

Pre-service teachers' use of social media for academic purposes

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Abstract

This thesis presents the findings of a qualitative study that was conducted in the context of pre-service teachers in Greece. The study explores how pre-service teachers use social media for academic purposes on their own initiative. Different methods were employed for the collection of data, with semi-structured interviews being the main data collection method. The rich data obtained from 36 pre-service teachers allowed for a complex picture of social media use to emerge. The findings suggest that participants used an array of social media to 'survive' their teacher education courses and develop their student identities. At the same time, they used social media to prepare for their transition into their future profession. Through social media participants engaged in social capital building with their existing networks and loose assemblages of people that consisted of their peers and future colleagues. The study discusses the benefits derived from this use of social media. The importance of non-active participation and the building of latent ties is also highlighted. Finally, the thesis presents a framework that aims to link the key concepts that informed the study, both deductively and inductively, and forms my contribution to knowledge. The importance of recognising overlapping boundaries between personal and academic purposes when conceptualising the use of social media, and acknowledging participants' messy realities is stressed. The study contributes to existing literature by providing in-depth qualitative data of the voluntary ways in which participants used social media for both course-related and profession-related purposes. Based on the findings, the thesis presents theoretical and practical implications for initial teacher education institutions, as well as recommendations for future research into pre-service teachers' social media use.

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Abbreviations

AoIR: American Association of Internet Researchers

BERA: British Educational Research Association

CoP: Community of Practice

ECE: Early Childhood Education

ITE: Initial Teacher Education

PE: Primary Education

PGCE: PostGraduate Certificate in Education

SE: Special Education

SNS: Social networking site

SM: Social media

Social media tools referred to in the thesis

Facebook: <https://www.facebook.com/>

Twitter: <https://twitter.com/>

Linkedin: <https://www.linkedin.com/>

Academia: <https://www.academia.edu/>

Slideshare: <https://www.slideshare.net/>

Skype: <https://www.skype.com>

Viber: <https://www.viber.com/>

Wikipedia: <https://www.wikipedia.org/>

Prior publications authored or co-authored by the researcher during the PhD studies

Kontopoulou, K. (2016) 'Special Education pre-service teachers in Greece use of socialmedia', 2nd *Panhellenic Conference for the Promotion of Innovation in Education*, Technological Educational Institute (T.E.I.) of Thessaly, 21-23 October. Available at: <http://synedrio.epeke.gr> (Accessed: 1 April 2018).

Kontopoulou, K. and Fox, A. (2015) 'Designing a consequentially based study into the online support of pre-service teachers in the UK', *Educational Research and Evaluation*, 21(2), pp. 122-138.

Chapter 1: Introduction

This chapter begins by describing the focus of this research. It discusses the prominence of social media in everyday life and, in particular, in the Higher Education context in which pre-service teachers are educated. It also provides the rationale for the focus of this study and presents a statement of the research problem. This sets the scene for outlining the research objectives and the research questions that guide the thesis. Following this, it highlights the significance of the study in relation to the research gaps that I identified in the literature. To contextualize the study, the chapter presents information about myself and discusses how my background influenced the choice of research topic. The chapter concludes by describing the structure of the thesis.

1.1 The prominence of social media in everyday life

Social media have become an integral part of many people's lives (Pew Research Center, 2018; Ofcom, 2016; Miller et al., 2016; Selwyn and Stirling, 2016). Although there are different definitions of social media in the literature, this term is commonly used to refer to social networking sites (SNSs) (e.g. Facebook, LinkedIn), photo-sharing tools (e.g. Instagram, Pinterest), video-sharing tools (e.g. YouTube), video-conferencing tools (e.g. Skype), blogs and microblogs (e.g. Twitter), wikis (e.g. Wikipedia), instant messaging (e.g. Viber, WhatsApp), Question and Answer tools (e.g. Quora, Yahoo Answers), and social bookmarking tools (e.g. Delicious) among others (Conole 2013; Crook et al., 2008; Dron and Anderson, 2014).

Such tools have brought about changes in the ways users communicate, travel, study or do business (Conole, 2013; Rainie and Wellman, 2012) as they allow individuals to interact with other people not only directly, but also indirectly, through access to products and artefacts or “digital traces” that other users have left behind (Dron and Anderson, 2014, p. 4).

These tools have been so extensively taken up that social media use is now taken for granted as part of modern everyday life (Miller et al., 2016). Wikipedia has become the “first port of call” for everyday questions (Dron and Anderson, 2014, p. 9), while

Facebook has turned into “the primary platform for many people’s engagement with the internet” (Selwyn and Stirling, 2016, p. 2). A study with 1,520 adults in the USA showed that Facebook users account for 79% of online Americans, showing an increase by 7% in 2015 (Pew Research Center, 2016). Similar patterns are also noted in Greece. According to the Hellenic Statistical Authority (2018), there was an increase from 60.3% in 2013 to 71.5% in 2017 in the total population that engaged in social networking.

1.2 Social media in formal education

The educational potential of social media is widely discussed in the literature (Greenhow and Askari, 2017; Manca and Ranieri, 2017; Song, 2017). Social media have been celebrated as providing learners with opportunities to produce content, exchange knowledge and collaborate with their peers (Ahern, Feller and Nagle, 2016; Greenhow and Askari, 2017; Yoo and Kim, 2013). As Buckingham (2015) notes: “The potential which digital media offers for learners to become creators- rather than merely “consumers”- of knowledge has been seen by some as close to revolutionary” (p. 288).

However, it is important to acknowledge that users may appropriate social media in different ways to how the designers initially imagined (Francis, 2007; Joseffson et al., 2016), or to how teachers hope or prescribe that their students will use them. Furthermore, research into the integration of social media into formal education has not presented conclusive evidence of their value (Greenhow and Lewin, 2016; Tess, 2013). In fact, there has been criticism that educational technology literature is characterized by “small-scale case-study designs” and their data “were often limited in scope” (Selwyn, 2007, p. 6).

Additionally, the importance of exploring how university students use social media on their own initiative has been highlighted (Creighton et al., 2013; Greenhow and Burton, 2011; Kumar, Liu and Black, 2012; Schwier, 2010; Vivian, 2012; Yoo and Kim, 2013; Vaughan et al., 2011). Researching how university students use social media to support their studies can contribute to the ongoing discussion about how these technologies can be appropriated in educational settings (Gray, Annabell and Kennedy, 2010; Kumar and Vigil, 2011; Vivian et al., 2014). However, little in-depth research has been conducted

into how university students in general, and pre-service teachers in particular, choose to use social media on their own initiative. This research most often focuses on particular tools that are found to be the most popular, while participants' overall use of social media tools has not been comprehensively explored. The following section presents a statement of the research problem addressed in this thesis.

1.3 Statement of the problem

This study focuses particularly on pre-service teachers. In so doing, I refer to university students who are studying to become teachers. This research focus is significant for two reasons.

Firstly, teachers are expected to help students develop their digital literacy skills (boyd, 2014; Crook et al., 2008; Kumar and Leeman, 2013), and support them to become autonomous and lifelong learners in the contemporary “networked society” (boyd, 2014, p.195). Secondly, teachers are expected to use social media for their own professional development and networking (Fox and Bird, 2017a; Ranieri, Manca and Fini, 2012). Interactions with colleagues are considered to be beneficial for all professions, and particularly for the teaching profession which has often been described as “a lonely profession” (Fullan, 2000, p. 5). Through social media, teachers can build networks and join communities which help them exchange knowledge and support each other emotionally, overcoming isolation and engaging in the development of the profession (Ala-Mutka, 2010; Kumar and Leeman, 2013; Manca and Ranieri, 2016).

These two reasons hold implications for initial teacher education (ITE) institutions. It has been suggested that prospective teachers should be provided with the opportunity to advance their digital skills, identify professional organisations and resources and connect with pre-service teachers from other universities as well as practitioners (Kumar and Leeman, 2013; Pilgrim and Bledshoe, 2011). Such studies stress the importance of ITE institutions guiding pre-service teachers as to how to become equipped with a network of connections and knowledge of resources that would enable them to transition effectively into teaching. Since pre-service teachers use new technologies in their everyday lives (Fox and Bird, 2017b; Mikulec, 2012) it is important to explore the ways in which they use social media on their own initiative.

Understanding how the next generation of teachers use social media beyond the university classroom, can provide ITE institutions with an important insight into how to provide quality education to their students. As Kumar and Vigil (2011, p. 144) note:

Teacher education programs can also plan technology education integration better if teacher educators have more insight into undergraduates' familiarity with new technologies.

This focus on the informal ways university students choose to use different social media has been stressed in the literature (Deng and Tavares, 2015; Greenhow, Robelia and Hughes, 2009; Selwyn and Stirling, 2016), and particularly in relation to research into how participants use social media to supplement their studies (Ahern, Feller and Nogle, 2016; Creighton et al, 2013; Kumar, Liu and Black, 2012; Vivian et al., 2014). However, few studies specifically focus on pre-service teacher education settings (Eley, 2012).

1.4 Research objective and research questions

The objective of this study is to explore how and why pre-service teachers in Greece choose to use social media for academic purposes.

I defined *academic purposes* as purposes that are related to participants' university studies. In this way, I distinguished it from personal purposes (purposes related to participants' everyday life) and professional purposes (purposes related to participants' future profession), as both were unrelated to their studies.

I organised the study around the following questions;

RQ1: How do pre-service teachers in Greece use social media for personal purposes?

RQ2: How do pre-service teachers in Greece use social media for academic purposes?

RQ3: How do pre-service teachers in Greece use social media for professional purposes?

Although I did not aim to research RQ1 in the same detail as the other two, I considered that including this question would allow me to contextualize participants' experiences of social media use for academic purposes.

As is described in the following chapters in more detail, these research questions gave rise to different conceptual, practical and ethical challenges throughout the study, from the beginning, during the pilot study and towards the data analysis chapter. The overlap of the purposes, which will be exemplified in Chapter 3, Chapter 4 and Chapter 5, helped me problematise the extent to which such purposes could be researched in isolation from each other.

While the principal data collection method was semi-structured interviews with participants, I also employed pre-interview questionnaires, seven-day diaries and follow-up interviews.

1.5 The significance of the study for different beneficiaries

The study aimed to fill four gaps identified in the literature. In line with the consequentialist dimension of ethical considerations of research which stresses the importance of considering the people or institutions that are likely to benefit from the study (Stutchbury and Fox, 2009; Mitchell and Fox, 2019, Section 4.3), the study aimed to make contributions to a range of beneficiaries.

The significance of the study is in:

- a) focusing on pre-service teachers' informal use of social media for academic purposes;
- b) exploring pre-service teachers' overall use of social media tools;
- c) employing appropriate qualitative methods to studying experiences of social media tool-use;
- d) recruiting participants from an under-researched population.

These gaps are mapped against the beneficiaries as outlined in Figure 1.

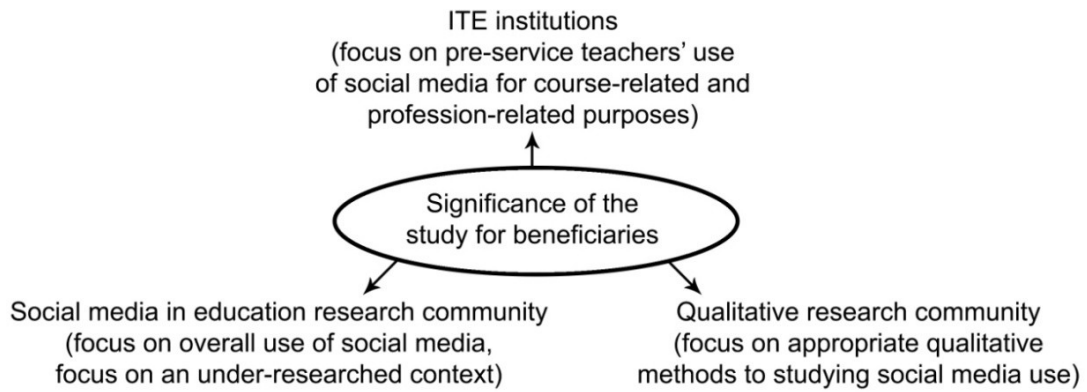


Figure 1. Significance of this study for beneficiaries

1.5.1 Pre-service teachers' informal use of social media for academic purposes

In the context of pre-service teacher education, several small-case studies explore the integration of these tools into participants' teacher education courses (Benko, Guise, Earl and Gill, 2016; English and Duncan-Howell, 2008; Kumar and Leeman, 2013; Pilgrim and Bledshoe, 2011; Wood, 2012; Wright, 2010), and therefore in students' formal education. Findings from this body of literature suggest that social media facilitate reflection and collaboration, enhance communication and reduce feelings of isolation.

This study adopts a different focus, as it aims to explore how and why prospective teachers choose to use social media on their own initiative. Thus, it responds to a call from the literature for further research into pre-service teachers' informal uses of social media (Eley, 2012; Kumar and Vigil, 2011). Additionally, few studies explore how students use social media to prepare for their future profession, and their transition into it. Since there is tentative evidence from these studies that participants use social media for professional purposes, or acknowledge the potential for this (Andrews, Tynan and Backstrom, 2012; Chawinga and Zinn, 2016; Joseffson et al., 2016), an in-depth study that focuses on how and why pre-service teachers may engage in such activities could provide training institutions with valuable insights.

1.5.2 Pre-service teachers' overall use of social media tools

In the literature, most studies on social media use explore one particular social media tool (Kumar, 2009). The same is also true with published literature reviews into the topic of social media use in education, which tend to focus on Facebook because of its popularity, while other tools remain under-represented (Manca and Ranieri, 2017). However, taking into consideration the “moving landscape” of the social media world (boyd, 2014, p. 27), it is possible that the tools that are now popular might disappear in the years to come, giving way to new ones. Additionally, individuals may use different tools for different purposes, and therefore research that explores users' overall use may provide us with a more useful and insightful picture of their practices. This study aimed to listen to the future educators' views about the whole repertoire of tools they currently use, responding to calls from the literature not to focus on specific tools “in isolation” (Miller et al., 2016, p. 4).

