynamics of contextualised education through the lens of MOOCs for such marginalised populations, and uses Knowledge Gap Theory as its theoretical framework whilst implementing Grounded Theory as its methodological approach.

The findings gathered identifies 5 key factors which can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations. In the identification of these 5 key factors, this thesis presents the generation of theory in the form of the "Contextualised MOOCs Model". This model provides a how to framework for MOOCs to provide accessible educational opportunities, as it illustrates the interconnections and the impact which the 5 contextualised factors have upon each other, and thus upon the development and implementation of MOOCs for underprivileged and displaced populations.

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Acknowledgements

"Seek knowledge from the cradle to the grave" ~ Prophet Muhammed (*Al-Hadith: Sayings of the Prophet Muhammad*)

I could not have come to this point without two precious gifts in my life, my Parents. To my dad, Aman, your care and generosity have helped instil in me the desire to always work towards becoming a better person and to try to make a positive difference. To the most beautiful woman in my world, my mom, Zahara. You are the light of my heart and my best friend. You show me every day what it is to be an incredibly loving, kind, intelligent and strong woman. You are my strongest support, I love you. And my brother Faiz, you always stand by me, I am so grateful to have you in my life.

Amer, despite the challenges, thank you for helping me see this through so that I may begin not merely the next chapters in my research, but the next new phase of my life.

To Penguin, you mean so much to me and you are in my heart every day, beyond MOOCs without borders.

I thank you all for believing in me.

I would also like to thank people at Lancaster University who have given me support, particularly Professor Don Passey, Director of Studies, who from the very start of my PhD journey has been generous with his time and provided me with valuable advice and guidance. And Murat, thank you. I am also very grateful to my friends and colleagues from around the world who have encouraged me. Iris, you have been a wonderful source of support and I truly value our talks. Tony, your advice made a difference, thank you!

Publications derived from work on the Doctoral Programme

The following publications were derived during the Doctoral Programme involving aspects of research which has been examined through this thesis.

Shah, M.A & Santandreu Calonge, D (2019). Frugal MOOCs: An Adaptable Contextualized Approach to MOOC Designs for Refugees. *The International Review of Research in Open and Distributed Learning,* 20(5), 1-19.

Calonge, D. S.; Shah, M.A; Riggs, K, Conno M. (2019) "MOOCs and Upskilling in Australia: A Qualitative Literature Study". Cogent Education. Cogent.

Calonge, D. S., Riggs, K. M., Shah, M. A., & Cavanagh, T. A. (2018). Using Learning Analytics to Improve Engagement, Learning, and Design of Massive Open Online Courses. In K. Walters & P. Henry (Eds.), *Fostering Multiple Levels of Engagement in Higher Education Environments* (pp. 76–107). IGI Global.

Santandreu Calonge, D. & Shah, M.A. (2016). MOOCs, Graduate Skills Gaps and Employabilty A Qualitative Systematic Review of the Literature. *The International Review of Research in Open and Distributed Learning*, 17(5), 67-90.

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Chapter 1 Introduction

1.1 Introduction to the Study

Chapter 1 introduces the focus and context of this study. It presents one of the greatest challenges which cannot be isolated to one or just a few nations, and that is, the dire need to provide contextualised education for mass numbers of learners in complex and fragile environments. This challenge brings to the forefront the need for accessible, scalable, adaptable and thus contextualised education, for millions of potential learners across the world who have been displaced, as well as an equally important need to provide such forms of education for segments of populations which live in conditions of poverty within their nations. As the title of this thesis suggests, the components of scalable, contextualised and accessible education for such populations and nations is examined through the accessibility and use of MOOCs or Massive Open Online Courses for such contexts. In order to lay the foundations for what this thesis examines and how these are carried into all forthcoming chapters, Chapter 1 presents the following. The chapter begins with Section 1.2 discussing the broader picture of borders, globalisation, displacement and populations living in conditions of poverty, the dire need for scalable accessible education and the potential of MOOCs. Section 1.3 then continues to further lay the defining parameters for the thesis, as it outlines what is delineated as "displaced populations" and the "context of MOOCs" which are focused on throughout this study. Section 1.4 discusses the research gap and thus the paradox of the suggestive inclusive nature of MOOCs being open to anyone, at any location, through the ubiquitous use of the internet. The specific nations which are focused on are also introduced in this

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section. Identification of this gap in the research enables the thesis to aptly present the research question along with 2 crucial aims of this thesis. This is discussed in Section 1.5, The Research Question and 2 Key Aims. There are 2 major contributions to knowledge which are illustrated in Section 1.6. In this section, the contribution to knowledge which rests in the development of a contextualised model for MOOCs, formulated through examining the research question and its subsequent aims, which may be implemented for the nations and populations focused on in this research is presented. In addition to this, the second major contribution of combining an inductive methodology while implementing deductive 'gap' reasoning, is brought to light. Following this, a brief introduction of the methodological approach and theoretical framework is addressed in Section 1.7. The chapter goes on to conclude in Section 1.8, by providing an outline for the ongoing structure of the thesis.

1.2 Research Context and Background

Borders and contexts are two facets of the same coin. They have been fought over for centuries, and the conflicts for borders have many times throughout history led to peoples and cultures within the contexts of one border, to transfer into the contexts of another. This not only occurs due to border conflicts, the current speed of globalisation has also led to significant emigrational shifts in the global landscape (UNHCR, 2017c). This swelling of international borders has however been enhanced greatly by the increase in the displacement of large populations, thus forcing mass numbers of people into new social, economic and educational contexts (Alfred, 2018; UNHCR, 2017c). Currently, "global displacement is at a record high" as it not only disrupts lives, it

uproots the development of knowledge based societies forcing them to re-examine and provide mechanisms which enable social integration not only for their existing underprivileged populations, but additionally for the new swells within their populations due to displacement (International Organization for Migration, 2018). There are 79.5 million people which have been forcibly displaced worldwide, the largest number ever recorded in history (UNHCR, 2020b). 85% of the world's displaced populations due to conflict or natural disasters are hosted by developing regions such as, Bangladesh, India, China and many African nations as well as some of the top hosting countries for refugees which are Turkey, Lebanon and Jordan (UNHCR, 2017b, 2020a). International responses have often been a means of aiding some of the needs of host nations and such populations. For instance, when reflecting on medical care which is often disrupted and inaccessible for displaced population segments and those living in conditions of poverty, the organisation, Medecins Sans Frontieres, also known as Doctors Without Borders, utilise the skills and knowledge of doctors from across different parts of the world and implement their skills in the contexts of such foreign nations for such populations. The basic notion of Doctors Without Borders (Medecins Sans Frontieres) rests on providing medical care to those in need "regardless of their social backgrounds" (Fox, 1995, p.1609). For providing the required medical care and services, Doctors Without Borders adapts its medical care and response according to the "forms and contexts" of the environments which they are examining (Redfield, 2005, p.333). They respond to medical needs which have arisen due to natural disasters, displacements of populations due to wars, or other circumstances such as responses to diseases for populations living in developing nations who do not have access to medical care and live in rural places in conditions of poverty. Thus, they adapt and contextualise their response to the needs of

both the environment for which they are providing their services as well as the targeted population segments which they are catering to, and see no "escape" from the necessity to adapt and contextualise in order for their services to work effectively and sustainably (Redfield, 2005).

Similar to the borderless provision for medical care due to displacement or internal existing poverty, the provision of education for such nations and population segments is also a step towards achieving better integrated lives across the globe. According to the United Nations Educational, Scientific and Cultural Organization, UNESCO, education is one of the keys to tackling poverty and enhancing the livelihood of newly integrated societies, as it can generate jobs for those in need (Van der Berg, 2008). However in addition to this, it has been suggested that context does play a significant role in the development of education, as "quality-adjusted education" is essential for economic growth and generating incomes (Sultan & Jamal Al-Lail, 2015). Studies such as Lorisika, Cremonini, and Safar Jalani (2015) have highlighted, countries faced with a large intake of refugees and those facing their own populations living in poverty are in a dire need to provide accessible and scalable learning opportunities, and are recognising the ability of digital education to target such masses of learners. In looking at the percentage of displaced populations across the world, access to tertiary education has been expressed as a crisis at a "critical" point where access for more privileged populations across the world stands at 36 percent, whereas "for refugees, despite big improvements in overall numbers thanks to investment in scholarships and other programmes, the percentage remains stuck at 1 per cent" (UNHCR, 2017d).

This crisis to provide accessible education will not be contained within set international borders. Rather, it will have a significant impact on the global economy as the requirement to provide education to large populations coupled with the global trend for educated and skilled work forces continues to rise (European Commission, 2016). The "largest contributor to the global work force", India, with its "working age population" being greater than 950 million, many of which live in conditions of poverty, is keenly looking towards alternative or disruptive and accessible educational means through which it can redress the need of its current educational demands, and similarly as is China (Ernst & Young LLP, 2013, p.7). The traditional face-to-face classrooms have been noted as being unable to "keep up with the masses" (Pushkar, 2014). The shared concern in countries such as these with large populations and many who live in rural locations in conditions of poverty, are in "need to scale education to keep up with an overwhelming demand of their respective populations" (Trehan, Sanzgiri, Li, Wang, & Joshi, 2017, p.141).

In other parts of the world, as a means to reduce poverty, many African nations are also re-examining the contexts of their learners, as well as their digital capabilities when identifying how best to provide online education to the large numbers of targeted learners in their underprivileged populations (Sultan & Jamal Al-Lail, 2015, p.34). These efforts for scalable and online accessible options are comparable to educational demands that have been identified in countries where populations have also increased unexpectedly due to an influx of displaced people. Turkey currently hosts the largest intake of displaced people at a staggering 3.6 million (European Commission, 2017; UNHCR, 2020a). Other top nations include Jordan with approximately 2.5 million and

Lebanon with 1.5 million (Al Jazeera, 2016). Forced blends of populations into new contexts along with the effects of globalisation has not however been confined solely to physical borders by which to provide education, it has also transgressed and brought with it a disruptive force into virtual borders. Approaches to disseminate education and enable greater social integration have traversed with radios, televisions, to the current day developments in learning online as well tackled through the use of Open Educational Resources (OERs). All of these forms of educational distribution have a common trait. That is, they implemented the most dominant form of technology for that time period as a means to broadcast at scale learning opportunities targeted for sectors of populations which lacked or struggled with the ability to otherwise engage in knowledge development (Williams, 2004). These tools were implemented as a significant step in the movement to make education more openly accessible across different contexts and nations, and is still part of the fabric of scalable distributed learning. They have brought to light not just a means through which education can be distributed, but also, the need and demand to distribute scalable learning opportunities to developing countries and nations faced with large populations and displaced people (Wright & Reju, 2012).

Therefore with this in mind, the influx of different cultures and people into unfamiliar contexts and societies due to wars, poverty, natural disasters and displacement, has moved what was disruptive innovations and disruptive technologies into a new era of requiring disruptive and accessible educational opportunities (Müller-Eiselt, 2014). Poverty in lesser developed nations along with the growth of displacement has led to a "gap in opportunities" to gain knowledge and education, and has consequently brought forth an increased need for forms of accessible, scalable and contextualised educational

opportunities for these diverse sets of potential learners in such challenging contexts (Grandi, 2017). Reflecting on the virtual prospects of education, online learning has been within the sphere of education for decades as studies as far back as 1996 have highlighted the use of "computer networks for teaching and learning" (Harrison M. & Stephen, 1996). Studies have shown that online learning tends to be structured within and accessible to students enrolled in university courses and may also involve elements of blended interaction (Dabbagh & Bannan-Ritland, 2005; Makewa, 2020; Morales, 2010). Nevertheless, it has also been stressed that it is "difficult to develop a generic definition" of online learning (Ally, 2008, p.16). Taking this into consideration and reflecting on the humble beginnings of online education from studies dated as far back as 1996, it can be seen that that differed from what has now evolved into distributing education to massive numbers of learners through what can now be seen as the virtual disruptive educational innovation, of Massive Open Online Courses or MOOCs. With the capability of providing education to masses of learners, the concept of MOOCs is becoming particularly attractive to nations tackling the need to educate those living in diverse contexts such as poverty, and the growing numbers of populations crossing borders due to forced displacement (Yafi, 2013). Due to their prospects for scalability, openness and seemingly ubiquitous online capabilities, the potential of MOOCs to aid in the provision of education was stated as being second to none as "Nothing has more potential to lift more people out of poverty…unlock a billion more brains to solve the world's biggest problems than massive open online courses." (Friedman, 2013).

MOOCs has been noted as providing "infinitely scalable learning" options for such nations and has been described as the next "disruptive revolution in education" which

can help transform the lives of their marginalised populations (Müller-Eiselt, 2014, p.5). Although higher education is being provided for refugees and other marginalised populations which have been fortunate to reach or have been living in European nations, such as the United Kingdom and Germany, and North American nations, such as Canada and the United States, where technology, such as the internet is more widely available, as will be seen in the next section, this research examines the larger numbers of such populations who live in lesser developed countries, host countries or within camps in the host countries, yet still equally require scalable and accessible educational opportunities. With this perspective, providing education to large populations to alleviate conditions of poverty and for those surviving in circumstances of displacement, or recently integrating into a new country's society, has been an ongoing struggle which no nation can truly be immune from. Reflecting conditions similar to those relating to Doctors without Borders for the provision of medical care for all, "education for all" should involve inclusivity and access to education and lifelong learning opportunities for all populations, by considering the contexts, backgrounds and the opportunities within the nations which support such populations (United Nations Development Programme, 2017). Additionally, with staggering numbers such as 85 percent of 79.5 million people being displaced and 950 million underprivileged people in India alone affecting the workforce, the effects of inaccessible non-scalable education will undoubtedly affect all global borders. Therefore, it is pertinent to examine scalability for the sake of inclusion and improved livelihoods and more precisely through this research, MOOCs without borders.

1.3 Defining Parameters

There are 2 core considerations which must be defined through the lens by which they are examined within this thesis. Although these are discussed in Section 1.5 The Research Question and 2 Key Aims, they can also be highlighted here. Therefore, these considerations are: 1) Displaced Populations, and, 2) Contexts of MOOCs.

Displaced Populations. How "displaced populations" is defined throughout this thesis is crucial to understand as it guides the direction of the research question, *"What are the factors that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations?"*. Relief organisations such as The International Federation of Red Cross and Red Crescent Societies (IFRC), the World Health Organisation (WHO) and the United Nations High Commissioner for Refugees (UNHCR) have provided a broad consensus on what can be viewed as displaced populations. "A sudden impact such as a natural disaster or conflict triggers the displacement of populations", as stated by the IFRC (2020). Displaced populations are further defined as crossing "borders such as refugee influxes" and "usually need relief operations combined with efforts aiming at collective and lasting solutions" (IFRC, 2020). The WHO (2020) adds that displaced populations flee "complex emergencies and disasters" and "often end up in large camps". A distinction however can be made between Displaced Populations and Internally Displaced People (IDP). As defined by the UNHCR (2020c), internally displaced people face internal displacement due to "armed conflict, generalised violence or human rights violations". However, the UNHCR (2020c) further states "IDPs stay within their own country and remain under

the protection of its government, even if that government is the reason for their displacement.". Within the context of this thesis, "displaced populations" is defined as refugees which have fled their own nations and are now based in refugee camps, in accordance to the what has been defined by relief organisations. Thus, displaced populations as defined in this thesis, adheres to the definitions mentioned above describing these populations as refugees who have crossed borders, are based in camps and require "collective and lasting solutions"(IFRC, 2020; WHO, 2020). This adheres to the broader framework of this thesis which examines the prevision and crossing of virtual educational borders or "MOOCs without borders". In this regard, the influx of refugees in top hosing nations as discussed in Section 1.2, along with an emphasis on "nations faced with poverty" with their own populations segments in rural or remote locations living in conditions of poverty, are examined. Therefore, this thesis does not focus on what has been defined as IDPs. Due to this, economic migrants, Roma, asylum seekers and other such categories of displaced populations or IDPs, is not part of the focus of this thesis.

Contexts of MOOCs. In this thesis, the examination of MOOCs is not focused on a specific MOOC course or type of MOOC or specific MOOC providers or platforms. As discussed in Section 1.5 below, the contexts of MOOCs for this thesis, is examining the bigger concept of MOOCs being accessible to anyone at any location, at scale, and thus as an inclusive educational tool for *all* which can aid in minimising knowledge gaps. As such, MOOCs should also be accessible and be a mechanism for inclusivity for displaced and underprivileged populations as has been defined in this thesis. Therefore, the principles of MOOCs are focused on and is carried forward through this thesis in all

chapters. However, the specifics of this concept of MOOCs can again be seen in discussions in Section 1.4 below and in the literature review, Chapter 2 Sections 2.3, 2.3.2 and 2.4.

1.4 The Research Gap

Although MOOCs may potentially appear to offer an effective solution to the problem of education demands for populations living in poverty and displacement, it has been indicated that there is a lack of a "workable model" for MOOCs in various contexts and consequently this questions their true potential of "scalability, sustainability and education quality" (Wintrup, Wakefield, & Davis, 2015, p.10). Thus, the gap in research lies in the examining the possibilities of developing a contextualised approach to MOOCs which is adaptable for such contexts and populations.

> "One-size-fits-all educational innovations do not work because they ignore contextual factors that determine an intervention's efficacy in a particular local situation." (Clarke & Dede, 2009, p 353).

Concentrating on "contexts", the specific nations focused on and the reasons for focusing on them are as follows. To begin, the nations focused on cover 10 countries. These countries have been selected for reasons which include i) their hosting of an influx of refugees which reside in camps, which in this thesis are the "displaced populations' which has been defined in Section 1.3 above, ii) "nations faced with poverty" as stated in the research question and are in need to provide accessible and scalable education to their underprivileged populations segments, and iii) countries were also selected based

on the breath, expertise and involvement with MOOCs which the participants of this thesis maintain. Therefore, the countries focused on include, Turkey, Jordan, India, United States, United Kingdom, China, Lebanon, Canada, Columbia and Australia. Countries such as the United States, United Kingdom, Canada and Australia, are included as participants have been involved in research pertaining to these nations in correlation with those under categories i) and ii). All countries focused on are again examined and discussed through the "Methodological Approach and Research Methods" Chapter 3, Section 3.3.3. In addition, Section 1.5 below, again also highlights the nations focused on whilst reflecting on the research question and 2 key aims.

Regarding the nations in categories i) and ii) above, studies have found that MOOCs in those nations consequently require the ability to tackle both the need for education, as well as developing and implementing them in what Friedenthal (2014) points to a differentiated manner which suits the complex contextual circumstances and environments of those learners. That is, for MOOCs, "one-size-fits-all approaches" may lead to a lack of accessibility, rather than increasing accessibility (Uchidiuno, Ogan, Yarzebinski, & Hammer, 2016, p.169). Therefore, despite the potential of the use of MOOCs to 'unlock a billion brains', in actuality, without examining a contextualised approach to scalable online education for MOOCs, scalability and their sustainability may be limited to the confines and contexts of the countries which predominantly develop them, such as the United States, Canada and the United Kingdom (Nath, Karmakar, & Karmakar, 2014). The inclusive capabilities of educational options such as MOOCs "will not be realized without meeting the educational needs of vulnerable populations, including refugees and other forcibly displaced people" (UNHCR, 2017d).

Studies examining online learning have also often illustrated that "technology is encoded with the characteristics of the culture that developed it." (Al-Hunaiyyan, Al-Huwail, & Al-Sharhan, 2008; Dunbar, 1991). MOOCs thus far, do not appear to be an exception to this phenomenon in spite of the possibilities to do so as they largely have not been developed specifically for marginalised populations in rural locations, or for the millions of potential learners displaced in camps. Initial literature identifying the pivotal role of contextualisation has unveiled the fact that the development of MOOCs in many nations struggling with poverty and displacement, requires the ability to align with local contexts including local government policies (Depover & Orivel, 2013). This alignment with local contexts, would initiate some of the steps for MOOCs in many of these nations to provide a source of education to distinct learners with the objective of developing a "more sustainable and financially viable education policy" (Nath et al., 2014, p.162). For instance, in the Zaatari refugee camp in Jordan which has become a "city like residence" for refugees, questions have arisen regarding the possibility of doing more using MOOCs to provide a flexible format of education which enables their learners to further develop their livelihood through businesses both inside and outside the camp (J. Lee, 2018; Yafi, 2013). Although MOOCs are being examined in such nations as a means to educate and create the potential for alleviating poverty, Perris (2014) suggested that their development leans towards "re-purposing the Western conception of MOOCs" rather than contextualising and adapting for the environments of such nations. The content and design of MOOCs have to be examined through an approach that can adapt to the unique contextual surroundings of such nations whilst catering to these individualised nations' economic and societal conditions (Depover & Orivel, 2013). It is therefore these concerns with contextualisation and the

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implementation of MOOCs across borders, which has brought to light the gap and problems with MOOCs and consequently, the need for this research.

1.5 The Research Question and 2 Key Aims

The broader concept of this thesis revolves around its title, "*MOOCs without borders. Investigating the dynamics of a contexutalised approach to scalable online learning, inclusion of displaced populations and conditions of poverty.*". In order to bring greater focus to this, the following research question is investigated:

What are the factors that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations?

Through an investigation of this question, the aims of this research are twofold:

The initial aim reflects upon the broader concept of this thesis of MOOCs without borders, therefore enabling MOOCs as its acronym suggests to be accessible to anyone, at anytime, anywhere. However, as suggested in the sections above, this many not necessarily be the case for all population segments or all nations. Thus when reflecting on this, the initial aim is to uncover contextualisation factors which may enable MOOCs to be more adaptable and contribute towards the provision of accessible knowledge regardless of borders, which for the sake of focus in this thesis are more specifically for nations faced with poverty and the influx of displaced populations as defined in the sections above.

The identification of these factors leads to the second aim of this thesis. That is to understand how these factors link together in order to provide a contextual approach for MOOCs to be implemented for the nations and populations examined in this study. It will be illustrated in subsequent chapters that the development of this stems from the data which addresses the research question and reflects the purpose of the initial aim, which then enables the construction of theory in the form of what this author has termed the 'Contextualised MOOCs Model'. This model addresses the second aim in this thesis of how the factors identified through the first aim, are linked. The data presented in Chapter 5 Findings identifies the "factors" for contextualisation and provides evidence of the causal relationships and links between them. This in turn is discussed in detail through the theory of the Contextualised MOOCs Model.

The research question is not intended to lend itself to examining a specific MOOC course or a specific type of MOOC such as xMOOCs, cMOOCs or others which may be similar, as brought to light in Section 1.3 above. Rather it examines the larger notion of "MOOCs" and contextualisation within the parameters of this study. In addition to this, although this research investigates factors for contextualisation of MOOCs for nations faced with the task of educating large populations living in conditions of poverty and displacement, the United Nations High Commissioner for Refugees, UNHCR, has recognised, there are at least "37 countries" which are confronting these challenges as their underprivileged populations live in rural locations as do many of their new influx of displaced populations (UNHCR, 2017a). It is clearly not feasible or pragmatic to examine all such nations. As such, as brought to light in Section 1.4 above, this research will primarily be focused on nations in which the author is able to attain access to

participants for data who have worked with some such nations. Therefore, the nations have been identified above and some of those involved in this study include India, Turkey, China, as well as the Middle East with nations such as Jordan and Lebanon.

1.6 Contributions to Knowledge

There are 2 major contributions to knowledge which have resulted from the research conducted through this thesis. The 2 major contributions are as follows:

First, the development of a new theory which addresses the need for contextualised and therefore borderless and accessible education opportunities for displaced refugees and large populations living in conditions of poverty. This new theory is presented in the form of the Contextualised MOOCs Model.

Second, the ability to combine an inductive methodology whilst implementing the principles of deductive 'gap' reasoning, in order to generate this new theory. Both major contributions are again discussed in detail in Chapter 7, Conclusions.

Considering the first contribution, as MOOCs are on the rise and have the potential to provide an essential pathway to education for large populations who may be living in conditions of poverty or displacement, this research may be useful for any organisation or government body considering the development of MOOCs education in such nations or for such populations. Given the millions of displaced people and populations living in conditions of poverty, this research is valuable as it may be able to identify options

and routes as to how to adapt the contextual factors that may positively impact on the development and implementation of MOOCs in their environments. Thus far, there have not been in depth studies examining contextualising factors or what is developed through this research, a 'Contextualised MOOC**s** Model' that can provide a framework for MOOCs developed for such nations and such large numbers of marginalised populations. As this study examines contextualisation and thus aspects of adaptability of MOOCs which may advance the process of learning in diverse and often complex contexts, it also aspires to provide in even a small manner an alternative and possibly more sustainable and inclusive educational option to the hundreds of thousands of people who live in conditions of poverty and as refugees in such nations. The development of the Contextualised MOOCs Model as a process of generation of theory through the methods adopted for this thesis, also endeavours to offer through research papers which will develop as a next step from this thesis, future reflections on policy practices which may provide stepping stones to build forthcoming intellectual capital for the benefit of such fragile learners, and consequently, for the benefit of such nations as a whole. This may again subsequently play a role when examining the global need to provide contextualised education for the larger percentage of learners who are in rural areas, live in conditions of poverty or are displaced and do not readily have access to what should be ubiquitous, inclusive and equitable educational opportunities. The Contextualised MOOCs Model is examined in detail in Chapter 6, Discussion and Analysis.

The second contribution, rests upon the manner in which this research has combined what often are viewed as contradictory processes when generating theory. The theory

reflected in the form of the Contextualised MOOCs Model, is a result of inductive data analysis, with subsequent deductive reasoning. That is, implementing an inductive methodology found through Grounded Theory by which to gather and analyse data, used in conjunction with deductive 'gap' reasoning as revealed in the theoretical framework of Knowledge Gap Theory. The methods conducted through this research demonstrate that the process of mixing induction with deduction when reflecting on results of data, are not mutually exclusive and in fact, can contribute to a wider reaching and thus more generalisable theory. The process of using deductive 'gap' reasoning with a theory generating inductive methodology, is discussed in detail in Chapter 4, Theoretical Framework – Knowledge Gap Theory.

"The impediment to action advances action. What stands in the way becomes the way" ~ *Marcus Aurelius, AD 121-180*

(Aurelius, 2004).

1.7 Research Approach: Outline of Methodology and Theoretical Framework

The research for this thesis takes on a qualitative process through employing Grounded Theory as its methodological approach. More specifically the Glaserian grounded approach is taken and is discussed in detail in Chapter 3. The research question is examined through the opinions of participants who have multiple years of knowledge and professional involvement within the area of contextualisation and MOOCs which is focused on in this study, for nations faced with educating large populations living in

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conditions of poverty and/or displacement. A qualitative method was employed through which data was collected. This involved semi-structured interviews via Skype and or Facetime or in person. Once collected, the data was transcribed and coded based on the principles of coding set in Grounded Theory. Implementing the methodological processes of Grounded Theory and the theoretical framework's Knowledge Gap Theory 'gap' reasoning, provided the analytical tools which has enabled this thesis to construct a new model for MOOCs and contextualisation. As will be illustrated in Chapter 5 Findings and Chapter 6 Discussion and Analysis, the grounded process of constant comparison of data, led to the development of 5 key themes. These 5 themes address the research question and the initial aim of this thesis. Developing from this, Glaserian's grounded process of the construction of theory, led to the construction of theory in the form of the "Contextualised MOOCs Model" and addresses the second aim of this thesis by establishing the links and workings between the identified 5 key themes.

As Grounded Theory provides the methodology by which data is gathered and presented in this thesis, the perspective by which this thesis is being holistically examined is through reflections on the theoretical framework, Knowledge Gap Theory. The basis of this theory reflects on divides in the socio-economic status of populations due to the manner in which knowledge is disseminated on a large scale (Tichenor, Donohue, & Olien, 1970). Whilst examining gaps and thus the means by which to minimise knowledge gaps, the components of access as well as the adaptability and thus the contextualisation of knowledge to populations segments are brought to light. As this thesis looks at contextualisation and the provision of educational opportunities by disseminating knowledge on a mass scale with MOOCs to nations faced with poverty

and the influx of displaced populations, the components within Knowledge Gap Theory adhere well to the parameters of this study. Reflections on the findings from the research question and the resulting construction of the Contextualised MOOCs Model, through the lens of Knowledge Gap Theory, is illustrated in Chapter 6, Discussion and Analysis.

Greater details pertaining to Grounded Theory as the research methodology and the theoretical framework using Knowledge Gap Theory, are also provided in Chapters 3 and 4 respectively.

1.8 Overview of Thesis Structure

The structure of this thesis consists of 7 chapters in total. Following on from Chapter 1 Introduction, an overview of the subsequent chapters is outlined below.

Chapter 2 presents the literature review for this thesis and maps the searches through which the literature was obtained. The literature expands on some of the concepts which appear in Chapter 1. Contextualisation of education along with scale and inclusion in education are discussed, as these comprise some of the larger components within this research. The chapter then examines these concepts through the lens of MOOCs, then further streamlines the focus on literature pertaining to the core of this thesis, which is contextualisation and MOOCs for displaced and underprivileged populations.

Chapter 3 Methodological Approach and Research Methods. This chapter looks in-depth at Grounded Theory. It examines the two approaches of Grounded methodology

along with the its critiques, then goes on to identify Glaserian Grounded approach as the qualitative methodological approach implemented in this thesis. The adoption of Glaserian's grounded approach and the process of constant comparison of data, enabling the generation of theory in the form of the Contextualised MOOCs Model, is brought to light. The research methods and design involving participant's information and size, and data collection process are highlighted. The chapter concludes with reflections on ethical concerns and validity pertaining to this research.

Chapter 4 Theoretical Framework - Knowledge Gap Theory. Chapter 4 discusses Knowledge Gap Theory as the theoretical framework for this thesis. It discusses the basis of Knowledge Gap Theory and how parallels are found in this which are used to focus on MOOCs and contextualisation through the research question. The components of access and adaptability and thus contextualisation of knowledge as influences upon gaps in knowledge, are therefore brought to light. The dynamics of Knowledge Gap Theory and why this resonates with the research focus and the problem which is examined within this phenomenon are examined.

Chapter 5 Findings, brings forth the findings of the data through the grounded methodological process. 5 key themes which are developed through the process of constant comparison are discussed with the data that is gained from the participants' interviews. The chapter reflects how the data addresses the research question and the initial aim of this thesis, and establishes evidence of causal relationships and links between the 5 key themes identified.

Chapter 6 Discussion and Analysis. This chapter discusses the 5 key findings of the research question whilst reflecting upon the theoretical framework, Knowledge Gap Theory. It then goes on to illustrate the construction of theory, which is presented in the form of the Contextualised MOOCs Model. The generation of the Contextualised MOOCs Model, addresses the second part of the aim to understand how the 5 key factors derived from the findings link together to provide a contextualised approach for MOOCs for the nations and populations focused on in this thesis.

Chapter 7 Conclusion. This is the concluding chapter of this thesis. In concluding this research, this chapter once again address the aims and purpose of this study as they provide the foundation which has helped formulate the discoveries, contributions and development of theory that are presented in this body of work. The contribution to theory and the implications for practical application of the Contextualised MOOCs Model are discussed as well as future research recommendations. The chapter concludes with discussing the limitations found in this research and presenting the concluding reflections for this thesis.

1.9 Summary of Chapter 1

Chapter 1 has provided an introduction to the context and the background for this thesis. It outlines the focus on examining a contextualised approach for MOOCs for nations dealing with poverty and displaced populations. Although many nations are in need of providing education for their population segments living in poverty and have recent refugees as well, the specific nations which are focused on in this thesis, have been

identified. The research gap which exists and thus makes it necessary for this study to be carried out has been brought to light and is further examined in the subsequent Literature Review chapter. In addition to this, the research title and, research question along with the 2 key aims of the study have be defined. This chapter also provides an overview of the structure of the thesis. Along with this, a brief outline of the methodological approach and the theoretical framework has been highlighted and is examined in detail in later chapters. The next chapter, Chapter 2, establishes the literature review for this thesis.

Chapter 2: Literature Review

2.1 Introduction to Chapter 2 and Literature Mapping Outline

This chapter presents the literature review for the thesis. As MOOCs in and of itself is a very broad area of research which can cover a huge spectrum of topics, the review of the literature is carried out by reflecting upon the title of the thesis which encompasses key areas that have led to the development of the research question. *"MOOCs without borders. Investigating the dynamics of a contextualised approach to scalable online learning, inclusion of displaced populations and conditions of poverty."*. This title has enabled the following sections to be developed through which the literature is examined. The sections are as follows: "Reflections on Contextualisation in Education", "Scale, Inclusion, MOOCs and Concerns", and "Underprivileged and Displaced Populations, and the Concerns of Contextualisation of MOOCs".

The first area of "Reflections on Contextualisation in Education", identifies through the literature, the phenomenon of globalisation and internationalisation of education which has negated the need to in fact provide education which is adaptable and therefore contextualised for the requirements of the nations in which they are being implemented. This has been particularly expressed for developing nations tackling populations segments living in poverty and often in rural and remote locations. As the research question examines *"What are the factors that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations?"*,

reviewing the literature on contextualisation of education and for nations tackling the education for their population segments living in poverty is essential.

The second area discussed in the literature review namely, "Scale, Inclusion, MOOCs and Concerns", is composed of 2 sub-sections. The first, "Scale and Inclusion Through Education", highlights scalable education such as Open Educational Resources, and the relationship between scalable education and inclusion for less privileged populations. The second sub-section, "MOOCs, the New Force in Scalable Education; and the Concern Towards their Openness", looks at the new phase in education at scale through MOOCs. This section discusses the development of the MOOCs phenomena and the claims it makes to be open and accessible to all segments of populations in any nation. Here, the components of contextualisation and adaptability are again brought to light through the literature as the openness and thus the inclusivity of MOOCs to all potential learners is questioned.

The third section of the literature, follows and in many ways links the previous 2 sections on contextualisation, scale and inclusion and MOOCs and concerns of openness, as it examines more specifically the "Underprivileged and Displaced Populations and the Concerns of Contextualisation of MOOCs". In this section the focus is drawn to underprivileged populations segments in developing nations, as well as literature which includes MOOCs as a means of education for refugees - displaced populations. These sections again are not only encompassed within the title of the thesis, but they provide an amalgamation of key factors which enable focus on the research question by examining contextualisation factors, and the inclusivity and scalability of MOOCs

particularly in their reach towards populations living in conditions of poverty or who have been displaced. This, as will be seen in later chapters along with the data through this thesis, encourages the formation of theory in the form of the Contextualised MOOCs Model.

In order to obtain the literature for this research, the following search process was taken. As mentioned, the larger parameters of this research were taken in to consideration. Through the title of this thesis, key broad areas which needed to be reflected on were initially identified, namely, MOOCs, online learning, scalability, and contextualisation. This as Christiansen (2011) suggests is part and parcel of Grounded Theory's methodological process which enables "loosely defined" areas to be identified that fit into the broader research area, and can later be narrowed. With this in mind, the key broad areas set a large background from which to refine the searches of literature into areas which more specifically relate to the focus of this thesis through the development of its research question. This larger spectrum search began in January 2016 and was initiated through the use of Google Scholar. The broad spectrum searches provided a huge array of topics many of which were not within the scope of this thesis. For instance, some of the searches on the term contextualisation led to literature within the fields of medicine and theatre or stage drama which were not part of the parameters of this thesis. Nevertheless, the initial searches also led the author to what Roazs and Klein (2010) have highlighted as providing a "reasonably thorough overview of the state of relevant knowledge in that area", which opened the pathway to a more select criteria of literature which was relevant to the focus of this thesis (p.395). This first round of literature review began to lead to studies of MOOCs dated to the inception of MOOCs prior to

2012 and later to the progress of MOOCs in 2016. In this first round literature search which took place in 2016 examining the areas of scalability, contextualisation and online learning, led to a much wider range of dates found for these areas as they have been in existence longer than MOOCs. Therefore, the range of dates for these literature areas spanned from prior to 2007 to 2016.

To narrow down on more relevant literature which fits more closely to the parameters of this thesis, the broader searches followed with more refined searches using search engines and databases which included Google search, Google Scholar. In addition to these, online university library catalogues provided access to 6 electronic scholarly databases which included Science Direct, Sage, Scopus, MERLOT, EBSCO and JSTOR. This led to literature found through journal articles, and academic papers, some legal articles pertaining to laws and ratified Acts of Law, research reports and also news and media articles, which were also reviewed and found through Google searches. This also began to slowly lead to more recent literature between 2017 to 2018, and some in 2019 and 2020. As this research centres on its title of *"MOOCs without borders. Investigating the dynamics of a contextualised approach to scalable online learning, inclusion of displaced populations and conditions of poverty"* through which it examines the research question, *"What are the factors that can contribute to the contextualsation of MOOCs for nations faced with poverty and the influx of displaced populations?"*, the refined searches used more specific terms. These included: development of MOOCs, MOOCs and refugees, MOOCs in developing nations, contextualisation and MOOCs, contextualisation and education, online education and displaced populations, development of scalable education, development of scalable

online education, scalable education and inclusive education, education for refugees, online education for refugees, online education and displaced populations, contextualised online education, skills based online education, sustainability in online education environments, socio-economic status and online education, gaps in education for underprovided. Initial searches led to 375 articles which included journal articles, and academic papers, some legal articles pertaining to laws and ratified Acts of Law, research reports and also news and media articles. Through these searches, it was found that minimal studies have been conducted on the use of MOOCs for refugees who are displaced or in refugee camps. However, what was found and any literature which provided suggestions for MOOCs living in refugee conditions, if it was seen as relevant to this thesis, have been included. Literature which appeared through such search terms that were screened and not viewed as relevant to the focus of this thesis, were subsequently not included.

2.2 Reflections on Contextualisation in Education

In what may begin as efforts to increase access to knowledge in many nations, there in fact appears to be a stronger "phenomenon of the internationalisation" of education which has spread across the globe regardless of a nations individual culture, socio-economic conditions, or the needs and conditions in which their populations reside (Cabau, 2011, p.38). This globalisation in education, has largely exposed educational solutions of "western countries" which are exported to developing and non-western nations, without the "necessary adaptations" for the "requirements or needs in the target context" (Fendler & Winschiers-Theophilus, 2010, p.599). Although this may be done

as a means to provide educational opportunities to marginalised populations who often lack access to education, it has been suggested that the "established standards and processes" of foreign internationalised education, should nevertheless be "reviewed and adapted" to the requirements of targeted local contexts (p.599). In doing so, contextualising international processes and concepts of education to local contexts, does not disregard the opportunities which it may bring to underprivileged populations of developing nations but rather, as Fendler and Winschiers-Theophilus (2010) have pointed out, it may lead to a more locally sustainable educational product.

Encouraging contextualisation and adaptability, allows the foreign education phenomenon and all stakeholders to become not just aware of the contexts, but also sensitive to the various environments. Waldrip, Timothy and Wilikai (2007) highlighted this when looking at the use of foreign education for underprivileged nations and their marginalised populations. They suggested that understanding local contexts and sensitising education provision to the needs of local targeted learners, can also aid in bringing about "new insight to teaching" (p.102). On the other hand, a lack of this sensitising effort runs the risk of limiting transferable knowledge and skills to alleviate socio-economic gaps. This may lead to not fostering a sustainable mechanism for educational and social inclusion, and endangering engagement with life-long learning processes. Frustrations arising from this, could also lead to disharmony with foreign and local teaching process and the inability to achieve sustainable outcomes through the implementation of non-contextualised education (Waldrip et al., 2007). Thus, in what manner is adapting to local contexts likely to be neglected? Studies have pointed to a few key areas. These include areas such as the provision of course content which lacks

connection to relevance in local contexts and thus tangible local outcomes, the medium of instruction through which content is disseminated, and neglecting common local devices by which to impart knowledge (Aneja, 2017; Cabau, 2011; Fendler & Winschiers-Theophilus, 2010; Luitel & Taylor, 2007).

When reflecting on the construction and delivery of courses, it is a well-known phenomenon that not all students "learn in the same manner or to the same level" (Nygaarda & Belluigib, 2011, p.657). Context plays a heavy role in both the outcomes of courses and the learners' engagement in courses, as they step towards the process to gain knowledge. Meyer, Dunne and Richardson (1994) discussed this in an early study examining contextualisation and learning behaviours. They found that engagement with course content and the ability to achieve the set learning outcomes of courses is impacted by the "students' approaches to learning", which is dependent "upon their perceptions of the context" (p.470). As a result, the provision and the facilitation of learning needs to be contextualised to the specific kinds of target groups of students engaged in the course. This principle however, is frequently forgotten when developing educational opportunities for learners in developing nations. Caffrey and Carew (2012) in examining online educational opportunities for marginalised communities, brought to light the reality, that is, that a non-contextualised "one-size-fits-all" model does not necessarily provide such targeted learners with strong prospects for knowledge expansion. This approach may in fact negate their actual learning requirements and consequently not encourage a sustainable approach to life-long learning. Caffrey and Carew (2012) suggested that in order to provide empowerment for marginalised groups and to unlock the potential that international online educational support systems can

provide, factors surrounding barriers and biases for such targeted populations must be understood and acted upon in the development process for course content. This again reflects the premise that, when implementing education into any nation, the "wider societal context" of the conditions, environment and people of those nations must be considered (Cabau, 2011, p.38).

A study conducted by Dewhurst, Borgstein, Grant and Begg (2009) highlighted that "context sensitive content" has a stronger ability to drive local pedagogical change and may generate more prosperous developmental changes for rural and remote communities and underprivileged populations. They suggest that the provision of education which takes into consideration local parameters of such populations, may enable a more sustainable process towards transferable skills which can be utilised by the targeted populations within their immediate surroundings (p.721). However, in providing education for developing nations, be it specific skills based as a means to gain immediate employment or more traditional STEM courses in pursuit towards higher education, there is often the opposite phenomenon which takes place, that is, "de-contextualised knowledge" apparent in de-contextualised course content (Luitel & Taylor, 2007, p.627). McCater and Gavin (2011) is yet another study which suggested that this occurs with the speed of globalisation encouraging the implementation of western forms of education into developing nations and other foreign nations, often resulting in local knowledge and the needs of local learners not being adequately accounted for.

In developing course content for learners in underprivileged conditions, in order to transfer knowledge, relevance of the content needs to be connected with the local environment. As a study by Nygaard and Belluigi (2011) showed, "knowledge is 'of" or "about' things", knowledge does not rest within itself and requires a relevant context for its transferability, enabling its attachment to tangible local outcomes (p.659). Luitel and Taylor (2007) similarly outlined that any foreign knowledge system should be contextualised in a manner which enables it to be embedded in the daily practices of local target learners and their contextual environments. Therefore, they suggested "conventional Western" pedagogy needs to be deconstructed when implemented in developing nations (Luitel & Taylor, 2007).

These studies have stressed that course content for such nations and its underprivileged learners particularly for those in rural and remote locations, needs to be adaptable to such environments and therefore, contextualised for their local needs. Aneja (2017) also echoed similar views when examining the provision of education to rural, remote or marginalised groups of populations in India, by suggesting the provision of knowledge and course content should adapt to "locally contextualised pedagogical permutations which foreground learning" (p.852). This again was akin to a study which examined math education for rural communities in Nepal, that also suggested the provision of education under such circumstances needs to be developed through "contextualized pedagogical perspectives" in order to create motivated learners, and achieve outcomes which can serve the diverse needs of such learners and locations (Luitel & Taylor, 2007, p.621).

In the development of course content, a component which is frequently linked to its contextualisation is the language in which the content will be delivered. Often times, the English language tends to be the predominant medium of instruction regardless of domestic languages and dialects of several developing and non-native English speaking nations. This is again, part of the "decontextualized" component of the internationalised education phenomenon. Components such as this, increase the risk of non-inclusion of targeted learners due to the neglect of linguistic diversity. A study examining contextualised education in nations such as Nepal have pointed to this risk and consequently also alluded to the possible lack of engagement from learners, and eventual abandonment of the courses particularly in rural and remote villages (Luitel & Taylor, 2007). In such nations with rich cultural diversity, content which is not developed with a "critical cultural perspective" may led to a disconnect for the learners rather than encouraging inclusion and contributing towards greater cultural capital (p.621).

In addition to developing course content which is contextualised and adopting the language in which courses are delivered with the objective of reducing communication barriers for learners from rural and remote communities or refugees and displaced populations, the mechanisms by which to deliver knowledge must also be considered. A study by Prinsloo and Rowsell (2012) brought this to light when suggesting it is only through identifying the "local account of digital praxis" can the "idiosyncratic use and understating" of other digital means by which to learn can be understood, adapted, and contextualised. This as they suggested, enables tensions and power imbalances between the conditions of targeted learners, foreign education providers and local education

systems to be identified, which can aid in enabling contextualisation (Prinsloo & Rowsell, 2012).

McCarter and Gavin (2011) have similarly pointed out that contextualisation of education includes not just the contextualisation of content, but also the processes of the delivery of the content. Thus, for contextualisation to be useful and effective as a means for developing knowledge based courses, the mechanisms and the tools by which to develop and disseminate these courses need to consider the capabilities and conditions of the environments and the learners for which they are being deployed. de Jong, Specht and Koper (2010) looked more specifically at what devices would be beneficial and be an adapted means by which to provide knowledge. In examining technology for learning, they discussed the use of mobile phones as the tool by which to deliver learning content. They highlighted that such mobile technology can provide "new ways of tailoring information to the learner's situation or context", however, the emphasis is placed on the process of contextualising the use of this form of media for learning with content which provides real-world interactions for targeted learners (p.110).

By reflecting on these areas for adapting education to local contexts, it becomes clear that contrary to the 'phenomenon of the internationalisation' of education, "education is not a standard process which can be insensitively implemented from the top down, but a complex process which should be continually developed and revised from the ground up." (Nygaarda & Belluigib, 2011, p.669). These aspects of contextualising and adapting the otherwise one-size-does-not-fit-all, should be included for the provision of course content in appropriate languages on devices which are available and used by targeted learners living in conditions of poverty in rural, remote locations or for those

who have been displaced. These aspects underscore the bigger picture of greater inclusivity, and thus greater equitable forms of education and consequently supporting social justice and the minimisation of socio-economic gaps. This was for instance, echoed in a report on education in Ethiopia by the Young Lives project (2012) which suggested that more "context-specific practices" need to be encouraged in order to reduce exclusion from education (Young Lives, 2012, pp.1-3).

Unfortunately however, it has been suggested that many developing nations participate as "recipients" of international education and scarcely influence the "direction of the ongoing evolution" and the consequential development of their knowledge based societies (Fendler & Winschiers-Theophilus, 2010, p.599). Luitel and Taylor (2007) pointed to changing the recipient approach by also highlighting that contextualisation which enables inclusive education and knowledge systems are "aligned with the notion of social justice" and places emphasis on equitable educational opportunities for all ethnic groups and all individuals (p.629). However, in order to achieve this, there needs to be a blend between the internationalisation with the "localisation of educational systems", in order to generate a stronger movement towards balancing the aid of internationalised education with a localised outlook by which to embed context (Fendler & Winschiers-Theophilus, 2010, pp.599-600).

2.3 Scale, Inclusion, MOOCs and Concerns

Scale, is an integral part of Massive Open Online Courses. However, education at scale did not begin with MOOCs. Scalable educational opportunities, as will be discussed

below, are also rooted with equitable and therefore inclusive educational opportunities for all populations. The following sections develop the connections between scalable education, inclusion for learners, the generation of MOOCs and the concerns which have arisen with them.

2.3.1 Scale and Inclusion Through Education

The provision of education to diverse and large segments of populations, particularly for multitudes of learners living in conditions which limit access to brick-and-mortar based educational opportunities, has been an area of importance for societies across the globe for decades. Research has indicated, often segments of populations living in conditions of poverty reside in regions where further education "isn't the norm", and this is often a consequence of not having the financial capacity to gain access to the means for furthering ones education (Downs, 2016). Such constraints have led to the need for scalable and accessible educational options which are often termed as OERs or Open Educational Resources. This has been the case long before the United Nations Educational, Scientific and Cultural Organisation, UNESCO, presented the term Open Educational Resources (OERs) in 2002 at the Open Courseware Forum (UNESCO, 2012b). The long standing persistence to aid and encourage social inclusion through scalable education has actually existed as Pence (2013) puts it, "ever since the 1920s" when "new media formats—radio, motion pictures, and television—have been used to reach very large numbers of students" (p.129).

In 2007, when examining scalable education, Hylén, Pedró and Schuller (2007) described OERs as the "digitised materials offered freely and openly for educators, students and self-learners to use and re-use for teaching, learning and research" (p.30). This type of description was expanded on in 2012 through the Paris OER Declaration. Specifically, UNESCO defined OERs as the

"teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions. Open licensing is built within the existing framework of intellectual property rights as defined by relevant international conventions and respects the authorship of the work" (UNESCO, 2012a).

UNESCO's description of OERs accounted for the aims of such forms of scalable education to promote inclusivity through the use of adaptable resources, and content which is available in a variety of mediums for a variety of different contexts across the globe (UNESCO, 2012a). This aim was to ensure relevance of content as well as its accessibility for different population segments across various different nations (UNESCO, 2012a). As UNESCO went on to define OERs, prominence was placed on the scalability, accessibility and adaptability of educational opportunities which can foster social inclusion (UNESCO, 2012a). Thus, scale complemented with adaptability, accessibility and relevance of knowledge which is provided for individual nations, are a means to offer sustainable educational options whilst also encompassing the provisions of the Right to Education for everyone, as stated in Article 26 of the Universal

Declaration of Human Rights 1948 (United Nations General Assembly (UNGA), 1948).

Scale and inclusion being a priority within the frame of the Right to Education was also emphasised by Conole (2012). Conole (2012) suggested the prominence of their role with regards to "widening participation", can affect the underpinning principle that "education is a right that should be freely accessible for all." (p.134). Conole (2012) went on to elucidate that when OERs and other such scalable educational options are not well adapted to the contexts of individual nations, they may negatively aid in fostering social exclusion. Richter and McPherson (2012) echoed similar sentiments about OERs and scalable education, suggesting when implemented and adapted for the needs of developing countries they can be beneficial to generate greater social inclusion, however, if developed without relevance to contexts, they may not be able to assist in overcoming educational gaps and fostering educational justice. Undoubtedly with what has also been identified through the aims of OERs, 'scaling' is intended to be part and parcel of social inclusion that is best enacted through relevant and contextualised educational opportunities for population segments otherwise left out from education due to poverty, displacement, rural locations, or any other similar reasons. This importance placed on scalability and inclusion through education was later echoed again by the United Nations General Assembly, UNGA, in 2015 in the 2030 Agenda for Sustainable Development. Here, the Agenda reiterated the necessity and commitment required to "providing inclusive and equitable quality education at all levels" to "all people", and "especially those in vulnerable situations, should have access to life-long learning opportunities that help them to acquire the knowledge and skills needed to exploit opportunities and to participate fully in society" (United Nations General Assembly (UNGA), 2015, p.7).

UNESCO, the UNGA and the Universal Declaration of Human Rights, have come to shape and further define OERs from their time since TV media was used as a key mechanism by which to provide scalable educational opportunities. Scalable educational resources have subsequently grown hand-in-hand with the growing changes in technology, and through this, have gained greater opportunities through the use of the internet to also engage and encourage social inclusion and equitable educational opportunities for underprivileged populations. As Caswell, Henson, Jensen, & Wiley (2008) inferred, technologies such as the internet can become a "social transformer" which acts as enablers towards achieving the "universal right to education" through its reach and possibilities with education at scale (pp.1-2). Although this may appear to be a plausible solution for providing accessible education and thus, encouraging social inclusion through the ubiquitous nature of technology and the internet, studies such as Atkins, Brown and Hammond (2007) have suggested that such forms of learning opportunities do not "match the scale of the unmet needs in the developing world" (p.32). Aneja (2017) points out that as early as 1988, Von Prummer, Kirkup, and Spronk suggested that for developing countries, any "virtual pedagogic praxis must confront" and overcome the barriers of access which "vary across urban/rural and regional divides", and this is still a concern with the use of the internet as a present day technological option for education (Aneja, 2017, p.856; Von Prummer, Kirkup, & Spronk, 1988, p.57).

As the nature of scale more often involves the delivery of "distance education", such scalable options for learning requires a more succinct approach with the contextual needs of the individual nations to which they are being applied, and for the conditions

of their populations (Laws, Howell, & Lindsay, 2003, p.1). Earlier studies such as Wiske and Perkins (2005) began to point to the lack of coherence between the needs of the developing world and scalable education which may be implemented in them, by more developed countries. The neglect of a nations unique context and the conditions and needs of their populations, runs the risk of what Wiske and Perkins (2005) have termed the "replica trap". That is, trying to implement and replicate what appears to be successful in one nation for its specific needs into the context of another nation, which may have similar yet, also unique learners' needs and environments. This brings back the correlation between at scale education and adaptability in order to formulate steps towards education for all. Although scalability appears to be part of the universal suffrage to alleviate illiteracy and provide for the continuing educational needs of learners, the approach to scalability however, "cannot be measured in isolation" without the specific contexts of nations (Laws et al., 2003, p.10). Clarke and Dede (2009) also highlighted the relevance of scale in education being developed with the contextual needs of individual environments through suggesting, "education will continue to waste substantial resources implementing interventions that fail despite promise shown elsewhere" (p.354).

Richter and McPherson (2012), Willems and Bossu (2012), Daniel (2010), Conole (2011) and Conole (2012) are some studies that have also expressed that although OERs carry with them scale and the potential for more inclusive educational options and thus greater opportunities for social and socio-economic advancements within populations, significant barriers to OERs still exist for developing countries due to aspects of replication rather than contextualisation and adaptation for such nations. The

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opportunities of OERs in such nations are largely engulfed by the lack of adaptability which includes obstacles related to "language issues, contextual gaps, a lack of cultural diversity, educational privilege and illiterate adults, and the need for basic education", which are insufficiently tackled when adopting OERs and scalable options for learning (Conole, 2012, p.133). In examining more current day scalable education, Aneja (2017) went on to suggest that accessibility through scale and therefore the eventual goal of social inclusion, "may not be smoothly accomplished in developing countries, where infrastructural constraints have hampered the large scale implementation of technology enabled pedagogies" (p.856). In fact Aneja (2017) states that in countries such as India, scalable educational opportunities are more often seen as a "social experiment in providing mass-based educational outreach to marginalised groups", rather than a mechanism for establishing sustainable educational options for such underprivileged population groups (p.851). An eariler study by Imaizumi (2015) suggested similar views when reflecting on technology enabled pedagogy. Imaizumi (2015) emphasised the need for technologically scaleable educaiton which caters to both the types of technological access which are avalaible and used by target populations, as well as reflecting on the types of content knowledge which are designed for engagement through online application for such targeted populations. Imaizumi (2015) highlighted that these elements may promote "relevance of education" both in terms of the technology used and the course content that is delivered which may reduce social and educational exclusion, and thus may be the process to minimse gaps within such populations. Therefore, multiple studies point to the notion of providing at scale educational options for marginalised populations may be best achieved through

"adaptability" and contextualisation which are also essential components for encouraging inclusion (Clarke & Dede, 2009, p.353).

2.3.2 MOOCs, the New Force in Scalable Education; and the Concern Towards their Openness

In terms of scale, clearly the use of the internet has enabled the next evolutionary phase for scalable education. Gulati (2008) described this advancement as the "new communication technologies, particularly the Internet" which can generate new "possibilities for overcoming geographical access and cost barriers to learning" (p.1). This echoes what has been discussed in Section 2.3.1 above, and has led to a reflection on what the next phase is within the sphere of scalable education with today's growth in technology. This sphere has progressively expanded into more prominent components the likes of "massive", "open" and "online" dimensions of access. That is, as the delivery systems of education continues to evolve and the demand for education at scale concurrently grows, the internet has risen to prominence with its massive "world wide web" as the mechanism to deliver educational opportunities at scale. These developments have evidently resulted in the educational phenomenon known as MOOCs, or, Massive Open Online Courses (Bonk, Lee, Reeves, & Reynolds, 2015). As such, MOOCs have been described as "another tectonic shift in the evolution of higher education and HE internationalisation" (Lawton & Katsomitros, 2012, p.1).

The "MOOC phenomenon" of scale and suggested openness as Warburton and Mor (2015) have highlighted, has been "built upon a long history of innovation in distance

education", and therefore naturally follows on from OERs (p.217). As MOOCs follow similar principles to overcome geographical barriers and provide education at scale, their mechanisms by which to enable this are based on ubiquitous access to knowledge in today's digital age (Atenas, 2015). This growth towards MOOCs as a new prominent form of scalable education with a global reach, has been described as a "tsunami" which was expected to be "coming, whether you like it or not" (McKenna, 2012). With this type of tsunami, the scale at which MOOCs may be able to facilitate the provision of knowledge, it is expected, will lead to a fostering of lifelong learning, using MOOCs which can be adaptable for various different nations and their populations (Shigeta et al., 2017). Wu and Chen (2017) described the correlation of MOOCs with OERs, as "MOOCs representing the latest stage in the evolution of open educational resources for students around the globe" (p.221). In observing MOOCs as the new scalable opportunity within education, Atenas (2015) suggested MOOCs are indeed part of the evolution of the "Open Learning Movement" and "based on principles of reusing, revisiting, remixing and redistributing open educational resources (OER)" (p.3). However, although there are similarities between MOOCs and OERs, there is also a prominent difference. MOOCs are not OERs per say, as MOOCs within their own domain have different parameters related to educational policies such as teaching resources, which carry with them regulations pertaining to licencing agreements. These may differ from the processes for OERs as outlined in the 2012 Paris OER Declaration (UNESCO, 2012a; Piedra, Chicaiza, López, & Tovar, 2014; Atenas, 2015). MOOCs nevertheless, are part of modern day education at scale and they have been said to undoubtedly "represent the next stage in the evolution of open educational resources"

(Piedra et al., 2014, p.174). Thus, they have been called a "special type of OER" (Fini, 2009; Zhan et al., 2015, p.2276)

Although a prominent form of scalable education, MOOCs are still reletavly new, having been first launched in 2008 (Honeychurch & Draper, 2013). McGuire, Raaper, and Nikolova (2016) stated that although MOOCs only began in 2008, their rapid growth as scaleable education "subsumed the whole filed of e-learning" (p.21). In reflecting back on the escalation of MOOCs, Davis, Chen, Hauff, and Houben (2018) stated that "MOOCs went mainstream in 2012" (p.328). The onset of MOOCs as the next 'evolutionary' form of scalable education, brought on so much promise that Pappano (2012) declared in the New York Times that 2012 was "The year of the MOOC". The dominance and rapid rise using the concept of scale through MOOCs was further enhanced with the use of its technology, as growth, reach, and thus scaling up this educational opportunity was considered to be just "a few clicks away" (Quora, 2017).

The inherent promises of scale and thus the reach to countless numbers of potential learners in any location across the globe, led higher education institutions from predominantly non-developing nations towards a view of, as Popenici (2015) suggested, a "ubiquitous prediction" that "MOOCs will completely change the game in higher education" (p.159). Perhaps one of the most prominent observations aligned with such predictions was suggested by Anant Agarwal, founder and CEO of the renowned MOOC platform edX. As the name MOOCs suggests, 'Massive' implies scalability and the numbers of potential learners which they can reach; 'Open' meaning accessible to

all and initially intended to be free; 'Online' indicates the use of the internet for content accessibility anywhere; and finally 'Courses' indicates the range of different courses which are available through MOOCs. Agarwal expressed these characteristics of MOOCs through conveying his beliefs that MOOCs with their scale and reach have the ability to make education "borderless, gender-blind, race-blind, class-blind, and bank account–blind" (Christensen & Alcorn, 2014). Thus, further promoting scale as well as access, across the globe, beyond borders to anyone, in any context. Therefore, from the perspective of education providers in non-developing nations who began the escalation of this new form of scalable education, MOOCs largely were seen as the "ultimate solution for most important problems facing higher education across the world" (Popenici, 2015, p.158).

The scale of MOOCs seemingly projecting the notion of being borderless, has undoubtedly enabled hundreds of thousands of learners in many nations the ability to gain what may often be free access to courses developed by various different institutions (Koutropoulos et al., 2012). Even prior to MOOCs becoming as has been said, 'mainstream', Masters in 2011 suggested that many MOOCs initially being offered free of cost, holds the potential for learners who are in need of education and cannot afford incurring further education costs, some ability to enrol. The assumed universal disposition of the use of the internet through which MOOCs are delivered, prompting the ideology of learning within anyone's reach, anywhere, at any time, gained the appeal of numerous universities across several countries encouraging them to develop their perspective content of MOOCs (Liyanagunawardena, Adams, & Williams, 2013). This helped catapult the boundaries of online learning from years prior to MOOCs being

mostly available within the walls of universities, to what is thought to be the potential

of reaching any learner given access to the internet. As early as 2011, research

conducted on MOOCs such as that of Kop (2011) also suggested that the ability of

MOOCs to deliver courses to, as its name suggests "massive" numbers of learners

outside the original confines of universities' walls, has changed the "context of learning"

(p.19). The "anywhere" learning approach due to the ability to reach such large scales

of potential learners at "anytime", has also been considered as possibly minimising

learning divides which come with face-to-face teaching (Grossman, 2013).

As the scalability of MOOCs became evident through the ability of their courses to

accommodate hundreds of thousands of learners, studies began to question the openness

of MOOCs regarding the types of learners they accommodate. So indeed, how open are

MOOCs? In reflecting on the notion of openness and its correlation to scalability with

MOOCs, Haber (2014) suggested that today's focus on scale and massiveness was once

based on the driving principle of openness and thus, greater inclusion for all possible

learners. As Nath, Karmakar, and Karmakar (2014) indicated, MOOCs are suggested

not to be just about scale but also about openness and inclusion for all through the ability

to, as Friedman (2013) pointed out, to "unlock a billion more brains" and lift people out

of conditions of poverty. Such claims along with the notion of MOOCs being as its

name indicates 'open' and accessible to all learners across any border, have also been

attributed to the hype or the "mania that surrounded the emergence of massive open

online courses (MOOCs)" (Lodge, 2016, p.634). However, when reflecting on scalable

and distance education for nations with challenges in providing education to their

populations living in poverty, Gulati (2008) pointed to the principle that "the aims of

distance education in developing countries are different from those of developed countries" (p.4). Atenas (2015) further pointed to the contrast in terms of openess with MOOCs and OERs, suggesting that "MOOC openness is often related with openness to enrolment, and does not point to openness of the contents and the resources" and as such, "access to the resources is restricted to registered participants only" (p.6).

In reflecting on the notion of openness of MOOCs, Davis, Chen, Hauff and Houben (2018) highlighted this as a flaw in the scalability of MOOCs. They suggested that although MOOCs have "emerged as the new way to reach the masses", they are failing in terms of contextualisation and consequently over longer periods of time, are unable to sustain learners' attention from different nations (Davis et al., 2018, p.327). Similarly, Piedra, Chicaiza, López, and Tovar (2014) emphasised that although MOOCs are set on "promoting unprecedented massive access" and therefore undeniably provide a scalable means for education, the emphasis nevertheless is on the "quantity of access" rather than catering to adaptable educational opportunities which may be required for different nations and populations (p.171). Despite the claims of openness and MOOCs ascribing to "the principles of universal access" as suggested by Koutropoulos, Gallagher, Abajian, de Waard, Hogue, Keskin and Rodriguez (2012), their access is not necessarily open to everyone, and may indeed be more dependent on the contexts of different nations and their potential learners.

This concern regarding the openness of MOOCs leads to queries relating to the target audience, or expressed another way, who MOOCs are largely being catered for. Studies have found that although MOOCs are scalable in terms of the number of potential

learners they can reach, they are nevertheless scalable primarily for those who are already within the scope of such educational opportunities. In other words, within the scope of the global community, MOOCs are largely for the educated and privileged. Baturay (2015) reiterated this when stating that "MOOCs gathers scholars and like-minded fellow learners around the globe" (p.427). Straumsheim (2015) suggested that the intended learners for MOOCs are largely professionals or "older learners" with previous degree qualifications and are catered to their nations technological aptitude. When MOOCs became more prevalent in the field of education, Conole as early as 2012, highlighted that although technology may appear to be everywhere depicting the "technological divide" to appear narrower, it is in fact "deeper" and raises "issues in terms of social exclusion" (p.131). Conole (2012) stated that "those not connected or not using these new technologies are being left behind at an alarming rate" (p.131). Trehan, Sanzgir, Li, Wang and Joshi (2017) again reinforced this view a few years later in 2017, when suggesting that "the MOOC prerequisite of access to fast Internet connections also creates a source of an inherent systemic bias of the MOOC in favour of resourceful learners." (p.154). They equally suggested that "MOOCs have mostly been deepening, rather than broadening, access to education" (p.141).

The concerns which arise due to the lack of openness of MOOCs, fundamentally appears to point to the ability or lack thereof, of contextualisation and adaptability of MOOCs to the contexts of various nations and their populations, and particularly for developing nations and population segments living in poverty or conditions of displacement. This sentiment was shared earlier by Yeager and Bliss (2013) and Hewa and Cheung (2014) as they pointed to the more confined nature of MOOCs towards developing and non-

western nations and such contexts for which MOOCs were not developed. Silveira (2016) referred to this when bringing to light that "MOOCs are open only in relation to access, but not in relation to their adaptability." (p.212). Silveira again pointed to the "main premise" of MOOCs which includes adressing issues of inclusion, equality and threfore, access that enables "democratizing education across differences by culture, gender, economic classes and ethnicity" (p.217). In actuality however, there appears to be "many barriers" related to contexts such as technical, linguistic and so on that "prevent people to gain access" to MOOCs (p.217), if they are not adapted to overcome those barriers.

2.4 Underprivileged and Displaced Populations, and the Concerns of Contextualisation of MOOCs

MOOCs, as has been discussed, is said to have the "potential to broaden the set of resources and tools that can help students learn" in various different contexts across the world (Head, 2014, p.250). However, is this concept more so a reliance on the ideology of 'the potential' rather than reflecting on the reality of how MOOCs are being deployed and implemented in various contexts. It was assumed that this greater reach of MOOCs would provide "underprivileged students from all parts of the world", to have "the possibility for the first time in history, to get access to higher education and study at some of the most respectable – and expensive – universities of the world, as gates of knowledge finally stay unguarded for the first time in history." (Popenici, 2015, p.159). This access to knowledge through a flexible and scalable means of education appealed

to many developing and non-western nations faced with increasing concerns to meet the education needs of their very large and growing populations. In examining the global crisis of refugees, MOOCs have become ever more pertinent as an option to provide education at scale (Yafi, 2013). However, with the growth and hype of MOOCs, expectations have also increased suggesting, as Conole and Paredes (2018) have indicated, in order to achieve this form of more open education which can "lead to social and economic mobility, it needs to be free and allow anyone to access it" (p.49).

This has been projected on many non-western nations such as China for instance, with the largest population in the world, followed by India with a population of 1.2 billion which have been tackling their educational needs with a keen eye on the possibilities of MOOCs (Xu, 2014). Grabill (2014) summed up the prospect of MOOCs for such nations by stating that "one of the primary ethical arguments from MOOC providers is grounded in the claim that MOOCs provide education for populations without access." (p.42). With such possibilities of MOOCs, Mohamed and Wei (2017) also state that countries such as China, began to look towards the engagement with technology as a means to provide education to their populations segments living in diverse contexts, in the "far flung area of the country" (p.31). Similarly, nations such as Jordan, Turkey and Lebanon are also trying to cope with the need to educate but with the additional responsibility towards the influx of refugees (Mutter, 2015). As such, many of these nations are also in the hopes that MOOCs if developed for their contexts can play a "transformative role" (Jain et al., 2014, p.5) in their education systems for their large populations living in underprivileged conditions, and also for their newly minted

responsibility of caring for and educating hundreds of thousands of displaced refugees, as well as for others who are displaced.

Although the potential of MOOCs expanding their reach into developing nations and for underprivileged populations initially was presented with great appeal, there nevertheless have been several concerns that have risen regarding their adaptability towards the conditions of the local environments. The tsunami of MOOCs in which it is better to learn how to "surf", questions whether indeed MOOCs have become adaptable and have learned how to surf in the tides of developing nations and their learners environments (McKenna, 2012). Moser-Mercer (2014) when conducting one of the only studies on MOOCs for refugees in a refugee camp in Kenya, highlighted a lack of contextualisation which ranged from technological adaptability for refugees when engaging with MOOCs, as well as the lack of relevance to local contexts regarding the type of course content which was being delivered to them. This led Moser-Mercer (2014) to suggest that there was a "considerable uneasiness with regard to the sustainability" with the implementation of education initiatives such as MOOCs for the contexts of refugees (p.115). Therefore, despite the instigation of MOOCs in such nations dealing with displaced populations and for those living in poverty, as Rasmussen (2018) pointed out, the option of online learning does provide "an enabling and accessible medium of education for adults across our globe" however, "the focus of the institutions providing formal education seems to be firmly rooted within their perceived boundaries." (p.114).

Although MOOCs are being offered in developing nations, the target audience or the types of learners for whom MOOCs are made accessible as indicated in Section 2.3.2 above, is not necessarily inclusive towards underprivileged populations living in conditions of poverty and displaced refugees in these nations. Rohs and Ganz (2015) suggest that such fewer opportunities for inclusion generates the concern that many marginalised potential learners may be unaware of educational opportunities through MOOCs, as many who adopt MOOCs are part of higher socio-economic status groups having attained higher levels of education in these nations. The contexts faced by refugees as well as populations living in poverty in developing nations, are distinct, and should generate for MOOCs a target audience which are different from that within western nations and the privileged populations within developing nations (Moser-Mercer, 2014). Studies have brought to light that in order to widen the scope of MOOCs in terms of such target audiences and provide opportunities for greater inclusion, "more consideration of local conditions and needs" would be required (Castillo, Lee, Zahra, & Wagner, 2015; Depover & Orivel, 2013; Nkuyubwatsi, 2014). In addition to this, studies have also pointed to the need for greater involvements with local governments when reflecting on the implementation and adaptation of MOOCs in their specific environments (Brown, 2018). In Tajikistan, for instance, the government was a large stakeholder in the movement towards online learning and MOOCs, as have been the local governments in China and India, which are in contrast to the lack of government involvement in the development of MOOCs in western nations (Imaizumi, 2015; Trehan et al., 2017). Often times this is due to the socio-economic conditions within such nations which have limited finances and requires alignment with government policy measures for education, as has been seen with the involvement of the Indian government

with MOOCs in India (Jain et al., 2014). The "stronger political and monetary support" is also necessary when MOOCs are considered more so as a "public investment" in many developing nations in order to "address the educationally disadvantaged" (Rohs & Ganz, 2015, p.15). Pankaj (2014) suggested that in many developing nations and nations dealing with refugees and conditions of poverty, MOOCs may also often require and may benefit from the buy-in of local stakeholders. In the Egyptian context for instance, this has translated into the Ministry of Communication and Information Technology working with "local firms" to provide "technological solutions" to make MOOCs more locally accessible (Alaa El-Din, 2016). In countries which are educating refugees such as Jordan, Lebanon and Turkey, in addition to local government policy measures, various NGOs along with UN organisations have been suggested as potentially playing a key role to aid in the investment and deployment towards more contextualised and sustainable MOOCs (Yafi, 2013).

Another area which has raised concerns with the contextualisation of MOOCs for underprivileged populations pertains to as Lane and Kinser (2012), Daniel (2012) and Portmess (2013) have indicated, relevant and localised course materials in-lieu of standardised international content. Uchidiuno, Ogan, Yarzebinski, and Hammer (2016) suggested MOOCs and their content which are targeted for more privileged learners within those contexts may not necessarily be an effective approach for nations with larger underprivileged populations and their potential learning contexts. For instance, suggestions have been made regarding the development of MOOCs in Morocco to be contextualised to the Moroccan contexts in order to specify the "learning experiences" they want to create, as well as, the desired "learning outcomes" which can be achieved

through the engagement of MOOCs for their targeted populations segments (Mohamed & Wei, 2017, p.34). In nations such as India, it has been implied that flexible education options could also focus on "human development issues" which can provide skills based education to those in poverty, rather than focusing on more complex subject matters (Perris, 2014). Perris (2014) also suggested that the focus of MOOCs could shift towards skills based training as a means to alleviate the "acute need" for improved livelihoods through learning skills which can lead to employment for the greater numbers of underprivileged populations (Perris, 2014). Skills based courses through MOOCs is thus considered a gateway to employment, economic growth and inclusion (Santandreu Calonge & Shah, 2016). Friedenthal (2014) when discussing MOOCs in Africa and South Africa made the suggestion that their development through western perspectives may not tackle the divides in learning aptitudes in other foreign nations. Pushpanadham (2015) similarly suggested that in order for MOOCs to generate inclusive education opportunities, they need to examine the different contexts of the populations which they are catering for and "create courses that are relevant and accessible" to those population segments in their relevant local languages (p.29). Similar sentiments were expressed by Maha Taibah, an advisor to Saudi Arabia's Labor Ministry which is developing MOOCs. She observed that "What works in Saudi will be different than what works in the States" and adaptation to context is crucial which often also includes adaptation to local languages (Leber, 2014). Aspects of this were seen with the development of MOOCs in Tajikistan, as a limitation of these MOOCs was due to a prerequisite of understanding the English language (Imaizumi, 2015). Atenas (2015) expressed that such language barriers "impede global democratisation of content and the opening up of knowledge" through MOOCs (p.9). Thus in

contextualising MOOCs, relevant content in the local languages of individual nations is undoubtedly also part of the gateway to access and inclusion for underprivileged populations (T. Lee, 2015; Trehan et al., 2017).