Published literature tends to focus on the potential of individual tools in formal education, with researchers hoping that they might prove to be “the ‘Killer App’ capable of initiating significant shifts in how people learn and engage with education” (Selwyn and Stirling, 2016, p. 3). Such studies are characterised by a “tendency ... to look primarily for good news, ‘best practice’ and examples of ‘what works’” (Selwyn and Stirling, 2016, p.3). In this way, a rather ‘rosy’ picture of social media use is presented and the messiness of experience with new technologies is often ignored (Selwyn and Stirling, 2016, p. 1). For this reason, there have been calls for more criticality in studies of technology use that would go beyond “‘victory narratives’” of specific tools (Hennessy et al., 2018, p.4). This interest in criticality is also promoted through events, such as the joint British Educational Research Association (BERA)/ British Journal of Educational Technology (BJET) Wiley event which was conducted in 2017. A focus on the purposes of participants' use allows this study to offer insights in a principled, rather than tool-specific, way.

1.5.3 Appropriate qualitative methods for studying the experiences of social media tool use

Many studies into the informal ways university students use social media for academic purposes use questionnaires as their research instrument (i.e. Kumar et al., 2012; Towner and Muñoz, 2012; Madge et al., 2009; Vrocharidou, Asderaki and Korres, 2011). However, questionnaires about the use of technologies have certain limitations that need to be considered (Crook et al., 2008; Corrin, Lockyer and Bennett, 2010; Junco, 2013; Vivian et al., 2014).

Firstly, there is the risk of respondents' misunderstanding terminology that is often taken for granted, or that researchers hope to use in precise ways (Crook et al., 2008; Kumar, 2009; Vivian et al., 2014). This misunderstanding of terminology may include activities with social media tools, such as "uploading content" (Crook et al., 2008, p. 19) or terms such as "academic purposes", "formal", and "informal" purposes (Kumar, 2009; Vivian et al., 2014, Section 2.2.2).

Secondly, taking into consideration that social media have pervaded our lives (Conole, 2013; Miller et al., 2016), it is possible that respondents might find it difficult to remember the full extent of their social media uses (Pew Research Center, 2015).

To explore the way pre-service teachers use social media for academic purposes, my main data collection methods generated qualitative data – responding to calls from the literature to focus on learners' voices (Conole et al., 2008; Manca et al., 2017).

1.5.4 Participant recruitment from an under-researched context

In the literature, many studies into social media use by university students have been conducted in the UK and the USA (Bosch, 2009; Hew, 2011; Madge et al., 2009). To my knowledge, there is a dearth of research that explores how pre-service teachers use social media in the Greek context. By focusing on an under-researched context, this study aims to fill this gap in the literature and provide the educational research community with important insights into social media use by prospective teachers.

1.6 Background information

In line with the interpretivist principles which underpinned my study (Section 4.1), it is important to acknowledge my own biases and assumptions (Merriam, 2009). My personal and professional background and my experiences with social media tools influenced my decision to research this topic.

On a personal level, my own experience with social media started in 2006 when I was a postgraduate student in the UK. My hi5 account was the first account, with many more to come. Back then, my motivation to set up this account was mostly curiosity and following my friends' advice to join in the fun, while my involvement with that tool was restricted to logging in no more than once a week and almost exclusively to communicate with my friends. This had changed over the years, and today my online interactivity is more intense and reflects different aspects of my life. Such aspects include not only my personal and academic life as a PhD student, but also my professional life as an English as a Foreign Language teacher. I have become 'Facebook friends' with several teachers, joined several teaching groups on Facebook, and follow academics on Twitter. Throughout the years, I have discovered EFL blogs and forums that I visit frequently whenever I have a question about my profession and want to read other people's ideas. My engagement with social media includes posting articles and videos about topics that interest me on my Facebook wall and retweeting posts that attract my attention, as well as joining groups of EFL teachers on Facebook, LinkedIn and frequently visiting EFL forums and blogs. My participation in those groups ranges from reading posts and discussions made by other members or, to a much less extent, actively participating by replying and posting.

On a professional level, as a teacher, I have always been interested in the ways in which new technologies could enhance students' learning. Although not consistently, I incorporated YouTube videos in the classroom, as a way that would help me teach different language skills and initiate discussions with students on different topics. Additionally, one of the schools that I worked at actively prompted all teachers to start integrating new technologies in the classroom, as well as encouraging students to start using the school blog and the school electronic platform from home, by commenting on other learners' posts and completing several activities that were posted on the electronic

platform. It was hoped that, in this way, students would improve their technological skills, but most importantly, their English language skills. However, such initiatives were met with little enthusiasm by the students, whose participation in the blog and the platform ranged from being limited to non-existent. Although this experience was disappointing, I continued reading about innovative ways in which technology could be harnessed in the classroom and visited communities of teachers who were also interested in the topic. This experience piqued my curiosity as to how students do use social media and for what purposes.

At the same time, at several points throughout my teaching career, I had to face different types of dilemmas in relation to my profession and my social media presence. For example, I often wondered whether: my privacy settings on Facebook needed to be updated; it would be appropriate to post content that reflected my political views; and more importantly, how to respond to students' friend requests. The world is changing, and the teaching profession is faced with similar types of questions that relate to perceptions of professionalism in relation to social media use (Foss and Olson, 2013; Fox and Bird, 2017b; Kimmons and Veletsianos, 2014; Mikulec, 2012).

I openly acknowledge that these online experiences and dilemmas influenced my choice of research topic, as well as the research questions that I designed. The importance of acknowledging this interest and personal experiences with technologies is summarized by Selwyn (2012b), who cautions researchers on the risks of personal experiences becoming limiting in the data analysis.

One of the most uncomfortable intellectual leaps for academics to make is that of disconnecting any analysis of young people, education and digital technologies from their own personal experiences with digital technology. (Selwyn, 2012b, p. 82)

In addition to my personal background, the study is also the result of my experiences with two pilot studies in the UK context which prompted me to reflect on my choice of research focus, research context and recruitment strategy. (Chapter 3).

1.7 Structure of the thesis

Chapter 2 (Literature Review) discusses published research from five broad areas that informed the study: social media, informal academic purposes, assemblages on social media, capital and identity.

Chapter 3 (Pilot studies) presents my experiences with three pilot studies. It discusses the initial research focus, which was different from the current one. It highlights the ethical dilemmas that emerged which influenced my decision to refine the research focus and change the research context.

Chapter 4 (Methodology) discusses the philosophical considerations that informed the study and presents my approach to methodology, research methods and data analysis.

Chapter 5 (Findings) presents the findings of the study in relation to the research questions.

Chapter 6 (Discussion) discusses the findings in relation to the literature review. It presents the framework that emerged from the data and highlights the main contributions of this research.

Chapter 7 (Conclusion and Recommendations) provides the limitations of the thesis, and outlines implications for practice and future research.

Chapter 2: Literature review

This chapter presents the literature review that informed the study. It consists of five areas that are discussed as follows: 1) social media, 2) informal academic purposes, 3) assemblages on social media, 4) capital, and 5) identity. It is important to note that the first two areas informed the design of the study, as I had reviewed relevant literature prior to conducting the research. The last three areas were inductively-derived from my data analysis. Each area is discussed in a separate section.

2.1 Social media

This section presents my working definition of social media and locates it in the wider literature. Then it discusses the concept of social media *affordances*, particularly in the context of education, with reference to the literature. The section continues by discussing how the popularity of social media among young people has given rise to the concept of a generational digital divide, with contemporary university students characterised as “Digital Natives” (Prensky, 2001). Then it presents a typology for conceptualising people’s engagement with technologies as either “Visitors” or “Residents” (White and Le Cornu, 2011). This typology goes beyond generational criteria and challenges the concept of *lurking* that is commonly referred to as an unwanted behaviour. Finally, the section proposes a term that could describe non-participatory activities on social media.

2.1.1 Terminology and definitions

New technologies have been referred to as *Web 2.0* (Brown, 2012; Crook et al., 2008; Greenhow, Robelia and Hughes, 2009; Redecker et al., 2009), *social software* (Dron and Anderson, 2014; McLoughlin and Lee, 2007), *read/ write web* (Hall, 2008) and *social media* (Fox and Bird, 2017b; Selwyn and Stirling 2016). In the literature, these terms are often used interchangeably (Manca and Ranieri, 2016).

In this thesis, I use the term *social media*. While the term has been challenged for implying that there are also media that are non-social, it has become very popular, not only in the literature but also in popular discourse (Papacharissi, 2015, p.1).

Initially, I designed the study using the Greek term *κοινωνικά δίκτυα* (often translated into English as *social networks*) to refer to *social media*. This is the term that appears in the questionnaire and interview questions (Appendix C and E). During the course of the study, and after reading literature about the issue of translation of the term in Greek (Manousou and Xartofylaka, 2011), I changed the translation to *μέσα κοινωνικής δικτύωσης* (often translated into English as *social media*) in the diaries and follow-up interviews (Appendix F and G). However, participants did not consider the two terms to mean different things (Appendix F, Note), supporting writers who stress that users' understanding of terminologies might be different from academic understandings (Creighton et al., 2013; Hrastinski and Aghaee, 2012; Miller et al., 2016).

Apart from the wide range of terminologies available, another finding that emerges from the literature review is that there is not one agreed definition of the term *social media* (Dron and Anderson, 2014; Manca and Ranieri, 2016). Definitions vary from simply citing examples of distinct tools (see boyd, 2014), to a focus on the activities they afford (McCay-Peet and Quan-Haase, 2017).

I started the study with a definition of social media that reflected a synthesis of different definitions in the literature (Appendix A). The definition I provided in the questionnaire to respondents at the start of this study was the following:

Web tools and applications that allow for communication and collaboration among users, as well as the creation and sharing of material.

I also provided participants with examples of social media tools. However, my appreciation of the ambiguities in the use of the term developed during the study as I continued reading the relevant literature. Acknowledging that social media is likely to mean different things to different people (Creighton et al. 2013; Hrastinski and Aghaee, 2012), I decided to continue with the interviews, diaries and follow-up interviews without providing participants with a fixed definition. This open approach has also been taken by other researchers (Creighton et al., 2013; Eley, 2012; Hrastinky and Aghaee, 2012; Kalogiannakis, 2013; Papacharissi, 2015), in order to give participants voice and allow them to “decide what is social media and what is not” (Hrastinsky and Aghaee, 2012, p.454). This approach also reflects an effort to expand the term beyond current

understandings; as Papacharissi (2015) notes, temporal factors may affect our perceptions of what is and what is not *social media*, and definitions may evolve over time. This is particularly important as the field of social media is continuously changing, with new tools constantly being developed, older ones disappearing (boyd, 2014; McCay-Peet and Quan Haase, 2017; Yakin and Gencel, 2013), and existing ones developing their features and interlinking with others (Madianou, 2014; Miller et al., 2016; Tess, 2013). Such examples suggest that narrow and fixed definitions, as well as definitions based on examples of tools, may not adequately reflect the rapidly and incessantly changing world of social media (Tess, 2013).

The importance of adopting open approaches to the definition of social media becomes evident when we take into account how different interpretations of the term may have affected studies related to social media. For example, it can be argued that providing research participants with a definition of the term, or a list of tools for them to mark the ones they use, could be viewed as a form of imposition of the researchers' perceptions of what social media is on participants and not allowing for their voices to be heard. For example, from my review of relevant literature, I noticed that some surveys did not include older tools such as emails in the lists of social media tools that they shared with participants, although they allow for communication and collaboration with others. Dron and Anderson (2014) made a similar observation:

many surveys do not consider tools such as YouTube, Wikipedia, and Google Search to be social media, despite the fact that they are entirely powered by the crowd and exist only because of user-generated content. (p.25).

This raises questions about whether findings that emerge from questionnaires that provide participants with lists of pre-determined tools based on the researchers' understanding of social media adequately reflect the overall repertoire of tools that users may use.

It should be noted that, although I did not provide interview participants with a definition, some participants explicitly asked me for one. In those cases, I provided them with a definition similar to the one I had in the questionnaire but also asked them to add anything else that they felt was considered to be a social media tool (Section 4.3).

2.1.2 Social media affordances: Designers' intentions and users' experiences

The affordances of social media are an important factor that explains the interest of the educational research community in their educational potential (Crook et al., 2008; Dron and Anderson, 2014; Manca and Manieri, 2017; Veletsianos and Navarrete, 2012). Several writers mention the affordances of individual social media tools as well as social media in general (Conole, 2013; Greenhow and Lewin, 2016; McLoughlin and Lee, 2007). An example of proposed social media affordances is provided by Conole (2013):

- a) they provide users with the ability to create and publish content as well as share, modify and build on other users' material;
- b) they allow users to collate resources and personalise their learning experience;
- c) they facilitate the formation of different types of groups and communities;
- d) they allow users to engage in collaboration and knowledge-building.

The common characteristics among different tools have provided the basis for several authors to attempt to classify them, producing typologies of social media which aim to assist teachers in recognising their pedagogy-related affordances and integrating them into their classrooms (Manca and Ranieri, 2017). Examples include Conole (2013) and Dron and Anderson's (2014) typologies. Such typologies group tools as *social networking sites* (that allow users to form and maintain connections with others), *material sharing tools* (that allow users to post, edit and share their images and videos), *conversational tools* (that allow users to engage in discussions and chatting), and *collaborative tools* (that allow users to collaborate on a given topic), among others. While typologies help chart the "uncharted" waters of these new tools and shed light on how those affordances could be capitalised, they tend to "essentialise(s) technologies according to a designer's intention" (Vivian, 2012 p. 64). Such views may obscure the fact that users may be appropriating tools in ways that are different to designers' initial objectives (Francis, 2007; Joseffson et al., 2016; Vivian, 2012; Wodzicki, Schwämmlein and Moskaliuk, 2012). For example, Francis' (2007) study shows how a participant used Amazon (which was designed to advertise and sell books to the user) to be able to read entire chapters without actually buying the book, while another only used Gmail to backup his research documents. Another example includes Geismar and

Olsen's (2014) study with four Facebook users who did not use the tool to make any new connections with other people and preferred not to be visible by making public posts. Taking into account that "Facebook's *raison d'être*" is engaging in active networking (Dron and Anderson, 2014, p. 79), such users could be seen as not taking full advantage of the affordances of the tool for interactions. However, the study shows that participants accessed information that was important to them and maintained existing networks without any visible interaction with the tool. Such studies are important as they advance our understanding of users' experiences online. Therefore, it has been argued that "questions of what *should* happen, and what *could* happen" on social media (Selwyn, 2012b, p. 81, italics in original) may prevent us from understanding what is happening on those tools. As Robson (2016) notes, the danger of perceiving these tools as "neutral contexts" which enable certain behaviours (for example, interaction among users) is that it may obscure the different factors that can affect participants' engagement with social media (p. 119). In other words, the assumption that social media have "fixed affordances across contexts" is inaccurate and misleading, as it ignores factors, such as the above, which are also at play when researching their use (Brown, 2012, p. 3).