On a similar note relating to the provision of relevant content in relevant local languages, in order to ensure accessibility and foster inclusion at scale for underprivileged populations, it is suggested that the online nature of MOOCs should not lend itself to the types of technology access used by the predominantly privileged segments of populations. Christensen & Alcorn (2013) have suggested that this is often overlooked when designing and developing MOOCs for developing nations. They highlight that technology indeed could be a barreir which may further exacerbate the "inequality of educational opportunities" and this aspect is often neglected resulting in "only the privileged few will have access to these education options". Ratwatte (2013) also brought this concern to light when reflecting on simple aspects of bandwidth speeds, which need to be taken into consideration when developing MOOCs for underprivileged learners, particularly for those in developing nations who may reside in more rural areas where internet bandwidth is low. Mishra (2013), Kolowich (2014) and Wildavsky (2015) pointed out when reflecting on this that the content design process will have to be adaptable as downloadable content and access to online videos in courses for instance, may not necessarily be accessible at every location or 'anywhere' due to internet speeds. Conditions in contexts such as these, have highlighted that MOOCs although online are largely developed for use through laptops, desktop computers or tablets, and the use of MOOCs through mobile phones is largely limited (Boga & Mcgreal, 2014; Luckerson, 2014; Stöhr, 2017). Studies have indicated overlooking

mobile phones particularly for developing nations, may affect the 'openness' of MOOCs as potential learners in these nations have greater use and access to mobile phones as compared to other devises when engaging with the internet (Kemp, 2014; Luckerson, 2014; Moloo, Prabhakar, Balaji, & Khedo, 2018). Thus in order for MOOCs to be adaptable, as a recent study has indicated, the use of mobile phones for learning should not be overlooked as it can help to further facilitate greater accessibility and the 'anytime', 'anywhere' aspects of learning (Lindell & Hrastinski, 2018).

2.5 Summary of Chapter 2

This chapter provides the review of literature for this thesis and begins by outlining how the literature was found, what methods were used to gather the literature as well as the search terms and the search tools which were used. The literature covers key areas drawn from the wider spectrum of the title of the thesis, and provides a focus and sheds light on the more specific research question. The areas of literature examine contextualisation in education, the notion of scalable education along with inclusiveness and openness through MOOCs, as well as examining the concerns with MOOCs for unprivileged populations including displaced populations. Adaptability, and thus the need for contextualising MOOCs to the environments of nations and for their populations living in conditions of poverty or displacements, has been found to stream across all sections of the literature. It has been highlighted that this is an important factor in order to achieve more inclusivity of educational opportunities using MOOCs. Lack of adaptability negates the openness of MOOCs, not enabling them to be scalable

and accessible to anyone at any time, across borders. The literature points to several areas by which to contextualise the development and the use of MOOCs for such nations and such populations. Some of these have included adapting to local languages, developing courses which have relevance to local contexts and not neglecting what is often overlooked, the actual technology which is available as well as used by such populations segments in their contexts. The next part of this thesis, Chapter 3, discusses the methodological approach and the research methods implemented for this research.

Chapter 3: Methodological Approach and Research Methods

3.1 Introduction to Chapter 3

This chapter examines Grounded Theory as the research methodology which is implemented in this study. The Ontological position of this research is reflective of the Grounded methodological approach. That is, much like Grounded theory discussed below, the evidence of this research is grounded and derived through the data and not based on the positions and perceptions of pre-existing theories. Glaser (2005) reasoned that with the use of Grounded Theory, the "quest for ontology" is "not necessary" (p.5). This was based on the premise of Grounded Theory allowing the "specific context and research question" to "shape" philosophical dimensions rather than enter the research with pre-existing beliefs (Glaser, 2005; Singh & Estefan, 2018, p.3). As Singh and Estefan (2018) have stressed, "reality...lies in the field", is "independent of the researcher" and is discovered through the data when the researcher "lets data speak for themselves"(p.3). This allows "patterns in data" to be discovered and "theory that describes the "reality" existing in the filed" to be generated (Singh & Estefan, 2018, p.3). Thus, the reality and position taken of the contexts examined in this study, is not pre-given and is not reflected upon assumptions of what may exist in these contexts. Rather, the reality stems from the discovery of the data through the research question and consequent development of theory in the form of the Contextualised MOOCs Model.

Having highlighted this Ontological position, the rationalisation for the use of Grounded Theory and a qualitative approach, as well as the research methods are discussed. In doing so, the chapter begins by discussing Grounded Theory and addresses the research question. The focus of this thesis along with its aims are reviewed and discussed in the context of the qualitative approach of constant comparison of data and construction of the theory. As the discussion on Grounded Theory progresses, the chapter examines the 2 approaches of the methodology and demonstrates why Glaserian's approach was chosen for this research. Considerations regarding the critiques of Grounded Theory are also highlighted as they play a role in the application of this methodological process.

The chapter moves on to discuss the research methods and design implemented in this study. Participant selection criteria, size, and the specificity of participants selected are discussed. Along with this, the data collection, interview structure, and the analysis process are presented. In these sections the application of Grounded methodology is made more apparent. In addition to the number of participants, and information regarding the participants' expertise and knowledge relevant to this thesis, there is a discussion on the breakdown of themes using Glaserian coding process and thus, the application of coding and the development of categories and themes present in the data are brought to light. The chapter then concludes with discussing any ethical concerns which may have arisen through this study, followed by a brief summary of the chapter.

3.2 Grounded Theory and the Qualitative Research Rationale

This study utilises Grounded Theory for its overarching methodological approach and research methods. Grounded Theory was developed by Glaser and Strauss in the late 1960s, a time in which research concentrations were predominant through quantitative methods and lacked a process which could ground data through a qualitative approach (Heath & Cowley, 2004). As suggested by Punch (1998) a qualitative approach enables an interpretivist paradigm towards research. Blumer (1937) set the inspiration for Grounded Theory with the identification of "symbolic interactionism", which was the development of social interactions that are exploratory and a form of "naturalistic inquiry" (p.145). Through the influence of Blumer's (1937) concept of "symbolic interactionism", Glaser and Strauss established Grounded Theory as an iterative methodology with a constant comparison design which can enable the development of new theory generation whilst lending itself well to qualitative research (Heath & Cowley, 2004, p.142; Lingard, Albert, & Levinson, 2008). As will be discussed in the sections below, the components of constant comparison and the generation of new theory embedded within a qualitative process of grounded data collection and analysis, provided the rational for implementing Grounded Theory for this thesis.

The qualitative paradigms held in Grounded Theory utilises an inductive method which facilitates the interpretation of data gathered. Maxwell (2005) and Hood (2007) pointed this out as they stressed qualitative research methods have a tendency to be inductive and therefore "necessarily involve analyzing data by coding for themes and patterns" (Hood, 2007, p.152). An inductive method therefore, as Trochim (2020) and Soiferman

(2010) highlight, moves from the specific such as with data comparisons, towards the general with for instance the development of a theory which can be more widely applicable (Soiferman, 2010, p.3). As expressed by Charmaz (2014) and later by Singh and Estefan (2018), Grounded Theory is a methodology of induction through conducting the 'specific' of constant comparison of data, whilst also encompassing the 'general' with openness for "interconnections of the concepts" in order to "explain patterns…of a psychosocial phenomenon" (Singh & Estefan, 2018, p.2). Glaser (1992) positions the inductive nature of Grounded Theory through collecting and comparing data yet also emphasises that this methodology allows for the generation of theory relating to a "substantive area" (p.16). Douglas (2003) echoes this when highlighting the inductive nature of Grounded Theory does no limit theory generation, rather it enables it to seek "to approximate the context of that being studied" (p.47). The openness of the interconnecting of concepts to explain the phenomenon examined in this research, is implemented through reflecting on the theoretical framework, Knowledge Gap Theory and is further elaborated on in Chapter 4.

It will be seen in this thesis, the constant comparison inherent in this inductive methodological approach, which examines the specifics of the data in order to lead to interpretation in the form of theory, supports the examination of the research question. That is, it enables identifying specific 'factors' in order to generate theory on the 'contextualisation of MOOCs' for the nations and populations segments examined in this research. Thus, focusing on the research question: "*What are the factors that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations?*". Research into the area of "MOOCs without borders"

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and examining what the factors are for contextualisation for nations faced with poverty and the influx of displaced populations within the context examined in this thesis is a new area of study, and not an area which has been looked at in depth in other studies. The theory expounded in this thesis is therefore not an extension of an existing theory established around MOOCs. Here again, Grounded Theory is well suited as the methodological approach as it thrives on the generation of new theory by strongly utilising the comparison of data to formulate open and theoretical coding through which a new theory can be constructed.

The foundations of Grounded Theory are primarily based on the principles of linking data to generate theory and not how an existing theory can be more rigorously tested. Glaser and Strauss (2009) have stated that Grounded Theory is a "methodology of analysis linked with data collection" which uses a "systematically applied set of methods to generate an inductive theory about a substantive area" (p.225). In addition to the inductive process of generating an explanatory theory, Glaser and Strauss (1967) have expressed that this can be derived through "basic social processes, studied in the environments in which they take place" and can thus allow for generalisability of the newly generated theory (Starks & Trinidad, 2007, p1374). The study of generating an explanatory theory through social processes or contexts is of additional benefit as it aligns with the core research of this thesis. That is, examining the contexts of MOOCs and its potential underprivileged learners in different nations, and through that, enabling the development of a theory which can be generalisable to other similar contexts, nations and their potential learners. Starks and Trinidad (2007) further stress the nature of contexts and social processes in Grounded Theory are suited for studies which develop

theory exploration around a contextual phenomenon. As this thesis examines the context of more than one nation, it invokes an analysis of parallels and deviations, which may exist. Grounded Theory supports the comparison of more than one context as suggested by Burck (2005). It provides an approach which is "suited to the analysis of accounts which include diversities as well as similarities" and as such, this, with the process of constant comparisons of data involving "diversities and similarities", facilitates the grounded method of construction of theory (p.244).

As data collection and analysis are linked to the exploration of theory, it has thus far been brought to light that Grounded Theory implements the process of a "constant comparative method" of data through which theory evolves. Upon further inspection, it has been found that this process involves joining "coding and analysis" through the procedure of constant comparison of data to discover a theory, rather than using data to test an existing theory (Glaser, 1965, p.436). This enables themes or "many hypotheses" to be "synthesized at different levels of generality", allowing for the discovery of theory to be more generalisable to wider contexts (Glaser, 2008). Glaser and Strauss (1967) have underscored the application of the theory to wider generalisable contexts by suggesting the process of comparisons "force the analyst to consider much diversity in the data" (p.114). Chametzky (2013) further stressed the ability which following Grounded Methodology has upon the development of a generalisable theory, by underscoring Glaser's (1996) stance, that the capacity to construct theory through constant comparison of data leading to open and theoretical coding enables the newly developed theory to "apply to a variety of situations and environments within and outside of the substantive area not just one situation" (Chametzky, 2013, p.1). As it will

be seen in Sections 3.3.4 and 3.3.5 which highlights the research design and discusses the analysis process for this thesis using Grounded Theory, the development of open coding establishes categories which generate 5 key themes that lead to the construction of theory. The constant comparison of data enables categories to emerge through similarities within the phrases and concepts, that are identified through the interview data collected for this study. It is in these early stages of open coding and comparison of data across all interviews that the synthesis of varied "levels of generality", which Glaser and Strauss (1967) mention, occurs (p.114). The analyst here must take into account abstract concepts which inevitably appear across all interviews and proceed to develop multiple hypotheses using open coding. As such, the analyst is "forced to engage in reduction of terminology" in order to establish generalisability across all data (p.114). As the generalisability becomes established in this manner and due to the research data in this thesis being obtained from several nations across the globe, the construction of a "propositional theory" which can be established through this Grounded method, enables what Glaser and Strauss (1967) indicate as the ability of the newly constructed theory to be "more generally applicable and has greater explanatory and predictive power" (p.115).

In the iterative design of back and forth comparisons and analysis of data in Grounded Theory, categories and themes begin to emerge, through which, theoretical developments start to take shape. Analysis of data in this manner holds the potential to follow a growing and ever continuing cycle of constant comparisons of data. Despite this, as the categories and themes form, a point of theoretical saturation must take place. Theoretical saturation becomes part of the natural process in Grounded Theory as the

formation of theory begins to minimise "major modifications" of the data (Glaser, 2008). The application of this grounded approach in this thesis is again elaborated on in Section 3.3.5. In Section 3.3.5, it can be seen that in order to enable the construction of theory to address this research, the data gathered from the participants is put through the cycle of constant comparisons. Through comparing transcripts and re-listening to the interview data several times, nuances of commonalities between the data begin to appear. This began the iterative process of open and theoretical coding and thus the identification of 5 key themes. These 5 key themes contribute to the first aim of this research, which is to identify what the "factors" are in the research question which can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations. Following on from this cycle which leads to substantive areas of theoretical sampling, the construction of a propositional theory is presented in the form of what this author has termed, the Contextualised MOOCs Model. The construction of this theory encompasses the 5 themes which address the second part of the aim through the Contextualised MOOCs Model. The second part deals with the factors that interact and impact upon each other and thus "contribute" and provide a contextualised approach for MOOCs for nations faced with poverty and the influx of displaced populations. The approach in which to construct theory for this purpose is in line with what Mills, Bonner and Francis (2006) suggested, that "Grounded Theory is a methodology that seeks to construct theory about issues of importance in peoples' lives" (p.2). The application of this approach is unraveled in further detail in Chapter 5, Findings, and Chapter 6, Discussion and Analysis.

These processes held in Grounded Theory namely, the constant comparisons, development of categories and themes for the generation of theory, provides the rationale for implementing this methodology for this thesis, as it identifies "the problem", that is, research which is discovered from a "substantive area of enquiry." (Fernández, 2004, p.49). In this light, Grounded Theory is an effective means to develop the thesis, focusing on the larger social and educational concept of "MOOCs without borders", supported by grounded data, for which, as stated earlier, there is no current theory directly relevant to explore the dynamics of a contextualised approach for the nations and peoples which form the basis of study for this thesis. Thus, the generation of a theory to address the research question implementing the themes of grounded data analysis is necessary. When examining the need for the construction of theory, Fernández (2004) suggests the principles of Grounded Theory are effective as they do not require a precise research question to be derived from the literature which can be based on an existing theory. To date, thorough examination by this author of the existing literature on MOOCs and nations faced with poverty and displaced people, has engendered little, if any, substantive studies examining or developing a contextualised model for MOOCs in such nations. A notable study which stands out in this area which has been brought to light in Chapter 2 Literature Review, was by Moser-Mercer (2014), which provided a case study of two Kenyan refugees engaging in a MOOC whilst living in the Dadaab Refugee Camp. Although this was undoubtedly insightful, it focused on providing an account of the challenges and experiences which were encountered with engaging in this MOOC, and the MOOC in this case study, was not developed for refugees as target learners. As the research in this thesis examines "MOOCs without borders" and focuses on the "inclusion of displaced populations and conditions of

poverty", it is necessary to uncover identifiable factors which adapt, and thus contextualise, MOOCs across borders for learners faced with such contexts. As this type of investigation has been scarce in academic research thus far, pervious theories, if any, are not substantial to address the research question of this thesis. Therefore, the construction of theory to address the research question using the Grounded methodological approach of constant comparison of data and open and theoretical coding is essential. This further encouraged the need for diversity as well as the approach for defining the research question that navigates this pathway and implements the accounts of the participants to identify key themes, leading to the construction of a theory based on the research gathered from the question: "*What are the factors that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations*". This was largely based on what Glaser and Strauss (1967) initially have stated for the implementation of Grounded Theory as a research approach and its further ability to explore the development of theory as the:

"process, sequence, and change pertaining to organisations, positions, and social interactions (that) correspond closely to the data since the constant comparisons forces the analyst to consider much diversity in the data." (Glaser & Strauss, 1967, pp.113-114).

3.2.1 Two Approaches of Grounded Theory

In this section, it is important to discuss the two approaches of Grounded Theory in order to observe the approach which has been implemented in this thesis. Although both

Glaser and Strauss established the basis of Grounded Theory, a division between the pair took place, which led to the Glaserian and Straussian approaches in Grounded Theory. Glaser's approach remained with the origins of Grounded Theory while Strauss joined with Corbin and, as studies have suggested, reworked the original theory (Mills et al., 2006; Ng & Hase, 2008; Strauss & Corbin, 1994). The core variation between Glaserian and Straussian development of Grounded Theory rests in their approaches towards data analysis. Strauss and Corbin incorporated a more rigid approach with the coding and analysis of data (Ng & Hase, 2008). Strauss and Corbin move away from the flexibility of Glaser's original Grounded Theory coding, as they suggest, the "specificity of the procedures" which they have developed for coding has evolved (Corbin & Strauss, 1990b). They suggest that the analysis of data requires three types of coding processes, namely, open coding, axial coding and selective coding (Corbin & Strauss, 1990b). This redefines the original basis of Grounded Theory as it proposes that verification should be an outcome of the analysis (Birks & Mills, 2011).

Glaser on the other hand, remains with the inductive nature of Grounded Theory enabling greater flexibility through the iterative process of constant comparison of data, leading to the development of theory. Glaser's coding process remains flexible as it incorporates substantive coding which precedes the later development of theoretical coding (Fernández, Lehmann, & Underwood, 2002). Substantive coding as Raffanti (2005) points out, "summarises empirical data in the substantive area" through the process of constant comparison (p.57). This generates categories which allow the researcher to conceptualise "how the codes interrelate" and thus, emerge into theoretical codes and themes which provide the foundation for the development of theory (p.57).

The adaptable process which Glaser adheres to allows the researcher flexibility to develop concepts leading towards a research question or questions, rather than entering the field of study with a fixed research question to examine (Glaser, 1992). Strauss and Corbin refute this, as they suggest a more focused design should be taken at the onset of the study through a further defined research question (Corbin & Strauss, 1990b).

Strauss and Corbin have been criticised for the parameters which they placed around data as Robrecht (1995) advised, the move towards greater focus on procedures places the researcher to "look for data rather than look at data" (p.171). This is not the case with this thesis as the data collected here has been clearly looked at, rather than, looked for. Cooney (2010) pointed this out as previous studies conducted using the Straussian variation, such as Kendall (1999) and Heath and Cowley (2004), focused their work in the process and coding techniques and therefore lacked the ability to examine the "bigger picture". In addition to this, the focus on the Straussian approach emphasising the need for verification of the analysis has, as Lehmann (2001) highlighted, moved away from studies examining political, organisational and technical issues, towards "studies of individuals" (Fernández, 2004, p.46). In 2000, another variation of Grounded Theory emerged as Charmaz fused both Glaserian and Straussian approaches to develop a Constructivist Grounded Theory which "arises from the interactive process and its temporal, cultural, and structural context" (Charmaz, 2000, p.524). Despite the divergences between Glaser and Struss and the criticisms which Grounded Theory incurred as a result, both approaches advocated the principle of flexibility, albeit the Straussian approach leaning towards being more procedural.

3.2.2 Implementing Glaserian Grounded Theory

The reasons for implementing Grounded Theory and how it fits within this research context has been highlighted in the previous sections. Now to further detail this, considering the divergence in Grounded Theory from Glaserian to Straussian, the approach which best suits this study is identified as the Glaserian approach. The Glaserian approach embodies the following features which echo the principles and characteristics of this thesis:

- The Glaserian approach focuses on "abstract conceptualization" (Fernández, 2004, p.46). As Fernández points out, this produces a greater "probability of contributing to the experts in the substansive field" and therefore, minimises the risk of "telling the experts what they already know" (p.46). As research on contxtuialised MOOCs in nations dealing with poverty and displaced populations is scarce and has not been largely researched, the use of Glaserian Grounded Theory allows for flexibility in design and development of the research enabling examinination into the "abstract cnceptualization" of MOOCs in such nations ("Inductive Approach," 2014). The limited and frgmetned research which exists in this area also lends itself to Glaser's approch as it draws essential data from the contributions of the experts in the substantive field.

- Abstract conceptualisation and relatively scarce literature in the area of MOOCs for displaced populations and nations tackling poverty, requires the generation of theory to be grounded in data. Glaser's approach allows this research to remain "grounded in the data" (Lawrence & Tar, 2013, p.32). Grounded Theory's inductive manner, may also

enable this research to extract information from the data, which can be formulated into suggestions for possible new areas of research and theories relating to the practice and policies for inclusivity for potential learners and the sustainability of MOOCs, for nations in similar contexts. Greater flexible concepts with Glaser's approach, also enabled this research to begin its examination on the wider concept of "MOOCs without borders" and rather than beginning with a firm research question in mind. As Stern (1994) pointed out this "keeps the attention on the data" (p.220) and enables the factors of the research question to be identified through the data as it was gathered. Rather than for instance, taking a Straussian approach of having fixed research questions based in this case, with presumptions of MOOCs in such contexts and as Robrecht (1995) suggested, looking for data to work around that.

- Due to the nature of the Glaserian approach to data being less prescriptive, it enables greater flexibility in the coding process of identifyitng relevant themes through contstant comparision in which theory may emerge. This again is an essetnial component for this reserch as it does not rely on "previous theoretical assumptions" (Kelle, 2005). Rather, it identifies through the coding process what the factors are that can contrubute to the contextualisation for MOOCs, which leads to theory emergning in the form of the Contextualised MOOCs Model, as this presentes the bigger picture of contextualistion and highlighs the interconnections between the factors within this model. This is in line with what Glaser (1978) stressed as "theoretical codes" which "conceptualize how the substantive codes may relate to each other as hypotheses to be integrated into a theory" (p.72).

- The need to look at the "bigger picture" encompasses the Glaserian approach while Strauss offers a more "full description" approach (Cooney, 2010, p.22) (Fernández, 2004, p.46). As this research examines MOOCs in several nations with complex socio-economic environments, a review of aspects of the "bigger picture" is not only unavoidable, but is in fact essential for making an effective contribution to new knowledge.

Considering the aforementioned points, the focus of this thesis investigating the contextualisation of MOOCs in nations dealing with poverty and displaced populations is advanced through Glaser's approach to Grounded Theory. The limited research and literature in this field pertaining specifically within the contexts examined in this thesis, benefits from Glaser's openness to abstract conceptualisation. In addition, due to the relative scarcity of literature specific to this research, the ability of theory generation through grounded data with flexible concepts in the development of the research question which Glaser champions, allows for the in depth investigation of MOOCs within this context. Thus, this less rigid approach to data and flexibility of coding assists in defining the factors for contextualisation as is required by the research question. The "bigger picture" perspective through Glaser's process of enabling the development of a theory, helps strengthen the knowledge base to understand the context and resulting theory gained in this study to be more widely applicable to different nations using MOOCs for populations living in poverty and those that are displaced.

3.2.3 Considered Critiques of Grounded Theory

Although Grounded Theory is implemented in this thesis, the critiques concerning Grounded Theory were considered as they played a role in the process of applying the methodology. Despite the flexibility in the design of Grounded Theory and the ability which it possesses to focus on participants' experiences to formulate theory, there are nevertheless studies which are critical of this methodology. The critiques largely focus on the mass volumes of data which are often presumed as necessary in order to reach "theoretical saturation" and in correlation to this, the challenge of identifying when such levels of saturation have been reached (Allan, 2003; Timonen, Foley, & Conlon, 2018). As will be discussed in Chapter 5 Findings, 5 factors for contextualisation emerged through the data. This critique of reaching theoretical saturation was taken into consideration with the identification through the data, of the most prominent factors to be examined. If not for this critique, multiple nuances could have resulted in more than 5 factors, overwhelming the intent and focus of this thesis. The process of constant comparison of data is an additional check which enables the researcher to identify when enough data has been attained, as categories begin to emerge. The emergence of categories leading to themes and the generation of theory is consequently an indication of saturation for the researcher (Glaser, 1965).

The critiques pertaining to large volumes of data was address by Glaser (1978) as he cautioned researchers who implement Grounded Theory to use "purposeful sampling" (Glaser, 1978). This enables the researcher to gain relevant data within the parameters of the phenomenon being studied whilst acting as a means to counter any tendency for

data overload (Glaser, 1978). Thus, the parameters were set for this study, to identify the factors that can contribute to the contextualisation of MOOCs within the specific circumstances of nations faced with poverty and the influx of displaced populations.

The literature has also pointed to criticisms towards aspects of Grounded Theory "forcing" data into rigid categories (Douglas, 2003, p.48). However, the criticism of Grounded Theory being at risk of forcing data is primarily in relation to Strauss and Corbin's deign of axil coding. Bryant and Charmaz (2007) highlight this coding process as formulaic and thus forcing data rather than allowing theory to emerge. This thesis did not adopt the Straussian approach and implemented Glaser's approach of "constant comparison of data" as it examined the "bigger picture", whilst identifying the key areas which emerged through data from participants (Cooney, 2010, p.22).

3.3 Research Methods and Design

The research methods and design are an integral part of this thesis. Here, information pertaining to the participants including their years of expertise, how the participants were selected, and the number of participants which were interviewed will be discussed. In addition to this, the data collection methods, interviews structure, as well as the analysis process using Grounded Theory, and a breakdown of the themes using the Glaserian coding and analysis process, will be also be brought to light.

3.3.1 Participant Selection Criteria

Examining the concept of "MOOCs without borders" and the dynamics of a "contextualised approach to scalable online learning", for nations faced with the need to provide education to large percentages of their populations living in conditions of poverty as well as the influx of refugee displaced populations, required an understanding of MOOCs from both global and holistic perspectives. Therefore, a fundamental aspect for the collection of data was to find valid participants for this study who thus, not only had relevant experience pertaining to the focus of this study, but also participants from various nations with the required knowledge and relevant experience. Sargeant (2012) suggested that this fundamental aspect can be used to establish a criteria for identifying appropriate participants, as the selection of participants can be attributed to their roles, level of experience, diversity in background, or other areas which will enable them to inform the researcher of "important facets and perspectives related to the phenomenon being studied" (p.1). Reflecting on this, the criteria of selecting participants for this study consisted of participants with at least 15 years of academic study and research in this field which includes experience with learners from diverse socio-economic backgrounds, as well as in the examination of online learning. Thus the participants have the depth and experience pertaining to various nations' socio-economic conditions through which, the need for contextualised education for displaced populations and those living in poverty has become critical. Further details reflecting on the specific backgrounds of the participants engaged in this study, are discussed in Section 3.3.3 Specificity of Participants Selected.

With this criteria in mind, all participants for this thesis were chosen by what Welman and Kruger (1999) have considered and by what Groenewald (2004) has expressed in his study as "purposive sampling" (p.8). That is, participants were selected based on the purpose and requirements for this study and with what Sargeant (2012) highlighted, as selecting participants with "the intent" or purpose to "contribute to understanding" (p.1). Using this selection criteria in this research design for choosing relevant or purposive participants ties in with the methodological practice of this study as this adheres to the principles of Grounded Theory, which are to gain data that is "grounded" in the concept of the study, which can later enable the generation of theory (Burck, 2005, p.244). This grounded method is also beneficial for the analysis of the data as it permits the use of a main characteristic of Grounded Theory, namely, the sampling of various contexts as a means to "maximize" variances and similarities in the data enhancing the process of "constant comparisons" (Creswell, 2009, p.13).

3.3.2. Sampling Strategy and Participant Size

Considering the factors mentioned above, the sampling strategy for this thesis initially commenced in the following manner and aided in sourcing valid participants for addressing the research question. The author of this thesis initially began identifying the criteria for selecting participants through purposive selection as highlighted by Huberman and Miles (2002). Thus for this study, examining recent and relevant literature pertaining to MOOCs and contextualised education globally was key. Search engines used online were through Google searches and Google Scholar as well as online university library catalogues and databases. The searches focused on key terms which

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could derive literature on MOOCs in developing nations, MOOCs for refugees, online education for displaced populations, and education provisions for underprivileged populations living in poverty were examined. With this initial investigation, the in depth search strategy proceeded as follows. 6 electronic scholarly databases were used which included Science Direct, Sage, Scopus, MERLOT, EBSCO, and JSTOR. In addition to these, as mentioned, Google, Google Scholar and online university library catalogues were also used. Bearing in mind the research question and the aims of this thesis, as well as the selection criteria for valid relevant participants as pointed out above, the following key terms were searched in the said databases and made use of the Boolean terms "AND", "OR" in the searches: "development of MOOCs"; "MOOCs and refugees"; "MOOCs in developing nations"; "contextualisation and MOOCs"; "contextualisation and education"; "online education and displaced populations"; "development of scalable education"; "development of scalable online education"; "scalable education and inclusive education"; "education for refugees"; "online education for refugees"; "online education and displaced populations"; "contextualised online education"; "skills based online education"; "sustainability in online education environments"; "socio-economic status and online education"; "gaps in education for underprovided". This yielded a total of 375 articles which included journal articles, academic papers, legal articles concerning ratified Acts of Law and/or legal legislations, research reports and new and media articles. These articles were initially screened by title and abstract and were further cleaned in the search process through implementing the exclusion of the following. Articles were excluded if they were not in English; did not examine MOOCs and online education; if their main focus was on data analysis of specific MOOC courses, if legal articles or Acts of Law did not pertain to the Right to

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Education and Human Rights; and if articles were outside of the contexts of higher education. Proceeding this screening process and again considering the participant selection criteria as earlier mentioned, 127 articles remained and were further screed through detailed reading of the text. The detailed screening of the texts of the remaining 127 articles led to 11 authors who fit the aforementioned criteria of valid participants for addressing the research question of this thesis. The additional 10 participants emerged through snowball sampling from the initial 11 participants through means such as online networks and conferences, as detailed in the section below. Thus, a total of 21 participants were reached and deemed as valid participants for this study. The key search terms as well as specific search engines used have also been highlighted through the mapping of literature in Chapter 2 Literature Review.

As described above, the authors of screened studies were subsequently contacted and requested to participate in this study, given that their backgrounds, current work and years of experience also met the criteria for participant selection expressed in Section 3.3.1. In addition to this, academics through the LinkedIn network were also contacted regarding this study. International MOOCs and higher education conferences also provided the opportunity to find suitable participants and they were later asked to participate in this study. All these methods of contacting participants were a part of further "snowball sampling", generated through contacting the initial set of authors found through the screening process discussed above. The process of snowball sampling thus pursued as participants recommended other participants with relevant expertise and knowledge in the field, which would be beneficial to contact (Noy, 2008, p.329). This was a contribution towards the main sampling method of "purposive sampling" as the

recommendations of other participants were based again on the purpose and requirements for this study. The recommendations of other participants were also vetted against the criteria for selecting participants which would fit with the parameters of this research. Candidates who fulfilled the criteria, were then asked if they could then take part as a participant for this study.

In Grounded Theory, it is often considered "impossible to predict" the sample size of participants which will enable a strong level of saturation for a given theory (Starks & Trinidad, 2007, p.1375). However, as Starks and Trinidad (2007) have stated, "typical grounded theory studies report sample sizes ranging from 10 to 60 persons." (p.1375). In light of the processes by which to garner participants as well as considering the focus of this study, the timeframe in which to complete this study, and the ability to access participants from around the globe, a total of 21 participants were involved in this thesis. As sample sizes using Grounded Theory methodology and qualitative research are not delineated, 21 participants were viewed as appropriate, as it also followed Patton's (2002) suggestion in which to engage with a total number of participants which will enable the author of the study to "do what can be done with available time and resources" (Patton, 2002, pp.242-244) (Morse, 1995). Merriam (2009) additionally highlighted the importance of selecting a sample size of participants, which allowed the author to "learn" from, thus enriching the data analysis process (p.6). The research design which led to the total number of 21 participants, was also ascertained and linked with the methodological consideration of Grounded Theory's parameters to achieve "theoretical saturation" (Glaser, 1992). Theoretical saturation is the point where data can lead to themes and subsequently to theory. Thus, data must not be overwhelming

and allow the author to attain what Bertaux (1981) highlights as the "saturation of knowledge" (p.37). In examining qualitative research, Guest, Bunce and Johnson (2006) identified the possibility of saturation emerging with the onset of the initial 6 to 12 participants who provide data. This was further reasoning to observe 21 participants for this thesis as an appropriate number through which to gather data.

3.3.3 Specificity of Participants Selected

Given the selection criteria to find appropriate and valid participants for this study, namely, participants with in-depth knowledge and relevant experience; utilising search engines to review the literature leading to a means to identify participants; increasing the span of participant numbers through recommendations; and considering what studies have suggested as appropriate sample size for studies implementing Grounded Theory, the participants breath of knowledge, involvement and expertise with regards to MOOCs within the scope of this study covers 10 countries. These countries include Turkey, Jordan, India, United States, United Kingdom, China, Lebanon, Canada, Columbia and Australia.

Although some of these countries such as, the United States, United Kingdom, Australia and Canada are not considered underprivileged or developing nations, these countries have been involved in research and collaborations pertaining to MOOCs and have been involved in working with underprivileged and developing countries with regards to MOOCs. Thus some participants who are based in the United States, United Kingdom, Australia and Canada also work on the development of and/or the examination of

MOOCs in nations such as Turkey, Lebanon, China and India focusing on populations living in conditions of poverty and displaced people. Based on the criteria described in Sections 3.3.1 and 3.3.2 for selecting participants, all participants involved in this study work in higher education institutions and have least 15 years of experience with, and in-depth knowledge, in the field of education. They are key stakeholders in their respective areas as their knowledge and experience in teaching, academic management, curriculum development, MOOCs and online learning, have involved them in the development and deployment of MOOCs in both the nation in which they are based and/or the nations which they have researched, or engaged in consultancy work relating to MOOCs and online learning for nations tackling the need to provide contextualised education for large segments of their populations living in poverty and their new influx of displaced peoples. Complementing the depth of knowledge and experiences which the participants maintain, the "Defining Parameters" as seen in Section 1.3 and the focus of this thesis, was discussed with all participants. These enabled participants to share the same conceptualisation of this study and draw out relevancy from there given experiences which aligns within the contexts examined in this thesis.

Considering this, it was also found that although the participants hold and have experiences in different positions through their work, they were able to draw from their experiences which were not in fact confined in their views solely to their current role. Rather the experiences they have had in previous positions have been carried forward when discussing their perspectives whilst researching and contributing towards MOOCs. That is, the participants wore 'multiple hats' when it came to their knowledge, understanding and involvement of MOOCs within the contexts of the research

conducted in this thesis. Similarly, their motivation to participate in this study, stems more so from a genuine concern for the betterment of the livelihoods, through contextualised accessible education, for the population segments focused on in this thesis. Thus, it is not necessarily 'motivations' underpinning the replies of the participants, but rather the 'concerns' for the phenomenon being examined in this thesis particularly as a there has not been any other prior framework or theory identifying factors which can *"contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations"*, as examined through the research question. Moreover, the concerns of the participants once identified, can then progress and lead to motivations for change and development and the construction of theory as revealed in the Contextualised MOOCs Model and discussed in Chapter 6 Discussion and Analysis and Chapter 7 Conclusions. Additionally, the strong elements reflecting the 'multiple hats' and therefore the similarity in views, as well as the concerns of the participants, is revealed in the parallels found in the data which is seen in Chapter 5 Findings.