In this study, I aimed to listen to learners' voices with regard to their social media use. Just as a focus on affordances might obscure participants' experiences with social media, the popularity of new technologies among young people might also lead to deterministic assumptions about social media use that need to be discussed further. Such assumptions are presented below.

2.1.3 Popularity and Digital Natives

The extensive use of technologies by young people led to the assumption that the new generation is distinctively different from the previous ones and innately technologically adept (Conole and Alevizou, 2010; Selwyn, 2009b). This assumption is reflected in a range of different terms that have been used to refer to the generation of users born after 1980, such as the *Net Generation* (Tapscott, 1999), and *Digital Natives* (Prensky, 2001). By using the criterion of age, Prensky distinguishes between two fixed categories of users of technology: "Digital Natives", which refers to the young generation who 'speak' new technologies with fluency that is characteristic of a "native speaker", as

opposed to “Digital Immigrants”, which refers to previous generations whose foreign accent – in technology – is and will always remain noticeable (p. 1). Taking into consideration that Digital Natives are described as individuals who “*think and process information fundamentally different from their predecessors*” (Prensky, 2001, p. 1, italics in original), the possibility of a Digital Immigrant ever becoming a Digital Native seems to be unfeasible (Jones and Shao, 2011).

Such ideas that link technology expertise with users’ age have been challenged, due to the lack of evidence to support them (Conole and Alevizou, 2010; Jones and Shao, 2011; Margaryan, Littlejohn and Vojt, 2011; Selwyn, 2009b; White and Le Cornu, 2011). Firstly, these ideas tend to ignore that according to statistics, more than half of the global population does not have internet access (Selwyn and Stirling, 2016, p.2). Furthermore, extensive use of technologies in everyday life does not necessarily mean that users have the skills to use them for learning purposes (Deng and Tavares, 2015; Judd and Kennedy, 2010; Lai, Yeung and Hu, 2016; Margaryan et al., 2011). Moreover, there is a proportion of young people who consciously abstain from using social media and whose perspectives are not adequately highlighted in the literature (Dindar and Akbulut, 2014).

Thus, although the popularity of social media with young people has been supported by research, the view that takes for granted that young people are experts in using new technologies across different aspects of their lives, has been criticised as deterministic (Buckingham, 2015; Conole and Alevizou, 2010; Jones and Shao, 2011; Selwyn, 2009b). Jones and Shao (2011) stress that these views imply that “technological change led automatically to a sharp change in generational characteristics and the new generation of students would then become an agent of further change” (p. 6).

This study responds to calls from the literature that caution against assumptions that extensive everyday use implies academic use (Kumar, 2009). In particular, by exploring both their everyday and academic uses of social media, this study has gained a more nuanced and overall understanding of pre-service teachers’ practices. I tried to avoid making assumptions that young people are a homogeneous group of individuals that use technologies in similar ways. Although I recruited social media users, I included vignettes of participants whose engagement with social media could be characterised as

non-participatory, using the Visitor-Resident concept. The concept was proposed by White and Le Cornu (2011) and was used as a framework in the Digital Visitor-Digital Resident project (Connaway et al., 2017; White et al., 2012). In this way, a more complicated picture than is consistent with the Digital Native concept is illustrated.

2.1.4 Visitors and Residents

The Visitor-Resident typology proposes a different conceptualisation of user engagement with technologies, which is based on users' motivation for Internet use at a given time, rather than on generational criteria that formed the basis for the Digital Natives-Digital Immigrants dichotomy (White and Le Cornu, 2011).

At one end of a spectrum, Visitors are conceptualised as “users, not members, of the Web”, who tend to use the web as a means to an end (the end being a specific purpose they have in mind at a given time) (White et al., 2012, p. 6). For example, Visitors may visit a specific forum whenever they need to find information about a specific question that interests them, without participating in any discussions there. In other words, Visitors tend not to leave a searchable “social trace of themselves online” (Connaway, Lanclos and Hood, 2013, p. 290). This is an important point because the concept of Visitor does not necessarily imply non-participation on social media. Visitors can use the web to communicate with others, but they tend to do so using social media tools that allow for this communication to remain private (JISC, 2014). This might involve interacting with others through emails, Skype or Facebook chat.

At the other end of the spectrum, Residents adopt an online behaviour that is characterised by “strong evidence, visible traces, of personal presence” (White and Le Cornu, 2017, Introduction, para.1). In other words, unlike Visitors, Residents are comfortable with participating in forums or blogs, posting comments on Facebook and tweets on Twitter (Joint Information Systems Committee (JISC), 2014; White and Le Cornu, 2017). Therefore, Residents typically use new technologies to express themselves online. As far as searching for information online is concerned, ‘Residents’ tend to consult other users directly, instead of visiting for example, Wikipedia or websites (JISC, 2014).

Visitors and Residents are not set categories into which individuals can be placed once and forever (White et al., 2012). Instead, they are seen as the two extremes of a continuum of “modes of engagement” with technologies, with users “land[ing] in different places within this continuum”, depending on their personal needs (Connaway et al., 2017, p. 11). This is particularly important as it stresses the fact that social media use is not static.

Additionally, it is stressed that an individual might be a Resident, as far as their personal use of social media is concerned, and a Visitor in their professional or academic use, and vice versa (Connaway et al., 2017; White et al., 2012). For example, a teacher might prefer to communicate with friends and family face-to-face, rather than on Facebook or Twitter (a Visitor mode of behaviour in their personal life), while at the same time they might have a blog or a YouTube channel where they post things related to teaching (a Resident mode of behaviour in their professional life).

I found the ‘Visitor-Resident’ metaphor (White and Le Cornu, 2011) to be appropriate for my study for three reasons.

a) Unlike other typologies (Table 1) that describe *types of users*, this typology provides a continuum of “*modes of behaviours*” (White et al, 2012, p.5).

Table 1. Typologies of users in the literature

Author	Typology of users of technologies
Prensky (2001)	Digital Natives, Digital Immigrants
Brandtzæg, Heim and Karahasanovic (2011)	Non-Users, Sporadic Users, Instrumental Users, Entertainment Users, Advanced Users
Meyen et al. (2010)	The Virtuosi, The Professionals, The Addicts, The Aficionados, The Companions, The Cautious, The Affiliated

This difference is particularly important and the value of this conceptualisation becomes evident when we take into consideration the fact that new technologies are so prevalent in our lives that participants may not be aware of the frequency of their use (or even the full extent of the tools that they use). In fact, several researchers have pointed out that research participants appeared to have under- or over-reported their social media use

(Eley, 2012; Gray, Annabell and Kennedy, 2010; Vivian, 2012). In this way, placing participants into fixed categories of users, based on data collected at one specific time in their lives and using limited data collection tools, may be unrealistic. By focusing on users' current modes of behaviour and acknowledging the fact that the use of technology depends on a range of factors related to the circumstances that people find themselves in during particular periods of their life or as a result of specific needs that arise (White et al., 2012), the Visitor-Resident concept allows for a more nuanced understanding of social media use that is not fixed.

b) This framework can be complemented by the Visitor-Resident mapping activity (examples of this mapping activity are included in several publications that are related to the Visitor-Resident project, such as Connaway et al., 2017, JISC, 2014; White et al., 2012; White and Le Cornu, 2017) which can be used with participants to help researchers visualise users' modes of engagement in relation to specific purposes (an example of the process of the mapping activity is provided by David White's YouTube video) (White, 2013). It should be stressed that this mapping activity provides a snapshot of a user's engagement with social media during one specific period of time, rather than an illustration of their fixed practices.

The map consists of two axes (Connaway et al., 2017) (Figure 2). The horizontal axis is a continuum that extends from the Visitor mode to the Resident, and participants' use of different tools can be placed along the continuum based a list of characteristics that correspond to each. The vertical axis focuses on the purposes for which users engage in technology use. At the top of the axis is the Personal – which refers to a user's personal life, and at the bottom is the Institutional – refers to a user's “professional and/or academic life” (White et al., 2012, p. 9).

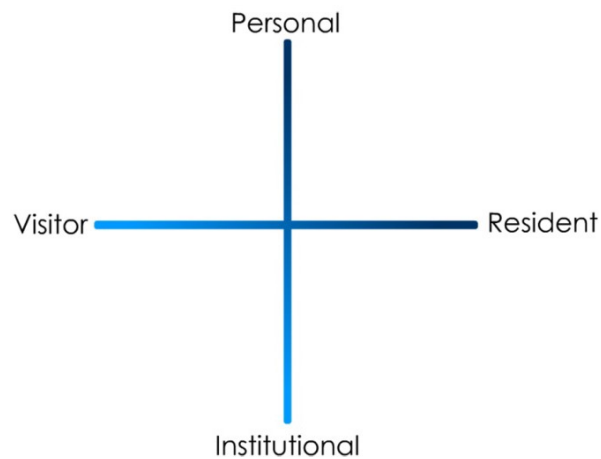


Figure 2. The Visitor-Resident map (taken from Connaway et al., 2017, p.18. From ["The Many Faces of Digital Visitors & Residents: Facets of Online Engagement"](#), OCLC Research, licensed under [CC BY 4.0](#))

I found the vertical axis (Personal purposes-Institutional purposes) to be a useful way of thinking about engagement with technologies. The fact that Personal and Institutional purposes are conceptualised as a continuum (in a similar way as the Visitor and Resident modes of engagement), aligns with the literature review in stressing the blurred boundaries between different purposes on social media (Aaen and Daalsgaard, 2016; Ahern, Feller and Nagle, 2016; Eley, 2012; Gray, Annabell and Kennedy, 2010).

c) It is stressed that specific tools do not presuppose specific modes of engagement (White, 2013). For example, some users use Facebook in Visitor mode (i.e. they do not make posts), while others use it in Resident mode (i.e. they post comments in public groups) (White et al., 2012). The map helped me focus on the activities taking place and participants' motivations for doing them, rather than the tool. In this way, this typology gives researchers a tool to challenge views (Connaway et al., 2017), which, as discussed above, assign specific characteristics (or affordances) to specific tools "according to a designer's intention" (Vivian, 2012, p. 64).

This map is a useful heuristic tool that allows for a more nuanced understanding of social media engagement. In particular, it allows for a snapshot of participants' uses of social media to be contextualised.

The concept of 'Visitors' helped me problematise the notion of 'lurking' which is prevalent in social media literature.

2.1.5 The concept of *lurking*

Distinctions between *active* and *passive* uses – the latter also being referred to as *lurking* – have been widespread in educational technology literature. Lurkers in online spaces have been defined as the “persistent but silent audience” (Walker, Redmond and Lengyel, 2010, p. 156) that engages in “passive browsing” (Yeow, Johnson and Faraj, 2006, p. 971). Such non-participatory behaviour echoes certain characteristics of a Visitor mode. As explained in the previous section (Section 2.1.4), Visitors tend to a) use technologies in order to consume content and b) avoid engaging in online discussions which leave permanent traces online.

It is noteworthy that, despite the fact that lurkers are a majority in online communities (Preece, Nonnecke and Andrews, 2004; Sun, Rau and Ma, 2014), research tends to portray them in a negative light, as users who take advantage of the community and its artefacts without offering anything back (Yeow, Johnson and Faraj, 2006).

Several educators and institutions have designed interventions that encourage students to “de-lurk”, or move from browsing to contribution and production of content, implying (or sometimes explicitly stating) that the latter is superior to the former (Sun, Rau and Ma, 2014, p. 115). This perception seems to be influenced by the perception of social media affordances, as the focus is on what users are able to do, or what they ought to do when they use such tools (Selwyn, 2012b).

Several researchers challenge the term *lurking*, as well as the distinctions between *active* and *passive* use (Antin and Chesire, 2010; Thorpe et al., 2007; White, 2015). Some of them problematise the connotation of unwanted behaviours that need to be changed, as associated with *lurking*, and stress the benefits that can be derived even when users do not actively participate (Geismar and Olsen, 2014; Thorpe et al., 2007). As Thorpe et al. (2007) explain, the negative connotation of the word, “has obscured the recognition that reading and readership are legitimate activities and roles” (p. 355). For example, White (2015) proposes the term “Elegant lurking”, to refer to students’ following important people in their field of study in order to benefit from reading their posts. In this way, users are provided with the opportunity to “tune into the discourses within the subject” (White, 2015, para. 2). In a similar vein, it has been argued that

lurking “provides inexperienced group members with an extended period of observation in order to prepare for more intensive participation” which echoes Lave and Wenger’s (1991) concept of “Legitimate Peripheral Participation” (LPP) (Yeow, Johnson and Faraj, 2006, p. 968) (Section 2.3.1). Such arguments invite us to view this non-participatory behaviour as “legitimate” as it “provides access to expertise ... and a process of reflecting on and developing key points from authentic accounts of practice” (Thorpe et al., 2007, p. 355).

It is also important to note that people engage in non-participatory behaviour differently on different social media (Geismar and Olsen, 2014). For instance, a Facebook user who has joined several groups and visits them every time a notification for a post appears on their wall may be different from another user who purposefully ‘frequents’ a forum or a blog without participating, or purposefully searches for YouTube videos on a particular topic without making any comments. It is possible that the latter behaviour suggests a more sustained interest in the topic being discussed on that tool. This is especially important in our contemporary society that is immersed in social media. Taking into account that users can join/like multiple groups/pages on social media, or watch several YouTube videos, it would be difficult to actively participate in all of them. This was stressed by White and Le Cornu (2017) who argue that it is highly unlikely for a person to use technologies in a purely Resident mode.

Researching passive use/lurking on social media can therefore be problematic, especially because these terms carry assumptions of non-action. However, as discussed above, users can engage with content in a sense which can be considered a form of participation, but which is not always studied (Geismar and Olsen, 2014). For example, the ‘like’ (or ‘share’) functionality could be regarded as a silent expression of one’s agreement with or approval of a particular post (Robson, 2016) and might therefore be worthy of recording. Additionally, as noted above, for people who spend a considerable amount of time on social media, it is likely to be difficult and possibly unrealistic to expect them to accurately self-report their behaviours. Even if some individuals say that they do not contribute, it is possible that they have contributed at some point in one of the above mentioned ‘silent’ ways without paying attention to it.