The positions of the participants in the field of academia and work with MOOCs thus spans across a vast range. These positions which can be viewed as 'categories' which the participants have or have had experiences in are as follows: Vice Presidents, MOOC Developers, Professors, Faculty Heads, Directors of Finance and/or Research, Involvement in the Learning Designers and Researchers Teams, and Business Investors. There are overlaps with regards to the number of participants in each category. Nevertheless, the participants in each of the categories is shown in the description below. The description below also accounts for the overlaps of the participants between

categories or the 'multiple hats' which the participants have, as has been discussed earlier. Therefore, the participants and their categories are as follows:

Vice Presidents, there are 2 Participants which match this category. The 2 participants of this category also overlap into the categories of Professors and Business Investors. MOOC Developers, there are 9 Participants which match this category. The 9 participants of this category also overlap into the categories of Professors, Faculty Heads, Involvement in the Learning Designers and Researchers Teams, and Business Investors.

Professors, there are 14 Participants which match this category. The 14 participants of this category also overlap into the categories of Vice Presidents, MOOC Developers, Faculty Heads, Directors of Finance and/or Research, Involvement in the Learning Designers and Researchers Teams, and Business Investors.

Faculty Heads, there are 4 Participants which match this category. The 4 participants of this category also overlap into the categories of MOOC Developers, Professors, and Involvement in the Learning Designers and Researchers Teams.

Directors of Finance and/or Research, there are 4 Participants which match this category. The 4 participants of this category also overlap into the categories of MOOC Developers, Professors and Involvement in the Learning Designers and Researchers Teams.

Involvement in the Learning Designers and Researchers Teams, there are 16 Participants which match this category. The 16 participants of this category also overlap into the categories of MOOC Developers, Faculty Heads, Directors of Finance and/or Research, and Business Investors.

Business Investors, there are 6 Participants which match this category. The 6 participants of this category also overlap into the categories of Vice Presidents, MOOC Developers, Professors, and Involvement in the Learning Designers and Researchers Teams.

Due to large overlaps, as participants did not remain "within their category" but rather projected strong similarities in their views, the data was not examined from a 'category perspective' of the participants. The analysis in this thesis is reflective of the its Grounded Theory methodology. That is the analysis is not based on the categories of the participants, rather, it is based on the use of Grounded Theory's back and forth comparisons found in the data which have formulated into core themes. Therefore, the data is strongly analysed according to the themes which are derived from the overlaps and powerful similarities in the data and this is discussed in Sections 3.3.4 Data Collection, Interview Structure and the Analysis Process Using Grounded Theory, and 3.3.5 Breakdown of Themes Using Glaserian Coding Process and Analysis.

3.3.4 Data Collection, Interview Structure and the Analysis Process Using Grounded Theory

The interview process followed the qualitative approach of this study through being non-prescriptive in nature, with attention to open-ended and guiding questions for the participants which focused on the parameters of the research. Therefore, the author of this thesis collected data through semi-structured interviews and examined relevant literature to date which was available both online and in print. Sikolia, Biros, Mason, and Weiser (2013), pointed to the examination of relevant literature or "documents" and "other sources" of information as part of the Grounded method (p.2). The collection and examination of a broad spectrum of literature with semi-structured interviews covering the areas of MOOCs, contextualisation of MOOCs which pertain to the main research focus of this thesis, allowed for a minimisation of the author's own assumptions, bias and perceptions regarding the area of study.

After implementing the criteria by which to select valid participants, it was ascertained that interviews would be the best manner by which to address the research question. As the Yildirim and Simsek Demirbag (2020) have highlighted, "interviews are one of the most efficient ways to collect rich data if the phenomenon is rare" (p.208). The context of MOOCs and the population segments examined in this thesis, is a phenomenon which is "rare", as there is no prior framework or theory which can help address the research question. Due to this, as Fox (2009) states, "when it is not possible to draw up a list of possible pre-codes because little is known about the subject area", in this context semi-structured interviews are a useful means by which to address the concerns in line with

the research question (p.6). In addition to the context of this thesis not being a phenomenon which has previously been well addressed in other studies, interviews are also the most appropriate way in which to tackle the research question, as it falls in line with the qualitative research methodology of this thesis. That is, using Grounded Theory methodology and generating theory as part of its process. In this light, it has been expressed that interviews can be a beneficial mechanism by which to address a research question, as is the case in this thesis, when the research intends to "ascertain and theorize" a phenomenon which has no pre-existing theoretical base (Jamshed, 2014, p.1). Cohen, Manion and Morrison (2007) and Aziabah (2018) conveyed similar sentiments as they have said "interviews serve important purposes" as they can be a "very relevant means by which to test a hypotheses or generate a new one" (Aziabah, 2018, p.351; Cohen, Manion, & Morrison, 2007, p.21). Cohen, Manion and Morrison (2007), further elaborate that in addition to providing data by which to generate hypotheses, interviews can also be an "explanatory device to help identify variables and relationships" (p.351). Through implementing semi-structured interviews to address the research question, both the theory generation and the identification of variables or "themes and factors" and their relationships, are made evident in the Contextualised MOOCs Model as well as in Chapters 5 Findings and 6 Discussion and Analysis.

As the semi-structured interviews were conducted, as mentioned in Section 3.3.4, all participants were informed of the scope and focus of this thesis when initially contacted and again at the beginning of the interviews. Participants were also informed and reminded of their ethical rights and the ethical clearance received for this study. Examples of the interview questions can be seen in Appendix 1. Due to the numerous

years of expertise in the field of this study which the participants maintain, they were all encouraged to express their perspectives based on their knowledge and experiences with MOOCs and contextualisation of MOOCs which this study examines. The nature of the semi-structured interviews thus enabled the participants to freely demarcate their views, whilst focusing on the nations and population segments examined in this thesis.

All except for 3 interviews were conducted via Skype and or Facetime. The 3 interviews which were not conducted via Skype or Facetime were conducted in person, face-to-face. Interviews were approximately 40 minutes to 1 hour in length and participants were reminded that the interviews were recorded on a secure recording device and anonymity would be ensured. The interviews were transcribed and relevant trends and themes which were subsequently identified using the process of Glaserian's constant comparison of data, were then highlighted and used in this study. Halcomb and Davidson (2006) pointed out that note taking was also an important element which further supports the data and evidence of knowledge gained in the process of recorded interviews. With this in mind, to gain a more comprehensive collection of the data, the author of this thesis also took notes during and after the interviews, which again, led to further clarity in identifying themes by which the research question could be investigated.

Glaser (1978, 2007) pointed out that the process of analysing data is the means by which concepts and themes emerge and the discovery of theory is presented. The analysis process for this thesis took this grounded approach in analysing the data, which was collected in order to identify concepts and subsequent themes which leads to theory.

The coding and analysis of data in this study was therefore based on Glaser's "constant comparison" of data. Figure 3.1 presented by Fernández et al. (2002), depicts the continuous process of analysis through comparing data and deriving theory.
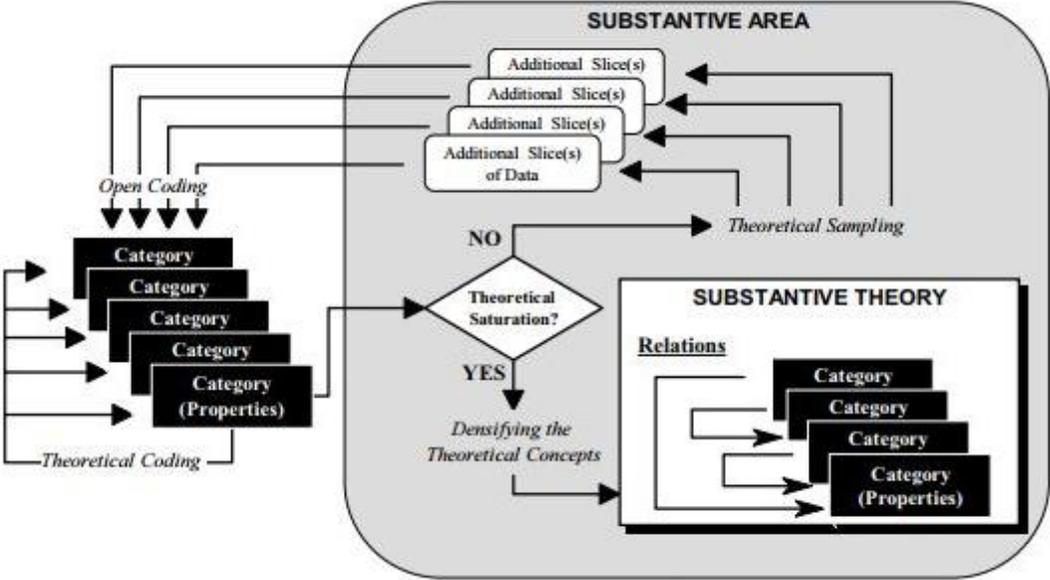
(Fernández, Lehmann, & Underwood, 2002, p.114)

Figure 3.1: Cycle of Glaserian Grounded Theory Coding and Analysis Leading to Theoretical Concepts and Substantive Theory

It can be seen here that as data is collected, it goes through an analysis process of utilising "open coding" to identify categories in the data and develop what is known as "theoretical coding" (Fernández et al., 2002, p.114). As categories emerge in the analysis of open codes, theories may begin to form which are linked to the themes that surface from those categories, hence "theoretical coding" begins (p.114). This analysis takes on several rotations as data is triangulated through this grounded iterative analysis

cycle. Therefore, the author of this thesis continually collected data, then implemented the process of analyses through open coding and establishing categories and prominent themes, examining the emergence of theoretical codes, then discovering if the theory which appeared to emerge was substantive enough to reach a point of "theoretical saturation" or if additional data and theoretical sampling needed to continue (Fernández et al., 2002).

The practical application of this process in this thesis therefore began with the collection of data through the interviews of participants'. Once interviews were collected, they were transcribed and this data commenced the stage of the iterative constant comparison process. The comparison of data enabled the identification of similarities of broad codes across the interviews. This began the first stage of open coding. It was noted that through the comparison of data, nuances in the codes appeared which pertained to the requirements for MOOCs in the context which is being examined in this thesis, and thus, categories formed. Comparing the emergence of these initial categories, open coding and constant comparison allowed for further examination to identify if additional slices of data in the interviews were being effectively examined and implemented into the analysis process. As such, these general categories deepened into more solidified themes and theoretical coding.

3.3.5 Breakdown of Themes Using Glaserian Coding Process and Analysis

Through implementing the Glaserian Grounded process, the continuous iterative analysis identifying levels of codes, categories within coding and the subsequent theoretical coding, enabled the emergence of prominent themes that are identified as the "factors" which may contribute to contextualisation as examined in the research question. As the research question examines "*what are the "factors" that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations*", the author aimed at identifying broad codes and categories which appeared across all interviews. These were initially identified through the transcripts and re-listening to the recorded interviews. Noticeable words or phrases which were verbalised by participants were compared.

Whilst data was analysed and reflected on using this Grounded process, as mentioned above, common terms began to appear in the data. Prominent terms which appeared, developed into the themes in the analysis process. For example, one such broad code and category appeared when it was noticed that a very large proportion of participants brought up phrases involving "mobile phones". However, as the analysis process continued, it was recognised that the phrase "mobile phones" was prominently linked to discussions around access and accessible technology for MOOCs within the given context. Thus, as it will be seen in further detail in Chapter 5, Findings, one of the key themes is "Accessible Technology". Nuances in phrases such as this continued until all the 5 key themes which are discussed in detail in the Findings chapter, became apparent.

Other categories which appeared prominent across large proportions of data in the coding process were infrastructure and bandwidth. In addition to this, categories also included the following: different types of stakeholders such as Non-Government Organisations (NGOs), governments and local governments as well as others, the catering of MOOC content towards targeted and intended learners, the use of varied local languages for MOOCs in such contexts, and aspects of elitism and inclusion of MOOCs within the context of learners living in conditions of poverty and displacement.

The emergence of such additional categories subsequently led to 5 key themes. The formation of the theme "Accessible Technology" has been mentioned above, thus the breakdown of the other key themes are as follows. Varied Stakeholders developed as another theme in the analysis process. Data across several interviews highlighted the relevance of a diverse group of investors for MOOCs to be contextualised for nations dealing with poverty and displaced peoples. Through the iterative process of comparing data, the initial category of "Buy In" emerged as a means to enhance the contextualisation of MOOCs. However, upon further comparison, it was identified, "buy in" was more specifically linked towards a varied range of key "Stakeholders" which can be unique to MOOCs designed in the specific contexts examined in this thesis. Therefore, upon refinement of the data and analysis, "Varied Stakeholders" developed and remained as another core theme in the process to generate theory.

"Identifiable Content Dimensions", is another key theme which emerged through the process of constant comparison of data. Here, open coding revealed the necessity to include a theme which could encompass what the categories of data exposed about the types of content as well as the intended outcomes of such content which is developed or

could be developed, for the nations and populations focused on in this study. As it will be seen in the Findings, Chapter 5, this theme which includes components of contextualisation of content and consequently identifying applicable intended learning outcomes for learners in such nations, is differentiated from MOOCs which are catered to learners who are not displaced or living in conditions of poverty. Initial categories from the data such as "traditional MOOCs" and "skills based MOOCs" therefore merged into the theme of "Identifiable Content Dimensions".

Language was a prominent category which emerged throughout all the data. The use of language, the necessity to contextualise MOOCs to local languages and discussions around the need for transcripts which are a language aid, repeatedly occurred. Upon continuous cycles of open coding however, the similarities in the data became more apparent, shifting the large category of language into a more concise theme of "Language Barriers".

The final theme which emerged through several iterative rounds of open coding and constant comparison of data is "Elitism, Inclusion and Awareness". This theme surfaced as categories such as "what are MOOCs" began to indicate the lack of awareness of MOOCs specifically for learners living in conditions of poverty or who have become displaced refugees. Chapter 5, Findings, discusses in greater detail the key findings across the data which led to the progression of this theme.

The emergence of 5 themes noted above based on the grounded process of constant comparison of data and coding, coincided with the inability of the author of this thesis to identify any other categories or themes from the comparison of the data. This

situation led to a point of theoretical saturation. Therefore, as no new themes emerged and theoretical saturation was reached, the ability to finalise the 5 themes and the correlation between them laid the foundation for a new substantive theory through the analysis process of this thesis. This is seen through discussing the components of the 5 themes or "factors" and how they relate and connect with each other to form the theory which is presented with the Contextualised MOOCs Model. The discussions for this, are held in Chapter 5 Findings and Chapter 6 Discussion and Analysis.

3.4 Ethical Concerns and Validity

In order to ensure sound ethical standards for this study, participants were provided with a description of the study when initially approached and again, at the beginning of all interviews. It was also explained to the participants that their participation in the interviews was voluntary and they would remain anonymous. Ethical considerations and approval from Lancaster University Ethics Committee was discussed with each participant prior to the commencement of each interview. Participants were reminded that this study was approved as a low risk study in terms of ethical risk. The data collection process and storage of data was also discussed with each participant prior to the start of each interview.

The information on data collection practices of this study conveyed to all participants followed Bailey's guidelines on qualitative research with an explanation of any risks or benefits of the study along with its purpose (Bailey, 2007). Following this, as mentioned

earlier, participants' identities were kept anonymous. To ensure validity of the data, this study followed the suggestion of Shenton (2004) to triangulate the data. This was also particularly appropriate as it aligns with the process of constant comparison with the Grounded Theory method, and triangulation of data helped to generate categories, themes, and the formulation of theory. Therefore, once themes emerged from the data, brief conversations took place again with participants to ensure if the emergent themes are in line with the perspectives of what the participants had initially discussed.

Bias is another aspect relating to validity. Here the ability to "bracket" previous experiences and assumptions from penetrating into the interviews and the writing processes should be taken into consideration (Bound & Campbell, 2011, p.4). This may be overcome as there are a limited number of studies on MOOCs which examine contextualisation and potential learners living in conditions of poverty and refugee displacement, particularly in the nations which are focused on in this study. As such, the assumptions about these by the author will also be limited. This largely enables the focus to remain on the perspectives of the participants. In addition to this, in efforts to minimise any bias, recognition of personal views regarding the focus of this study were considered and mindfully avoided in the interview process. The measures taken to discuss with participants the accuracy of the emergent themes also aided in the ability to minimise bias by the author of this research. However, as bias is extremely difficult to completely eliminate, some elements may be subconsciously present in the process of this study.

3.5 Summary of Chapter 3

This chapter has looked at several core areas relating to the development of this thesis. In doing so, it has brought to light the ontological position held through this research and thus has identified Glaserian Grounded Theory as the methodology used in this study. It has brought forward key information regarding participants through which data has been collected, and has described the application of the Grounded Glaserian process through the development of categories, themes, and the construction of theory. The breakdown of the emergence of categories leading to 5 core themes which lay the foundation for construction of theory seen in the Contextualised MOOCs Model, has been made transparent. The chapter also brought focus to the aims of this study as it began with reiterating the aims of this thesis and discussing the applicability of Grounded Theory as a means towards achieving the said aims. Ethical and validity concerns were also addressed. As this chapter has established the methodological approach along with the research design, the next chapter, Chapter 4, discusses the theoretical framework of this thesis.

Chapter 4: Theoretical Framework – Knowledge Gap Theory

4.1 Chapter 4 Introduction

Chapter 4 examines the theoretical framework that is implemented in this research, which is Knowledge Gap Theory. In implementing the theoretical framework into this thesis, the chapter begins with a discussion on how "using deductive 'gap' reasoning with a theory generating inductive methodology" are complementary, and can allow for the generation of the theory which is the "Contextualised MOOCs Model". The chapter then moves forward to examine Knowledge Gap Theory which looks at gaps or a divide in the socio-economic status of populations due to the manner in which knowledge is disseminated (Tichenor et al., 1970). The chapter illustrates the breadth of this theory embodying components of access to knowledge as well as its adaptability and thus, the contextualisation of knowledge to population segments when reflecting on knowledge gaps. This chapter therefore inspects the roots and the basis of Knowledge Gap Theory and the access to what it defines as the mechanisms of disseminating information. It then goes on to discuss Knowledge Gap Theory and the sphere of MOOCs. This brings to the forefront how this theory correlates to MOOCs in terms of its components of access, adaptability and thus contextualisation. Following from this, the chapter examines the dynamics and implementation of Knowledge Gap Theory to MOOCs within the focus of this thesis.

As this thesis examines "context" in providing knowledge in the form of MOOCs through educational opportunities for people living in diverse environments of

displacement or poverty, Knowledge Gap Theory adheres well to the parameters of the study. As such, the impact which Knowledge Gap Theory may have on the research question and the phenomenon which this thesis is examining is discussed. The chapter concludes with a summery and a link to Chapter 5.

4.2 Using Deductive 'Gap' Reasoning with a Theory Generating Inductive Methodology

As brought to light in Chapter 3 Methodological Approach and Research Methods, Grounded Theory involves an inductive component in its methodology. Therefore, how does this engage with a more deductive reasoning which in this thesis, is reflected with Knowledge Gap Theory? Cummings (2010) states that deductive reasoning does not have to "interrogate the origin" (p.208). Rather, deductive reasoning, as Trochim (2020) and Soiferman (2010) have stressed, "begins with the general and ends with the specific" (Soiferman, 2010, p.3). That is, deductive reasoning reveals "widely accepted principles", as reflected in this thesis with the principles of 'gaps' and 'access to information' found in Knowledge Gap Theory, and complements that within the context focused on in this thesis and data gained and analysed through its inductive methods (Soiferman, 2010, p.3). Furthermore, as Creswell and Plano Clark (2007) have suggested, the implementation of such wider principles with an inductive method of data analysis, can indeed add to the development of theory. In essence, although inductive methods and deductive reasoning may appear contradictory, they are "not mutually exclusive and often address the same question" (Soiferman, 2010, p.3). In this thesis,

this is demonstrated when examining 'access to information' or 'knowledge' when addressing the question *"What are the factors that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations?"*.

In implementing the use of deduction through wider principles with inductive methods, Sarker, Lau and Sahay (2001) go further stating deduction may in fact be useful, and therefore benefit the development of theory, "once a certain level of inductive understanding of data" is attained (p.39). Grounded Theory as expressed in Chapter 3, attains this level of 'understanding of data' through the process of constant comparison enabling themes and categories to emerge. Kearney (2007) underscored that "Grounded theory analysis can portray conclusions as dynamic and interactive, rather than as a single common outcome." (p.128). Thus the inductive methods adopted does not necessarily limit the interpretation of data and the consequent conclusions, or the generation of theory, to solely inductive concepts. Rather, "conclusions" can be a result of additional relevant concepts which may befit the parameters of the context and phenomenon which is examined leading to theory that is, "dynamic and interactive" (Kearney, 2007, p.128). On a similar note, Haig (1995) emphasised a "good grounded theory" is both "inductively derived from data" and "subjected to theoretical elaboration", and thus, "judged" adequately "to its domain" (Haig, 1995, pp.1-2).

The research conducted in this thesis embraces this flexible component of Grounded methodology, through incorporating deductive gap reasoning by way of Knowledge Gap Theory, as part of the developmental steps for theory generation which is shown in the form of the Contextualised MOOCs Model. As Cummings (2010) suggests, the

logic of deduction is not in describing the "processes through which premises are established", rather, to capture or elaborate on the "relations between established propositions" (p.208). Similarly, incorporating deductive reasoning into the inductive methodology was highlighted earlier by Douglas (2003) when suggesting, "it is the conceptual interpretation of data and their phenomena that creates the grounded theory. The theory is literally grounded in the data, but is not the data themselves." (p.50).

Incorporating the wider principles of Knowledge Gap Theory as the theoretical framework, sits well with the methods of Grounded Theory, as its inductive methods can be "useful" when examining contexts in which "there are major gaps in our understanding", and thus combining concepts can allow for a "beneficial" new perspectives to develop (Schreiber, 2001, p.57). Therefore, although Grounded Theory is inductive in nature through its methods of constant comparison, it does not negate "framing the results" with other components which are relevant to the contexts of the research being examined (Hood, 2007, p.155). Rather, in Hood's (2007) study on the traits of Grounded Theory it is emphasised that as Glaser and Strauss (1967) advise, "theoretical findings" which are being developed from the data gathered through the grounded process, should in fact be open to comparisons found in literature which are relevant to the phenomena being studied in the research regardless if it is inductive in nature or not, such as with this thesis, through reflections on 'gap' reasoning. Evidence of how combining inductive methodology with deductive gap reasoning is implemented to formulate the theory of the Contextualised MOOCs Model, are found in Chapter 5 Finding and Chapter 6 Discussion and Analysis.

4.3 Knowledge Gap Theory and Access to Information

The provision of equitable access to information, and hence, access to knowledge for all regardless of location, socio-economic status, or any other boundary, are the foundational values upon which MOOCs have come into being (Kanani, 2014). They should be in essence, the tool by which to reduce gaps in knowledge for any segment of population, of any nation, anywhere across the globe. Thus, reflecting the title of this thesis "MOOCs without borders". This is, at least, what MOOCs should do. In order to examine if access to information is truly borderless and knowledge gaps are being addressed, or whether the context is being neglected, particularly within the context of the nations and population segments which are the focus of this thesis, the foundations of Knowledge Gap through Knowledge Gap Theory is seamlessly drawn to and extensively applied to this research.

Tichenor, Donohue and Olien established Knowledge Gap Theory in 1970, as a means to examine gaps in the acquisition of knowledge between population segments in social systems (Tichenor et al., 1970). It is concerned with the connection of providing information in order for population segments to gain knowledge. Consequently, the access and dissemination of "information" is a fundamental element in the theory of knowledge gap. The provision of "information" acts as the corner stone through which knowledge can be gained for large and varied segments of societies to aid inclusivity, and to accommodate the spread of knowledge on a mass scale. From this perspective, "information" must be spread through instruments with the widest reach. This beckons the need to identify what Tichenor et al. (1970) defined as the mechanisms of

"information". As this theory developed in the early 1970's, Tichenor et al. looked at "mass media" as the largest and the most ubiquitous methods through which information can be disseminated to massive as well as diverse population segments. At the time, the internet was not a prevalent means of attaining knowledge; thus, Knowledge Gap Theory defined mass media to include devices as TV and current news media, such as newspapers and news articles as the most dominant and widely accessible instruments for distributing knowledge (Tichenor et al., 1970). Therefore, a key component of this theory is that the attainment of knowledge is contingent on the role and access to "information" through instruments of "mass media", as it observes mass media as the largest means by which to communicate knowledge quickly to large segments of populations living in both privileged and underprivileged conditions (p.159).

Tichenor et al. (1970) defined the premise of Knowledge Gap Theory by stating the following:

> "as the infusion of mass media information into a social system increases, segments of the population with higher socioeconomic status segments tend to acquire this information at a faster rate than lower status segments, so that the gap in knowledge between these segments tends to increase rather than decrease." (pp.159-160).

From this premise, Tichenor et al. (1970) place the emphasis on the simplicity of acquisition to information which they suggest appears to be more easily gained by higher socio-economic segments, thus leading to the lack of inclusivity and gaps in knowledge

in segments of society. Other studies such as Viswanath and Finnegan JR (1996), upon implementing Knowledge Gap Theory identified that the gaps in knowledge may be more inclined to develop not simply due to the increase in the infusion of information through the most prevalent means of mass media, but rather due to the dynamics of "inequitable information acquisition" (p.187).

In reflecting on this perspective of the inequitable acquisition of knowledge however, with a view on contextualisation in this thesis, Holbrook's (2002) sentiments can be recalled regarding how information is provided to social segments within populations. Holbrook (2002) highlighted that, Tichenor et al.'s (1970) suggestions of the resulting gaps in knowledge in segments of populations are not necessarily due to the increase of information into a social system, but rather due to the "selective exposure of information" into specific social systems (p.438). Liu and Eveland (2005), had similar sentiments as they argued it is not the increase in information by which to gain knowledge but that "knowledge is unequally distributed in society based on socio-economic status" (p.910). They go on to suggest that the "literature is full of findings" which demonstrate that information flow contextualised to the needs of the target underprivileged learners in a given society can in fact minimise the gap of knowledge between higher educated socio-economic status segments, and lower level socio-economic status populations in nations (p.910). Thus, the lack of equality in knowledge flow and the consequential gap between segments of privileged and underprivileged populations throughout societies, may be more significantly linked to the inequality of accessible contextualised information through which Tichenor et al. (1970) Knowledge Gap Theory demonstrates that knowledge can be provided to large populations.

Baran and Davis (2009), is another study which emphasised the importance of contextualising how information is disseminated to large populations in need of gaining knowledge and addressing knowledge gaps. Baran and Davis (2009) stated that "media can help close these gaps" particularly if media's role in providing knowledge is adaptive to specific population segments "so that the system as a whole changes its ability to adapt to the environment." (p.277). Jeffres, Atkin and Fu (2011) suggest Knowledge Gap Theory therefore illustrates the effects of mass communication on education or 'knowledge' and its level of understanding.

In looking at gaps relating to access, the dissemination of adaptable and, therefore, contextualised information to different segments of populations, it was found that people belonging to lower socio-economic status groups, with lower levels of education also had less efficient access to information or knowledge than their counterparts living in the same nations who came from higher socio-economic groups. Their counterparts from higher socio-economic status groups possessed high levels of education as well as greater levels of access to knowledge which was therefore useable within their contextual environments (Bas & Grabe, 2015; Grabe, Kamhawi, & Yegiyan, 2009; Grabe, Lang, Zhou, & Bolls, 2000; Grabe, Yegiyan, & Kamhawi, 2008; Kim, 2008; Yang & Grabe, 2011). Ettema and Kline (1977), reiterated this when suggesting that Knowledge Gap Theory may be an instrument towards understanding the implications in a gap in knowledge for "both more and less developed societies" (p.180). This falls in line with this thesis and this theoretical framework can be implemented, as this thesis also examines the provision of contextualised education through MOOCs for less

developed societies such as displaced refugees and underprivileged populations living in poverty who lack extensive opportunities for education.

4.4 Knowledge Gap Theory and the Sphere of MOOCs

Thus far, in examining this theoretical framework, the following has been brought to light: firstly, the foundations of what Knowledge Gap Theory entails when it was constructed; and secondly, examining gaps in knowledge for population segments and between socio-economic status groups which have pointed to a relationship between access, adaptability and thus contextualisation of knowledge, as has been illustrated in several studies. This section now goes on to discuss Knowledge Gap Theory within the sphere of this thesis, that is, MOOCs. The sphere of MOOCs shadows the process of Knowledge Gap Theory in disseminating "information" which is knowledge and education, to large segments of populations anywhere, with the belief of transcending social status groups. MOOCs utilise what Tichenor et al. (1970) previously called "mass media", which is now the internet, as the most prevalent means by which to provide "information" leading to knowledge. As Anant Agarwal CEO of the prominent MOOCs platform edX has said, the concept of MOOCs as a whole are intended to provide "online courses to everyone, everywhere, regardless of social status or income" (Kanani, 2014). In examining the possibilities of MOOCs, early studies such as that by Kay, Reimann, Diebold, and Kummerfeld (2013) also pointed to potential access to courses for everyone, everywhere, as they recogised the disparities for educaitonal opportunies which exists between "the most privileged and the most disadvantaged learners" (p.70). In a more recent discussion of expansion of MOOCs in India, Agarwal reinstated the

position of the MOOCs platform edX's mission and the concept of MOOCs to "transform lives and advance careers to all learners, everywhere" by providing access to education (Shalini Singh, 2018).

Despite such novel claims and attempts to provide education to all, when examined in the sphere of Knowledge Gap Theory, it has been suggested that there is the inclination in which "MOOCs can enlarge the knowledge gap rather than close it" (Rohs & Ganz, 2015, p.6). Popenici (2015) has suggested problems with the manner in which knowledge is disseminated through MOOCs, due to the lack of adaptability and thus lack of contextualisation for underprivileged populations. In this regard, Popenici (2015) suggests MOOCs "fail to democratise higher education" and "increase the gap" in the provision of education by catering courses to the "(relative) rich of the world, leaving the poor stay poor." (pp.164-165). Holbrook (2002) suggests "a plausible basis for the knowledge gap lies in the relevance of information" and as mentioned "selective exposure", both relating to the processes in which mass media is used to disseminate information as well as the types of knowledge provided which is of relevance to targeted segments of learners (pp.438-439). Goh (2015) points to this when discussing gaps between lower and high economic status groups, reflecting mass information being catered more selectively for the interests and needs of higher economic status groups of populations. This is an important concept within Knowledge Gaps and the notion of contextualising MOOCs for less privileged nations and populations in this thesis, as it suggests that it is not necessarily the spread of information alone which leads to gaps, but a combination of that and the lack of adaptable contextualised knowledge targeted at underprivileged social segments. The differential attainment towards knowledge thus

producing the gap between socio-economic status groups may be partly dependent, as Tichenor et al. (1970) explained, on "whether the stimulus intensity of mass media publicity is maintained at a high level, or is reduced or eliminated at a point when only the more active persons have gained that knowledge" (p.159). Goh (2015) also pointed this out when looking at knowledge gaps and Johansen and Joslyn's (2008) study, highlighted population segments with higher levels of education have stronger ties to prior knowledge and the interpretation and access to the knowledge which is being disseminated. A study by Evers and Gerke (2004) suggests the emphasis should be placed on contextualising the process by which to disseminate information as well as the type of knowledge which is distributed through those means, as knowledge is not evenly distributed.

"Components of the information and communication technology (ICT) infrastructure and institutions of knowledge production and dissemination are, however, unevenly distributed" (Evers & Gerke, 2004, p.4).

With this, they highlight that "global knowledge has to be localized" in order for the knowledge gap to be reduced and thus to encourage greater inclusivity through education (p.3). This again demonstrates the importance of how "mass media" information and in this thesis, information through MOOCs, must not neglect local contexts and needs in order to be inclusive, available and adaptable to various population segments.

4.5 Implementing the Dynamics of Knowledge Gap Theory into the Focus of this Thesis

In implementing this theoretical framework to this thesis, reflections need to be made upon the research question which is being examined, and the dynamics which Knowledge Gap Theory will bring in order to explore this research. As this thesis examines *"MOOCs without borders"* and as its title states, *"the dynamics of a contextualised approach to scalable online learning, inclusion of displaced populations and conditions of poverty"*, it channels the specificity of this into the research question, *"What are the factors that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations?"*. As has been discussed, through MOOCs, knowledge should be accessible to anyone regardless of social status. In this light, it can be a mechanism by which to reduce knowledge gaps and aid the process of alleviating poverty, leading to greater social integration. Knowledge Gap Theory resonates with this, as it looks at the dissemination of mass information or knowledge, and has brought to light the gaps between privileged and underprivileged population segments which still exist regardless of the density of knowledge which is being massively spread. In the sections above, access, adaptability and contextualisation have been components which have been discussed as impacting such gaps in knowledge. Knowledge Gap Theory therefore aids in examining the research question in this thesis, as this research discusses parallel components of the dissemination and access of mass knowledge as well as contextualisation of this for less privileged population segments.

In reflecting upon the dynamics which Knowledge Gap Theory will bring to this research, as stated in Chapter 1, the number of forcibly displaced alone is currently at 79.5 million people many of whom are refugees as defined in this thesis and thus, gaps in knowledge may inhibit them from integrating in to new societies and such gaps must be minimised (UNHCR, 2020b). The nature of this crisis not merely highlights a gap in knowledge, but also a "gap in opportunity" to knowledge (Grandi, 2017). Knowledge Gap Theory therefore, provides a good base for examining what has been examined only briefly in other studies. That is, through further research in this thesis, the focus will be on tackling a very relevant global problem by identifying contextualisation factors which can facilitate greater inclusion through accessible and adaptable knowledge dissemination on a mass scale by MOOCs, for influxes of displaced refugee populations as well as populations living in conditions of poverty.

Research on Knowledge Gap Theory suggests that studies involving this theory often considered the acquisition of knowledge as a means to identify "educational attainment as a measure of SES (socioeconomic status)" (Holbrook, 2002, p.438). This thesis focuses on segments of populations which have been defined as displaced refugees as well as population segments living in conditions of poverty, and consequently are part of low socio-economic status groups. It looks at the factors for contextualisation for MOOCs to bridge gaps in knowledge and educational attainment for these groups. In a study which examined aspects of gaps in knowledge, Ruiz and Holmlund (2017) suggest the dynamics of bridging gaps involves the "procedural aspects" or the "know how" to contextualise and adapt the flow of "information" to disseminate access to knowledge (p.172).

As this thesis examines factors for contextualisation, it relates to the dynamics of "factors" which have been examined using Knowledge Gap Theory. Dobson and Beshai (2013) brought up recommendations for what they say are some important factors which may minimise gaps and access to knowledge. These include, improved "protocol planning and design", "training and competency maintenance" as well as "dissemination, implementation, and policy change" in how information is distributed and consequently how knowledge reaches underprivileged segments of populations (pp.563-564). These may have similarities to the factors which are revealed in Chapter 5, Findings, as they may be pathways to bridge gaps as they enable educators, funding bodies and other stakeholders to recognise, as Downs (2016) states, "what education actually does in the here and now", and to provide underprivileged learners the "opportunities to develop skills, knowledge and experience" which can transgress the boundaries of socio-economic status segments.

Ettema and Kline (1977) have also highlighted the necessity to "specify the conditions" in order to examine the contexts of segments of populations through which the "infusion" of information, and thus, access to knowledge is integrated into social systems (pp.180-181). This suggests that contextualising the type of knowledge and adapting to the appropriate means by which to provide information, will assist in determining if gaps will be widened or narrowed.

Through these dynamics in Knowledge Gap Theory, and the reflection on the focus and research question of this thesis, the settings of Tichenor, Donohue and Olien Knowledge Gap can shed light on the modern day possibilities to reconceptualise the ecosystem of

MOOCs for its learners. Viswanath and Finnegan JR (1996) emphasised that the "acquisition" of information and knowledge which population segments gain is a continual concern for policy makers around the world, and therefore, they are considered as a variable in the context of the dissemination and access to knowledge (p.187). Viswanath and Finnegan JR (1996) also suggest the pivotal role the contexts of various environments and socio-economic status groups play on access to knowledge, and mention that this is an area that does require "further research" as they possess "the conditions under which gaps expand or contract" which impacts inclusivity or exclusivity of population segments (p.187).

4.6 Summary of Chapter 4

This chapter has brought to light Knowledge Gap Theory as the theoretical framework for this thesis. It begins by discussing the ability to use deductive 'gap' reasoning with the grounded inductive methods employed in this thesis. It then goes on to examine Knowledge Gap Theory and access to information, and through this advances to highlight studies which have examined knowledge gaps and disparities in the distribution of information between high and low socio-economic groups of populations. Components of access to knowledge as well as adaptability and contextualisation of knowledge to local conditions, presented parallels of this theory into the sphere of MOOCs. Knowledge Gap Theory was discussed as providing depth to the exploration of this thesis, and examining a growing global concern for minimising gaps through the implementation of accessible knowledge with MOOCs, in a contextualised manner, addressing the needs of millions of displaced learners and

populations living in conditions of poverty. The research question of this thesis was

highlighted in order to narrow the focus of the study specifically to address this concern,

and the dynamics by which to use this theoretical framework. Following on from this,

Chapter 5 will present the findings of this research.

Chapter 5: Findings

5.1 Introduction to Chapter 5

Chapter 5 examines the findings of this thesis gathered through the grounded methodological approach discussed in Chapter 3. It begins by reviewing the research question and the aims of this study, as this provides the basis for data collection and analysis of the findings. The chapter then explores 5 themes which were generated through the grounded data. Each theme provides evidence of data gathered from the discussions with the Participants which was guided by the constant comparison process, through which the formation of the themes emerged, as well as providing their links or "interconnections" to other themes. The key findings of this chapter are summarised towards the end of the chapter and further analysis of these findings are discussed in Chapter 6, Discussion and Analysis.

5.2 Arising Themes and the Research Question

In examining the data collected for this study, it is pertinent to first reflect again upon the aims and the research question, in order to determine the relevance and adequacy of the data collected. The research question is the following:

"What are the factors that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations?"

The initial aim of this research was to identify contextual factors which may have a bearing on the nature of the MOOCs which may be provided for the nations and learning populations which are the focus of this study. The identification of these factors through this initial aim leads to the secondary aim of understanding how these factors link together in order to provide a contextualised approach for MOOCs for nations faced with poverty and the influx of displaced populations. As will be seen, this secondary aim is initially brought to light in each theme below, as a section is presented with evidence found in the data that "interconnects" them to the other themes. Furthermore, this second part of this equation is discussed in greater detail in Chapter 6, through the development of the theory known as the Contextualised MOOCs Model. Through the grounded methodology approach of constant comparison of the data and analysing the interrelationships between categories and codes in the data, the point of theoretical saturation was reached when 5 key themes were identified and no other significant new themes could be developed through the comparative process. The emergence of the 5 core themes from the data related to a commonality in the responses given by the 21 Participants in the interviews. As mentioned, the occurrence of the overlap between themes has proven to be helpful in tackling the second aim, and constructing theory through the Contextualised MOOCs Model presented in Chapter 6, as the overlap has brought to light how the themes "relate to each other" and can be integrated into the constructed theory (Glaser, 1978. p.72).

Theme 1 reflects the variety of stakeholders. The participants expressed the view that identification of the variety and types of stakeholders was necessary for MOOCs within the contexts of the nations and learners examined in this thesis. **Theme 2** discusses the

technological aspects which the participants highlighted as necessary for MOOCs in such contexts. **Theme 3** examines the participants' discussions regarding the dimensions which are required to build content for learners in such contexts. **Theme 4** brings to light the incorporation of languages in MOOCs, as participants discussed what, as well as how, languages can be implemented in these contexts. Finally, **Theme 5** relates to the interplay between elitism, inclusion and awareness which participants discussed as attributes to the development and progression of MOOCs in such contexts.

The description of each theme is supported with a diagram presenting the core aspects of the themes.

5.3 Theme 1 – Varied Stakeholders

Almost all categories of the participants ranging from Vice Presidents to Business Investors, discussed the importance of stakeholders in the development of MOOCs within the context of this thesis, for nations faced with poverty and those with the influx of displaced populations. The theme of Varied Stakeholders arose as the data unfolded through its back and forth Grounded analysis, similarities which pointed to the participants discussing more than one type of stakeholder and thus, highlighting the need for considering the context of MOOCs for the varied stakeholders' relative to the populations examined in this study. It became apparent through the data that the contexts in this thesis differentiates stakeholders as their role encompasses aspects of working towards enhancing social inclusion, and very much working *with* the conditions of underprivileged and displaced populations. That is, the role of these stakeholders is

not merely to develop MOOCs and the courses within them. Rather the stakeholders required in these contexts are as commented by the participants, 'unique', as they are additionally part of legitimising MOOCs and creating sustainability for them in challenging and or unstable environments such as those found in refugee camps. Along with this, they are part of developing the bigger picture of MOOCs and education which can lead to inclusive opportunities for the population segments and contexts focused on through this thesis. These necessary characteristics of a variety of stakeholders reflecting upon the bigger picture, working *with* the conditions of underprivileged and displaced populations and working towards enhancing social inclusion, are parallel to the components of examining a contexts of a population segment and promoting social inclusion through equitable access to information in order to minimise gaps in knowledge, which are held in Knowledge Gap Theory.

The data indicated that Varied Stakeholders includes all or at minimum a combination of the following bodies; governments and local governments, university and other institutions, MOOC platforms, local businesses and other industries as well as Non-Governmental Organisations (NGOs) and "Other Stakeholders". The last set, "Other Stakeholders", was less specifically defined, however this term has been highlighted by several participants as an additional set of stakeholders which are nevertheless important to the contexts discussed. Below, the data indicates the categories of the participants demonstrating the strong unanimity of the need for a variety of stakeholders. In addition to this, the data also reflects on the causal relationships and therefore the links, to the other themes. The following Figure 5.1 "Varied Stakeholders" illustrates the diversity

of stakeholders which the participants have emphasised need consideration in the given

contexts examined in this thesis.

Varied Stakeholders

Governments / Local Governments   Universities / Institutions   MOOC Platforms   Local Businesses / Industries   NGOs   Other Stakeholders
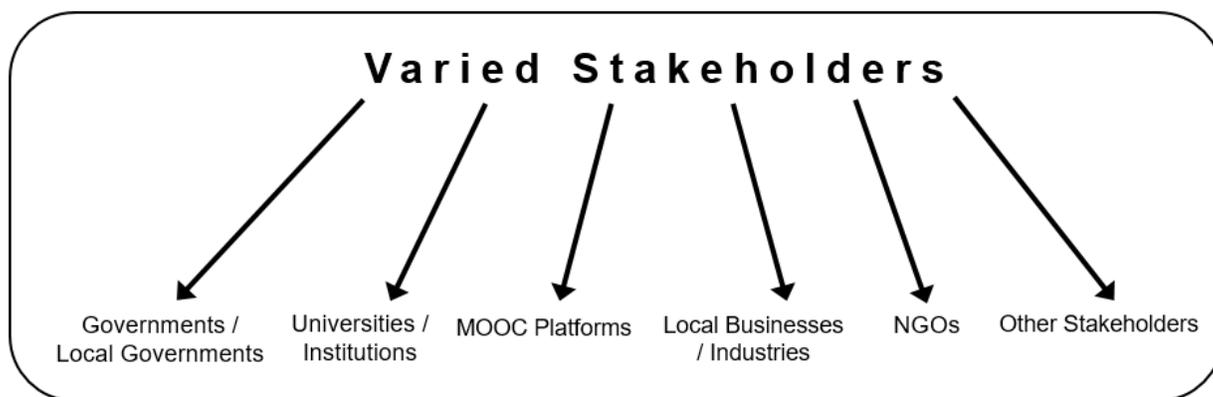
Figure 5.1 Varied Stakeholders

"Governments/Local Governments" stood out as a necessary component of the types of

stakeholders which must be incorporated into the theme of "Varied Stakeholders".

Significance was achieved here as the back and forth grounded analysis brought out the

emphasis which participants repeatedly had on the role of "Governments/Local

Governments" as stakeholders. In discussing local contexts, 2 participants which both

overlap from participant categories of Vice Presidents and Business Investors, indicated

the need for local governments as stakeholders for the context of nations examined in

this study.

Here Participant 2 (Vice President and Business Investor) reveals that although local

governments are involved in other educational provisions, MOOCs may not be similar

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to other educational opportunities which may currently be provided to "poor and needy" populations segments: *"In India the government is to legitimise all of this [MOOCs] so they can reach the poor and needy, so the government should be a stakeholder to aid in the provision of a framework."*. According to Participant 2, as MOOCs are a newer "mechanism" of education to such population segments, local governments and other stakeholders are indicated to be part of the parcel towards establishing a "framework" for MOOCs:

> *"... this is not to say the government is not involved in other forms of education for the poor, but in this instance [with MOOCs] it is needed to legitimise this new mechanism [MOOCs education] for them [the poor and needy]. But this again has to be with other stakeholders".*

A framework is what this thesis establishes through the Contextualised MOOCs Model in Chapter 6. In addition, the necessity to "reach" underprivileged populations segments, is also evidence of working towards minimising gaps in knowledge through scalable tools, as found in Knowledge Gap Theory.

The second participant expressing a strong need for the inclusion of governments as stakeholders, is Participant 9 (Vice President, Business Investor and Professor). Here Participant 9, also indicates similar sentiments to what was stated by Participant 2, that "diversity" or involvement with multiple key stakeholders is a critical or "critically important" factor when focusing on the development of MOOCs in the contexts which are examined in this thesis: *"The diversity of stakeholders to meet the context of the nations is critically important. Focusing on governments and other existing educational*

providers ...they would be the central stakeholders to focus on.". Participant 9 is also from the participant category of "Professors", which may be an indicative reason for considering as stated, "existing educational providers", also as stakeholders.

The inclusion of governments/local governments, as an important source of funding, was emphasised by 3 participants which overlapped in the participant categories of Professors, and Involvement in the Learning Designers and Researchers Teams. Participant 20 (Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) brought to the discussion the view that governments and their funding as stakeholders may actually influence the context of MOOCs for the nations and populations focused on in this study: *"If governments form things together to actually develop it [MOOCs], it resonates more strongly with me.". "If it's government funded, you're at a different level in the system, earlier in the system to be able to say ok this is how we actually influence."*. It was emphasised that the funding of governments may be able to lead to greater levels of sustainability and access for MOOCs and their learners: *"I think it's more sustainable and for access as long as they do it properly."*. "Access", which is part of Theme 2 Accessible Technology, is highlighted here suggesting that governments as stakeholder, which are an important source of funding, can also address the need of accessibility of the MOOCs in examined in the contexts of this thesis. This again also reflective of the principles of access to knowledge as a means to minimise gaps, found in Knowledge Gap Theory.

Participants 12 and 6 have similar views as they stated that governments' involvement as stakeholders is also necessary due to the funding requirements of MOOCs in such nations. Participant 12 (Involvement in the Learning Designers and Researchers Teams

and Business Investor), echoed similarities of "influence", mentioned by Participant 20, as Participant 12 express the correlation between government as a stakeholder, funding and social impact: *"The government as a stakeholder is important for funding and social impact. Some others [other organisations] may see the value but it may not be a priority for them."*. The perspective of "social impact" may also be stemming from the category of "Business Investor: which is related to Participant 12. Participant 6 (Professor, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) more specifically suggested local governments as stakeholders due to the "resources" required for the contexts of MOOCs focused on in this study: *"Having the local government as a stakeholder is because a lot of it has to do with resources. In the US [United States], the government is not a stakeholder at all because for that context and those learners, it does not need to be."*. The comment by Participant 6 also depicts the differentiation in contexts for MOOCs and stakeholders for the nations focused on through this thesis verses nations such as the United States.

The differentiation in the need for diversity for stakeholders required due to the contexts of their nations was further highlighted by Participant 10 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams):

"Sometimes a faculty member gets excited and wants to create a MOOC; sometimes a department head gets excited and wants to create a MOOC; and sometimes it's the university president who gets excited and wants to create a MOOC. In countries such as the US [United States] and non-developing

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countries, these things come about differently, as the views of such stakeholders

are different and the types of key stakeholders themselves are different.".

Both Participant 6 and 10 overlapped in the participant categories of Professors and Involvement in the Learning Designers and Researchers Teams. However, Participant 10 went on to express that given the contexts of underprivileged people in the "developing world" as well as for populations living in refugee camps, identifying and involving varied stakeholders as indicated in Figure 5.1, is important in order for MOOCs to attain a level of sustainability in such contexts:

"*But to build a MOOC sustainability for the use of learners in Chennai [India], there needs to be the expertise of and collaboration of their governments and business and not just a [university] faculty who is excited. Especially for catering for people in poverty in the developing world and refugee camps.*".

Differentiation in the contexts of MOOCs and the stakeholders required due to this differentiation, continued to be a strong discussion point for 5 more participants with the additional focus on NGOs as a component of the larger theme of Varied Stakeholders. These 5 participants overlapped in the participant categories of MOOC Developers, Professors, and Involvement in the Learning Designers and Researchers Teams. Participant 8 (MOOC Developer, Involvement in the Learning Designers and Researchers Teams, and Business Investor), highlighted that, when looking at Jordan and other nations dealing with the influx of refugees and displacement, in addition to government, a combination of other stakeholders which includes NGOs are important:

"In Jordan and countries with similar concerns [with MOOCs and education] there should absolutely be different types of stakeholders, platforms, NGOs, etc. They [stakeholders] should be there to serve the learners, so really investing in the right stakeholders is very important.". Here Participant 8 also stressed "platforms", suggesting MOOC platforms as part of the variety of stakeholders required in order to cater to the refugee and underprivileged populations segments in these contexts. Additionally, suggesting a variety of stakeholder should "serve the learners" and investing in right stakeholder being "very important", indicates the impact 'Varied Stakeholders' has on all other components which can build the framework for MOOCs as seen in the Contextualised MOOCs Model presented in Chapter 6.

The involvement of NGOs was further discussed as participants continued to stress their importance as well as what appears as a uniqueness in the necessity for their engagement as one of the stakeholders of MOOCs. Inclusion of a range of stakeholders such as NGOs is also indicative of their awareness of local contexts and therefore, contextualising knowledge and minimising gaps, as seen through Knowledge Gap Theory. *"NGOs are an important stakeholder"* as stated by Participant 15 (MOOC Developer, Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams). As can be seen, Participants 11, 13 and 17 highlighted how NGOs as stakeholders are also part of the differentiation and thus uniqueness between the types of MOOCs which are developed for different nations and contexts. Participant 11 (Professor, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams), brought forth specific NGOs such as the Red Cross and the Red Crescent: *"Other set of stakeholders dealing with refugees and displaced,*

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poverty conditions for learning are the international agencies, the international red crosses, red crescents, and other international NGO's which is differentiated from the context of stakeholders from the US [United States] for example.". Participant 11 went on to state that the involvement of such NGOs in the development of MOOCs is vital for the contexts of refugees, as they work towards sustainable educational options for them:

> "*They [NGOs] are very active in trying to create educational opportunities for refugees which are sustainable. We have worked with them and they have come to us as well to assess the cost and benefits of providing educational opportunities to refuges in Lebanon. It is often overlooked that these agencies are heavily invested and involved as educational stakeholders for people [learners] in these contexts.".*

Participant 13 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams), stressed a similar differentiation in contexts and the need for NGOs as stakeholders by stating: *"A lot of non-governmental organisations need to be stakeholders and are in many instances stakeholders, and this is often part of the differentiation of stakeholders from richer nations.".* Similar to Participant 11, Participant 13 also went on to suggest an understating which NGOs may have for refugees in the contexts examined in this thesis as it was stated that these agencies would be more aware of "the lifestyle of the refugees":

"These non-governmental stakeholders are also essential as they are very passionate and are often involved in the lifestyle of the refugees. For example, they meet the refugees more often, are aware of their needs, they get involved with them with housing and living situations, so they know more deeply what kinds of access to technology they have. They do a lot of that stuff.".

Here in addition to linking to the principle found in Knowledge Gap Theory of 'awareness' of contexts in order to minimise gaps, Participant 13 also linked to Theme 2 of Accessible Technology, through emphasising NGOs would be more aware of the types of technology which are accessible to refugees. Participant 17 (Professor, and Involvement in the Learning Designers and Researchers Teams) also pointed to contexts or more specifically "political contexts" and the opportunities for refugees which may be catered to by NGOs: *"From the first point it comes from the political context ...so NGOs absolutely should be stakeholders, because it's tricky you have to look at the opportunities for them [refugees] and where they are going to end up.".*

Looking at the bigger picture and therefore widening the types of stakeholders, continues to be a standout focus with participants. It appears in order for MOOCs to be contextualised to the contexts examined in this thesis, a variety or "varied stakeholders" indicated in Figure 5.1, are necessary. According to Participant 21 (MOOC Developer, and Involvement in the Learning Designers and Researchers Teams): *"With stakeholders [for these nations], you're building a picture of something where there has to be multiple things and parties involved which have to reach a threshold for it to be successful [for underprivileged and displaced populations].".* This points towards this

bigger picture for inclusion of underprivileged and displaced populations, which is also a standout feature of Knowledge Gap Theory.

Carrying on this notion of widening stakeholders to include more than just governments can be seen clearly with Participants 7 and 14. These participants overlap in 1 participant category, Involvement in the Learning Designers and Researchers Teams. They discussed MOOCs platforms, along with universities and other local businesses and investors, as playing the roles in the development of MOOCs for the contexts examined within this thesis. Participant 7 (Involvement in the Learning Designers and Researchers Teams, and Business Investor), highlighted MOOC platforms, and other stakeholders such as newspapers: *"In my opinion, the key stakeholders for MOOC should also be Technology/Platform providers: Coursera, edX, etc.; Producers: Champion teachers/instructors, textbook authors, OER contributors, and other media creators such as newspapers, TV/movie producers and; Consumers: Learners, students."*. The origins of Knowledge Gap Theory, echoed the sentiments of a platforms such as newspapers and other media by which to address gaps in knowledge. Participant 14 (MOOC Developer, and Involvement in the Learning Designers and Researchers Teams) brought the role of "industry" and universities as stakeholders into the 'bigger picture':

> *"Government as one of the driving, main, stakeholders, does make sense but I think governments mostly think of education as education, so they want to deliver some kind of education to people. So I think, industry and universities are also equally important in defining skills you want to teach in these MOOCs."*

Here the "defining skills" and thus contextualising what "to teach" is a component linked to Theme 3 Identifiable Content Dimensions. Participant 16 (Professor, and Director of Finance and/or Research) had similar views to include industry or "businesses" as a stakeholder, but more so from the perspective as a source of revenue generation for MOOCs in these contexts: *"So the company [businesses] as a stakeholder, the platform as a stakeholder, are important because revenue is important and it can become limiting for academics and course developers."*.

Through back and forth analysis, it was found local conditions and the need for varied stakeholders was continually emphasised by participants. In addition to the variety of stakeholders which have been revealed above, several participants also addressed the need for varied stakeholders specifically due to the context of the nations and the conditions of their underprivileged or refugee population segments for which MOOCs may be developed. That is, comments notably highlight contextualisation is essential when including stakeholders in order to work with the given conditions such as the "realities" of "rural villages" as stated by Participant 11 (Professor, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams); the "complexity" of refugee conditions and camps as stated by Participant 20 (Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams); and in order to meet the "different" and "localised" needs of such contexts as stated by Participant 10 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams). These 3 participants overlap in 2 participant categories, namely, Professors, and Involvement in the Learning Designers and Researchers Teams. They still nevertheless share similar strong views of the need to

reflect on the context or the local conditions of the learners and the inclusion of varied stakeholders which can cater to those conditions.   In mentioning the "realities of a refugee camp, or a rural village" Participant 11 brings to light the lack of contextualisation in the development of MOOCs, as this has largely been in the hands of elite institutions: *"Part of the problem is the vast majority of people who have been developing MOOCs to date have been people working in elite institutions who have no ideas of the realities of a refugee camp, or a rural village in for instance India or Tanzania."*. To counter this concern, a key means is again reflected onto the need for a variety of stakeholders who are aware of the contexts for refugees and populations segments living in rural locations, and therefore have an understanding of what may be required from a policy perspective and can look at the bigger picture for MOOCs in such contexts: "*To have stakeholders who have these contexts of these conditions and these learners is crucial. They also have the policy perspective and the bigger picture of such nations."*. These views of incorporating a variety of stakeholder as a core means by which to contextualise MOOCs for refugees in camps, was similarly echoed by Participant 20 when stressing the "structural problems" in such contexts and the need to have a "multi-stakeholder perspective" with "stakeholders on the ground":

"Look at and frame the initial contexts. You need to take a multi-stakeholder perspective, why are they doing it, is it a humanitarian cause. The complexity is enormous for them [refugees]. It's not anymore just the single culture of a particular country where these camps are. There are massive even structural problems which need to be tackled, so stakeholders on the ground need to be incorporated.".

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Strikingly similar sentiments were also stated by Participant 10:

"Most external stakeholders, a) don't really have an idea of the needs of the people [learners] in India or Tanzania or Malaysia, and b) those groups are so different in context from countries like the US [United States]. Stakeholders need to be heavily localised and diverse in that context in order to have a good understanding of how they are different and their needs.".

2 participants, Participants 18 and 19, who share the participant categories of MOOC Developers, and Involvement in the Learning Designers and Researchers Teams, discussed the potential difficultly of stakeholders being limited by gravitating towards their own networks, therefore not necessarily involving a diverse enough set of people or organisations which are needed. Participant 18 (MOOC Developer, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) began addressing this by raising the need for a range of stakeholders and the purpose of MOOCs for such contexts:

"Stakeholders is obviously a huge one. It's all the way from people taking the course to the institutions, organisations and governments, and it costs a lot of money to create MOOCs, and if you are doing it to make money that's one thing. Or are you doing it to do research or for these people [those in poverty or displaced]. So again it comes down to that purpose part of it too when you have your stakeholders and it's hard, because it's a matter of convenience.".

It was then stated that to enable "worldwide equity" of these MOOCs, it a matter of identifying "who can we work with" rather than staying within set "networks": *"People stay within their networks and really it's who we can work with to get the MOOC online to these learners, especially for purposes of worldwide equity.".* Participant 19 (MOOC Developer, Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) shared a similar view restricted networks when it comes to stakeholders in the development of MOOCs for the contexts examined in this thesis: *"It isn't a good thing if the same voices are being heard when it comes to selecting and designing MOOCs and the same target audiences are being thought of, then that isn't a good thing.".* It was then suggested that in order to break this and contextualise MOOCs, organisations such as the United Nations and NGOs could partner with MOOC platforms and other institutions: *"You know, do we need to get the UN [United Nations] to become a partner with a MOOC platform. Can some of the other institutions partner with the UN or other NGOs, I think that would work for everyone.".*

The data went on to reveal that diversity of stakeholders in such contexts is required as it also can or needs to be linked to the provision of MOOCs as part of a social obligation towards underprivileged and displaced learners, as well as again generating the provisions for inclusivity with such MOOCs. This was revealed in the likeness of views with 4 participants. There was some overlap here in with the participant categories of Professors, and Involvement in the Learning Designers and Researchers Teams. Participant 2 (Vice President and Business Investor) suggests this by discussing the lack of sustainability of MOOCs in such contexts if they are "just looked at as a business":

"Now in MOOCs, it's a matter of extension; its providing an obligation to society in a new way. If it's just looked at as a business, MOOCs will not be sustainable. In these countries [developing countries and countries with displaced populations], stakeholders need to look at it [MOOCs]as part of a social obligation for it [MOOCs] to have longevity or sustainability there [in developing countries and countries with displaced populations].".

The concept of social obligation as expressed by Participant 2, is also an indication towards the link of varied stakeholders to components held in Theme 5 Elitism, Inclusion and Awareness. As catering towards inclusion, raising awareness and thus eliminating elitism, are some of the components for sustainable and accessible MOOCs for such contexts and populations. It can be seen that Participant 4 (Professor and Faculty Head) comments on this, as part of a "mission", for reaching such populations segments: *"Public or national universities need to see it as part of their mission in reaching more people, because nobody is telling what the structure is for these people.".* Participant 5 (Professors, Involvement in the Learning Designers and Researchers Teams) in a like manner linked stakeholders to Theme 5 Theme 5 Elitism, Inclusion and Awareness by suggesting this approach with stakeholders as a "vison" "for inclusion": *"The government needs a vision for these people. It's a development for the public education function of the government for inclusion this way.".* Participant 13 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams) also reinforced this when commenting that stakeholders are "part of the process" for social integration through increasing inclusion and awareness: *"Non-governmental organisations as stakeholder will be part of the process of increasing inclusion and*

awareness of MOOCs to refugees and learners living in poverty which are at risk of

lacking in social integration".

5.3.1 Varied Stakeholders and Interconnections to Other Themes

The data has brought out 2 prominent points which links to and highlights the causal relationship of Theme 1 Varied Stakeholders, to all the other themes presented in the subsequent sections below and as reflected through the Contextualised MOOCs Model discussed in Chapter 6 Discussion and Analysis. These points are, firstly, a variety of stakeholders are required and secondly, the range of stakeholders enables an understanding of local contexts. The stakeholders ranging from "Governments/Local Governments through to what has been defined as 'Other Stakeholders", are not merely a preference, but more so a necessity in order to develop, deploy and facilitate contextualised MOOCs for the nations and population segments focused on in this thesis. The data indicated 'varied stakeholders' play an integral role in making MOOCs more inclusive, accessible and provide an overview of the 'bigger picture' for such contexts. As seen in the data from this theme and will also be seen in the data of the subsequent themes below, understanding of the "bigger picture' impacts the access to the technology in which the MOOCs are developed, facilitating for the languages in which they are developed which correlates to the needs and contexts of refugees and populations living in conditions of poverty, understanding the contexts which can thus provide relevance in the types of courses provided for them, and consequently all these are part of supporting inclusion, minimising elitism and generating awareness and

access to knowledge. These interconnected causal relationships are initiated and stem from the requirement for 'varied stakeholders', and is further reflected in the themes of "Accessible Technology", "Identifiable Content Dimensions", "Language Barriers" and, Elitism, Inclusion and Awareness".

5.4 Theme 2 – Accessible Technology

Theme 2 examines the technological considerations for the development of MOOCs within the contexts investigated through this thesis. As the medium of development and delivery of MOOCs is online, the data revealed that all participants discussed its technological use and development in their interviews. The data indicated participants highlighting this as another core aspect which cannot be neglected when discussing MOOCs. As this was stressed in the data, categories began to emerge pertaining to areas in which participants discussed different aspects of how technology can be, or should be, accessible for learners in the context examined in this study. Hence, through such data the theme of Accessible Technology emerged.

The emergence of Accessible Technology as a theme, displays the necessity for technology to reach underprivileged segments of societies, as participants stressed fundamental components which lead to technology becoming accessible to such population segments. These components include infrastructural aspects of bandwidth, the development and use for MOOCs through mobile phones, and how these components interplay with the learning design for MOOCs for the nations and

populations focused on in this study. This can be seen in Figure 5.2 and is elaborated

on through the data which follows.
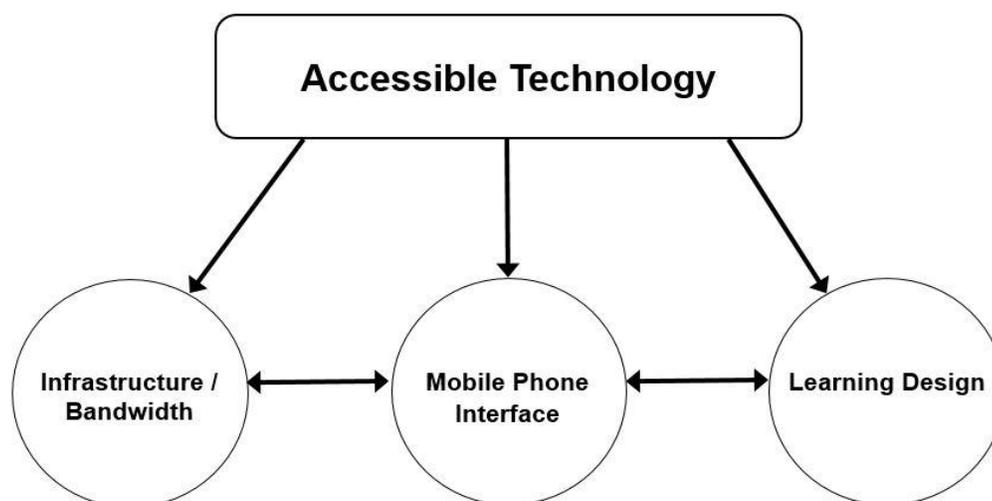
Figure 5.2 Accessible Technology

The data will also demonstrate that participants spoke of the connection between

accessible technology and the theme involving stakeholders noted above, as well as

inclusion which is discussed further in sections below, this again validates the links and

causal relationships between the themes and thus establishes grounds for the generation

of theory displayed through the Contextualised MOOCs Model as seen in Chapter 6

Discussion and Analysis.

In discussing access to technology, 4 participants linked this to Theme 1 Varied

Stakeholders, by discussing the impact of the choice stakeholders make for the provision

of MOOCs. There was an overlap with 2 of the participants here in the participant

categories of Professors, and Involvement in the Learning Designers and Researchers

Teams. In reflecting on access to technology and stakeholders' role, Participant 14 (MOOC Developer, and Involvement in the Learning Designers and Researchers Teams) clearly stated: "*Technology also comes from the top*". The comments of Participant 2 (Vice President and Business Investor) also indicate stakeholders and the reach of technology to "the unreached people" are linked together:

"any new technology which [comes out] and we bring out, you have to think of how to reach. It's very difficult for it to be projected as handling a lot of problems that are related to the unreached people in India. So, this again comes to the infrastructure and stakeholders for that.".

Here, reaching "unreached people" is also reflective of components in Theme 5, Elitism, Inclusion and Awareness. Participant 4 (Professor and Faculty Head) shows this in addition to emphasising this being more prominent for the contexts of the nations and population segments examined in this thesis, when stating:

"The thing about technology, is once you enter that world, it will never be stable. Once you have that, you need to have a culture of innovation [for the development of infrastructure] – you have to have a different sociology and the people [stakeholders] to build and support that... and that is even more so for these countries [nations faced with underprivileged and displaced populations]".

It can be seen that Participant 11 (Professor, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) also linked technology access to stakeholders through highlighting the contexts of India and "bandwidth

availability" for their underprivileged population segments, when highlighting: *"with internet bandwidth, you don't know bandwidth availability [for underprivileged people]. So if the government [in India] wants to say they are the stakeholders, yes, they definitely are and need to be.".* The statements above by Participants 14, 2, 4 and 11 all point to the capacity of MOOCs for the contexts examined in this thesis, to become inclusive through minimising inequitable access to knowledge., a component which is at the core of Knowledge Gap Theory.

Other participants began by discussing the need for, and challenges relating to, technology to reach the underprivileged segments of societies. 3 participants consider this whilst demonstrating the causal relationship of accessible technology to the components held in the theme of Elitism, Inclusion and Awareness, when highlighting contextualising elements such as the availability of the technology, the ability to reach the population and concerns related to awareness. The 3 participants overlap in the participant categories of Professors and Involvement in the Learning Designers and Researchers Teams. Participant 20 (Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) brings about contextualisation in this matter by simply asking if the "right" infrastructure is available for these population segments: *"need to ask, do they have the right technical infrastructure, is that available"*. Similar to Participant 20, Participant 9 (Vice President, Professor, and Business Investor) reinforces the access to technology as a "critical dimension" to consider when it comes to reaching underprivileged population segments: *"There is a difference of who gets access to what, and as we are going to rely on technology, it has to be critical to think about who has access to the technology. This has to be a critical*

dimension.". Participant 10 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams) highlights this challenge of reach and inclusivity and the need to contextualise, through commenting on awareness of restrictions which may be part of the landscape of some nations:

> *"Well, for example of non-contextualising with the tech needs – for MOOC platforms, most of their videos are on YouTube, and in China, it's really hard to get YouTube. So it's things such as identifying and adapting the technology to the contexts of learners for something as simple as video content on an accessible platform for the learners. This adds restrictions and leads to exclusion rather than inclusion.".*

Through the comments here, the design elements of MOOCs for contexts examined in this thesis is also brought to light. As suggested, there is a causal relationship between adapting to the available technology of the contexts and learning design components such as the use of videos. This relationship also links to the components held in Theme 3 Identifiable Content Dimensions as it requires to reflection on the 'intended learners' when designing such MOOCs. In essence, the comments of these 3 participants demonstrate that indeed when reflecting on technology, there are contextual challenges which must be addressed if MOOCs are to reach the populations segments examined in this thesis.

Comments from the participants also strongly indicate that there is a correlation between components such as bandwidth, and the learning design of MOOCs for the given contexts examined in this thesis. Bandwidth and learning design specifically with the

use of videos was brought up several times here by 3 participants. These participants overlap in the participant category of MOOC Developers and Involvement in the Learning Designers and Researchers Teams, Business Investors. Participant 1 (MOOC Developer, Professor, and Business Investors) highlighted the differentiation in contexts "for countries such as India" in terms of learning design when considering online videos and the architecture of "low bandwidth scenarios" in villages: *"So we can't talk about online videos and so on. We need an architecture which is very, very different, because how do you reach the villagers and so on. Low bandwidth scenarios are something for what we need for countries like India."*. In a similar manner, Participant 12 (Involvement in the Learning Designers and Researchers Teams, and Business Investor) stressed that MOOCs may not be successful if they are not developed using the "right technology at scale" which can accommodate learning design aspects such as videos:

"The technology is important and I think that's [the] key, if it's [MOOCs] not done with the right technology then it's [MOOCs] not successful. Using and designing with the right technology, will be part of how and why this can become successful, because it's the right technology at scale, to provide quality, videos, output, stream etc.".

It can be seen that Participant 18 (MOOC Developer, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) also illustrates the role which contexts plays on the development and design of MOOCs which are intended for "rural places", in order for the learners in these locations to view course content:

"In rural places you absolutely have to think about bandwidth and technology, you absolutely have to think about it for them [underprivileged and displaced populations]. The ways of how to get it [MOOCs] out into the community. You [developers] have to think about technology like bandwidth for videos and things, otherwise your learners can't watch it.".

Whilst discussing bandwidth and learning design with the use of videos, 2 participants highlighted the ability to download content presented in such a manner to be viewed offline. Here the participants overlapped in 1 participant category of Involvement in the Learning Designers and Researchers Teams. Participant 6 (Professor, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) discussed this in terms of the accessibility of "MOOC content": *"There is no question that in places where the technology is not good, it becomes very difficult for an individual learner to access MOOC content.".* Participant 6, then related this to bandwidth and downloadable content needed for such contexts:

"*As much as we can, we try to make sure the technology we use you can have a low bandwidth and still access it. We try and make sure all our videos can be downloaded and can be watched offline. We have PPT slides [PowerPoint slides] and those can be downloaded.".*

Participant 8 (MOOC Developer, Involvement in the Learning Designers and Researchers Teams, and Business Investor) echoed such concerns related to low bandwidth by reflecting on "connectivity issues" and downloadable content and added

"mobile use' as well: *"Especially when looking at areas with connectivity issues, mobile use and applications is very important, because that will allow students to download everything and then go and watch everything offline where connectivity may be otherwise difficult.".*

In discussing contextualising MOOCs whist reflecting on downloadable content, Participant 10 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams) presented suggestions of not using videos as part of the learning design process:

"Making content downloadable is another area of tech infrastructure and inclusion which needs to be considered more closely, in developing MOOCs in developing nations and for refugees, and making content which doesn't require videos. This also includes making things available for people who are vision impaired, hearing impaired and have undergone trauma, people who don't have enough bandwidth, people who don't have access to YouTube.".

Participant 10 goes on to suggest stakeholders as the key to inclusion through design:

"This also goes back to stakeholders because all these things for inclusion and contextualising for tech infrastructure poses additional costs, and MOOCs are already expensive to make. This needs to be at a platform level for the provider and that can be designed and catered to and cost effective to make and more sustainable, rather than the set up as individual courses this way.".

Here inclusion, linked to Theme 5 Elitism, Inclusion and Awareness, was highlighted as well as how the development of content and hence the design of MOOCs, leads back to the finances and types of stakeholders involved, which is linked to Varied Stakeholders, Theme 1.