Finally, I argue that the terms ‘lurking’ and ‘passive’ use, as well as discussions on *de-lurking* students, give the impression that it is up to the user to change their engagement mode into more participatory modes (possibly with some guidance from a researcher/teacher/expert). Robson (2016) argues that technologies are not neutral and democratic environments, where all users can potentially participate in the same ways if given the chance. Participant and social media characteristics need to be considered rather than making assumptions to challenge the view that active participation can be achieved if teachers take appropriate steps to encourage it.

These challenges prompted several writers to propose other terms that bring the positive aspects of non-active participation into the fore, such as “readership” (Thorpe et al., 2007), or “elegant lurking” (White, 2015). The Visitor concept also includes non-participatory behaviours. Although *readership* seemed likely to be a useful term for my study to describe participants’ accessing of content, it was still not broad enough to include instances of social media use where users joined or liked Facebook groups without engaging with them through reading. Similarly, Lave and Wenger’s (1991) concept of LPP was not chosen for this study, as the term was initially developed by Lave and Wenger to describe peripherality in the context of Communities of Practice (CoPs). As discussed in Section 2.3.1, it is debateable whether LPP can also be used in situations when users join loose groups that do not meet the requirements of CoPs. Therefore, LPP might not be broad enough to conceptualise non-participatory behaviours that can be found, for example, when a user subscribes to a forum, watches a YouTube video, or reads a Wikipedia entry, only to access the content.

Additionally, I did not use the term ‘Visitor’, because this mode of behaviour is defined not only by access to content through non-participatory activities (such as watching a YouTube video), but also by non-visibility online (JISC, 2014). Therefore, the ‘Visitor’ mode involves using a social media tool in order to interact with other users, such as sending someone an email, or having a Skype conversation with someone, but such interactions are private between specific members and cannot be accessed by other users (unlike, for example, making a public post on Facebook).

I propose the term *non-active participation* as an appropriate working definition that describes a Person-Material mode of use (when a learner uses social media to access

content, without engaging in interactions with other users), rather than a Person- Person mode (when a learner uses social media to interact with another user/users). In this thesis, I use the terms *non-active participation* and *Person-Material* mode of use interchangeably. However, I acknowledge that the “non” prefix might also carry connotations of unwanted use, and I propose that the academic community problematise this notion, too, and engage in a dialogue in an effort to identify terms that would better describe this widespread practice.

2.1.6 Summary

This section outlined the current social media landscape as it is described in the literature that was reviewed. It focused on issues about terminologies and definitions, and provided a justification for my adopted approach. It referred to issues of popularity and affordances of these new technologies and presented assumptions about young people and technological affordances that are characterised as deterministic. Additionally, it presented a typology of engagement with technologies that allows for a more nuanced understanding of social media use. Finally, it discussed the concept of ‘lurking’ and focused on literature that challenged the negative connotation of the concept. Finally, it proposed a term that could describe non-participatory activities on social media.

2.2 Part 2: Informal academic purposes

Since informal use of social media was integral to my research, this section focuses on literature that discusses informal uses. The section begins with a discussion on the three forms of learning most commonly described in the literature. It presents different conceptualisations of these forms, with an emphasis on informal learning. Then, it highlights the criticism that attempts to distinguish between different types of learning have received – due to the blurred or overlapping boundaries between them, especially in a social media environment. It also discusses the effect that this can have on researchers studying informal learning. Then, it focuses on academic purposes and presents literature on informal uses of social media for academic purposes.

2.2.1 Forms of learning

There are three forms of learning that are most commonly discussed in published literature: formal, non-formal and informal learning (Merriam, Caffarella and Baumgartner, 2012). Different criteria have been used to support categorisations of types of learning, whether related to technologies or not, such as the setting in which learning takes place (e.g. Ito et al, 2008), the presence of an instructor and/or a syllabus (i.e. Livingstone, 2006), and intentionality (i.e. Sefton-Green, 2004; Schugurensky, 2000) as well as combinations of such factors (European Commission, 2001; Sefton-Green, 2004).

2.2.1.1 *Formal learning*

Formal learning has been associated with the context of educational institutions. A frequently used definition is offered by Livingstone, who uses the term *formal education*.

When a teacher has the authority to determine that people designated as requiring knowledge effectively learn a curriculum taken from a pre-established body of knowledge, the form of learning is **formal education**. (Livingston, 2006, p. 204, bold in original)

Livingstone uses the criteria of the presence of the instructor and structured syllabus, as characteristics that determine formality. Other writers also add other criteria (Colley, Hodgkinson and Malcom, 2003), such as the criterion of intentionality on the part of the learner (European Commission, 2001), as well as intentionality “on the part of the provider of the learning programme” (Rogers, 2014, p. 16).

Despite the differences in definitions, the common characteristics of formal learning in the literature are that it is organised through the school or Higher education system, it is hierarchically-structured, levels need to be completed before a student can move to the next and is associated with grades and certifications (Merriam, Caffarella and Buamgartner, 2012; Hague and Logan, 2009; Schugurensky, 2000).

2.2.1.2 *Non-formal learning*

Non-formal, is a contested term, as it may be used to refer to what others may refer to as informal learning (Colley, Hodkinson and Malcom, 2003; Rogers, 2014). Most often it refers to the form of learning which, similar to formal learning, is organised (European Commission, 2001). Also, instructors or facilitators and the curriculum hold a central position (Hague and Logan, 2009; Merriam, Caffarella and Baumgartner, 2012). However, unlike formal learning, non-formal learning refers to “organized learning opportunities *outside* the formal educational system” (Merriam, Caffarella and Baumgartner, 2012, p.30, italics in original) in which it is the learners who take the initiative to learn something (European Commission, 2001; Eshach, 2007). Non-formal learning is typically associated with workshops, seminars, extracurricular training sessions and evening classes (Merriam, Caffarella and Baumgartner, 2012; Schugurensky, 2000). Based on this conceptualisation, this form of learning is not relevant to my thesis.

2.2.1.3 *Informal learning*

Informal learning has been conceptualised in different ways by several writers (Carliner, 2013; Hague and Logan, 2009; Sefton- Green, 2004; Merriam, Caffarella and Baumgartner, 2012; Schugurensky, 2000). Different criteria have been used to distinguish it from formal learning, such as location of the learning activity, presence of an instructor, and purposes for engaging in learning, among others (Colley, Hodkinson and Malcom, 2003; Sefton-Green, 2004).

For example, the European Commission (2001) use the criteria of structure, certification and intentionality to frame the concept. In particular, informal learning is characterised by a lack of structure and certification and is the result of everyday activities. While it is possible for informal learning to be intentional on the part of the learner, most often it is not.

Learning resulting from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification. Informal learning may be intentional but in most cases it is non-intentional (or “incidental”/random). (European

Commission, 2001, p. 32)

On the other hand, Livingstone's much cited definition frames the concept around the criteria of agency (who determines the activity) and knowledge structure. In particular, informal learning is conceptualised as determined by the learner and not guided by a structured, pre-defined curriculum of an educational institution;

...any activity involving the pursuit of understanding, knowledge or skill that occurs without the presence of externally imposed curricular criteria ... [it] may occur in any context outside the pre-established curricula of educative institutions.
(Livingstone, 2006, p. 206, bold and italics in original)

The similarities between the two definitions lie in viewing the lack of a structured curriculum as a defining characteristic. The difference between the two is that while the European Commission views informal learning as mainly non-intentional, Livingstone theorises it as both intentional and tacit.

A taxonomy of informal learning is provided by Schugurensky (2000). Using the criteria of *intentionality* and *awareness*, he identifies three forms of informal learning;

a) Self-directed learning, which refers to "learning projects" – the person intentionally seeks to learn something, and is aware of his or her learning (Schugurensky, 2000, p.3). This form would include a person who is interested in a specific topic and decides to use different resources, such as books, journals or the internet, in order to learn more about it.

b) Incidental learning, which refers to "learning experiences" where initially the person did not intend to learn something, but has become aware that this experience resulted in learning (Schugurensky, 2000, p. 4). This form would include a person who is reading a newspaper and comes across an article about a topic of which he had no prior knowledge. The person reads the article and feels that they have learnt something new. In this case, the person had not planned to learn about the topic in question beforehand, but became aware of their learning.

c) Socialization or tacit learning, which reflects “the internalization of values, attitudes, behaviours, skills, etc” that people can acquire throughout their everyday experiences without having had an intention to do so beforehand and without being aware that something new has been learnt (Schugurensky, 2000, p.4). This form would include a person who has internalised the norms of the society or community they live in to such an extent that they consider them to be undisputed facts.

The above-mentioned examples are examples of attempts to distinguish between formal, non-formal and informal learning. However, the lack of clear boundaries between the different types is noted by several writers (Hague and Logan, 2009; Livingstone, 2006; Merriam, Caffarella and Baumgartner, 2012; Sefton-Green, 2004; Yoo and Kim, 2013). In the following section, I discuss in detail the concept of blurred boundaries between formal and informal.

2.2.1.4 *Blurred boundaries between formal and informal*

In response to the work offering seemingly fixed categorisations of formal and informal learning, several writers adopt approaches that allow for the blurred boundaries between types to be conceptualised.

One approach to understanding the blurred boundaries between forms of learning is proposed by Colley, Hodkinson and Malcom (2003). They argue that, rather than attempting to separate the forms, acknowledging that there are “*attributes of informality and formality* as present in all learning situations” (Executive Summary, italics in original) is a more appropriate approach.

They argue that these attributes of should be considered in relation to the following aspects:

- 1) Process. Relevant attributes in relation to the process of learning include: whether or not it is structured, assessed, supported by an instructor, and whether it is underpinned by teacher-centred or learner-centred principles.
- 2) Location and setting. Relevant attributes in relation to the location and setting in which learning takes place include: whether or not it takes place in an academic institution, whether or not there is a curriculum (and if so, of what

type), expected learning outcomes, timetables, and certification.

- 3) Purposes. Relevant attributes in relation to the purpose of learning include: whether or not the purpose of learning is intentional.
- 4) Content. Relevant attributes in relation to the learning content include: whether it focuses on “established expert knowledge” or experience-based and the extent to which the outcomes of learning are “rigidly specified” (p. 31).

As Colley, Hodkinson and Malcom (2003) argue “the interrelationship between these attributes is important in determining the nature of any learning that takes place” (p. 39). This approach provides a useful lens through which learning through social media can be explored, as new technologies further “blur” the boundaries between formal and informal learning (Greenhow and Lewin, 2016; Dron and Anderson, 2014; Kumar et al., 2012; Trinder et al., 2008). In the following section, I discuss this issue in further detail.

2.2.1.5 Blurred boundaries to social media use

The difficulty in determining what types of learning users engage in on social media are reflected in the following Trinder et al.’s (2008) quote:

...can talking about an assignment informally, in an informal virtual space such as MSN Messenger, yet physically being located within a formal university library, be classed as either formal or informal learning? Or could a conversation about a course topic or assignment during a lecture or in a library be described as either formal or informal? (p. 13)

These types of questions become increasingly relevant in a world that is characterised by mobile technologies, with which users can engage in different types of learning in different settings. This was stressed by Greenhow and Lewin (2016) who, also drawing from the approach of Colley, Hodkinson and Malcom (2003), argue that attempting to present the formal and informal as “binary conditions” is misleading, especially in the context of social media (p. 8). They stress that this binary view “oversimplify[ies] the complexities of the actual learning context today’s youth inhabit” (p. 8). Instead, they suggest “theorizing social media as a space for learning with varying attributes of formality and informality” (p. 3).

It is becoming evident that strict categorisations of types of learning, such as the ones presented in Section 2.2.1, might obstruct our understanding of the lived experiences of people's use of technologies (Greenhow and Lewin, 2016). This confusion between formal and informal learning is further exacerbated when terms such as 'academic use' or 'educational use' are added in relation to informal learning (Vivian, 2012). This could be identified in several studies that I reviewed and are presented in the following section.

2.2.2 Academic purposes

As the study focused on informal uses of social media for academic purposes, I turned to literature that aimed to explore how participants use new technologies for purposes related to their university courses. In studies in which the focus was on participants' use of social media, "educational purposes", "university-related purposes" and "academic purposes" were used interchangeably, either with the scope of each term undefined by the authors or, when it was defined, being understood and used differently by different writers. Below are a number of examples; it is important to note that all the studies mentioned below suggest that participants mostly used social media for purposes unrelated to their studies.

In the USA, Kumar et al. (2012) sought to explore undergraduate students' use of technologies for *personal* purposes (which they use interchangeably with *informal* purposes and *social* purposes) and *educational* purposes, as two separate categories. It is of note that their pilot study revealed that the term 'educational' meant two different things to participants: a) teacher-led uses of technologies in the classroom and b) their own use of technologies for course related purposes. In response to that, the authors added a third category in order to distinguish the latter: "undergraduates' *informal* use of new technologies in their *educational* endeavours" (p. 255, italics in original). Similarly, Eley (2012), distinguishes between *personal* use, *formal* and *informal* use of social media by who sets the activity. She views *formal academic use* of social media as referring to "any use of social media required by the instructor, either in or out of the classroom" (p. 20), and *informal educational use* of social media as referring to "when someone chooses to use social media for classroom assignments even when it is not required by the instructor" (p. 103). Madge et al. (2009) distinguishes between *social*

purposes, *informal learning* purposes and *formal teaching* purposes by who is involved in the interactions on social media – whether the activity focuses on socialisation or university work, and whether the activity is assessed. In other words, they define *informal learning purposes* as “student-to-student interactions about academic work-related matters” and *formal teaching purposes* as interactions “between staff and student involving formal assessment” (p. 148). Although they do not explicitly define *social* purposes, the category focuses on students’ use of social media for support and socialisation. Similarly, Towner and Muñoz (2011) distinguish among *social* purposes, *informal learning* and *formal learning* purposes based on the people involved in the interactions and the content of those interactions, and present four categories: *Informal learning purposes* is seen as “student-to-student interactions about non-required course-related matters” (p. 41), such as discussions about a course or lecture, and exchange of notes. *Formal learning purposes* is seen as “student-to-student interactions about required course components” (p. 41), such as exam-related queries and study group help. *Informal teaching purposes* is viewed as “instructor-student communication about non- required course-related matters” (p. 41), and *formal teaching purposes* as “instructor- student communication about required course matters that may be formally assessed” (p. 41). Table 2 summarises the above definitions.

Table 2. Examples of definitions of different purposes from the literature

Study	Definitions of purposes	Defining criteria
Kumar et al. (2012) The focus is on several social media	<i>Informal purposes/ personal purposes/ social purposes</i> : participants’ use of social media for personal and social purposes (not university-related, not part of the coursework, learner-initiated) <i>Educational purposes</i> : participants’ use of social media as part of their coursework (university-related, part of the coursework, not learner-initiated) “ <i>Informal use of new technologies in their educational endeavours</i> ”: participants’ use of social media on own initiative for educational purposes (italics mine) (university-related, learner-initiated)	a. Whether the activity is university-related or not b. Whether the activity is part of the coursework or not, learner- initiated or not
Eley (2012) The focus is on several	<i>Formal academic use</i> : “any use of social media required by the instructor, either in or out of the classroom” (p. 20) (compulsory)	a. Whether the activity is compulsory or learner-initiated

social media	<i>Informal educational use</i> : “when someone chooses to use social media for classroom assignments even when it is not required by the instructor” (p. 103) (learner-initiated)	
Madge et al. (2009) The focus is on Facebook	<p><i>Social purposes</i>: participants’ use of Facebook for support and socialisation (not related to university courses, socialisation, learner-to-learner interaction, it does not involve assessment)</p> <p><i>Formal teaching purposes</i>: interactions “between staff and student involving formal assessment” (p. 148). (related to university work, teacher-to-learner interaction, it involves assessment)</p> <p><i>Informal learning purposes</i>: “student-to-student interactions about academic work-related matters” (p. 148) (related to university work, learner-to-learner interaction, it does not involve assessment)</p>	<p>a. whether the activity is related to socialisation or university</p> <p>b. whether the activity involves teacher-to-learner or learner-to-learner interaction</p> <p>c. whether the activity involves assessment or not</p>
Towner and Muñoz (2011) The focus is on Facebook	<p><i>Formal learning purposes</i>: “student-to-student interactions about required course components” (p. 41) (learner-to-learner interaction, it is related to required tasks)</p> <p><i>Informal learning purposes</i>: “student-to-student interactions about non-required course-related matters” (p. 41), such as discussions about a course or lecture, and exchange of notes. (learner-to-learner interaction, it is related to non-required tasks)</p> <p><i>Informal teaching purposes</i>: “instructor-student communication about non-required course-related matters” (p. 41) (teacher-to-learner interaction, it is related to non-required tasks)</p> <p><i>Formal teaching purposes</i>: “instructor-student communication about required course matters that may be formally assessed” (p. 41). (teacher-to-learner interaction, it is related to required tasks)</p>	<p>a. whether the activity involves teacher-to-learner or learner-to-learner interaction</p> <p>b. whether the activity is related to required or non-required tasks</p>

It became evident to me that selecting a definition from the above categorisations was unhelpful in the analysis as, in contrast to what I found from the data, these categorisations tend to present formal and informal as mutually excluding dichotomies. Drawing from Colley, Hodgkinson and Malcom’s (2003) work, I use the term *informal use of social media* to refer to participants’ voluntary uses of social media. It does not

include the use of social media that is specified as compulsory (and therefore, part of the structured curriculum) by the university teachers. I define *academic purposes* as purposes related to both teacher-assigned and assessed tasks (for example, when a pre-service teacher uses social media to find resources for their assignments) as well as students' own learning projects that are related to their university education and future profession (for example, when a pre-service teachers uses social media to access in-service teachers' authentic material or read about their experiences in the classroom). The focus of this study is participants' informal use of social media in relation to academic purposes. However, I acknowledge the blurred and/or overlapping boundaries between purposes and I discuss them throughout the thesis.

Despite the fact that the focus of the study was on academic purposes of social media use, I also included participants' uses of social media for everyday purposes (unrelated to their university education and future profession). Several writers have noted that non-academic purposes formed the main purpose for which students use social media (Corrin, Locklyer and Bennett, 2010; Hew, 2011; Guy, 2012; Liu, 2010; Madge et al., 2009; Selwyn, 2009a; Vivian, 2012). This has been referred to as a "tension" or a "divide" between personal and academic uses of social media (Hrastinski and Aghaee, 2012, p. 459; Joseffson et al., 2016, p. 1583). In particular, a considerable body of literature shows that interactions with existing friends is the main purpose for which university students use social media (Ophus and Abbit, 2009; Pempek et al., 2009; Sadowski, Pediaditis and Townsend, 2017; Sheldon, 2008; Smith and Caruso, 2010). Similarly, another popular non-academic purpose that has been reported in the literature is entertainment and passing the time (Sadowski, Pediaditis and Townsend, 2017; Sheldon, 2008; Pempek et al., 2009; Zinyeredzi and Zinn, 2016). However, as mentioned above, distinguishing between academic and personal (non-academic) purposes can be problematic. For example, Vivian (2012) found that participants' conversations on social media "would alternate between *academic* and *social* topics in the one thread" (p. 313, italics in original), while Gray, Annabell and Kennedy (2010) report that of the four Facebook student groups they explored, three "did not separate academic information and communication from non-study-related socialising" (p. 975).

By using the Visitor-Resident framework for thinking about social media use (Connaway et al., 2017; White and Le Cornu, 2011; White et al., 2012; White and Le

Cornu, 2017), I acknowledge that personal purposes and academic purposes are not mutually exclusive categories, but can be seen as a continuum. In the next section I discuss literature reviewed about informal uses of social media for academic purposes.

2.2.2.1 Informal use of social media for academic purposes

In this section, I discuss published literature that focuses on university students' informal use of social media technologies for academic purposes. As discussed above, it is important to remember that the terms academic, course-related and educational purposes are used interchangeably in these studies. I excluded studies that involved interventions by integrating social media tools into formal learning. As a considerable number of studies focus on Facebook, I start the section by discussing some of this literature and I continue by presenting literature that focuses on a wider range of social media tools. I was particularly interested in those studies which were carried out in the teacher education context, as with my own study, although the literature is scarce. For this reason, I include studies with university students from different courses.

Facebook

Several studies generating quantitative data through questionnaire surveys present similar findings with regards to university students' use of Facebook for purposes related to their courses. Studies conducted in different countries and with different numbers of participants report that this use of Facebook was pursued by more than half of their respondents in order to talk about their assignments, exchange notes, organise meetings, and request updates (Madge et al., 2009; Towner and Muñoz, 2011; Vrocharidou, Asderaki and Korres, 2011; Tsoni, Sypsas and Pange, 2015). To my knowledge, the only study on social media use for academic purposes with pre-service teachers that was conducted in Greece is Tsoni, Sypsas and Pange's (2015) study which reports that the vast majority of the 35 participants used Facebook (91.4%) and 65.7% of them used it for course-related purposes, such as exchange of material or information given by instructors. However, a limitation of the study lies in that the majority of participants (80%) were first-year undergraduate students. Taking into consideration that the study was conducted in October -the beginning of university studies in Greece is in September (Eurydice, 2018)- it is possible that the first-year students had not had

many opportunities to use social media for academic purposes at that point. Recruiting participants who are in later years of study (therefore, with more opportunities to use different social media for academic purposes) could provide researchers with a richer insight. In fact, Madge et al.'s (2009) study with first year university students in Britain suggested that participants' informal academic use increased over the academic year.

...as the students became more embedded in university life, Facebook was increasingly used by some students in an informal way for contacting other students to organise group meetings for project work, for revision and for coursework queries. (Madge et al., 2009, p. 148)

The study also showed that Facebook was mainly used for social purposes that facilitated students' transition both prior to and after university registration. This is an interesting finding, as it brings to the fore the importance of social media for preparing students' transition into a new environment, which has also been stressed by other researchers (Baker and Stirling, 2016; Stutzman, 2011).

Overall, while such quantitative data are important in allowing us to identify participants' preferred social media tools and patterns of use, more in-depth data would allow for a nuanced understanding of how participants choose to use new technologies for academic purposes (Hravstinski and Aghaee, 2012; Vivian, 2012).

Selwyn's frequently-cited qualitative study is important in allowing for such in-depth understanding of informal academic purposes. Selwyn used content analysis of 68,169 Facebook wall posts made by 612 university students in the UK. Five categories of academic-related interactions were identified (Selwyn, 2009a, p. 161):

- 1) "recounting and reflecting on the university experience", which involved participants' descriptions of recent events at the university.
- 2) "exchange of practical information", which involved participants' exchanging information about lesson schedules and locations, as well as important deadlines, information about exams and assignment guidelines.
- 3) "exchange of academic information", which involved participants' exchanging "information about academic and intellectual requirements of their courses"

(p. 165).

- 4) “displays of supplication and/or disengagement”, which involved participants’ exchanging posts that express their feelings of disappointment or disengagement with university, looking for emotional support.
- 5) ““banter””, which involved participants’ exchanging joyful posts, for example about the university staff.

Selwyn argues, these interactions “are merely continuations of the informal discourses that have long characterised student life” and concludes that Facebook was found to be “a highly significant but also unremarkable means of social networking and communication” (p. 170). It is important to note that Selwyn’s findings showed that only 4% (n=2,496) of the Facebook wall posts that were analysed reflected academic purposes. In contrast to this, Vivian’s (2012) PhD study with university students in Australia found that of the 70 students whose Facebook walls were observed, 68 of them engaged in at least some type of academic activity. Vivian’s study is particularly important as she stresses the overlapping boundaries between academic and non-academic posts, which may explain the different findings between this study and Selwyn’s (2009a). As she notes, “Often the conversations would alternate between *academic* and *social* topics in one thread” (Vivian, 2012, p. 313, italics in original).

Furthermore, Selwyn notes limitations in his study, as it does not include possible interactions that may have taken place through private Facebook applications, such as private chat, and relies on his interpretation of students’ public Facebook wall posts. In fact, participants in Vivian’s study considered the – less visible – private messages and chat to be the most helpful Facebook applications for academic interactions with their peers (to which, like Selwyn, the researcher had no access). Moreover, Vivian mentions the possibility that participants may have erased posts or that participants’ friends may have enabled security options. By doing so, their posts on other participants’ Facebook walls would be invisible to the researcher. These possibilities may explain the overwhelming evidence that social media are mostly used for personal, rather than academic purposes noted in several studies, when researchers engage in observation of participants’ visible social media activities (Selwyn, 2009a; Vivian, 2012).

A Facebook functionality that has begun to attract attention for researchers is Facebook groups.

Facebook groups

Research into how university students use student-initiated Facebook groups is scarce, despite evidence from studies which shows their popularity among university students (Ahern et al., 2016; Charteris et al., 2018; Deng and Tavares, 2015; Gray, Annabell and Kennedy, 2010; Steinbrechter and Hart, 2012; Nicolai et al., 2017).

Studies into such student-initiated Facebook groups seem to agree that participants use Facebook-initiated groups to engage in a mixture of academic and non-academic activities (Ahern et al., 2016; Deng and Tavares, 2015; Nicolai et al., 2017). For example, Ahern et al. (2016) use findings from a survey of 260 participants to propose the term “Edusocial space” to describe such Facebook groups (p. 45). In the context of medical education, Nicolai et al. (2017) use thematic and content analysis of students’ posts on two student-initiated Facebook groups. The researchers identify a wide range of topics discussed in those groups, such as organisational issues about the university (i.e. information about schedules and procedures, etc) and beyond the university (i.e. accommodation, jobs, etc), subject matter issues (i.e. advice, exchange of documents, etc), advertisements and other posts. A limitation of this study lies in that the researchers only observed and analysed two groups. It is possible that university students use different groups for different purposes. For example, students could set up a small Facebook group in order to co-ordinate a specific project (Song, 2017). Gray et al. (2010) describe four different Facebook groups created by medical students. The four groups had a different number of members (from 5 to more than 140), different privacy settings (from open to invisible) and different aims (revision for exams, keeping contact with and making new connections with their peers, etc). Similar findings are reported by a study with pre-service teachers who formed and joined different groups depending on their different aims (Charteris et al., 2018). In particular, the researchers note that some participants “elect to join a Facebook group for support, empathy and connection, while others seek a shared space where they can work with others” (p. 468). This is an important study, as it highlights the benefits of emotional reassurance and “feeling of belonging” that university students could obtain from using those groups

(Charteris et al., 2018, p. 466).

Such benefits have not been adequately stressed in the literature. It is important to note that participants in Charteris et al.'s (2018) study were studying at a distance, which could explain their need to seek for those benefits. However, it is important to note that not all participants in the study held positive views of Facebook groups, and some of them consciously abstained from joining them.

Overall, evidence from research highlights that Facebook groups have an important role in university students' lives, which could be explored further (Nicolai et al., 2017). It is possible that through those groups participants are able to access different benefits than what those offered through their list of Facebook friends.

The studies presented above focus on one particular social media tool, Facebook, and how participants interact with their peers, either on their Facebook wall or through Facebook groups. There is a dearth of literature on how university students use other, less studied social media tools, such as Wikipedia or YouTube, in order to access content (Dron and Anderson, 2014). As there is evidence that these social media tools are widely used by participants (Creighton et al., 2013; Selwyn and Stirling, 2016), it is important that they should be further explored. I present studies that involve exploring participants' use of more than one social media tool below.

Other social media

Conole et al.'s (2008) study in the UK is a very important study – despite the fact that this is an older study whose findings might be different if carried out more recently – as it stresses the need for focusing on learners' voices with regards to technologies. By using surveys, audio logs and interviews, the authors highlight the diverse ways participants used new technologies to support their learning needs and interact with others using tools, such as emails, texting, instant messaging, chat and Skype. The study also highlights the ways participants used Wikipedia and search engines to “extend their understanding of concepts and supplement course material” (Conole et al., 2008, p. 514). However, the participants that were selected for the study are described as “effective e-learners” (p. 519). Other learners, who do not have such a rich experience with technologies, might use them in a different way and for different purposes. Similar

findings are reported by Creighton et al. (2013) with undergraduate students in the USA. Questionnaire findings show that the most popular tools in connection with participants' studies were emails, YouTube, Wikipedia and Facebook. Focus group findings highlight the use of Facebook, Facetime and Twitter to communicate with peers, YouTube to understand concepts related to their studies and Wikipedia to access course-related information. However, the study included a small number of participants in focus groups (6). Additionally, participants were selected based on certain characteristics: they belonged to a specific age group (18-24), had accounts in at least two social media tools and had had a smartphone for a year. Research that includes participants who have different levels of access to technologies could provide us with more insight into the current practices of students. Eley's (2012) study with pre-service teachers in the USA also highlights the use of Google Docs and Pinterest as tools that participants use in connection with their studies. However, Eley's study also included a small number of participants.