The use of mobile phones as the mechanism to engage with MOOCs was strongly suggested by 6 participants. In discussing this, there was an overlap in the participant categories of MOOC Developers, Professors, Involvement in the Learning Designers and Researchers Teams, and Business Investors. As Participant 15 (MOOC Developer and Professor) said: "*mobile phones are the heart of all of this*", Participant 7 (Involvement in the Learning Designers and Researchers Teams, and Business Investor) said a similar comment: "*mobile phone device is the dominant device used to access the Internet for such people*". Other participants also echoed similar strong sentiments as Participant 15 and Participant 7, when they discussed the importance of developing MOOCs for mobile phones. For instance, Participant 9 (Vice President, Professor, and Business Investor) did this when pointing to mobiles as "The Device" for the nations and population segments focused on in this thesis: *"This is certainly very important, these MOOCs have to be useable on a mobile phone of these nations and contexts, because for many learners in such contexts that is 'The Device'."*. Whilst Participant 3 (Professor, and Involvement in the Learning Designers and Researchers Teams) and Participant 5 (Professor, and Involvement in the Learning Designers and Researchers Teams) respectively stress the prevalence of mobile phones in "villages" and the development of MOOCs has to cater for "access on mobiles". Participant 3 stressed this when reflecting on the contexts of India and the accessibility of technology there for the

population segments examined in this thesis: *"Everybody in the villages now use mobile phones, right. So for technological accessibility, phones come in very handy. If access is given with mobiles, you don't have to create special classrooms [in India]. There doesn't have to be a third party operator for the classrooms etc.".* Participant 5 stressed the importance of access through mobile phones with reflecting on learning design elements such as webcams: *"I mean the tools for developing something inexpensively are there, even through webcams etc., but they have to be for access on mobiles".* Participant 8 (MOOC Developer, Involvement in the Learning Designers and Researchers Teams, and Business Investor) similar to Participant 3 who reflected on mobile phones and India, illustrates the differentiation in the context of Jordan where refugees are more likely to have mobile phones as a means of engagement with MOOCs, rather than using laptops: *"Mobile penetration is very important because it's not only connectivity, we have to look at with technology, it's also usability. In this region [Jordan], people [refugees] might have two mobile phones but not a laptop.".*

Although participants suggested that mobile phones are important for inclusion and access to MOOCs, 2 participants brought up the concerns for developing MOOCs for mobile phones. These participants overlapped in the participant categories of Professors, Faculty Heads, Involvement in the Learning Designers and Researchers Teams. Participant 19 (MOOC Developer, Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) highlighted this concern when looking at the usability of a MOOC app for these contexts: *"I think that the development and use for mobile phones is important but also is a huge issue. Some platforms have an App but when I looked at them they are fairly limited in terms of what you [learners]*

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could do with it.". Participant 20 (Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) took a comparable approach to Participant 19 when discussing the hardware and software requirements: *"See you've got the hardware requirements as well so what's required and then the software it's mobile devices, everyone has a mobile devise then it should be available on mobile device. But it's not easy, there must be ways around that.".* The concerns expressing both for the use of mobile phones and the trepidations of providing the appropriate mechanisms for MOOC to operate on mobile phones for the populations focused on in this thesis, is again a component held with in Knowledge Gap Theory, which echoes the significance of minimising gaps in knowledge through the spread of knowledge via a means, or in the contexts focused on here on a device, which is widely utilised.

The importance and challenges of developing MOOCs for mobile phones had correlations to the discussion on bandwidth and learning design. Participants recognised the need for developing MOOCs for mobiles in the context of how it would impact on learning design. This need and challenge in designing for mobiles is also attributed to the differentiation in the environments faced by the nations and population segments which are focused on in this thesis. This can be seen in the comments made by 4 participants. These participants overlapped in the participant categories of Professors, MOOC Developers, and Involvement in the Learning Designers and Researchers Teams. Participant 17 (Professor, and Involvement in the Learning Designers and Researchers Teams) suggested that there is a difference in *"design principles"* when using mobile phones for access in *"developing countries or camps"* and *"developed countries"*:

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"It's one thing when you are supporting them in developing countries or camps and another thing when you support them in developed countries. Mobiles can give access to these communities [developing countries or camps]. But the phones need to be used with the design principles to be linked to these communities.".

Participant 16 (Professor, and Director of Finance and/or Research) raised similar sentiments to Participant 17, by indicating a wider use of mobile phones in "developing counties" and design requirement for this.: *"We find more mobiles [used], for instance, in developing nations, than in the US [United States]. Are we developing then enough 'mobile first'? A lot of designers for the courses use the term 'mobile first' but they don't really develop around mobile first technology.".* Participant 16 went on to say this is also necessary for such contexts and population segments in order to make courses "more available": "*We need to think about it specifically because of these populations. Courses can be more available because of that.".* Participant 13 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams) suggested the possibility of increasing levels of sustainability of MOOCs if they are designed for mobile use as refugees are often moving and in a state of flux: *"Mobiles and designing for mobiles is important because these people, the refugees, are often in a state of flux, they are moving and have to leave things behind if they have them".* Here Participant 13 pointed to sustainability and inclusion or "reach" when going on to say that mobiles are what refugees have: *"But they have their mobiles, and that is how MOOCs can reach them with greater levels of sustainability.".*

Participant 14 (MOOC Developer, and Involvement in the Learning Designers and Researchers Teams) also discussed the design while reflecting on the use of videos and if they are developed for viewing on mobile phones. Participant 14 looked at this learning design element through commenting on the "quality of videos" designed for mobile devices and therefore the ability to "see it":

"In terms of videos, ok it should be like 6 to 10 minute videos and so on. That part should be fine but I just don't know if they [the designers] pay enough attention to the quality of the videos that you load to mobile devices, because you don't expect them to be the same quality [as with non-mobile phone devices] - and you know to download how many megabytes just to see it.".

5.4.1 Accessible Technology and Interconnections to Other Themes

The data found in the theme of Accessible Technology, has demonstrated the links and causal relationships between several other themes which are discussed and presented in the Contextualised MOOCs Model, seen in Chapter 6, Discussion and Analysis. There was a consistent reflection to the components held in the theme of Elitism, Inclusion and Awareness, as providing 'accessible technology' through examining available "infrastructure/bandwidth", "mobile phone interface" and "learning design" are the mechanisms to enable inclusivity, generate awareness and therefore minimise elitism. Designing in an inclusive manner for the given contexts, also as seen in the data, links to having an awareness of the 'intended learners' and thus depicts the causal relationship to the theme of Identifiable Content Dimensions. In addition to these, the data indicate

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there was a dominant link to the theme of Varied Stakeholders, which as discussed in Section 5.3, has an overarching impact upon all the subsequent themes in the Contextualised MOOCs Model.

5.5 Theme 3 – Identifiable Content Dimensions

Theme 3, Identifiable Content Dimensions, arose through the data with the repeated occurrence in the discussions that related to the development of the content of MOOCs for the types of populations and learners examined in this study. The data revealed that in the interviews the participants highlighted that content dimensions related more specifically to identifying the following areas (i) who the intended learners are as identified by stakeholders who are designing courses for them, (ii) through identifying who those intended learners are then finding the type of MOOCs which would be suited to their needs, including those related to the development of skills or skills based MOOCs (iii) based on (i) and (ii), it was discussed that this then enables the varied stakeholders to further identify what the indented outcomes for such MOOCs and learners should be. Figure 5.3 "Identifiable Content Dimensions" depicts these 3 components and the connectivity within them which the participants emphasised under the theme of Identifiable Content Dimensions.
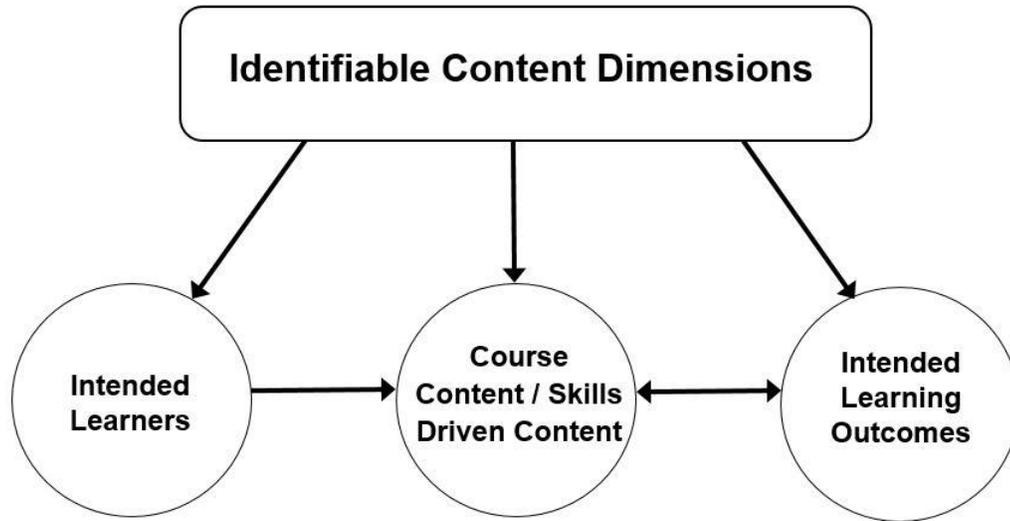
Figure 5.3 Identifiable Content Dimensions

In discussing the identification of the intended learners, 4 participants presented strong resemblances in their discussions. These participants had overlaps in the participant categories of MOOC Developers, Professors, Faculty Heads, and Involvement in the Learning Designers and Researchers Teams. Participant 10 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams) highlighted minimal consideration was being given to developing nations when trying to identify their "target audience" or intended learners: *I think people in general are excited about reaching out to the world, but I don't think necessarily, for most MOOCs in America for instance, sometimes they have a target audience, but I think largely the target audience and the thought to the developing world is relatively minimal.".* Participant 4 (Professor, and Faculty Head) discussed parallel concerns of identifying the intended learners as Participant 10, however Participant 4 added the perspective of

demand as well as the type of knowledge these learners may require and as such, to identify what they are "asking" for: *"You need to look at who the learners are because MOOCs and those courses have to be almost demand driven. You have to watch what it is they [these learners and nations] are asking and what knowledge do they need in these areas."*. Participant 11 (Professor, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) and Participant 15 (MOOC Developer, Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) also suggested identifying the intended learners and providing more targeted MOOCs for the contexts of such nations. Participant 11 depicted the differentiation in the contexts for MOOCs which should be developed for the nations and population segments focused on in this thesis, by commenting on the need to target such learners and thus their needs according to their environments rather than "the usual". That is, providing courses for these types of population segments which have been develop for "people from different contexts":

"For them, targeted MOOCs are much better. If it is not done this way without examining the content, intended outcomes and context, then that is just really marketing that's not really education, it's just the numbers. If you actually want to teach people [underprivileged and displaced people] and integrate these ones [these learners], you should target and aim for [these] learners with their needs and contexts".

Participant 11 went on to indicate that non-contextualised courses, without identifying and catering for the intended learners, will unlikely be successful for the contexts of the population segments in the nations focused on in this thesis:

"Here you will get the most success as opposed to the usual trying to get thousands of people from different contexts of many different levels of education and experiences involved in one single course, which will likely not be suitable for them [the nations and populations segments focused on in this thesis].".

Participant 15 shared some related concerns as Participant 11, when stating: *"Context and the types of learners are key."*. Participant 15 further elaborated by bringing to light the importance of both targeting learners and their context when designing courses: "*You can't talk about this issue if you don't address context, and that's where learning design is so critical, because if it's not being designed for those contexts and those people, it's not just infrastructure issues."*. Here it can be seen that Participant 15 points this out as being more than just technical "infrastructural issues", as this is also clearly related to identifying the "types of learners" which the MOOCs are being developed for. The comments of the 4 participants above demonstrate the importance of identifying learners for a given contexts and contextualising or cultivating courses which are suited to their contexts and needs. This acts as a mechanism for inclusivity which is also linked to the theme of Elitism, Inclusion and Awareness, and as will be seen in Section 5.6 in the theme of Language Barriers. In addition to this, identifying the contexts and needs of a giving population, is also a means by which to minimise gaps in knowledge, which is found in Knowledge Gap Theory.

The importance of stakeholders remained strong in the discussions indicating their role in identifying who their learners are, and consequently developing content for them based in such contexts. It can be seen that 4 participants contributed to this compelling discussion. These participants overlapped in the participant categories of MOOC Developers, Professors, Faculty Heads, Involvement in the Learning Designers and Researchers Teams. Participant 19 (MOOC Developer, Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams), maintained the view that the current lack of diversity in stakeholders may lead to a lack of awareness of needs of the learners in their contexts: "*Currently, I'm not sure they [stakeholders] would know what that particular audience would want*.". Participant 12 (Involvement in the Learning Designers and Researchers Teams, and Business Investor) had similar sentiments when suggesting stakeholders need to be able to identify with the contexts of the nations and populations segments which are of focused here, and through that, be able to "identify" what the intended learners need as well as what they "actually want to learn" which may be relevant for them: "*You also need these people [stakeholders] at the ground level to identify what they [the intended learners] need and what they actually want to learn, because this may not be what you [stakeholders] expect.*". Participant 18 (MOOC Developer, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) again had very similar concerns as Participants 19 and 12. Participant 18 highlighted the importance of identifying the learners and their culture and context: *"It's important to identify and get at what could make this experience better for you [learners] in your context, in your culture, especially if people are creating this [MOOCs] for public good purposes".* Participant 18 then elaborated and incorporated stakeholders through thinking about the

concepts of learners, contexts, and content from the outset or *"beginning"* of the development process: "*It's hard, because you can't account for everybody, but you can account for more than what we are currently doing. So through not targeting specific people [learners] you are not contextualising for them and I don't think a lot of people [stakeholders] think that through from the beginning.*". The comments here indicate that not "targeting" specific learners will not enable MOOCs to be contextualised for their environments and their needs. Participant 20 (Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) added to the discussion on identifying learners and the role of stakeholders in this, through pointing to the conditions available for learners in various contexts:

"*How many people from the States [United States], Australia, UK [United Kingdom] all have good access to MOOCs, all have degrees already and this is just learning for their own interests. Going into aspects around the world, you're encountering languages, you're encountering design aspects, whether or not or all the technical problems of getting them information, whether or not they need to be on mobile devices, the whole range of other problems.*".

Participant 20 went on to indicate developing and designing content for targeted audiences has fallen into somewhat of a comfort zone for stakeholders, as they may target those who are in contexts which have a level of *"ease"* for the development process of the content: "*So just for the ease of getting something out there, that's who people [stakeholders] would target, the learners with degrees in universities, it's also a marketing aspect.*". From the comments of Participant 20, the causal relationships and links to the theme of "Accessible Technology" and its component of access through

mobile devices, and the link to the theme of "Language Barriers" is brought to light. In addition to this, all 4 participants clearly link their concerns of identifying learners to the influence and role of stakeholders. This again links to the theme which has been identified earlier as "Varied Stakeholders".

The differentiation in the contexts of the population segments focused on in this thesis, become a strong point of concern as discussions pointed to the relevancy of the courses which are developed and delivered for such various contexts. Participants emphasised the need for 'skills based' MOOCs, the impact this may have on minimising skills gaps and thus knowledge gaps in the given contexts, and the intended outcomes of such MOOCs. The development of this discussion was initially found in the comments made by Participant 3 (Professor, and Involvement in the Learning Designers and Researchers Teams). It can be seen through the comments of Participant 3, that courses which are not contextualised for "target learners" and more specifically population segments "living in poverty in rural areas", are largely "not relevant" for such "audiences":

> *"Another level is what kinds of courses you need to create and what are the courses that are required for these people. You just can't load up your offline classroom programs to the course and then dump it online. This country [India] needs content and processes which are relevant for the people [targeted learners], including those, or maybe especially for those that are living in poverty in rural areas.".*

The differentiation in context and thus courses for target learners was further stressed when stating:

"*The US [United States] delivers courses and you can say collaborates with developing the courses for here [India], but I think 80% are not relevant to the target audience, it's too far away too scattered… The challenges for us in India is to create those very relevant programs [courses and content] for relevant audiences, which are not being reached.*".

Again, what has been underscored is identifying who the targeted audiences are and developing MOOCs content which is relevant for them, rather than selecting a course which may be developed with another context in mind, such as the United States, and delivering that within the contexts of underprivileged population segments in countries such as India. This discussion highlighting the differentiation in contexts and developing relevant courses for the learners in such contexts, grew further as 4 participants discussed the type of content for MOOCs which they viewed was important to provide for these intended learners. These participants overlapped in the participant categories of MOOC Developers, Professors, and Involvement in the Learning Designers and Researchers Teams. As seen in the following section, content which provides knowledge towards employable skills or skills based MOOCs was also largely favoured by these 4 participants. Participant 6 (Professor, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) echoed sentiments made by Participant 3 when commenting "who is our audience" when it comes to the type of content which is developed for MOOCs: *"We have struggled with*

this, who is our audience, who are we designing for. The majority of courses are not skills based, and this does not help them [learners] get a job in the workforce.". Participant 6 then went on to stress the need for "skills based MOOCs": *"For the most part, the courses are about starting a conversation, but I see the need for a shift towards skills based MOOCs in the landscape definitely.".* Participant 9 (Vice President, Professor, and Business Investor) similarly brought up the differentiation in contexts and thus, the needs for "skills and training" through MOOCs:

> *"In the conversations which I've been involved with in developing countries, we are figuring out a way that we can really do better at meeting the demands for an increase in the skills and training of people when resources are finite, and in these contexts they face all other types of obstacles. It is critical to figure out.".*

Participant 9 then further elaborated on the involvement of diverse stakeholders in order to ascertain what type of "particular information" is required for the learners targeted in such contexts and how they may then apply the "knowledge/skills" which the learners have gained:

> *"Is there a particular information need for the learner in these contexts, and then how can they apply that, and that leads back to the diversity in the stakeholders. So the involvement [of stakeholders] is there for the applicability of the knowledge/skills which they [learners] have gained and how do you apply that, is it with the local business stakeholders. To focus on those in particular would be terrific.".*

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Participant 19 (MOOC Developer, Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) expressed very similar views to that of Participant 9 when discussing "a skills content MOOC" and the involvement of various stakeholders who would be aware of the contexts and therefore the needs of the target learners:

"If they [the learners] have limited resources and time and immediate needs, then a skills content MOOC, absolutely is something that you'd want to explore. But then institutions and academics need to work with someone like the UN [United Nations] who have people on the ground who can actually work out what those skills are.".

On a strongly comparable note to the above participants, Participant 14 (MOOC Developer, and Involvement in the Learning Designers and Researchers Teams) also suggested stakeholders involvement in defining relevant skills for learners in such contexts: *"you also need industry partners, to define what are the skills in these contexts which could be interesting and helpful to them both [the industry businesses and the learners]."*. As can be seen, these 4 participants all illustrated the link and causal relationship between Theme 1 "Varied Stakeholders" and targeting learners and developing relevant skills based courses suited to their needs and contexts. They indicated the development of skills based MOOCs to generate employable skills and the connection to local stakeholders such as local business, local industries or United Nations organisations which may be involved in the lives of underprivileged and displaced targeted learners or may be more aware of the conditions and skills required

for employability in their contexts. The emphasis placed on providing relevant courses for the contexts examined, is also a prominent component of Knowledge Gap Theory, which stresses the reduction of gaps in knowledge is also contingent on the relevance of information which is provided.

2 more participants also shared their concerns for the implementation of skills based MOOCs. There were no overlaps in the participant categories between these 2 participants. Here the participants linked the importance of skill based MOOCs to the social impact that they may have on such nations and learners. Participant 16 (Professor, and Director of Finance and/or Research) indicated this when commenting that the provision of contextualised skills based MOOCs can help "lift these nations out of poverty":

"I've had discussions on building MOOCs in underprivileged nations in Africa, for example, where we've discussed we need more content like X [traditional education courses, university degree courses] and that is true. But we also need more skills content and courses so that it helps the learner and in turn helps also lift these nations out of poverty. They [learners] in Africa, for example, need to not just know about courses to build Doctors and Engineers, they also need to know new skill and techniques, cost cutting measures or whatnot.".

Whilst Participant 12 (Involvement in the Learning Designers and Researchers Teams, and Business Investor) also pointed to the aspect of "social impact" of contextualised skills based MOOCs when reflecting on refugee populations:

"Definitely skills based are important, because it can have a huge social impact… There is a market for skills based and it could be partnering with corporations to help them [learners] then identify jobs as well. Also working with refugee entrepreneurs who work in and out of camps and can work with other refugees in different nations, they might better be able to identify workable relevant skills needed for them. They want also soft skills like language and communication skills training. You can only learn this with these types of people who work with refugees on the ground.".

Skills based MOOCs and the learning designs through which to develop and scaffold their content, was discussed by 2 participants. These participants overlapped in the participant categories of MOOC Developers, and Involvement in the Learning Designers and Researchers Teams. Participant 13 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams) suggested skills based MOOCs provide a more practical knowledge for the learners "on what can work": *"Skills based MOOCs provide more granular information, which gives learners more practical things on what can work, rather than something like just read this text and do this exercise"*. This participant then when on to link back to accessibility of these courses for refugees and the relationship this has to contextualisation of these MOOCs "for different locations": "*These types of MOOCs [skills based] should provide accessibility in the manner that the refugees can also watch it back, and reapply it if necessary once they move to other locations, to help again set themselves up and this contextualises the MOOCs for different locations."*. Participant 14 (MOOC Developer, and Involvement in the Learning Designers and Researchers Teams) echoed similar

sentiments when stating it is important to provide "enough information" and "enough knowledge":

"Here skills can be more useful than just simply saying ok, you have to get this and this grade so you can get a certificate. So it's not about grades it's more about skills they learn. It [content] has to be quite comprehensive, you can't expect that they [the learners] will go out there and Google for so many different things, so you have to provide them with enough information with enough knowledge to get the skills you want them to learn".

Participant 14 then also continued with a focus on the scaffolding of such skills based MOOCs: "*It should be quite scaffolded. I think it's more about, if you have a MOOC that talks about particular skills to people of particular areas, that will be more engaging and definitely more sustainable I would say.*".

In highlighting the need for skills based content for MOOCs for learners, reflections were also made on this as a factor to fill the gap for skills in these contexts. 3 participants brought this to the forefront, and there was an overlap in the participant categories of MOOC Developers and Involvement in the Learning Designers and Researchers Teams between these 3 participants. Participant 2 (Vice President and Business Investor) suggested that in nations such as India in order to fill this gap particularly for very large scale populations, MOOCs should "support very large scale skills building":

"You're looking at a differentiated audience. There is such a big gap in what

people need and the skills available, so for people in a country like India, the

application of MOOCs should be to support very large scale skills building. Like

I say, whether it's carpentry or gardening skills, - you know [in India] about 100

to 200 million people need to be skilled not in several years later but now, as

soon as possible. So MOOCs could and should be used for this purpose as well.".

Participant 18 (MOOC Developer, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) had similar thoughts to Participant 2, whilst commenting that "developing nations" have "an audience who need to skill quickly", and thus this gap needs to be filled:

"I would argue that the way MOOCs have now developed here [in the United

States] is there is a sort of gap in the workplace. So when we are creating it for

them in developing nations and such an audience who need to skill quickly, you

also need to fill that gap. It's one of the biggest things I would say.".

Participant 21 (MOOC Developer, and Involvement in the Learning Designers and Researchers Teams) highlights examining where the Knowledge Gap is when developing courses for these learners when suggesting: *"something that might give someone practical skills that's relevant to their contexts, but you have to see where is that, where the Knowledge Gap is. Hopefully that's a step along the path which initiates it [content]."*. These comments from Participant 2, Participant 18 and Participant 21,

directly reflect the mechanisms for minimising gaps in knowledge which are evident in Knowledge Gap Theory.

As indicated through the strong similarities in the comments of several participants, there is a link in the discussions regarding the development of skills focused content, to the potential of enabling opportunities of employment for the intended learners. From this point a transition appeared in the data revealing the importance placed on content development with a focus towards intended learning outcomes for such content and contexts. 4 participants suggested the outcomes of learning such skill**s** should lead towards improved employment options for the learners in these contexts. These participants overlapped in 2 participant categories, namely, Professors, and Involvement in the Learning Designers and Researchers Teams. Participant 20 (Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) pointed to job options for refugees as an outcome in relation to the relevancy of MOOCs which are provided for in their contexts: *"You don't want to run MOOCs on computer science for refugees, if there are no jobs for them in computer science in that area anyway."*. Participant 3 (Professor, and Involvement in the Learning Designers and Researchers Teams) echoed similar sentiments to Participant 20 whilst reflecting on the context of India. Here, Participant 3 also suggested that skills are what is required and they need to be "useable skills with direct activity" as an outcome: *"Right now in India we require skills, we do not require esoteric knowledge. We do not have the leisure of doing it. India needs skills, because industries are 10 years ahead of us, it needs to be converted into useable skills with direct activity [applicability]."*. Again, another strongly similar comment was stated by Participant 10 (MOOC Developer, Professor, and Involvement

in the Learning Designers and Researchers Teams), when looking at what the "outcomes" of MOOCs are, what courses are provided for the contexts and how applicable are they towards getting "a job" for the learners:

"We need to examine what types of skills based MOOCs can be provided so that these learners can go out and get a job with those skills. So what really are the outcomes from these MOOCs so to speak. For instance, maybe we don't need 7 different Calculus MOOCs.".

Participant 17 (Professor, and Involvement in the Learning Designers and Researchers Teams) also had strong comments pointed towards the use of skills based MOOCs and "what is the outcome of this education", as Participants 20 ,3, and 10 did. Participant 17 discussed this through reflecting on identifying opportunities for the learners, the skills and employment possibilities, and their contexts specifically looking at refugee camps:

"The question is what is the outcome of this education. Really need to identify the types of opportunities for these individuals. The emphasis on skills and employability is an important one. But it's hard, because you have to look at the opportunities for them with people on the ground, then you have to look at the context of the society they may end up in. This is very tricky especially if they are in refugee camps, they have no idea where they may end up, right.".

1 participant brought up a discussion on outcomes by looking at the intent of the stakeholders. Here, Participant 18 (MOOC Developer, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) pointed to stakeholders and stressed the "outcomes" are dependent on the creators or the MOOCs: *"The outcomes kind of depends on the people that create the MOOCs."*. Participant 18 went on to question if such MOOCs were created to learn, lead to equity in education or to elevate social status:

"Is it for the ability to skill and learn and apply it in their context. Do they [the developers as stakeholders] want to have equity to want to be able to elevate people from lower socio-economic status and use this [MOOCs], as the ability to skill and learn and get those."

In addition to the above comments on learning outcomes, 1 participant, Participant 9 (Vice President, Professor, and Business Investor), brought to light the differentiation between skills based MOOCs and MOOCs taken for personal interest, and/or for employment possibilities.

"There is a really important distinction between skills based MOOCs and MOOCs taken out of interest for learners who are not from low income backgrounds and are employed. Clearly, if there is a skills related component to them, you can see that having an impact where people may be able to relate to it [the MOOC] more as they can apply it within their contexts for employment and the necessity to improve livelihoods. Verses if someone is just taking it for

personal enrichment, there is not the same incentive to be as engaged and that

does not fit within the given context. So when we look at learning outcomes we

need to examine particularly in these contexts why people are taking MOOCs, or

why they could or want to take MOOCs and what these can do for their situation."

5.5.1 Identifiable Content Dimensions and Interconnections to Other Themes

The data presented in this theme, emphasised the causal relationships and links to the other 4 themes which are presented in the Contextualised MOOCs model found in Chapter 6 Discussion and Analysis. The theme of "Varied Stakeholders" is again seen as an overarching presents throughout the large majority of discussions. The role of a range of stakeholders was discussed in relation to identifying the intend learners, the course content/skills driven content and the intended learning outcomes of such courses. The component of identifying the intended learners, also linked strongly to the themes of "Accessible Technology", "Elitism, Inclusion and Awareness", and "Language Barriers", however, the data also displayed links to these themes through the components of course content/skills driven content, and intended learning outcomes.

5.6 Theme 4 - Language Barriers

The theme of Language Barriers emerged from the data as participants discussed languages and referred to the need to provide MOOCs according to the contextual language requirements of the targeted learners. The data indicated a focus on 2 main

areas regarding language which were seen as points of concern. Those are, the use of

languages and dialects in the local contexts, and the need for transcripts. It is through

these main areas of concern that the concept of barriers and thus the theme of "Language

Barriers" materialised. Figure 5.4 Language Barriers, highlights these 2 main data sets

which formed under the theme of Language Barriers.
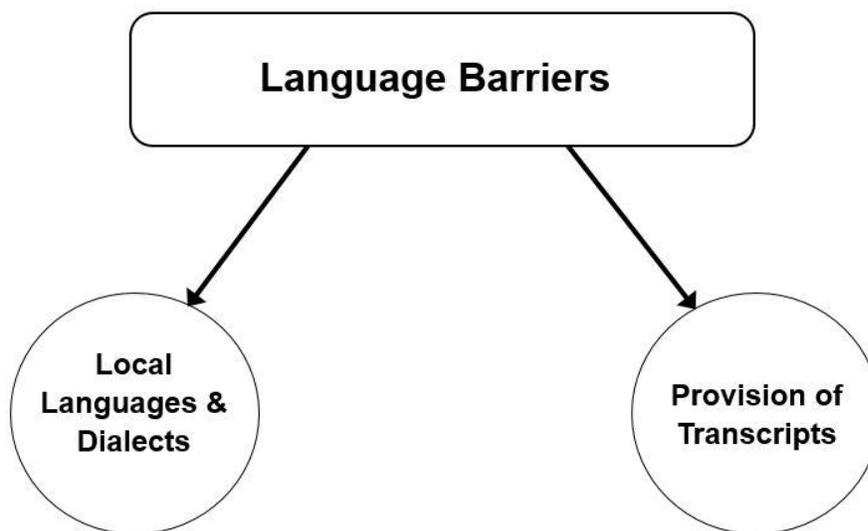
Figure 5.4 Language Barriers

The data indicated many participants strongly emphasised the importance and in many

instances the challenges which the use of languages brings as a component of

contextualising MOOCs for the nations and population segments focused on through

this thesis. This appeared in the discussions of 7 participants in which there was overlap

in the participant categories of MOOC Developers, Professors, Business Investors, and

Involvement in the Learning Designers and Researchers Teams. Participant 15 (MOOC

Developer, Professor, Faculty Head, and Involvement in the Learning Designers and

Researchers Teams) stressed this importance by stating MOOCs developed for such contexts need to *"include multi-languages and dialects"*, whilst Participant 21 (MOOC Developer, and Involvement in the Learning Designers and Researchers Teams), similarly emphasised that these MOOCs *"must at least be language appropriate"*. The comments below further demonstrate the prominent role of adapting and therefore contextualising to meet appropriate language requirements. Participants 2 (Vice President and Business Investor) also expressed parallel concerns for the use of appropriate languages as Participant 15 and Participant 21, by stating "language is part of the issue" when reflecting upon the contexts of India: *"Language is part of the issue. Language, in a country like India is very important because in many regions the knowledge of English is not adequate."*. Participant 17 (Professor, and Involvement in the Learning Designers and Researchers Teams) echoed similar sentiments when reflecting on the "challenge" and need for "language skills" in the contexts of refugee camps: *"Language is typically a challenge. Language skills are missing for those contexts [refugee camps] so even the ones there who are highly educated, language skills are missing if English is dominant."*. Participant 8 (MOOC Developer, Involvement in the Learning Designers and Researchers Teams, and Business Investor) again stated very comparable concerns towards the use of language and also added an ease with "accents" in order to accommodate learners from "different regions": *"Language is very important. We focus on not going too far with accents, so learners in different regions can still understand what is going on."*. Participant 10 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams) had strikingly similar comments on the use of language and accents as

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Participant 8. Here, Participant 10 suggested "foreign accents" may make MOOCs "less accessible" for low socio-economic status groups:

> *"Providing MOOCs in a local language is essential but you also get the issue of for example, of accents. Even this makes MOOCs less accessible to people who are less comfortable with foreign accents and if spoken very quickly, particularly for those who are not highly educated and don't come from high income socio-economic status groups."*

Participant 3 (Professor, and Involvement in the Learning Designers and Researchers Teams) also brought to light the importance of adapting or contextualising MOOCs to meet the requirements of local languages, when commenting that without this, both the "reach" and "sustainability" of MOOCs for population segments of rural areas in nations such as India, may be compromised:

> *"Unless we have programs which are also catering to these segments [rural areas in India] through different local languages, the reach as well as the sustainability will be tough. Because you are reaching out to a very select audience and not the mass ones which is the primary reason why MOOCs are being propagated.".*

The comments of Participant 3 were again not unlike the comments of the 6 other participants mentioned above which emphasised reach and access through language. Reach and access through adopting appropriate languages for the given contexts and

learners also demonstrates the causal relationships and links to the theme of Elitism Inclusion and Awareness, as language is a mechanism to minimise elitism and promote inclusive educational opportunities. In addition, this also links to the component of identifying the "Intended Learners" held in the theme of Identifiable Content Dimensions and discussed previously in Section 5.3. The strong propositions by the participants for the use of appropriate languages for the contexts examined in this thesis, is also reflective of distributing knowledge by a means which is inclusive in order to minimise gaps in socio-economic groups, as found in Knowledge Gap Theory.

Further findings in the data exposed concerns of the use of English and its correlation to excluding learners. 3 participants reflected on this as they discussed the predominant use of English and therefore the lack of using local languages which can lead to the exclusion of learners. These participants overlapped in the participant categories of Professors, Directors of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams. Participant 6 (Professor, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) clearly commented that the courses offered only in English will likely "exclude a lot of people": *"courses are offered in English, but we are looking at adding captions of other languages to that because that [courses that are only offered in English] also seems to exclude a lot of people."*. Participant 6 went on to state the use of English can also limit engagement in MOOCs and to minimise the use of slang to cater to the inclusion of multiple cultures: "*If you don't speak or read English, you can't engage or use a MOOC. And don't use a lot of slang so that language can transcend across cultures*". Participant 16 (Professor, and Director of Finance and/or Research) comments similarly

reflect that this eliminates "people"/learners if language considerations are not contextualised: *"You are eliminating people by providing MOOCs predominantly in English and not contextualising the language needs for different nations and the various types of potential learners there."*. Participant 13 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams) likewise added that the provision of language courses for integration may also be required whilst specifically referring to displaced peoples: *"It's not advisable to do MOOCs for such learners in one language only. They [displaced populations] need courses for the local language for integration."*. The data of the 3 participants here stressing the use of English and its correlation to excluding learners, again provides evidence of links to the theme of Elitism, Inclusion and Awareness.

The focus on languages also brought about reflections related to translation into different languages through discussing the design of MOOCs and also the role of stakeholders. Here 2 participants pointed to "engagement" in MOOCs and enabling them to be more "inclusive" when reflecting on this. These participants overlapped in the participant categories of MOOC Developers, and Involvement in the Learning Designers and Researchers Teams. Participant 19 (MOOC Developer, Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) indicated this by suggesting the usefulness of developing simplified MOOCs in terms of design in order to aid not just in sustainability for future iterations, but also for language translation purposes. Participant 19 emphasised that "engagement can still be really good":

"MOOCs can be developed much simpler and that is not a negative thing. The engagement can still be really good because of the content that is offered. And for future iterations and sustainability, you can't have these wiz bang complex designs and animations. If they are made simpler it can more likely be taken and translated into different dialects.".

The comments of Participant 19 on design and engagement of MOOCs, highlight a causal relationships and links to the component of "Learning Design' which is held in the theme of Accessible Technology as well as inclusion when suggesting improved engagement. Similarly, Participant 14 (MOOC Developer, and Involvement in the Learning Designers and Researchers Teams) brought up inclusion when suggesting the role of the government and other stakeholders to develop translations of content into various local languages:

"Some of these countries like India and others, they do have the support from the government. The government should sit down and bring in a few industry partners to say ok, let's try to develop for this particular part these important skills, for this particular part this is important, and then develop a set of skills and then the government can help the academics develop that content that can be electronically translated into different languages. It's more inclusive then.".

These comments by Participant 14 focusing on the impact which stakeholders may have on developing content which can be "translated into different languages" and inclusion, link to the theme of Varied Stakeholders. In addition, both Participant 19 and 14 highlight links to the theme of Elitism, Inclusion and Awareness.

2 participants more strongly discussed catering for local languages and the impact this may have on the sustainability of those MOOCs. These participants only overlapped in 1 participant category, which was Professors. Participant 9 (Vice President, Professor, and Business Investor) highlighted that the lack of implementing local languages and the imposition of a "Western perspective" in the use of MOOCs for the nations examined in this thesis, could lead to privilege "in the use of MOOCs" as well as "access issues":

"We lose a lot in the delivery, if language is not considered. If these courses are not delivered in the native language, there is a point here that there is an aspect of being privileged in the use of MOOCs. If we, or as we impose a Western perspective on everything and everyone, then this generates real access issues on those who don't speak English".