Apart from Facebook, research suggests the popularity of Wikipedia among undergraduate students. In particular, a large-scale study with 1,658 undergraduate students in Australia stressed the near-ubiquitous use of Wikipedia for course-related information (87.5%) – mainly for “an entry-level, *initial introduction to a topic* or area of study”, in order to clarify concepts and words that they could not understand and access further bibliography (Selwyn and Gorard, 2016, p.32, italics in original). The use of Wikipedia to access information for studies has also been reported by other studies that also report similar categories of use (Head and Eisenberg, 2010; Kim, Sin and Yoo-Lee, 2014). However, it is important to note that despite this ubiquity of use, Wikipedia is under-represented in surveys about social media tools (Dron and Anderson, 2014).

Overall, the review of the literature suggests that, with the exception of Facebook, the use of other social media tools has not been explored in-depth. Even in the case of Facebook, studies into Facebook groups have been under-represented. It is in this area that my study makes a contribution. By exploring participants' overall use of social media, it aims to address this gap in the literature.

Finally, it is important to note that there are few studies that explore how university students use social media to engage in professional purposes beyond their course. There

is tentative evidence from these studies that university students use social media to engage in professional networking or acknowledge this potential. For example, Joseffson et al. (2016) found that university students considered that one of the advantages of social media was that they can facilitate their “career building and professional networking” (p. 1589). Chawinga and Zinn's (2016) study also showed that about 35% of the 186 university students who participated in the questionnaire reported using social media to connect with professionals from their discipline. However, such findings are contrasted with other studies. For example, a study of 958 Library Science and Information Systems students by Garoufallou and Charitopoulou (2011) in Greece, reported that participants seemed to “have ignored the possible advantages that social networks could offer in terms of professional networking and exchange of knowledge” (p. 497). Similarly, other studies also found that university students did not use Facebook to connect with people outside of their institution (Selwyn, 2009a; Gray, Annabell and Kennedy, 2010). It is worth exploring whether students choose to use other social media tools for professional networking. This is a particularly important area for pre-service teacher education. Taking into consideration that transitioning into the teaching profession “can be awkward and requires careful support” (Fox and Wilson, 2009, p. 702), it is important to explore whether pre-service teachers use social media to prepare for their future transitions into their profession.

2.2.3 Summary

Overall, these different types of studies have contributed to our understanding of university students' social media practices in different ways; they foreground the popularity of certain tools and highlight that university students use social media for both personal and academic purposes. Finally, although it has not been adequately explored, the literature presents tentative evidence that undergraduate students used social media for professional purposes.

However, as this literature review reveals, there is a dearth of in-depth qualitative studies that focus on pre-service teachers in general, and in the Greek context in particular.

2.3 Part 3: Assemblages on social media

As the aim of this study was to understand how and why pre-service teachers use social media for academic purposes, I turned to literature that would help me conceptualise the different assemblages on social media. This involved reading about Communities of Practice (CoPs) (Lave and Wenger, 1991; Wenger, 1998), Networks of Practice (Brown and Duguid, 2001; Wasko and Faraj, 2005), Communities of Inquiry (COIs) (Garrison, 2003; Garrison, Anderson and Archer, 1999), Affinity spaces (Gee, 2005), and Networks (McCormick et al, 2010; Rainie and Wellman, 2012). The above assemblages of individuals have attracted the attention of researchers within the context of social media use. Dron and Anderson (2014) presented a typology of “three forms of aggregation” that can be facilitated through social media: groups, networks and sets (p. 72). In this thesis, I used Dron and Anderson’ conceptualisations of networks and sets to understand the assemblages that were reported by participants.

This chapter focuses on three concepts that were relevant for my study. Firstly, it discusses the concept of CoPs and provides my justification not to include it directly in the thesis. Secondly, it presents the concepts of networks and sets which I adopted in the study.

2.3.1 Communities of Practice (CoPs)

The notion of CoPs was initially presented by Lave and Wenger (1991). CoPs are defined as “groups of people who share a concern for something they do and learn to do it together as they interact regularly” (Wenger-Trayner and Wenger-Trayner, 2015, p. 1). CoPs can be conceptualised as inextricably linked to people’s lives, as individuals throughout their lives join (and leave) numerous CoPs – which may overlap with each other – and become either peripheral or core members (Wenger, 1998).

Three characteristics are specified as essential for distinguishing CoPs from other assemblages of people, such as family members or a group of friends (Wenger-Trayner and Wenger-Trayner, 2015):

- 1) Domain. CoPs have a common domain which binds the group together and “allows for the development of a group identity” (Corso and Giacobbe, 2005,

p.3).

- 2) Community. CoPs are groups of people who engage in actions that allow them to explore and advance their interest in the domain in question. Such actions include knowledge exchange, shared activities on common tasks and relationship building (Wenger, 1998).
- 3) Practice. CoPs are groups of people who share a common practice. Through interactions, members start developing and negotiating a shared repertoire, such as a common discourse, resources, materials, notions, etc. (Wenger, 1998).

Lave and Wenger proposed the term Legitimate Peripheral Participation to describe the way in which novices become members in a COP. Newcomers start to participate peripherally and gradually “move toward full participation in the sociocultural practices of a community” (Lave and Wenger, 1991 p.29).

The potential of social media to facilitate the development of CoPs has attracted the interest of researchers (Conole, 2013; Dron and Anderson, 2014). In the context of teacher education, examples of such virtual CoPs include Facebook groups of teachers or teacher-related forums (Macià and García, 2016; Ranieri, Manca and Fini, 2012), where they could engage in “developing shared ways of pursuing their common interests” (Wenger 1998, p.7).

However, the notion of CoPs has also received criticism (Handley et al., 2006; McCormick et al., 2010). A common criticism revolves around the notion of *community*. It has been argued that Wenger’s use of *community* is not clearly conceptualised (Bentley, Browman and Poole, 2010; Cox, 2005; Dron and Anderson, 2014; Roberts, 2006). Additionally, the concept of community can imply feelings of belonging and similar motivations (Gee, 2005; Roberts, 2006), as well as “a collective intention – however tacit and distributed – to steward a domain of knowledge and to sustain learning about it” (Wenger, Trayner and de Laat, 2011, p. 9); this may not be evident in online groups, where users may only visit the group occasionally or just once and in order to access answers to on-the-spot queries without necessarily identifying with other members. It is debatable as to whether these online spaces could be considered as a “community”, as participants may not come together in order to engage

in learning or advance their common interests (in other words, there may not be a common aim to advance learning). For example, University students may form or join Facebook groups to help each other keep up-to-date with “last minute information”, rather than exchange knowledge and engage in common activities (Selwyn, 2009a, p. 163).

Another criticism towards the concept of CoPs is that there are different understandings of common practice (Dron and Anderson, 2014; Handley et al., 2006). Wenger-Trayner and Wenger-Trayner (2015) stress the fact that a CoP is formed by “practitioners”, who learn together (p.2). As it is added “Over time, a joint history of learning also becomes a resource among the participants in the form of a shared practice – a shared repertoire of cases, techniques, tools, stories, concepts, and perspectives” (Wenger, Trayner and de Laat, 2011, p. 10). Based on this statement, it is becoming obvious that, for a CoP to develop, sustained involvement in the community is required by the members. However, users may join groups for “transitory” interactions (e.g. Thorpe et al., 2007, p. 352), responding to users’ one-off needs, rather than to their need to develop a shared practice and learn from each other. Additionally, taking into consideration that being a student is, by definition, “transitory” (Field and Morgan-Klein, 2010, p. 127) and expected to last for a fixed period of time, it is debateable whether a group of students could form a CoP in which they develop a “shared repertoire of resources” (Wenger and Trayner, 2015, p. 2).

Additionally, with the emphasis on communities of practitioners, the CoP framework may not be a useful lens to conceptualise why students visit different social media, such as YouTube, Instagram and Wikipedia, to access content rather than participate in discussions with others. However, as explained below, Wenger’s conceptualisation of identity as a trajectory was helpful in this thesis (Section 2.5).

2.3.2 Networks

A different approach to conceptualise how users assemble on social media is the notion of networks, or “nets” as Dron and Anderson (2014) refer to them. Networks consist of our connections with other people or groups of people, “one node and edge at a time” (Dron and Anderson, 2014, p. 76). In particular, they are comprised of nodes, which

refer to “the points on the network” (Dron and Anderson, 2014, p. 132), which can be individuals, groups, organisations etc. (Rainie and Wellman, 2012; McCormick et al., 2010; Thorpe et al., 2007), and edges (also referred to in the literature as ‘links’ or ‘ties’), which refer to “the connections between them” (Fox and Wilson, 2015, p. 95).

Networks can be viewed as individually-centred (Dron and Anderson, 2014; Fox et al., 2007; Fox and Wilson, 2009; Nardi, Whittaker and Schwarz, 2010; Rainie and Wellman, 2012), from the perspective that each person’s network is different from any other’s, and are continuously being developed through our connections with other people. They are more heterogeneous and “looser” than communities, and afford opportunities for interconnectivity and cooperation (Dron and Anderson, 2014, p.58; Rainie and Wellman, 2012, p.8). While membership in a CoP is typically associated with a shared identity, networks are conceptualised as more transient and “fluid” aggregations of people.

...we connect in some way with another person, or we don’t: although we might occasionally cut our ties with other individuals, for the most part it is enough to simply not engage with someone for them to drift out of our network. (Dron and Anderson, 2014, p. 76).

Rainie and Wellman (2012) view the concept of networks, rather than communities, as more accurate and appropriate conceptual tools to understand how individuals aggregate and interact with others in a society permeated with new technologies. The authors coined the term “networked individualism” to describe this “relational shift” from a community based society where people belong to closely-knit groups with fixed boundaries and hierarchies, to a network-centred society “made out of a tangle of networked individuals who operate in specialised, fragmented, sparsely interconnected and permeable networks” (Rainie and Wellman, 2012, p. 21), where relationships may be temporary and continuously shifting. The concept of networks was a possible lens to conceptualise participants’ interactions with their online connections, which ranged from closely-bound to loosely-bound relationships with other people (Section 2.4.1.2).

As networks afford exchange of information regarding on-the-spot queries (Dron and Anderson, 2014) and relationship building (Wenger, Trayner and Laat, 2011), social

capital (Section 2.4) can be used as a concept that helps us conceptualise the benefits of networking (Fox and Wilson, 2015). People may turn to their networks to ask for information or advice, which could provide them with rich opportunities for building and exchanging human capital (further discussed in Section 2.4.2) and lifelong learning.

A typical example of a tool already mentioned as a focus for many empirical studies about social media use and featured in this study, which facilitates network building in the context of education, is Facebook. On Facebook there is functionality designed for users to form and sustain their networks with other people (Dron and Anderson, 2014; Manca et al., 2017). Less studied in relation to educational contexts, are other tools such as Twitter, LinkedIn and Instagram that similarly allow networks to be formed and sustained (Dron and Anderson, 2014). In the context of education, students might connect with different people by adding them to their list of friends on Facebook, or by following them on Twitter, Instagram or LinkedIn. For example, a pre-service teacher might choose to connect on Facebook with people that they already know offline, such as their university peers. A pre-service teacher might also choose to connect online with people that they do not personally know, such as educational experts or in-service teachers, by following them on Twitter.

While the concept of networks helped me to conceptualise how participants connected with other people, such as peers, family and other people for academic purposes, it was the concept of sets (discussed next) that helped me understand participants' looser connections with people that they did not know "in any meaningful way" (Dron and Anderson, 2014, p. 165). Examples of this include joining groups of practitioners on Facebook, using hashtags to access material posted by others, and accessing Wikipedia entries written by other people that would help them understand a course-related concept.

2.3.3 Sets

"Sets" is a term proposed by Dron and Anderson (2014) to refer to loose aggregations of people that "share a common interest" (p. 26). In these assemblages, it is the topic and theme of interest that binds people together. As the authors note "Beyond that, there need be no social engagement, no direct communication, no exchange of information,

not even a shared purpose” (p. 167). Sets are visited on an “ad hoc, transient basis”, as common goals and sustained interactions are not necessary (Dron and Anderson, 2014, p. 197). The authors make an important distinction between networks and sets: Unlike networks, the identity of the people of the set is not particularly important, as the focus is the topic in question.

Sets was a useful conceptual tool that helped me understand why people may want to join Facebook groups, ‘like’ Facebook pages, subscribe to YouTube channels, and use hashtags on Twitter or Pinterest, without personally knowing the people that are also using those tools, features and hashtags.

Sets enable “just in time” learning (such as getting a timely answer to a query), as well as lifelong learning, by providing opportunities to interact in ways which help “maintain knowledge and currency in a topic or area of interest” (Dron and Anderson, 2014, p. 176). As the authors note, this concept has been under-represented and, “set-based” social media such as YouTube and Pinterest “are still often inaccurately referred to as “interest-based social networks”” (p. 165), despite the fact that it is the topic rather than the person that gets people together.

A typical example of a “set-based” social media tool is Wikipedia, as what motivates people to access and/or engage in editing a specific entry “is an interest in the topic it addresses”, without needing to know the identity of the set of people who created this entry (Dron and Anderson, 2014, p. 167). In the context of education, students may learn from such sets of people through the use of specific hashtags on Twitter/Instagram, Question & Answer sites, Wikipedia, Facebook groups/pages, Pinterest etc. For example, a Special Education preservice teacher interested in educating those with Downs’ Syndrome might decide to join a set of professionals specialising in the topic, and receive notifications and updates about new developments (when other members of the set post something new about the topic). In other words, it is the Downs’ Syndrome that binds the people together, while “significant social ties” might not be present (Dron and Anderson, 2014, p. 182).