Participant 9 went on to state the impact this will have on sustainability, engagement and access: "*So this has a domino effect on sustainability as it impacts other aspects of engagement and access to MOOCs for these people [people living in poverty or displaced].*". Participant 20 (Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) similarly and more simply echoed comments on the impact toward sustainability, by focusing on the use of language for the contexts from which refugees may come from: *"The context of where they [refugees] are coming from, their literacy and language use and how MOOC content is presented, all of these impact on sustainability."*.

In discussing the language barriers, 5 participants also discussed transcripts and pointed to the benefit of incorporating them in courses. Amongst these participants, there was an overlap in 4 participant categories which were Professors, Business Investors, Directors of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams. Participant 12 stated that transcripts are "necessary" in various languages as many courses are built with "English speaking audiences" in mind: *"Transcripts are also necessary and a good thing. You can have transcripts in other languages. Translation services are generally fairly limited. So it's important to ask that question because the courses are built and really then are meant for English speaking audience."*. Participant 18 (MOOC Developer, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) also discussed the need for transcripts from the perspective of having "accessible content": *"You have to have accessible content. You have the ability, through different transcriptions to be able to change the captions and things like that to be able to do stuff in the native language."*. Again, similar to Participants 12 and 18, Participant 9 also stressed the need for transcripts with course delivery: *"Also, when it comes to losing delivery through language, transcripts are important and needed."*. Participant 11 (Professor, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) highlighted the use of transcripts through examining specific navigational needs of learners:

"Here we also need to consider when building the content, what is the entry point

for learners? We are so used to websites and what works for us, but we need to

contextualise this for content of these types of learners [learners living in poverty

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or displaced]. For example, in Arabic you read from right to left, so what contextually works for them [the potential learners] in navigating content. Where do their eyes naturally and instinctually go to first? If they are going from left to right instead of right to left, then that should be a consideration in how you engage them to travel through the materials of the course, and you think of the language, but you also have to think of the transcripts this way.".

Participant 11 followed this with commenting on the differentiation in the context of MOOCs and learners in the United States and the learners and contexts examined in this thesis: "*In the US [United States], now this is very different. It's a question of examining what is the system like for the types of learners in their contexts.*". Participant 20 (Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) also echoed the correlation between transcripts and navigation or how content is presented and "how it flows" when stating: *"...so in terms of language and content presented and how it flows for these types of learners, as part of their access, we have to also consider the use of transcripts in local languages.".*

5.6.1 Language Barriers and Interconnections to Other Themes

In this theme of Language Barriers, the data has presented links and thus causal relationships to the other themes of Varied Stakeholders, Accessible Technology, Identifiable Content Dimension, and Elitism, Inclusion and Awareness. Stakeholders were discussed within their capacity to identify relevant content which can be translated into the relevant languages for target learners. As this reflects on identifying and

developing the type of content which is suited to the contexts of targeted learners, there is also a connection here to the theme of Identifiable Content Dimensions. In addition to this, identifying intended learners and catering to languages, accents and dialects which are understandable to them is again a component linked to the theme of Identifiable Content Dimensions. When discussing the translation of languages, the design of MOOCs for the contexts focused on in this thesis was also brought to light. This component of Learning Design is embodied in the theme of Accessible Technology. The vast majority of the data repeatedly pointed towards the minimising privilege and thus promoting inclusion for learners through the use of relevant languages and transcripts.

5.7 Theme 5 – Elitism, Inclusion and Awareness

Theme 5 Elitism, Inclusion and Awareness, developed as the data revealed participants spoke about these elements when discussing MOOCs within the context of this thesis. In the data, these elements were highly clustered together and had a domino effect on each other as participants discussed them. Due to the direct intermingling of these elements in the data, they are dealt with in this study as a group under one theme. Elitism highlights the view that MOOCs are being provided for more highly educated segments of society. This led to discussions on the question of loss of, or lack of, opportunity and inclusion for less privileged populations for learning through MOOCs.   These discussions on the data also revealed the concept of awareness. That is, if MOOCs are elitist and are largely provided for, and taken by, more privileged members of societies, the notion of lack of inclusion and awareness for learners from lower socio-economic

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status groups becomes more apparent. The data indicated that participants followed on from that notion with discussing how or if these lower status groups of learner have awareness of the opportunities of MOOCs. Figure 5.5 Elitism, Inclusion and Awareness, illustrates this intermingling of these elements.
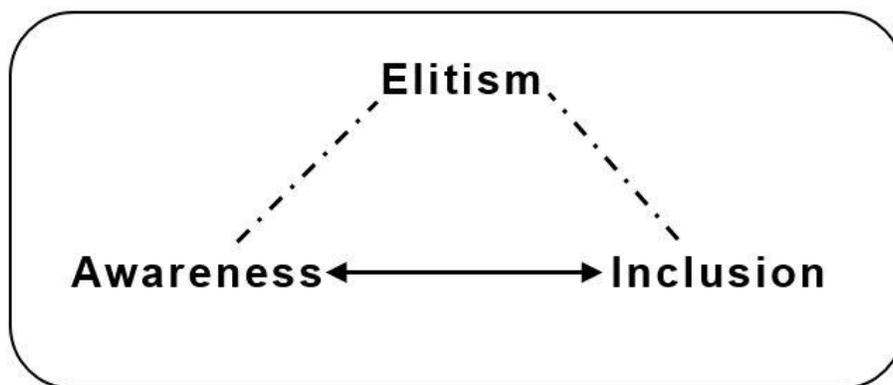
Figure 5.5 Elitism, Inclusion and Awareness

In discussing aspects of elitism, inclusion and awareness of MOOCs within the contexts of the nations and populations segments examined through this thesis, 2 participants inevitably went back to emphasising the need for a variety of stakeholders to be involved. There was an overlap amongst these participants in the participant categories of Professors and Involvement in the Learning Designers and Researchers Teams. Participant 11 (Professor, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) indicated the significant role and involvement of stakeholders through reflecting on the development of MOOCs for specific "learning needs and contexts": *"Different stakeholders for contexts such as*

refugees is very important for inclusion. It won't work unless they [the learners, refugees] take a MOOC which is developed within their learning needs and contexts.". In this light, it was stressed that the involvement of stakeholders for refugee populations is "very important" for enhancing local integration and "inclusion", and this may be particularly so for such displaced populations who may otherwise be unaware of which country they are likely going to reside in: "*With this, unless they are going to their home country again or going somewhere else or can integrate with this education into this new nation which they are in, they may be precluded to integrate locally.*". Participant 17 (Professor, and Involvement in the Learning Designers and Researchers Teams) reinforced similar sentiments as Participant 11. Participant 17 stated underprivileged and refugee learners may become "secluded" due to lack of "structural support": "*People [underprivileged and refugee learners] will start going to their secluded groups, if you wish, because there are insufficient kinds of structural support that can help them.*". Participant 17 went on to stress a concern for "inclusion and inhibiting elitism" when commenting for underprivileged and refugee learners, stakeholders have the ability to contextualise or "embrace" "cultural differences": "*So you need stakeholders that can and need to embrace some of these kinds of cultural differences for the sake of enabling inclusion and inhibiting elitism to foster.*". Clearly the comments of both participants link to the theme of Varied Stakeholders and in emphasising the need for local integration and therefore inclusion and minimising elitism through education, they also reflect the principals of minimising gaps in knowledge found in Knowledge Gap Theory.

It can be seen that "elitism" is a prominent component which appears within the realms of MOOCs. 4 participants emphasised aspects of elitism found in MOOCs and they overlapped in the participant categories of Professors, MOOC Developers, Directors of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams. Participant 3 (Professor and Involvement in the Learning Designers and Researchers Teams) and Participant 6 (Professor, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) expressed the view that MOOCs are elitist due to the types of learners they cater to. Participant 3 suggested the learners they cater to have jobs and take MOOCs for "fun" or personal interest and indicated they are already likely to have sound educational backgrounds:

"It [MOOCs] is elitist for many. For example, people take a course on modern history, which is for their own fun; it's for their own knowledge and pleasure. It's for good fun when they have jobs in something like economics. Those are for my own personal enlightenment personal liking, and many [MOOCs] are made that way.".

Participant 6 also suggested the types of learners they cater to are already "well educated": *"There is no question that the majority of people who take them [MOOCs] are well educated people, they have PhDs, Masters degrees, they already have an education."*. Participant 18 (MOOC Developer, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) and Participant 14 (MOOC Developer, and Involvement in the Learning Designers and Researchers Teams) discussed elitism from the perspective of the structure and development of the

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MOOCs. Participant 18 attributed the elitist component of MOOCs partly to reinforced "power structures" and therefore "privileging the privileged": *"But this [elitism] is a huge part. I mean it's essential to look at because yeah, you can have the ability to just reinforce power structures over and over that are existing, so are we just privileging the privileged even more?"*. Participant 14 expressed the elitist element of MOOCs based on the contexts in which they may be developed:

"If you look at certain platforms for example, they are doing what is home. I mean those guys are coming from Harvard, Stanford, MIT etc., they don't know what does it mean not to have all those opportunities, or probably they knew a long time ago, but the thing is I don't think they involved enough people from outside that can tell them ok guys, you actually don't have all those things out there.".

Participant 14 went on to stress that there is a lack of awareness of the "challenges" of contexts which can impact on the ability to contextualised MOOCs when targeting people living in conditions of poverty or displacement examined in this study: *"So I don't think they are aware enough of all those challenges out there and they develop them [MOOCs] for their learners, not for those types of people [living in conditions poverty or displaced]."*. The comments of these participants' links to the theme of Identifiable Content Dimensions as they point to the indented learners or the types of learners which the MOOCs are developed for or the types of learners which are likely to engage in them.

In addition to identifying an elitist component within MOOCs, comments from 4 participants also intermingled elitism with the components of awareness and inclusion, through highlighting that many MOOCs are developed for more privileged learners. There was an overlap here in the participant categories of Vice Presidents, Professors, Business Investors, and MOOC Developers. Participant 9 (Vice President, Professor, and Business Investor) similar to Participants 3 and 6 above, stressed that people who engage in MOOCs are "already highly educated":

"This is an important question on how you really target information about MOOCs and the potential of them to people who might most benefit. The people who participate in MOOCs in general are disproportionally the ones who are already very highly educated and as such have awareness of these types of opportunities, who are self-motivated and are curious about the technology. And many MOOCs are being catered to them and their contexts and not for others.".

However, Participant 9 added that many underprivileged population segments are not likely to have an awareness of MOOCs or are "left out": "*So many [underprivileged and displaced population segments] are left out of this if they don't fit that criteria, they don't have that initial awareness, they are not part of that initial community that is included.".* Participant 14 (MOOC Developer, and Involvement in the Learning Designers and Researchers Teams) echoed similar concerns when stressing MOOCs are largely being "catered" for the contexts of people "who have better socio-economic status":

"A lot of learners come from universities and MOOCs are targeted towards them. They definitely should be more inclusive. Pretty much people who have better socio-economic status have better access to MOOCs and these are the people who know mostly about MOOCs, which is not good.".

Participant 14 went on to say that due to this, MOOCs are unlikely reaching underprivileged populations and thus not reaching the "goal of providing education":

"So if you are in university you have access to the structure, then you are quite aware of those things [MOOCs]. But if you don't, then I don't think MOOCs are reaching actually the [underprivileged] populations that they were supposed to. So they are not at all reaching that goal of providing education [through MOOCs] to them."

Participant 2 (Vice President and Business Investor) had similar sentiments but discussed it from the contexts of India, and privilege in terms of access: *"MOOCs in education [in India] look a bit farfetched, it looks a bit elitist, and people can take the view that this will help people who are already there, already have access and are more privileged, and so are aware."*. On a very similar note to Participant 2, Participant 1 (MOOC Developer, Professor, and Business Investor) also discussed access and awareness which is largely given to the "privileged class". Participant 1 indicated a lack of inclusion and awareness of MOOCs for underprivileged populations segments when commenting, that awareness of MOOCs may be generated though the colleges and through college social media pages on platforms such as Facebook. Although this

creates awareness of for MOOCs, it was stressed that this nevertheless does so for students who are part of the colleges.

"I can send a notice about the [MOOC] course to all my college students, I can put it on Facebook with my colleges. But many other potential students who are not in colleges and are probably not on Facebook, don't get this. Quite a few do not belong to the privileged class which have this [Facebook and access to colleges]. So reaching them is the first challenge.".

The emphasis on inclusion, awareness and the concerns which participants expressed on inequitable access to MOOCs, is again a reflection of the components held in Knowledge Gap Theory, which is to minimise inequality through enabling access to information/knowledge. These comments on access, also link to the components of the theme Accessible Technology and the greater need for equality in access to MOOCs for the contexts and populations focused on in this thesis.

2 participants continued to shed light on the connection between MOOCs being largely developed or targeted for more privileged learners, and how this may generate a lack of awareness and inclusion for underprivileged segments of populations. Here, the 2 participants overlapped in 1 participant category which was Involvement in the Learning Designers and Researchers Teams. Participant 12 (Involvement in the Learning Designers and Researchers Teams, and Business Investor) and Participant 10 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams) discussed this correlation between the specific types of learners' that MOOCs

are developed for and a lack of awareness. Participant 12 highlighted the contexts of

India and the likely "business model" of developing MOOCs there for educated learners:

"Most MOOCs [in India] are designed for those who already have an education

by convention, you know probably a Bachelors', for those with some level of

competency and English language and already have that level of understanding.

And that is probably because for most [MOOC developers] that is probably part

of the business model.".

Participant 12 then went on to conclude that a more "inclusive approach" is needed:

"Most [underprivileged population segments] don't know what MOOCs are, so

awareness is much lower than expected. Because of the lack of awareness and

inclusion, it does certainly create elitism in the use of MOOCs and the types of

learners. It definitely needs a more inclusive approach.".

Whilst Participant 10, similarly commented on contexts and target audiences who have

a greater level of "technical sophistication" and are not generally from a "lower income"

group:

"MOOCs have largely been used by people who are very familiar with Western

culture and are already educated. The target audience tends to be people who

already have a lot of technical sophistication and knowledge and want to learn

about this new area and be able to apply it wherever in the world they are, but

this being they are generally not of lower income.".

Participant 10 also continued by highlighting that this has led to low levels of awareness for people who live in poverty:

"So, once you get outside of people who are highly educated and read about the

type of media that would talk about MOOCs, the awareness is low. The fact that

Time Magazine had an article about MOOCs doesn't mean there is awareness in

different contexts for your average person let alone people in poverty etc.".

The discussion on awareness was also seen with Participant 3 (Professor, Involvement in the Learning Designers and Researchers Teams). Participant 3 commented on awareness by looking specifically at *"the number"* when discussing the relative inclusion of a population with the uptake of MOOCs: *"The very reason the numbers are showing that Indians are accepting MOOCs with the numbers that you look at on some platforms means that very few are actually aware of it, although it looks like a lot.".* Participant 3 further elaborated on this thorough reflecting on the use of English with MOOCs and how this can exclude large segments of populations:

"You see, because of our demographic dividend or disaster whichever way you

look at it, with a population of 1.2 billion people, the smaller number is English

speaking people. So that number in absolute terms is small when compared to

others who are left out of taking MOOCs. In Indian terms it is a small percentage

of people who are taking it up.".

The focus on target learners and a subsequent lack of inclusion if these learners are not from higher educated and well integrated population segments, as expressed by Participants 12 and 10, not only links to Knowledge Gap Theory and the need to minimise gaps in knowledge through the dissemination of inclusive knowledge/learning options, but this also points to the causal relationship to the component of "intended learners" which is found in the theme of Identifiable Content Dimensions. In addition, the comments of Participant 3 on the use of English as a possible means of exclusion, is also linked to the theme of Language Barriers.

3 participants displayed more evidently the intertwining or connectedness of the elements of "awareness" and "inclusion" which are present in Theme 5. These participants overlapped in the participant categories of Professors, MOOC Developers, and Involvement in the Learning Designers and Researchers Teams. In discussing the connectedness of awareness and inclusion, Participant 15 (MOOC Developer, Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) stated: *"I mean awareness is important, it's a really important factor for."*. Participant 6 (Professor, Directors of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) brought about the assumption of thinking "everyone else" "knows about it" where in fact there is a simple lack of awareness of MOOCs for many people around the world: *"When you're immersed in something like the study of MOOCs you tend to think that everyone else is immersed in it and knows about it. But*

I have so many people still say, what is a MOOC? So I think that there is not a lot of awareness across the globe.". There were similarities echoed by Participant 8 (MOOC Developer, Involvement in the Learning Designers and Researchers Team, and Business Investor) when discussing the contexts of Jordan and Lebanon: *"I don't think we are yet tapping into those demographics that need it [MOOCs] the most. I don't think MOOCs are there yet in the mind-set of the larger needed demographic for learners, but I think we can strategically get there.".*

The stress on "awareness" continued to be a dominant part of discussions with Participant 16 (Professor, and Director of Finance and/or Research) reflecting on this from a "situational awareness" perspective:

"Situational awareness is the prime one. So for refugees living in the context of camps, it's totally different for them. And this may really count for those learners because you're thinking about where your next meal is, you're thinking about your family. They have all this other cognitive load that comes from the situation they are in, so again awareness is huge, because lots of them don't even know that this [MOOCs] is an option, and they don't only know that this is an option but they also don't know how they can capitalise on that option.".

Here, Participant 16 looked at awareness and situational contexts linking to the possible inability of such learners to *"capitalise"* through the option of MOOCs. Awareness and inclusion were also discussed from the perspective of marketing as seen through the comments of 2 participants. These participants overlapped in the participant categories

of Professors, MOOC Developers, and Involvement in the Learning Designers and Researchers Teams. Participant 13 (MOOC Developer, Professor, and Involvement in the Learning Designers and Researchers Teams) stressed that marketing could tell "people the benefits" of MOOCs as well as "how to gain access": *Is part of the answer for inclusion and awareness, marketing? That is getting the message out and telling people the benefits and what is involved and how to gain access, giving them opportunities to gain access.".* Participant 13 continued with suggesting that marketing which does not promote benefits, and "opportunities to gain access", might lead to catering MOOCs "only for the higher educated ones": *"Doing a MOOC without knowing what is the added value in that, might only for the higher educated ones pay off.".*

On a similar note to Participant 13, Participant 19 (MOOC Developer, Professor, Faculty Head, and Involvement in the Learning Designers and Researchers Teams) suggested awareness is depended upon marketing:

> *"The awareness is an issue, this is a marketing issue as well because as far as I can tell, the marketing in many instances is not very good. And this could also become elite depending on how it is marketed. If it's a MOOC for profit, then ads might come up when you Google.".*

Participant 19 continued with the concern that a lack of awareness in this manner may also attribute to elitism: *"So how do those learners get to know about the MOOC? How would they even know? The content many not always be elite but the provision and*

access may be and the type of learners that have access becomes elite.". Both Participants 13 and 19 point to the "provision" of access or the "opportunities" to have access to MOOCs. As they discuss this through the lens of marketing, this can also be linked to the themes of Accessible technology in order to gain access, Identifiable Content Dimensions to identify who the intended learners are, and Language Barriers in order to provided accessible marketing in a language which is understandable to the intended learners.

5.7.1 Elitism, Inclusion and Awareness and Interconnections to Other Themes

There were several links and causal relationships found in theme of Elitism, Inclusion and Awareness, to the other themes presented in the findings. There were several repeated and strong links to the components reflecting the types of learners or targeted learners which MOOCs seem to cater for, and the ones which they are not catered for. This links both to the theme of Identifiable Content Dimensions and the theme of Language Barriers. In addition to this, discussions also leaned on equality in access to MOOCs and thus presented causal links to the theme of Accessible Technology. Similar to what was found in the other themes, the theme of Elitism, Inclusion and Awareness was also linked to the theme of Varied Stakeholders. There were suggestions made here which again pointed to the important role which a variety of stakeholders have in minimising elitism, and promoting inclusivity and awareness of MOOCs for the contexts and populations segments focused on in this thesis.

5.8 Summary of Chapter 5 Key Findings

This chapter presented the findings of this thesis based on data collected and through examining its research question and the corresponding aims. At the point of theoretical saturation, 5 key themes were identified. In accordance with data from participants, the necessary components for contextualising MOOCs in nations focused on in this study which are tasked with providing education for their populations living in conditions of poverty or the influx of refugees, consists of the following:

Theme 1 examining stakeholders, permeated into all themes. Here participants highlighted the reality on the ground consisting of diversity of stakeholders for numerous purposes, including but not limited to funding of MOOCs; identifying targeted learners and developing courses for their needs; examining the outcomes for potential employability of the learners; and imparting the means through which to enhance social inclusion and thus generate a positive social impact.

Theme 2 looked at technological accessibility of MOOCs for the learners. This examined infrastructural aspects of technology such as bandwidth; the need to reach underprivileged segments of society; the question of learning design relating to video content and ability to download information; as well as the use of mobile devices through which content may be made available.

Theme 3 identified core dimensions which impact content development. Participants highlighted key aspects of identifying the targeted learners and from this, defining what

type of content should be created for them. The overall sentiment in terms of the type of content, leaned towards the development of skills based content. This concurrently developed into defining what the intended learning outcomes are for the provision of such content to the targeted learners. Suggestions for this led to bridging the gap of employability and increasing socio-economic status as well as greater social integration into society.

Theme 4 highlighted the need for breaking down language barriers. Participants maintained views that many MOOCs are not developed for local contexts and are developed using the English language. The need for content in local languages and dialects as well as the provision of transcripts, were considered part of the process of contextualising MOOCs for such nations and learners.

Theme 5 exposed the aspects of elitism, inclusion and awareness of MOOCs which were largely linked together and therefore developed under one theme. This theme has similarities with Theme 1 relating to stakeholders, in that this seemed to permeate in to all other themes. Here the discussions led to the recognition of elitism and the need to promote awareness of MOOCs and inclusion for learners left out of the MOOC opportunity in such nations. There was also a connection between the awareness of MOOCs for such learners and the inclusion for them towards MOOCs.

As these themes have been identified and examined, Chapter 6 Discussion and Analysis, broadens the analyses and the findings with discussions linking to the theoretical framework, Knowledge Gap Theory, and further addressing the secondary aim of this

thesis through the development of theory in the form of the Contextualised MOOCs

Model.

Chapter 6: Discussion and Analysis

6.1 Introduction to Chapter 6

Chapter 6 examines two key areas in relation to the aims of this thesis and the findings which were presented in Chapter 5. The discussion begins in this chapter by reflecting upon the correlation between the findings on the research question relating to the initial aim to discover what the factors are for contextualisation of MOOCs, and then looks at how this interacts with the theoretical framework proposed in this thesis. Therefore, Section 6.2 addresses the theoretical lens of Knowledge Gap Theory whilst reflecting on the findings gathered in Chapter 5.

The chapter then moves on in Section 6.3 and Section 6.4 to address the second part of the aim of this thesis, which is to understand how the factors gathered from the data link together to provide a contextualised approach for MOOCs for nations faced with poverty and the influx of displaced populations. This, as it will be seen, is presented through the grounded methodological approach of the construction of theory in the form of a Contextualised MOOCs Model. Section 6.3 specifically discusses this generation of theory in the form of the Contextualised MOOCs Model and presents the model in Figure 6.2. Section 6.4 then goes on to analyse the relationships and links between the factors which are held within the Model. The chapter concludes with a summary of Chapter 6.

6.2 Addressing the Research Question and the Theoretical Framework

As the title of the thesis states, this study investigates the dynamics of a contextualised approach to scalable online learning, more specifically MOOCs, whilst responding to the research question *"What are the factors that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations?"*. The theoretical base from which to examine the dynamics of contextualisation encompasses an examination of the implementation of MOOCs in such nations, to identify the mechanisms by which to fill the gaps in educational needs. This approach critically reflects upon Knowledge Gap Theory. Recalling Tichenor's et al. (1970) Knowledge Gap Theory as discussed in Chapter 4, the emphasis is on the provision of knowledge to minimise gaps within large population segments. The original use of mass media, such as print newspapers, by which large segments of populations gained access to knowledge, is examined in this thesis in the form of the modern day ubiquitous spread of information through the internet, and the educational tool MOOCs (Tichenor et al., 1970). As Baran and Davis (2009) point out, the use of media can aid in closing gaps in knowledge between social segments of societies, if the tools in which to do this are adaptive to the requirements of that environment. Sentiments of this were reflected in a study examining MOOCs in Tajikistan, as it cited one of the advantages to contextualising MOOCs and making them adaptable and more sustainable to the needs of their targeted learners, was the "potential reduction of the urban-rural gap" (Imaizumi, 2015). Thus, identifying the factors which may contribute to contextualisation of MOOCs, enables to further examine how these factors may work together to become more adaptive to the process of reducing educational gaps.

Developing an adaptive nature for MOOCs through contextualisation therefore is not only essential as a process by which to address Knowledge Gaps, it may also allow various contexts and learning environments to more sustainably adopt them as a means to provide much needed educational opportunities at scale. As will be highlighted below, identifying the factors for contextualisation through the data also unveils the differentiated and unique qualities for the development of MOOCs required for the nations and learners examined in this thesis. Figure 6.1 Five Contextual MOOC**s** Factors, depicts these 5 core factors of contextualisation which have been identified as responses to the research question derived within the given dynamics of its grounded methodological process. The evidence which generated these 5 factors, as seen in Figure 6.1, has been gathered through the back and forth constant comparison process of Grounded Theory and is discussed in detail under each theme in Chapter 5 Findings.
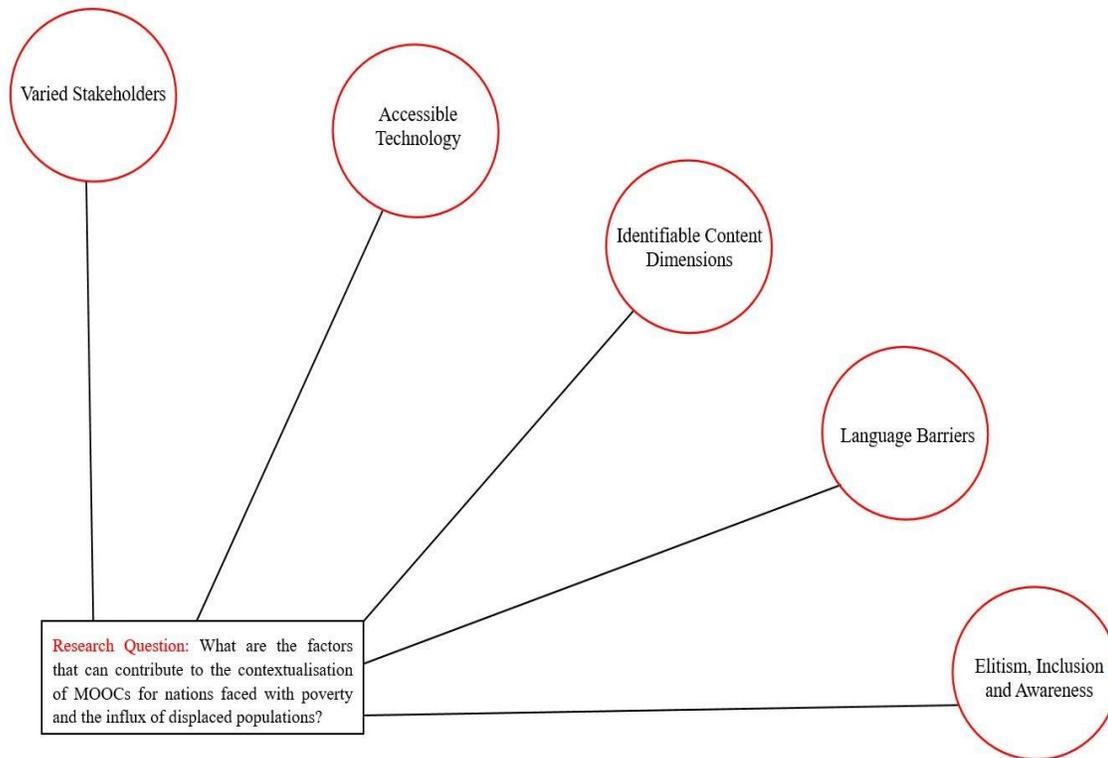
Figure 6.1 Five Contextual MOOCs Factors

Additionally, the connection between Knowledge Gap Theory and the research question in this study, is also reflected in these 5 key factors derived from the findings which are presented in Chapter 5. The basic principle of MOOCs is the provision of open and accessible education for all regardless of background, country or contexts of the learners. However, lack of contextualisation of MOOCs which is the subject of study in this thesis, has demonstrated through the data that openness, inclusivity and access are not necessarily being well implemented. This impacts the ability to bridge gaps and provide education for all. With this in mind, the Contextual MOOCs Factors of Varied Stakeholders, Accessible Technology, Identifiable Content Dimensions, Language Barriers, and Elitism, Inclusion and Awareness, as seen in Figure 6.1, and their interaction with Knowledge Gap Theory are explored.

In examining the factor of "Varied Stakeholders", Tichenor et al., (1970) Knowledge Gap Theory acknowledges the need for stakeholders by which to develop and disseminate information or knowledge, to large segments of populations. The emphasis on the need for an expansion of the variety and diversity of stakeholders is also not uncommon amongst studies found on MOOCs. However, the differentiation in the findings gathered in this study is twofold. Firstly, to incorporate a much larger and varied group of stakeholders who can identify with the contexts of the specific nations and underprivileged segments of populations. Secondly, in identifying with the contexts for these population segments, to be able to cater and adapt for the needs of their often rural and challenging environments as well as their social conditions. Contextualising for such nations through a combination of a more diverse group of stakeholders as identified in this thesis such as NGOs, Governments/Local Governments, Local Businesses/Industries, often falls short in the literature. The vast majority of studies keep the diversity of stakeholders limited within the sphere of groups such as, learning designers, higher educational institutions, and teachers who are often developing courses from their own contexts rather than with a view to the conditions of learners in other nations or indeed for the contexts focused on in this thesis. Armellini and Padilla Rodriguez (2016) is such a study which discusses stakeholders within that sphere. Conole (2016) expands this net of stakeholders a little with the inclusion of others such as venture capitalists for the purpose of receiving returns on investments in MOOCs. Nevertheless, such studies still appear to emphasise the need for MOOCs rather than examining the conditions of the nations in which the MOOCs are being implemented and thus reflecting upon the associated requirements of the people for which MOOCs are being deployed. As mentioned, data collected for this study additionally suggests

that stakeholders also include bodies such as NGOs, local businesses and local governments. However, the involvement of these types of bodies is often less prominent in the equation of MOOCs and stakeholders. These bodies as part of the group of "Varied Stakeholders", provide an understanding of the context and socio-economic conditions of the local populations, and can aid in minimising the gaps in knowledge through contextualised MOOCs dissemination. In addition, the data indicated that a greater variety of such stakeholders not only enables better chances for adaptability of MOOCs in such environments, but also that their contextual awareness can aid in addressing the needs of the nation to provide education whilst also catering towards alleviating poverty and improving opportunities for greater social integration. Greater opportunities for social integration can again support the decreasing of gaps between socio-economic status groups.

Social integration through knowledge acquisition, is a mechanism by which to reduce gaps in population segments, and requires an awareness and understating of the social systems for which this is being done (Tichenor et al., 1970). In order to contextualise MOOCs, the data brought to light the importance of the factor "Elitism, Inclusion and Awareness". Involving the components of "Awareness" and "Inclusion" for targeted learners was found to enable stakeholders to identify the needs and the contexts of the existing gaps for learners. Data indicated that identifying relevant MOOC content may aid in how to address awareness, inclusion and minimise elitism in order to fill those gaps. The data also indicated that this may be done, for example, by having a larger variety of stakeholders. This, for instance may include stakeholders on the ground involving local businesses and identifying employable skills shortages, for which the

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need of skills based courses may be developed. This again may be able to encourage employable opportunities for displaced and underprivileged populations. In reflecting again on Knowledge Gap Theory, Evers and Gerke (2004) expressed similar sentiments as they reiterated the value of contextualised stakeholders who can aid in localising the contexts of knowledge for learners which can act as a means to reduce gaps and provide relevant knowledge opportunities.

The reduction of gaps in knowledge is also heavily reliant upon the access to knowledge as well as the equitable acquisition of knowledge (Viswanath & Finnegan JR., 1996). "Accessible Technology" and again "Elitism, Inclusion, Awareness" are the factors for contextualisation which fall in line with the procurement of accessible and equitable knowledge. In Knowledge Gap Theory, access to information or knowledge is the foundation by which to bridge gaps and enable the inclusion of lower status segments of populations. The participants pointed to the contextual components of this when discussing bandwidth, which not only effects basic access to MOOCs whereby making them inclusive or elitist, but also effects the learning design aspects of the courses, and pointing to the devices most owned by potential learners upon which the interface of MOOCs can be made available. Participants also strongly discussed the recognition of elitism of MOOCs and the need to contextualise in order to create access, awareness and opportunities for inclusion. This is reflective of the remarks made by Liu and Eveland (2005) and Holbrook (2002) on Knowledge Gap Theory, which suggested that if the delivery of knowledge through mass means does not consider the conditions of the environment for which it is being delivered, it generates an unequal distribution of knowledge in favour of higher socio-economic status groups. Shah and Santandreu

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Calonge (2019) also stress contextualisation as such, is crucial in order to minimise educational gaps and therefore provide a gateway for inclusion and uphold the right to education.

In discussing the question of minimising gaps in knowledge, Holbrook (2002) also looked at inclusion and access by examining the relevance of knowledge which was being developed for specific segments of populations. This echoes the sentiments relating to contextualisation held in the factors of "Identifiable Content Dimensions" and "Language Barriers" as found in the data. The data emphasised the need to target, or clearly identify, the types of learners for which courses are being developed. This, as it was expressed by participants in Chapter 5, enables the development of courses which can support the needs of learners for greater social integration and advancements within the context of their nations. In identifying intended learners and respective courses for them, addressing language requirements of those learners was found in the data to be part and parcel of the contextualisation process, and can also be another means by which to bridge gaps. Providing courses which also meet the local language requirements of learners reflects the notion of adaptability by which to close gaps when disseminating knowledge, as was suggested by Baran and Davis (2009) when examining minimising Knowledge Gaps through adaptable processes. Ettema and Kline (1977) similarity point to adaptability and contextualisation, as is displayed with all 5 Contextual MOOCs Factors in this thesis, with their suggestion of identifying and adapting to the specific conditions of given environments as a step towards minimising gaps.

The aspect of minimising gaps in knowledge is present in all 5 factors which have been identified in response to the research question through the data gathered in this study. The 5 factors align with Knowledge Gap Theory and several of the studies discussed here which have highlighted adaptability, and thus contextualisation towards the environments in which knowledge is to be provided as a component to minimise the gaps which exist through the lens of Knowledge Gap Theory. Both the data in this thesis, and the studies on Knowledge Gap Theory, indicate that gaps in knowledge are widened in part due to the ineffectiveness and often pure lack of contextualising and thus, a lack of adaptability. Through the investigation presented in this thesis, this also seems to be implied for the development and implementation of MOOCs for displaced refugees and low socio-economic status learners which are focused on in this study. Having examined this, the relationship between the 5 factors evolving into the development of theory within the contextual focus of this study, can now be seen in the following Section 6.3.

6.3 Development of Theory: The Contextualised MOOCs Model

The construction of theory is part of the Glaserian methodological approach, and in the process to construct theory, this thesis collected and examined data which can shed light on its research question. In this process, as discussed in Chapter 5 and in Section 6.2 above, the findings have led to 5 factors that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations. These 5 factors facilitate the grounded process of construction of a theory as well as help to

address the second part relating to the aim of this thesis. That is, to understand the connections between these factors and how they fit together to provide a contextualised approach for MOOCs for the nations and populations focused on within this thesis. In reflecting upon this, the data, and the implemented grounded methodological approach, Glaser (1965) states the evolution of theory develops through the collection of data gained through the process of constant comparison. As such, from the 5 factors which have been identified by the process of constant comparison in Chapter 5, and as seen as the response to the research question in Figure 6.1 Five Contextual MOOCs Factors, the development of theory is composed in the form of a model through the interconnections between the identified 5 factors. The interconnections or identifying how the data "relate to each other" (Glaser, 1978), through the construction of theory therefore, is presented in what this thesis has termed as the "Contextualised MOOC**s** Model" which encompasses the connections and workings between the 5 factors to form a model that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations. Through its connections and links, this Contextualised MOOC**s** Model theoretically represents the "how to framework" for MOOCs to be contextually and adaptably implemented for the needs of the said nations and learners.

In examining the construction and importance of the Contextualised MOOCs Model as seen in Figure 6.2 of which a larger image is in the Appendix section, attention can be drawn again to other studies which have been conducted on MOOCs. There are studies about MOOCs which discuss separately some aspects of the different components within the 5 factors which have come to light in this thesis. For instance, Conole (2016),

Khalil and Ebner (2016), and Kopp, Gröblinger, and Zimmermann (2017) have discussed areas related to stakeholders which may be a factor required for MOOCs, whilst other studies, such as, Stracke (2017), Milligan and Griffin (2016), and Stracke and Tan (2018) have highlighted learning design aspects. There have also been numerous studies such as Brooker, Corrin, De Barba, Lodge, and Kennedy (2018), Ferguson et al. (2015), and Li, Wang, & Tan (2018), which have looked at student numbers and engagement along with retention and dropout rates. These and many others again touch on some of the components of MOOCs which have a slight likeness to the 5 factors identified in this thesis, however these components have been brought to light in other studies in a fragmented manner and not in relation to the contexts or populations focused on through this thesis. With regards to the fragmented manner in which some of the components of the contextual factors are discussed, it can be seen that, firstly they do not tend to reflect on or identify multiple components of MOOCs which may have an impact upon each other. If they have identified more than 1 component, they do not reflect on the interconnections between the components which they may have identified. Secondly, they have not provided a model for MOOCs which may be implementable in similar contexts. Thirdly, as mentioned, their focus and identification of any components of MOOCs does not tend to reflect the types of nations or underprivileged populations which are examined in this thesis.

For instance, the component of stakeholders, in this thesis "Varied Stakeholders" as mentioned above, is a prominent factor which the participants have identified, as are "Accessible Technology" which encompasses learning design, "Identifiable Content Dimensions", "Language Barriers" and "Elitism, Inclusion, Awareness". In this thesis,

what sets apart these "Contextual MOOCs Factors" as this author has termed it, from other studies is, that these should not solely be considered in isolation of each other. Rather, what is being theorised here through the Contextualised MOOCs Model, is that these factors need to be holistically viewed and implemented together, in order to develop and adapt MOOCs to said environments. Figure 6.2 The Contextualised MOOCs Model, illustrates how these factors relate to each other according to the data which has been gathered and the contexts of nations and learners examined in this thesis.
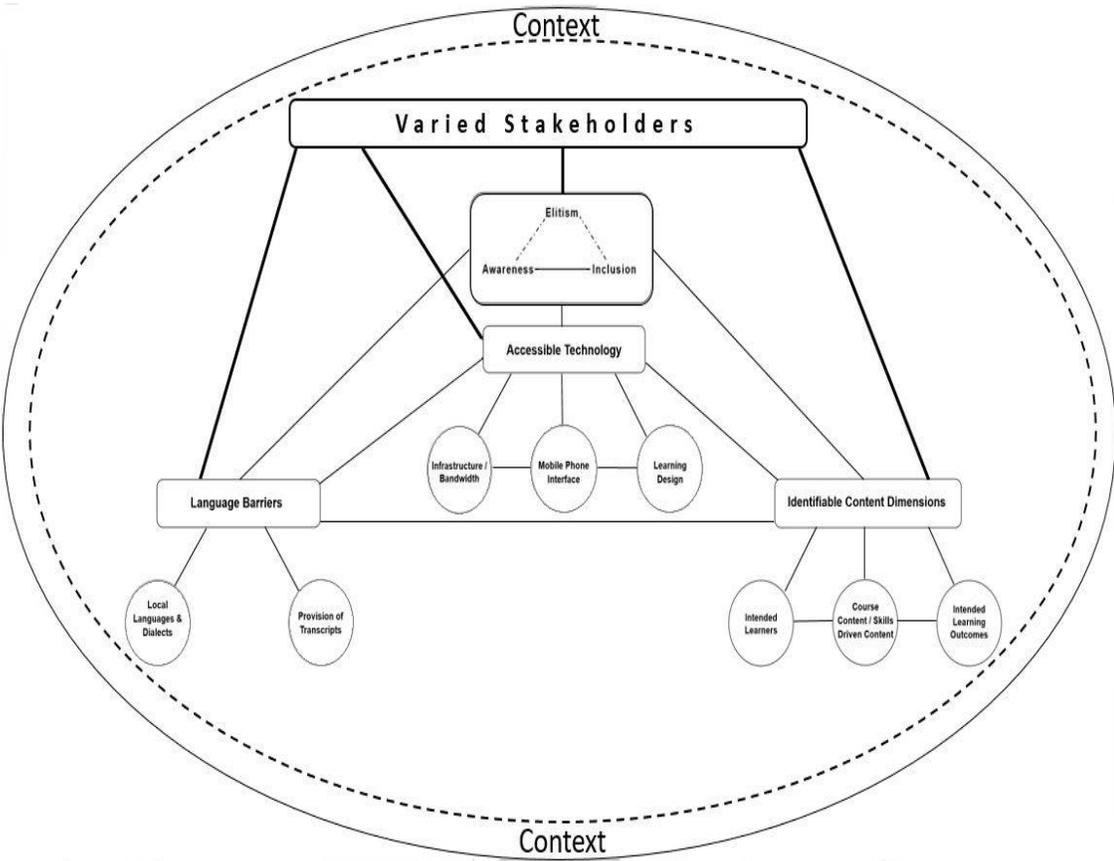

Figure 6.2 The Contextualised MOOCs Model

6.4 Breakdown Analysing the Links Between the Factors Held Within the Contextualised MOOCs Model

This section provides a breakdown and analysis of the links between the factors presented in the Contextualised MOOCs Model. Thus, discussing the links, it addresses how to interpret the Model. As the Contextualised MOOCs Model has been derived from the 5 key themes of the data seen in Chapter 5 Findings, Section 6.4.1 begins analysing the links within the model through 5 core points. Proceeding these 5 points, a further analysis of each factor is discussed in greater detail in Section 6.4.2.

6.4.1 Breakdown of Links in the Contextualised MOOCs Model

1) As contextualisation of MOOCs is the premise of this thesis, it can be seen in the model that the sphere of "Context" provided that bases in which to hold all other factors. That is, context encompasses all the factors which came to be identified through the data and this again can be seen in the model.

2) The factor of "Varied Stakeholders" penetrated into all other factors which are required for the contextualisation of MOOCs, as evidence of this was found in the data. This is presented in the model also through the links which are stemming down upon the other factors. Due to this prominent impact, the factor of "Varied Stakeholders" is thus presented as directly linking to all 4 other factors which are also required and contribute towards building contextualised MOOCs. In order to further highlight the

impact of "Varied Stakeholders" as having a great and unique influence upon the other remaining factors in the model, the links are strongly emphasised.

3) The data clearly showed the factors of Varied Stakeholders, Accessible Technology, Identifiable Content Dimensions, and Language Barriers, have a direct impact upon the levels of inclusion, awareness and elitism of MOOCs. This factor of Elitism, Inclusion and Awareness does not have developmental components which are found in the other 4 factors of Varied Stakeholders, Accessible Technology, Identifiable Content Dimensions, and Language Barriers, presented in the Contextualised MOOCs Model. That is for instance, the development of infrastructure and design found in Accessible Technology; identifying intended learners and relevant skills driven content applicable to them as found in Identifiable Content Dimensions; local language dialects and the provision of transcripts as found in Language Barriers, and above all a combination and variety of stakeholders which enable the development and implementation of contextualised MOOCs as found in Varied Stakeholders. Rather, Elitism Inclusion and Awareness is unique, the depth of elitism, inclusion or awareness of MOOCs, is dependent upon the strength of contextualisation of the components held within the other 4 factors. Due to this influence which the other 4 factors have, they are all therefore shown as having links to the factor of "Elitisms, Inclusion and Awareness".

4) Access is essential, and as brought to light through the data, it is a building block providing infrastructure/bandwidth, interface through widely used mobile phones, and corresponding learning design developed for them. As such, access and the factor of "Accessible Technology" is a fundamental requirement in order to provide for the

components within the factors of Language Barriers and Identifiable Content Dimensions, as Accessible Technology in the first instance provides basic access to MOOCs. Due to this, in the Contextualised MOOCs Model, the factor of Accessible Technology is centred in the Model and links to the factors of Language Barriers and Identifiable Content Dimensions, and as mentioned in Point 3, to Elitism, Inclusion and Awareness. As found and discussed in the data in Chapter 5 Findings, the factor of Accessible Technology is also comprised of components which include the following: "Infrastructure/Bandwidth", "Mobile Phone Interface", and "Learning Design". These are shown and linked in the Model to Accessible Technology.

5) The development of the types of courses for targeted learners in appropriate and accessible languages and the ability to reach indented learning outcomes, has been shown in the data strongly impact upon each other. That is, the components within the factors of Identifiable Content Dimensions and Language Barriers directly influence each other as courses are developed. Due to this, the Contextualised MOOCs Model presents a direct link connecting these 2 factors. Additionally, as found in the data in Chapter 5 Findings, these 2 factors affect Elitism, Inclusion and Awareness. This again is mentioned in Point 3, and therefore these 2 factors are also linked to Elitism, Inclusion and Awareness. As the findings also demonstrated in Chapter 5, similar to the factor of Accessible Technology, the factors of Language Barriers and Identifiable Content Dimensions are also comprised of their own components. Language Barriers holds the components of "Local Languages & Dialects", and "Provision of Transcripts", which are linked and shown in the Model under this specific factor. This can also be seen with the factor of Identifiable Content Dimensions. Its unique components of "Intended

Learners", "Course Content/Skills Driven Content", and "Intended Learning Outcomes" are all linked and displayed under Identifiable Content Dimensions.

6.4.2 Analysing the Links in the Contextualised MOOCs Model

As the 5 points above outlines the links within the model, the following now analyses each factor within the Contextualised MOOCs Model in greater detail. Considering the impact which "Varied Stakeholders" has on all the other 4 factors in the model, the suggestion made by Participant 21 (MOOC Developer, and Involvement in the Learning Designers and Researchers Teams) are very significant; i.e. that this factor is part of the foundation for building the bigger picture. Variety in stakeholders, as examined in Point 2 above, has an overarching effect as it sets the stage for the development, funding, and the requirements within the factors of Accessible Technology, Identifiable Content Dimensions, and Language Barriers. Due to this, the role of Varied Stakeholders impacts the level of inclusion and awareness for potential learners along with the potential to minimise any elitist tendencies that may develop with the engagement of MOOCs, thus influencing the factor of Elitism, Inclusion and Awareness. Participants 11 (Professor, Director of Finance and/or Research, and Involvement in the Learning Designers and Researchers Teams) and 17 (Professor, and Involvement in the Learning Designers and Researchers Teams) spoke about this impact which stakeholders have on fostering inclusion and awareness of MOOCs and minimising the turn towards elitism. They discussed the diversities in stakeholders and their role in looking at possible opportunities for displaced people with regards to courses which are developed for them. Thus, they highlighted the role stakeholders play for developing courses with a focus on

learning outcomes which are implementable based on the prediction of the future location of displaced learners. Instances such as this, as brought to light by the participants, illustrates the sphere of the bigger picture which requires the engagement for a variety of stakeholders. It also again demonstrates the link which Varied Stakeholders has to other factors in the Contextualised MOOCs Model. Here, the involvement of different kinds of stakeholders in order to consider the current and possible future locations of displaced and underprivileged learners, reflects directly upon the components within the factors of Identifiable Content Dimensions and Language Barriers. Such an instance requires the variety of stakeholders to not just identify who the targeted learners are in the context of Identifiable Content Dimensions, but also to identify the component within this factor relating to "course content /skills driven content" which can enable opportunities for such learners. This relationship linkage can be seen in the Contextualised MOOCs Model, relative to the process of identifying what the "intended learning outcomes" are for those who are targeted to engage in such courses.

The factor, considering "Elitism, Inclusion and Awareness", is directly influenced by all other 4 factors as can be seen in the Contextualised MOOCs Model and discussed in Point 3 above. Several participants when discussing this, as well as when discussing the other 4 factors in the Model, have suggested a lack of contextualisation limits the inclusion and awareness of MOOCs and ultimately enhances the possibility for elitism with MOOCs. Uchidiuno, Ogan, Yarzebinski, and Hammer (2016), highlighted aspects of this when considering a lack accessibility, which in turn reduces the element of inclusion. Although they suggested MOOCs potential to bridge gaps in education and

literacy, they nevertheless attributed an obstacle in achieving this to the connection between a lack of accessibility and local languages. They suggested accessibility of MOOCs is hampered due to courses which are largely not provided for in local languages (Uchidiuno et al., 2016). Rohs and Ganz (2015) indicated the elitist tendencies of MOOCs through the perspective of examining technology access and targeted learners, which turned out to be learners who already come from highly educated backgrounds and social status groups.

"Accessible Technology" in the model can be seen linking to the factors of Language Barriers and Identifiable Content Dimensions as this, as this author has mentioned above under Point 4, enables the basis of building courses and access, particularly with MOOCs being an online mechanism for knowledge dissemination. Castillo, Lee, Zahra, and Wagner (2015) discussed some of this when they examined what they perceive as trends, challenges and opportunities with MOOCs. They reflect upon infrastructure, MOOC content and local languages, and suggested that these are predominantly catered to Western requirements. In the contexts of this thesis, as the data illustrated in Chapter 5, access requires (i) developing and adapting for a given contextual environment's bandwidth and infrastructural needs, (ii) developing content on devices which are available and dominantly used within the region, which in the instance of the contexts examined in this study are mobile phones, and (iii) aligning this with the learning design process which is designed and scaffolded to be adapted to the needs of the mobile phones along with considering the suitable bandwidth and infrastructural needs. Several participants which were interviewed, pointed to this. The neglect of Accessible Technology deprives the means by which to contextually facilitate the implementation

of the factors of Identifiable Content Dimensions and consequently to address the components held within Language Barriers.

The parallel between "Identifiable Content Dimensions" and "Language Barriers" also evolved through participants' interviews as highlighted in Point 5 above. The development of relevant courses for targeted learners was pointed out by Participants 12 (Involvement in the Learning Designers and Researchers Teams, and Business Investor) and 3 (Professor, Involvement in the Learning Designers and Researchers Teams). As stakeholders identify the components of "intended learners" and "course content /skills driven content" along with the "intended learning outcomes" which can be gained from taking such courses, they must not neglect the components within the factor of Language Barriers. As many participants stated, the development of such courses in local languages and dialects is essential, along with adapting to language needs through the provision of transcripts. Kushalnagar, Lasecki, and Bigham (2013) similarly pointed to the connection between content and the provision of transcripts by which to further improve the understanding of content within courses. Therefore, based on the data gathered in this thesis, this connection between the factors of Identifiable Content Dimensions and Language Barriers can be seen in Figure 6.2 The Contextualised MOOCs Model.

The composition of all these factors together constructed in the form of a theory through the Contextualised MOOCs Model, has evolved into a plausible mechanism by which to implement MOOCs which are adaptable and thus developed contextually addressing the need of the environments and its learners.

6.5 Summary of Chapter 6

This chapter addressed the research question and re-examined the theoretical framework through the 5 Contextual MOOCs Factors which were identified in the data. How these 5 factors are viewed through the lens of Knowledge Gap Theory was discussed, and this brought about an emphasis on contextualisation and thus adaptability as a means by which to bridge knowledge gaps for nations and its learners. This was identified through the participants' discussions on the nations and learners focused on in this study. Nevertheless, the concepts of contextualisation and adaptability may also be applicable to a wide range of learning societies for MOOCs. This chapter also presented the generation of a theory through the Contextualised MOOCs Model. This model not only included the "MOOCs Factors", it discussed the vital component of the links and correlations between these factors in order for them to be theoretically implemented in the contexts of the nations and learners examined in this thesis. The thesis now moves on to Chapter 7, the concluding chapter. The final chapter discusses the implications for practice of the Contextualised MOOCs Model and also looks at the limitations to this research along with future research recommendations.

Chapter 7: Conclusions

7.1 Introduction to Chapter 7

Chapter 7 concludes the thesis. In doing so, it brings forward the foundations of this research by addressing its aims and purpose, and discusses the contributions to theory and the implications for practical application. Here, it highlights the notion of "MOOCs without borders" which has been developed throughout this thesis leading to the research question and the construction of the Contextualised MOOCs Model, which is the first major contribution of this thesis. As part of the theoretical contribution and practical application, this chapter discusses the paradox of MOOCs being open and accessible to all and highlights factors in the Model and the impact of these factors which are currently neglected in the development of MOOCs by prominent MOOC platforms. A second major contribution is then discussed, which points to the ability to combine both inductive and deductive reasoning when generating theory. The chapter then discusses the lack of focus given to the sector of MOOCs which is needed for underprivileged and displaced populations. The chapter goes on to highlight other areas of applicability for the Contextualised MOOCs Model, and recommends future areas for research. The chapter concludes with addressing the limitations of this research and provides concluding remarks to this thesis.

7.2 Addressing the Aims and Purpose of this Study

The aims of this thesis provide a lens by which to focus the data that has been gathered and presented. Thus, prior to discussing the contributions of the work presented in this thesis towards the development of a theory and its practical application, including the identification of areas for further research, it may be beneficial to reflect once more on the aims of this study. The concept of *"MOOCs without borders. Investigating the dynamics of a contextualised approach to scalable online learning, inclusion of displaced populations and conditions of poverty."* as stated in the title, sets the broader framework and scope for this study. It enabled an examination of the concepts of contextualised education as well as the provision of scalable online education through the mechanism of MOOCs. The purpose of this thesis also relates to the concept of inclusion through "MOOCs without borders". A combination of the focus on the aims and purpose of this study, has shed light on the plight of nations faced with poverty and the influx of displaced populations for providing accessible, contextualised, inclusive and open, educational opportunities. This study has also provided the opportunity to examine gaps in the attainment of knowledge for those segments of the population in the nations outlined in Chapter 1. In examining these concepts for "*MOOCs without borders"*, this research narrowed its scope to the research question "*What are the factors that can contribute to the contextualisation of MOOCs for nations faced with poverty and the influx of displaced populations?*". In doing so, 2 core aims ensued.

The first aim was to uncover what the factors are that can contribute to the contextualisation of MOOCs for the nations and populations which are focused on in this thesis. These nations have been outlined in Chapters 1 and 3. Through addressing

this initial aim and uncovering the "factors", the second aim of this thesis was addressed. This second aim required the "factors" as it examined how these factors link, interact and impact upon each other in order to "contribute" to a contextualised approach for MOOCs for nations faced with poverty and the influx of displaced populations. It was through the combination of these aims, as well as combining the inductive nature of the grounded methodological approach with the principles of deductive 'gap' reasoning found through the theoretical framework Knowledge Gap Theory, that led to the generation of a theory in the form of the Contextualised MOOCs Model. Thus, the aims and purpose of this study play a role on the direction of the contributions of this thesis towards theory, the implications for practical application as well as the future research recommendations.

7.3 Contributions to Theory and Implications for Practical Application

There are 2 major contributions which have arisen as a result of this thesis. The first being the generation of a new theory presented through the Contextualised MOOCs Model, and second, combining inductive methodology with deductive gap reasoning. The discussion here examines the first major contribution. "MOOCs without borders", given the "open" and "online" nature of MOOCs, one may question if the concept of "MOOCs without borders" is an oxymoron. The findings in this research indicate that the borderless component along with MOOCs being accessible to 'anyone' at 'anytime', and 'anywhere', may be non-paradoxical as an ideology, rather than being a coherent reality in practice for populations living in poverty or displacement in rural locations or refugee camps. Given this background, the thesis contributes to knowledge by

highlighting that MOOCs may still lack contextualised components required to enable them to transcend borders in order to reach 'anyone', at 'anytime' and 'anywhere' regardless of socio-economic status. This thesis has found that there is still an immense need, especially for the nations and populations focused on through this research, for MOOCs to become more adaptable and include several key components required for contextualisation which can enhance inclusivity for such populations. This combination of factors can allow MOOCs to be developed and presented in a manner which is less foreign to their conditions and contexts. This is important not only to address the borderless component which MOOCs imply, but also as a means to minimise gaps in knowledge through providing more accessible and inclusive educational options. These concerns have been addressed in this thesis and has led to a contribution to knowledge through the generation of a new theory focusing on the components of contextualisation and therefore borderless, accessible and inclusive educational opportunities for refugees and underprivileged populations. This new theory is presented in the form of the Contextualised MOOCs Model. Ironically, it is through contextualisation that MOOCs can become borderless as this will enable MOOCs to address the needs of the nations and learners which are currently left out of the opportunity to access and engage with them.

As early as 2014 when reflecting on MOOCs, Ho et al. (2014) as well as Rohs and Ganz (2015) pointed out that "despite the optimistic and aspirational declarations" of MOOCs, they are not yet making education, as Agrawal suggested, "borderless, gender-blind, race-blind, class-blind, and bank account-blind" (Agarwal, 2013). Since then, a few MOOC initiatives with prominent platforms such as Coursera, and edX partnering with

Kiron in Germany have launched learning opportunities for refugees (Coursera; Kiron; Straumsheim, 2016). This is a meaningful and beneficial development towards educational options for underprivileged and displaced populations, but they do come with a fragmented approach towards implementing all factors for contextualisation which consequently leads to barriers in the adaptability of MOOCs for its targeted learners. For instance, as mentioned on the Kiron website the medium of instruction of courses is English, as are the majority of courses with Coursera. In addition to this, the websites of these MOOCs platforms themselves are in English. The findings of this thesis identifies "Language Barriers" as one of the 5 factors which is required for the contextualisation of MOOCs and thus recommends and points to its component of "Local Languages and Dialects", in order to adapt to the contexts of the populations and nations for which they are being developed. Although the prominent MOOC platforms are developing MOOCs for targeted populations, that is, in the examples given above, for refugees, reports have highlighted that the majority of refugees across the globe do not speak or have a strong grasp of the English language (Binder, 2018; Scamman, 2018). The lack of access to information and learning opportunities in languages which refugees have a strong grasp of has been said to run the risk of making them vulnerable to misinformation, reliant on word-of-mouth guidance and limiting their understanding of what options they have for any personal development within their current contexts (Mixed Migration Platform, 2017). This has been considered in the Contextualised MOOCs Model, and is illustrated as having a knock-on effect on the factor of "Elitism, Inclusion and Awareness" as well as having an impact on the components within the factor of "Identifiable Content Dimensions".

The practical application therefore of the theory generated in this thesis for such instances with prominent MOOCs platforms providing learning opportunities for refugees is threefold. Firstly, it can highlight that the provision of courses in English contributes to "Language Barriers", as the component of "Local Languages and Dialects" is part of the fabric for the adaptability of MOOCs to engage with the contexts of learners. Secondly, if language barriers exist, MOOCs cannot be borderless and accessible to all, rather they may become "elitist" for learners who have a good grasp of the English language and therefore lack inclusion for all. This has been indicated in the Contextualised MOOCs Model, and the possibilities of elitist tendencies with MOOCs has been suggested in studies by Wildavsky (2015) and Woldegiyorgis and Carvalho (2015). Language barriers thus also restricts the inclusivity and openness of MOOCs as non-English speakers may not be able to engage in or potentially be aware of the courses offered through MOOCs. Thirdly, if the factor of "Language Barriers" is neglected, it also impacts the component of "Intended Learners" which is held within the factor of "Identifiable Content Dimensions". Studies on MOOCs have shown, as MOOCs are predominantly developed in English, it may be challenging to identify which learners may have a good grasp of the English language in order to engage in the MOOCs and which ones may not (Duru *et al.*, 2017; Türkay *et al.*, 2017). In addition to this, each year fewer than 1% of refugees across the globe are resettled and thus still require educational options which are adaptive to the languages from their contexts which they are familiar with (Scamman, 2018; UNHCR, 2018). Reflecting on this, MOOCs which are said to be catering for refugees yet use English as the medium of instruction and are therefore not contextualised, are essentially catering to the less than 1% of refugees across the world with the assumption that resettled refugees have a good grasp of the

English language. The Contextualised MOOCs Model developed through this thesis takes this into consideration, as it suggests identifying who the indented learners are from the outset of the development of MOOCs through reflecting on the contexts of the nations and their population segments for which the MOOCs are being deployed. For instance, as has been expressed through the data in this thesis, in addition to the MOOCs which already exit in the English language, if MOOCs stakeholders are providing courses for displaced populations such as Syrian refugees, they can do so also in their local languages. Similarly, the use of contextualising to local languages may be applied for MOOCs for Kenyan refugees and displaced populations in other locations as well as for people living in conditions of poverty within their own nations, such as underprivileged populations in India, China and other nations in Africa. The application of this taken from examining the interconnections between the factors in the Contextualised MOOCs Model, may aid in opening MOOCs to all learners in all locations.

A second major contribution results from the methods implanted by which data was gathered, analysed and led to the generation of the Contextualised MOOCs Model. That is, the ability to mix both inductive research methods with deductive reasoning. This study demonstrates the practical application of these two processes, as it implements inductive methods encapsulated in Grounded Theory, yet highlighting the flexibility of this methodology to allow for the generation of theory to be developed by reflecting on deductive 'gap' reasoning, found in the theoretical framework of Knowledge Gap Theory. As expressed by Glaser (1978) and later in a study by Sarker, Lau and Sahay (2001), the inductive nature of Grounded Theory is not limited to inductive interpretations of its data,

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rather, it is open and allows for other "broad theoretical approaches that are not in the same substantive area", (Sarker et al., 2001, p.39) which in the contexts of this thesis has shown itself to be the deductive principle derived from Knowledge Gap Theory. Therefore, it can be said and seen again, approaches which may appear as an oxymoron can, upon deeper inspection, be used in a complementarity manner leading to successful outcomes. This understanding can be a significant aid towards future research.

Another significant contribution through this thesis which should be observed, entails bringing to light at this point what appears to be a "Cinderella sector" (Baker, 1989) with regards to the access of MOOCs. The notion of the Cinderella sector, as suggested by Baker (1989) and later by Petrie (2015), indicates an area in education which has fairy tale like mentions of possibilities for development within the scope of its field however, this sector often does not receive the actual focus it requires for embarking upon greater further development. In regards to MOOCs, this may translate into the contextual requirements and adaptability in the development of MOOCs for the Cinderella sector, which are the types of nations and underprivileged and displaced populations that are focused on in this study. The recognition of a Cinderella sector relating to these nations and populations within the sphere of MOOCs, may enable practical applications, possibilities of greater funding, and a focus on the combination of "factors" and their implications towards inclusion and access as identified in the Contextualised MOOCs Model. The application of the Contextualised MOOCs Model, having identified factors for contextualisation as well as the interconnections between these factors, may aid in bringing focus to the development of adaptable MOOCs for such nations and populations taking them out of the less focused Cinderella sector of

MOOCs. In addition, these contextual factors which include and connect a variety of stakeholders; accessible technology through the considerations of bandwidth and mobile phones; language barriers, and the other factors held with the model, may contribute towards greater inclusion for the nations and learners which are part of the Cinderella sector of MOOCs rather than merely identifying this as a sector within MOOCs which needs greater focus and has possibilities for development.

The practical application of the Contextualised MOOCs Model may also be useful when considering the learning design process of MOOCs for the types of nations and population segments which have been focused on in this thesis. In reflecting on the design of MOOCs, studies have highlighted that the quality of instructional design of MOOCs lacks the ability to adapt to the conditions of developing nations and underprivileged or fragile learners (Janssen, Nyström Claesson and Lindqvist, 2016; King, Pegrum and Forsey, 2018; Shah and Santandreu Calonge, 2019). Zhan et al. (2015) also indicated that MOOCs are less inclined to be pedagogically adaptive to learners from different contexts. The Contextualised MOOCs Model points out the factor of "Accessible Technology" which encompasses the component of "Learning Design". This, as is seen in the Model, is impacted by the contextual components of bandwidth and the types of devices which are likely to be owned and used by learners in such nations. Design considerations involving videos and downloadable content as suggested through the data found in this thesis, are impacted by access to the internet and bandwidth speeds. The Contextualised MOOCs Model by connecting local access capabilities as well as learning design, recognises the need for structural adaptability and sustainability as part of the mechanism to achieve pedagogical designs which are

adaptable to given environments. The model can therefore aid MOOC designers, developers and other stakeholders to reflect on the direct impact that local infrastructure and bandwidth as well as the use of specific mobile devices have on design aspects of MOOCs, and consequently, the access and ability for underprivileged populations to engage with such courses.

Although attempts are being taken with MOOCs to be open and accessible to all, there appears to be areas in the development of MOOCs which lacks contextualisation, as has been suggested in this thesis. The Contextualised MOOCs Model presents an overarching view of core factors for contextualisation and how they link to each other. In doing so, this may provide a holistic approach towards implementing factors for contextualisation for the development of MOOCs, rather than for instance, developing MOOCs which overlook adaptability to local languages, or considerations of design and engagement through mobile phones or considering actual bandwidth access which underprivileged populations may have. The Contextualised MOOCs Model is about contextualising and therefore inclusion and adaptation to the conditions of underprivileged and displaced populations. Due to this, although this thesis focuses on a select number of nations, this Model can nevertheless provide a framework for the contextualisation of MOOCs for other similar nations. Given these considerations, the Contextualised MOOCs Model may aid in the continual growth of the development of MOOCs for the millions of potential learners in such complex locations which are still largely overlooked.

7.4 Future Research Recommendations

Upon reflecting on the findings in this thesis, it is clear that there are some key areas which provide a fertile ground for future research for the benefit of developing and under developed nations and their underprivileged populations, which have the urgent need to develop, or enhance, their educational and vocational skills. Although "Intended Learners" are discussed and evident in the Contextualised MOOCs Model, further research examining the learners' perspective would be beneficial for facilitating greater sustainable outcomes for MOOCs for underprivileged and displaced populations, who reside in similar nations as have been mentioned in this thesis. Their experiences and engagement with contextualised MOOCs, may aid in further refining the factors for contextualisation. This may also provide further reflections on what the next iterative steps could be towards achieving greater inclusion and equitable educational opportunities through contextualised MOOCs. In addition to this, the processes for quality assurance and accreditation is another area which is recommended for examination in further research. Impact studies relating to courses offered will be important as a part of the quality assurance systems. Depending on what the intended outcomes are for courses which are developed for such learners in rural environments, and in the instance of millions of refugees living in unsettled contexts, accreditation for both skills training and other academic courses would add value and credibility to MOOCs. How such environmental contexts play into the process of quality assurance and accreditation may be a challenging matter, but important to explore and help in further adapting to the contextualised model for MOOCs.

7.5 Research Limitations

As with any research study, this thesis has been developed within the confines of some limitations. One such potential limitation may be seen as not selecting or identifying a specific MOOC course to examine in the selected nations through which data has been gathered. This limitation was addressed by the author after reflecting carefully on the intent of this study. That is, it was never the intent to examine any specific MOOC. Rather, the impact of context and the factors involved as a whole in the process of developing and deploying such forms of teaching and learning were what was considered pertinent for the focus of this thesis.

As mentioned in Chapter 3 Section 3.4, when discussing ethical concerns and validity for this thesis, the author did consider the limitation of being able to "bracket" any previous assumptions and experiences when conducting this research (Bound and Campbell, 2011). This was restricted to the best ability of the author by being mindful of this whilst conducting interviews, and analysing data. Recording and listening to the data several times aided in the ability to truly identify what is being discussed by the participants and thus, what is emerging through the data.

A further limitation which may restrict the Contextualised MOOCs Model, is not specifically including students or learners as stakeholders. The data revealed "other stakeholders" which are part of the Model; however, as participants in the interviews specifically did not point to students as stakeholders, it was not included in the Model. As the intent of the generation of theory in the form of the Contextualised MOOCs Model was to stay true to the findings of data which was gathered, students did not

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specially emerge as a theme and was therefore not included. As mentioned in Section 7.4, future research involving students and learners' perspectives may further expand on the contextual factors for MOOCs.

An additional limitation may relate to the ability to generalise the findings of this study. The sampling size in this study of 21 participants along with the select nations which are examined as opposed to many other such nations, brings to question the actual implications and impact which this study may have. However, through the grounded approach, this thesis was able to "build a theoretical explanation…in terms of the conditions that give rise to them" (Corbin & Strauss, 1990, p.421). In doing so, it also developed "representative concepts" (Mjoset, 2005) that emphasise the notion of adaptability to various contexts. Through this and the openness for iterative changes gained from further research by this author, the Contextualised MOOCs Model can provide a framework which has been lacking in the field of MOOCs for underprivileged and displaced populations.

7.6 Concluding Reflections

MOOCs in their current form largely cater to a very small percentage of the world's population, and as such are limiting themselves to particular types of borders. Through implementing a model for contextualisation such as with the Contextualised MOOCs Model developed in this thesis, the developers of MOOCs can identify the components which are needed to adapt MOOCs for various different environments, thus promoting inclusivity and reaching much larger learning audiences.

"What stands in the way becomes the way" ~ Marcus Aurelius, AD 121-180

(Aurelius, 2004).

The often fragmented approach to recognising factors for contextualisation and the otherwise lack of contextualisation, are what seem to stands in the way of MOOCs truly becoming accessible options for education without borders. Therefore, in order for MOOCs to be without borders and to aid as a mechanism to minimise gaps in access to knowledge, perhaps a counterintuitive approach focusing on contexts needs to be taken for MOOCs to reach audiences living in conditions of poverty and displacement who strongly require accessible, anytime, anywhere educational opportunities. That is through targeting and implementing a combination of factors that enable contextualisation and the adaptability of MOOCs for such nations and such learners. The Contextualised MOOCs Model outlines the factors by way of highlighting the involvement of varied stakeholders, identifying the dimensions of the content including who the intended learners are and targeting them, providing MOOCs in their local languages, and examining their options for accessible technology which allow them to engage in the MOOCs which are inclusive and accessible. These five factors of contextualisation and their interconnections with each other as seen in the Contextualised MOOCs Model, can provide a framework that may be required in a variety of such nations for such people. This may aid in bringing about MOOCs which are indeed borderless and thereby, provide steps towards greater social integration and adhering to the basic human right of education for everyone, whilst also staying true to

the principles of providing Massive Open Online Courses with a much larger global impact.

Living in conditions of poverty or "becoming a refugee is never their first choice" (Malala Yousafzai, 2019), and the author of this thesis believes, providing accessible, inclusive, contextualised education at scale to minimise these conditions for them, can be.

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Appendix 1: Interview Questions

The following interview questions were used to gather data for this thesis, however these questions were not necessarily asked in the order in which they appear below. Prior to the interviews, participants were reminded of the context and focus of this research. Participants were encouraged to share their knowledge and perspective on the area of focus for this thesis, and the interview questions were largely used as probes to stay on track within the scope of this research. Again, the order in which the questions were asked, varied according to the flow of conversation with each individual participant.

Do you think online education can be borderless?

What is your perspective of scale and inclusion with online MOOCs education?

From your experience, would you say MOOCs are open to everyone?

Have you found MOOCs to be accessible to anyone regardless of context?

Have you found MOOCs to be open and saleable to all types of learners regardless of what socio-economic status groups they are likely to come from?

From your experience with MOOCs, do you find there to be gaps in access to this from of knowledge?

What do you think the involvement of MOOCs for refugees/displaced and populations living in poverty entails?

From your perspective is there a difference in the MOOCs which are developed for instance in the United States, United Kingdom and Canada, from the MOOCs which could be or are being developed or implemented for the nations and the populations focused on in this research?

Do you think MOOCs can alleviate gaps in knowledge and gaps in education, or gaps in access to education? Or, do you think MOOCs have the potential to do this?

Are there any design implications for MOOCs which are developed for such nations and these populations?

From your experience, what would you say are some of the challenges when developing MOOCs for such contexts and populations?

From your perspective and experience in this area, are MOOCs reaching those nations and segments of populations?

You have mentioned.... could you please elaborate on that?

Is there anything else which you would like to add which pertains to what we have been discussing?

So, I will just summaries the key things which you have brought to light and do let me know if there is anything which you believe I should adjust with this summary.

Appendix 2: The Contextualised MOOCs Model