It is important to note that Dron and Anderson do not present the networks and sets (as well as other forms of assemblages that they refer to as rigid categories, recognising that

people engage in forms that are possible through “intersections” of those forms (p. 80). This idea is also stressed by other writers, such as Wenger, Trayner and Laat (2011) who stressed the overlapping boundaries between CoPs and networks.

A community usually involves a network of relationships. And many networks exist because participants are all committed to some kind of joint enterprise or domain, even if not expressed in collective terms. (p. 10)

Additionally, it has been recognised by Dron and Anderson (2014) that it is possible that networks and sets to morph from one form into another. This statement is particularly pertinent for my study as, because of the widespread use of social media and the variety of uses, it would be difficult, if not unrealistic, to aim to list associate pre-service teachers’ social media activities by strict categories. For example, it is possible for a set of people (such as people who are interested in the topic of Early Childhood Education and who use a relevant hashtag on Twitter) to become a network, by “following” each other, to form personal connections. Finally, as Dron and Anderson (2014) note, while different social media tools may facilitate specific social forms more than others (for example, LinkedIn mostly facilitates networking), it is possible for all tools “to support almost any social form, even if the fit is poor” (Dron and Anderson, 2014, p. 78). For example, LinkedIn users can join closed groups, as well as “seek people based on categories of skills and interests that they supply” (Dron and Anderson, 2014, p. 79). Therefore, it could be argued that Dron and Anderson’s view that tools do not prescribe specific assemblages, invite us to see beyond social media affordances and designers’ intentions (Section 2.1.2)

2.3.4 Summary

This section presented three different conceptualisations of assemblages of people on social media; CoPs, networks and sets. Particular attention was paid to the last two conceptualisations, as they were adopted in the study.

2.4 Part 4: Capital

This section discusses two key concepts of my study: social capital building and human capital. The section begins by providing an introduction to social capital theories. Then,

it discusses the two forms of social capital building: bonding and bridging social capital. It also makes specific reference to the concept of building latent ties. The benefits that are commonly associated with social capital building are discussed. Finally, the section focuses on the concept of human capital.

2.4.1 Social capital building as a key process associated with social media use

Social capital building is an important concept in my study, as it informed my understanding of pre-service teachers' connections with individuals or, as will be shown in the Findings chapter (Chapter 5), a range of assemblages of individuals through social media.

The concept of social capital has generated considerable attention by researchers. In the field of education several researchers have explored the potential of new technologies to allow for the development and maintenance of social capital (for example, Ellison, Steinfield and Lampe, 2007; Greenhow and Burton, 2011). However, due to the absence of a single definition of the term 'social capital' (Julien, 2015; Ellison, Steinfield and Lampe, 2007) and consequently the ways different researchers study and measure it (Julien, 2015), this chapter starts with a presentation of two different approaches to social capital, according to key theorists. Firstly, Bourdieu's conceptualisation of the term is outlined to represent one approach, followed by a presentation of Coleman and Putnam's conceptualisations, as an alternative approach. Finally, I discuss three types of social capital building as applied in this study: *bonding social capital*, *bridging social capital* and *building latent social capital*.

2.4.1.1 Social capital theories

There are arguably two theoretical stances to thinking about social capital (Julien, 2015).

The first approach is influenced by Karl Marx, who viewed social capital "as class goods that are used as another element in providing exclusion and conserving resources" (Julien, 2015, p. 356). Bourdieu's conceptualisation of social capital is representative of this theoretical stance. Bourdieu was concerned with the reproduction of society and issues of inequality, power and struggle (Costa, 2016; Gauntlett, 2011;

Tzanakis, 2013). In particular, he sought to explore the ways in which the powerful and the privileged retained their power and status (Gauntlett, 2011; Siisiäinen, 2000). Bourdieu defines social capital as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition - or in other words, to membership in a group” (Bourdieu, 1986, p. 248).

Within this view, being a member of group offers individuals “the backing of the collectively-owned capital, as ‘credential’ that entitles them to credit, in the various senses of the word” (Bourdieu, 1986, p. 248). In other words, the most important reason individuals strive for social capital is “clear profit” (Tzanakis, 2013, p.3) in order to remain or advance their social position (Costa, 2016, p. 996).

The second approach to social capital “is community-centered”, which regards social capital as “primarily a public good” (Julien, 2015, p. 357). In this approach, social capital refers to “the good will” of people who produce and share it for the sake of the community (Julien, 2015, p. 357). Coleman, and Putnam represent this stance. Unlike Bourdieu’s view of social capital as a powerful tool in the hands of the elite, Coleman “notes its value for all kinds of communities, including the powerless and marginalised” (Gauntlett, 2011, p.133). This view of social capital can be illustrated by open source software communities, where volunteer contributors engage in collaboration “while providing the end product freely to all in the form of public goods” (Wang, 2005, p. 937).

Overall, the difference with Bourdieu’s views on social capital is that in this second approach, “social capital ... relies on people looking beyond themselves and engaging in supportive or helpful actions ... because they believe it’s a good thing to do” (Gauntlett, 2011, p. 134). In the teacher context, this view of social capital is echoed in literature that stresses the importance of teachers helping and collaborating with each other as a way to solve problems that are common to all teachers, and helping improve education in general (i.e. Hargreaves and Fullan, 2012).

Although the aim of the thesis is not to discuss the concept of social capital, I found of particular interest to the aims of this study the distinction Putnam (2000) makes between

two types of social capital: bonding social capital, and bridging social capital (Section 2.4.1.2). These types refer to the processes of social capital building. In doing so, I subscribe to the second approach of social capital that was described above.

2.4.1.2 Types of social capital building

Putnam's (2000) concepts of 'bridging' and 'bonding' social capital are helpful in understanding the different types of social capital that pre-service teachers report when forming and sustaining links with other people and groups through social media during their training programme.

Bonding social capital refers to closely-bound relationships with people from "small, densely connected networks" (Stutzman et al., 2012, p. 331). It is associated with Granovetter's (1973) concept of "strong ties" that are formed among people from homogeneous groups and characterised by "repeated and prolonged interactions among the parties" (Mariotti and Delbridge, 2012, p. 512). Examples of bonding social capital include one's intimate relationships with one's families or close friends. Emotional or affective support is one of the benefits that is more often associated with bonding social capital (Burke, Kraut and Marlow, 2011; Fox and Wilson, 2015; Steinfield et al., 2012). This type of support is associated with "care, encouragement and reassurance" (Fox and Wilson, 2015, p. 95). In the context of pre-service teachers, that would include peers (at least those who consider each other close) encouraging each other during exam period, sharing their emotions and expressing their solidarity towards each other.

On the other hand, bridging social capital refers to relationships with people from "larger, loosely connected networks" (Stutzman et al., 2012, p. 331), and is associated with Granovetter's (1973) concept of "weak ties". Weak ties are formed by "irregular and infrequent exchanges without any extended social contact among the parties" (Mariotti and Delbridge, 2012, p. 513). Examples of bridging social capital include relationships people can have with their acquaintances, fellow members of a particular club or association, colleagues beyond those who they would consider friends, etc. In the context of pre-service teachers, that would include a first-year student making contact with an older and more experienced student who he or she does not know well, or with an in-service teacher, beyond the course, perhaps through a professional

association or a discussion forum.

Granovetter's study suggests that it was through weak ties with other people that information about work opportunities was accessed, as weak ties can lead them to information that is spread outside their immediate circle, which would otherwise be difficult to learn about. Similar benefits of bridging social capital are mentioned by Putnam (2000), by stressing the "linkage to external assets and for information diffusion" (p. 22). In other words, by drawing on bridging social capital, people can access various types of useful information (Burke, Kraut and Marlow, 2011; Greenhow and Burton, 2011; Steinfield et al, 2012; Naseri, 2017; Utz, 2016). In the teacher education context, informational support would involve pre-service teachers exchanging just-in-time information about registration deadlines or university announcements, providing each other with last-minute tips for exam revision and making suggestions about courses. It would also involve exchanging important information in the form of drafts and templates. It could also include information beyond their course, such as finding out about seminars, events and career options and opportunities.

Access to information can also provide cognitive support, which is "associated with knowledge and skill development" (Fox and Wilson, 2015, p. 95) and is particularly important in the case of both in-service and pre-service teachers. Taking into consideration that teaching has often been described as a "lonely profession" (Fullan, 2000, p.5), where teachers' knowledge and their practice is often 'invisible' to other colleagues (Shulman, 1987), social capital building has been linked to providing teachers with the opportunity to advance their understanding and improve their skills, which is also referred to as *human capital* (Hargreaves and Fullan, 2013, Section 2.4.2), by engaging in discussions, collaborative work, problem and knowledge-sharing. For this reason, several studies underscore the importance of teacher networking to improve their knowledge and skills (Manca and Ranieri, 2017). In the context of pre-service teachers, cognitive support would involve a student who has not understood a theoretical concept turning to a more knowledgeable person for help and guidance.

Apart from bridging and bonding social capital building, data from my study suggested another type of social capital building by pre-service teachers through the use of social media. My participants used Facebook groups, blogs, forums etc to join groups of

professional teachers or access professional material not for immediate use to help them with their coursework, as might be considered a form of bridging social capital, but for future use. This led me to the notion of “latent ties”.

Writers have used the notion of latent ties to refer to different kinds of relationships (e.g. Ellison, Steinfield and Lampe, 2007; Flynn, 2005; Mariotti and Delbridge, 2012; Thorne, 2013; Utz, 2016). For example, the term has been used to refer to ties between people who are connected because they used to interact in the past but are not currently doing so (Mariotti and Delbridge, 2012). Other writers use the term to refer to ties between people who have never had any interaction with one another (Haythornwaite, 2002; 2005; Flynn, 2005; Genoni, Merrick and Willson, 2005; Utz, 2016). For example, Haythornwaite (2005) defines the concept as “ties that are *technically possible but not yet activated socially*” (p. 137, italics in original). According to this definition, a latent tie can be formed either online or offline, for example “by enrolment in an organization’s internal e-mail system, or by invitation to departmental, unit, or board meetings” (Haythornwaite, 2002, p. 389). Using this definition, Flynn (2005) in the context of librarians refers to latent ties as follows:

A latent tie is another librarian whom he or she has never met in person or had any type of direct interpersonal communication, including e-mail The tie is provided by the affiliation with a distinct professional community and ready access via electronic mail. (p. 80).

Likewise, Utz (2016), who focuses on studying ties through social media, adopts a similar definition of latent ties to Flynn and describes them as “social media contacts they would not even recognize if they would meet them on the street” (p. 2692). In other words, the tie is provided by being connected through a social media tool.

In this study, I use Haythornwaite’s (2002; 2005) understanding of latent ties. I use *building latent ties* to refer to pre-service teachers’ forming an initial connection with groups of other pre-service teachers or professional teachers whom they do not know in person and have never interacted with, but there is a possibility of activation in the future. Pre-service teachers can engage in building latent ties in order to access material and artefacts (which can be seen to be related to building their ‘human capital’, discussed in detail in Section 2.4.2) posted by other users of social media. Social media,

such as Facebook or Twitter, have the potential for activation of latent ties, thereby transforming latent into weak ties and developing bridging social capital (Ellison, Steinfield and Lampe, 2011; Geismar and Olsen, 2014; Manca and Ranieri, 2017).

2.4.1.3 Social capital building on social media

The potential of social media (and Facebook in particular) to facilitate social capital building is often discussed in the literature (Ellison, Steinfield and Lampe, 2007; Gauntlett, 2011; Geismar and Olsen, 2014; Greenhow and Burton, 2011; Steinfield, Ellison and Lampe, 2008). However, other writers stress that it is difficult to distinguish between bonding and bridging social capital and their benefits (Nardi, Whittaker and Schwarz, 2000), especially in the context of social media activity (Utz, 2016; Utz and Muscanell, 2015). This is evident when we take into consideration that Facebook users use the word “friend” to refer to the people they are connected with on the tool. As others have discussed, the word ‘friend’ is used in a particularly loose way on this tool and may not be restricted to people that we consider friends (strong ties) in ‘real-life’ (Beer, 2008; Bosch, 2009; Jeon et al., 2016; Kimmons and Veletsianos, 2014; Manca and Ranieri, 2017; Towner and Muñoz, 2011). Similarly, the act of “following” someone on Twitter or Instagram might not necessarily imply the same feelings of closeness or agreement with the person as might be expected in ‘real life’. In fact, “darker antisocial motives” may be involved for connecting with others online, such as connecting with people that “they scorn and dislike”, a phenomenon called “hate-following” (Ouwkerk and Johnson, 2016, p. 3). Consequently, the benefits that are typically associated with bonding and bridging social capital might not be easily distinguished. Additionally, being part of what seems to be a homogeneous virtual community may not necessarily mean that close connections and bonding are formed, or that emotional support can be offered. For example, a study of different Facebook groups for teachers showed that some of them focused on emotional support, while others focused on information exchange (Ranieri, Manca and Fini, 2012). Similarly, it is possible for informational benefits to be offered by one’s strong ties (Krämer et al., 2014; Utz, 2016). These ambiguities make it challenging for a researcher to distinguish particular interactions as being between strong or weak ties, and the use of terminology within the social media tools does not necessarily provide useful measures on their own.

2.4.2 Human capital

Human capital has been conceptualized in different ways (Burgess, 2016; Coleman, 1988; Keeley, 2007). In this thesis, I adopted Hargreaves and Fullan's (2012) understanding of the term, as these authors were writing specifically in the context of teacher education and considered human capital to be a component of what they termed "professional capital" building. Professional capital refers to "the resources, investments, and assets that make up, define, and develop a profession and its practice" (2012, p. 92).

In Hargreaves and Fullan's conceptualisation, human capital, in the context of teaching, refers to teachers' capabilities and their pedagogical and content knowledge, as well as their dedication to engage in continuous professional development.

[Human capital] is about knowing your subject and knowing how to teach it, knowing children and understanding how they learn. It is about possessing the passion and the moral commitment to serve all children and to want to keep getting better in how you provide that service. (Hargreaves and Fullan, 2012, p. 89)

Human capital is not static. Rather, it can be further developed as teachers learn more about their field. This can be achieved, for example, through their university studies, professional development courses and personal reading.

Hargreaves and Fullan also stress the role of *social capital* in further developing human capital. Their definition of social capital reflects the "community-centered" approach (Julien, 2015, p. 357) that was presented in Section 2.4.1.1. In particular, social capital refers to the "collaborative power of the group" (Hargreaves and Fullan, 2013, p. 37), through interactions among colleagues. They recognise that collaboration and cooperation among practitioners allows for better access to knowledge and information about teaching, which improves their performance as teachers. In Hargreaves and Fullan's words "Groups, teams, and communities are far more powerful than individuals when it comes to developing human capital" (2012, p. 3).

In other words, the authors stress the cognitive and emotional benefits that can be gained by social capital building (Fox and Wilson, 2015), by exchanging information, engaging in discussions, and being directed to resources that advance pedagogical and content knowledge.

While the authors theorised these concepts with reference to in-service teachers, they can also be useful conceptual tools for other groups of people, especially on social media. For example, it can be argued that when users visit Wikipedia, or watch a YouTube video about a topic, they advance their knowledge on the specific topic by accessing other people's knowledge and skills, or other people's human capital. Additionally, the term can be used in the context of pre-service teachers (or other groups of students). Through social capital building with their peers, they may help each other cognitively, by advancing their knowledge on a specific course.

Hargreaves and Fullan introduce a third component of Professional capital, which they term "Decisional capital". This is defined as "the wisdom and expertise to make sound judgments about learners that are cultivated over many years" (2013, p.37). It refers to teachers' ability to make informed decisions and wise judgments with confidence, especially in situations where straightforward answers are not available (2012). Decisional capital develops over time and through personal exposure to different teaching situations and reflection, and is therefore mostly found in teachers who have experience in the classroom. This concept echoes the notions of "intuitive knowledge" (Wilson and Demetriou, 2007, p. 216), or "wisdom of practice" (Shulman, 1987, p. 11).

The importance of social capital in developing decisional capital is reflected in Hargreaves and Fullan's argument that "... you get better at making discretionary judgments when you have lots of practice examining your own and other people's judgements" (2012, p. 94). As is the case with human capital, decisional capital can therefore be improved through social capital. The concept of decisional capital, with its emphasis on teaching experience, is less likely to be evidenced in a study that focuses on pre-service teachers, who are still at university.

Human capital is helpful in describing how pre-service teachers can use social media to engage in networks and sets that would allow them to learn from other people's knowledge and expertise. For example, through social media, pre-service teachers can access lesson plans, ideas for the application of teaching methodologies and other authentic material that in-service teachers might post on forums, Facebook groups, YouTube, Pinterest, etc. Such opportunities are invaluable, as they expose pre-service teachers to other people's perspectives on realities of the teaching profession and practical ideas based on practitioners' authentic experiences that might not be offered by university books. It could be argued that such opportunities might enhance their human capital, or their skills and knowledge, despite the fact that they have not entered their own classrooms yet (and have limited or no opportunities at all to engage in networking with teachers in real life, apart from social media).

2.4.3 Summary

This section focused on two key concepts that informed the study: Social capital building and human capital. Firstly, it provided a brief overview of the concept of social capital as it was understood by key theorists. Then, it focused on bonding and bridging social capital and building latent ties. Finally, it discussed the concept of human capital.

2.5 Part 5: Identity

While identity was not a topic that I aimed to explore when initially designing the study, findings that emerged suggested that through a) social capital building, and b) access (and plans for access) to peers' and future colleagues' human capital, participants engaged in student identity building. There was also evidence that participants started thinking about their future selves as professionals. This led me to further explore the literature on identity development.

In published literature, identity has been defined in different ways (Beijaard et al., 2000; Sfard and Prusak, 2005, Wilson and Deane, 2010) and sometimes it has been used as a term without a straightforward definition (Sfard and Prusak, 2005). It seems agreed that identity is neither fixed nor stable (Sfard and Prusak, 2005; Alsup, 2006), but ongoing, socially situated and constructed in the contexts individuals find themselves in (Wenger,

1998) and “made up of multiple constituent identities” Wilson and Deaney, 2010, p. 172).

Teacher identity has been described as ongoing and non-linear, and begins prior to the teachers’ entering their own classrooms (Balatti et al., 2010; Grow, 2011). The development of a teacher is a “transformative” process (Fox and Wilson, 2015, p. 94) and has been described as “a fluid continuum that stretches from being a student, into teacher education and practicum experiences, and is followed by student teaching and induction, and finally into the years of teaching” (Grow, 2011, p. 11). For this reason, several writers agree that it is important that teacher education departments prepare students academically to become professional teachers, and therefore develop their teacher identity (Alsup, 2006; Fox and Wilson, 2015; Olsen, 2008).

As well as developing an identity as a teacher, at the same time, pre-service teachers develop a student identity, which should be taken into consideration. University programmes have a specified and pre-determined duration and students “are required to undergo prescribed procedures which clearly designate them as being students” (Field and Morgan-Klein, 2010, p. 127). Student identity is also by definition “temporary” and transitional: “The status of student is also a transitory status, after which most will expect to become something else” (Field and Morgan-Klein, 2010, p. 127).

This idea of the temporary and transitional student identity, together with the idea that the development of teacher identity begins during university courses, led me firstly to Wenger’s (1998) conceptualisation of identity as trajectories that are created when people enter and leave communities of practice (CoPs). Below, I give the justification for my decision not to adopt them directly. Finally, I discuss the concepts of “actual and designated identities” (Sfard and Prusak, 2005) and “borderland discourses” (Alsup, 2006) that prove to be useful lenses for my study. These concepts are also helpful in understanding participants’ *agency* in their identity development (Biesta and Tedder, 2007; Frost, 2006; Wilson and Deaney, 2010). Taking into account that the study explores how pre-service teachers choose to use social media on their own initiative, the concept of agency as “a combination of intention and action that results in making things happen” proved relevant and useful (Wilson and Deaney, 2010, p. 173).

2.5.1 Identity as trajectory

Wenger's conceptualisation of identity is formulated within the CoP framework (as discussed in Section 2.3.1). Wenger (1998) agrees with the sentiments described above that identity is dynamic, "a constant becoming" (p. 153-154), and "fundamentally temporal" (p. 154). Wenger views identity as trajectories that are created through our participation in CoPs. Wenger identifies the following types of trajectories:

- a) Peripheral trajectories. This type of trajectory does not bring about "full participation" in the community (p. 154). However, it provides newcomers with access to it in ways which are "significant enough to contribute to one's identity" (p. 154).
- b) Inbound trajectories. This type of trajectory is similar to the previous one, in terms of starting as peripherality in the community, but with newcomers having a vision of their future fuller participation compared to those who remain peripheral, which affects their sense of identity in relation to membership of the community.
- c) Insider trajectories. This type of trajectory involves a constant negotiation of identity, as members of the community encounter new experiences through interaction with those more central to the community and hence, over time, becoming more and more central in the community themselves.
- d) Boundary trajectories. This type of trajectory involves a crossing of boundaries between CoPs so interconnecting individuals between multiple communities, affecting the communities and challenging how sustainable their identity can be "across boundaries" (p. 154).
- e) Outbound trajectories. This type of trajectory is in the direction of leaving a community in which the individual had previously more centrally participated. Identity formation involves encountering new experiences when leaving the community and "seeing the world and oneself in new ways" (p. 155).

While I first thought that the notion of identity as trajectories could be a useful lens in my study in order to describe pre-service teachers' participation in course-related and profession-related communities, I found this difficult to apply in practice. It was not sufficiently straightforward to identify the relevant CoPs in the context of pre-service

teachers' use of social media. Pre-service teachers were found to participate in a range of social configurations according to their immediate and (perceptions of) future needs and preferences, rather than distinguishable CoPs.

However, the concept of identity as trajectory, was helpful in understanding pre-service teachers' agency in identity building (Biesta and Tedder, 2007; Frost, 2006; Wilson and Deaney, 2010). Since "studenthood" is time-limited and preparatory for a future status (Field and Morgan-Klein, 2010), identity as trajectory could be used to conceptualise transitions.

2.5.2 Actual and Designated Identity

As indicated earlier, Sfard and Prusak (2005), like others, reject essentialist views of identity, where identity is treated as "being a certain kind of person" (p. 16). Sfard and Prusak consider views of identity as fixed, stable and never-changing as "untenable" and "harmful" (p.16). They therefore reject views which imply "that there is a thing beyond one's actions that stays the same when the actions occur, and also that there is a thing beyond discourse that remains unchanged, whoever is talking about it." (p. 16). Instead, their view of identity focuses on stories that are articulated by a person to another person.

As stories, identities are human-made and not God-given, they have authors and recipients, they are collectively shaped even if individually told, and they can change according to the authors' and recipients' perceptions and needs. (p. 17)

Thus, Sfard and Prusak define identity "as collections of stories about persons" (p. 16) and propose that those stories or narratives are further divided into two subsets:

- a) actual identity – "stories about the actual state of affairs", which "usually are told in present tense and formulated as factual assertions. Statements such as "I am a good driver," "I have an average IQ," and "I am army officer"" (p.18).
- b) designated identity – "narratives presenting a state of affairs which, for one reason or another, is expected to be the case, if not now then in the future" (p. 18).

Although Sfard and Prusak did not focus on teacher identity, others have applied their concepts to this context, for example in a study of school leaders in the UK (Fox, 2011). I found the concept of “actual identity” could be used to refer to participants’ *pre-service teacher or student identity*, while “designated identity” could be used to refer to participants’ future *teacher identity*. It is also important to note that while Sfard and Prusak stressed the role of discourse in identity development, in this study I use the terms actual and designated identities as broad conceptual tools that helped me understand how participants used social media to prepare for their future transition into their profession.

Sfard and Prusak (2005) argue that “designated identities give direction to one's actions and influence one's deeds to a great extent” and that the gap between the two identities can be bridged by *learning* (p. 18). This concept of gap resonates with Wenger’s view that identity is a learning trajectory in which “our identities incorporate the past and the future in the very process of negotiating the present” (Wenger, p.155), as well as Alsup’s (2006) notion of “borderland discourses” (Section 2.5.3). Although not explicitly stated by Wenger, perceptions of agency in identity building are implied in this conceptualisation of identity building as a trajectory, as it is “linked to the intention to bring about a future that is different from the present and the past” (Priestley, Biesta and Robinson, 2016, p. 140).

2.5.3 Borderland Discourses

“Borderland discourses” is a term used by Alsup (2006), whose study focused on pre-service teachers, to refer to the negotiation of beginning teachers’ personal selves and needs and their perceived images of their future professional selves. This image of their future selves echoes the Sfard and Prusak’s (2005) concept of designated identities. Alsup defines borderland as a space where the personal and the professional meet and are negotiated (Alsup, 2006).

The borderland is no longer defined as a gap or an absence of identity, but rather as a space in which to experience a richer, fuller, and more complex understanding of self and other (Alsup, 2006, p. 15).

Alsup states that, in order for the effective transition from pre-service teachers to professional teachers to be facilitated, they should engage in discourses where pre-service teachers' personal and professional identity are integrated. It is this intersection of discourses that facilitates the transition and the development of teacher identity.

Like Sfard and Prusak who argue that “a perceived persistent gap between actual and designated identities, especially if it involves critical elements, is likely to generate a sense of unhappiness” (p. 18), Alsup (2006) similarly argues that unless reconciliation between the personal and professional occurs, “frustration or feelings of inadequacy and isolation” can occur (2006, p. 36). It could be argued that social media can be used to bridge that gap between actual and designated identities by providing participants with the opportunity to use social media in order to prepare themselves for future transitions. In other words, social media can help pre-service teachers achieve agency in taking control of their identity development by complementing their formal education and the future professional trajectories. Such agency in identity development is advocated by Fox and Wilson (2015).

BTs [beginner teachers] should not be passive in expecting ITE [initial teacher education] providers to provide sources of support but should look to a wide range of others to inform their development as a teacher (p. 105).

While Alsup argues that teacher education institutions should provide pre-service teachers with opportunities for borderland discourses, this study proposes that it is possible that social media can provide them with opportunities for the negotiation of tensions between the personal and the future professional self, whether offered formally or engaged in informally by pre-service teachers. For example, a pre-service teacher might consider setting up an account on Pinterest because they have heard that they could find ready-made lesson plans, which could be useful for the future, while they feel that opening another account might be of limited value or interest for other aspects of their lives. This tension between the “personal ideologies and perceived professional expectations” Alsup (2006, p. xiv) could be negotiated and reconciled or not based on the decision taken by the individual.

It is at these discursive borderlands that pre-service teachers discovered how to move from being students to being teachers and honor personal beliefs and passions while meeting professional responsibilities and embodying a teacher identity.... (2006, p. 36)

It is important to note that while Alsup focused on pre-service teachers' self-talk, in this study I did not focus on discourse. Instead, I used the concept of borderland as a tool that helped me conceptualise the tensions and the negotiations of personal and academic or professional needs that were reported by participants.

2.6 Chapter Summary

In this chapter I presented literature on the following broad areas: social media, informal learning, the three forms of social capital building, human capital, and pre-service teacher identity. These areas form the key concepts that informed my study. While the first two areas informed my thinking prior to the analysis of the data, the last three areas were inductively derived from the data. In the Findings Chapter (Chapter 5), I revisit these concepts in light of the findings and I present the connections between them in the form of a framework in the Discussion chapter (Section 6.7).

Chapter 3: Pilot studies

(Acknowledgement: This chapter draws from Kontopoulou and Fox's (2015) article published by Educational Research and Evaluation, copyright Taylor and Francis, available online <http://www.tandfonline.com> doi: 10.1080/13803611.2015.1024422)

This chapter discusses the three pilot studies that preceded the main study. These pilot studies were an opportunity for me to grow as a researcher, and in particular allowed me to reflect on ethical implications of the study. This resulted in a refinement of the research focus and a change to the context in which the project was eventually conducted.

This chapter outlines my research journey, the initial ideas, the challenges that emerged and how I responded to them, displaying reflexivity (Creswell, 2013; Radnor, 2002). Reflexivity is an important element of qualitative research to challenge researcher bias and assumptions, whilst building a credibility to the interpretations (Creswell, 2013; Traianou, 2014). Overall, in this chapter I aim to report my experiences with transparency, so that the readers will be able to better understand the rationale behind the current study and my positionality as a researcher.

The chapter is in four parts. The first part describes my initial idea for research and the initial research questions. Then, it describes my first pilot study in the UK, which was unsuccessful in terms of participant recruitment. Following this, it describes my second pilot study, in the same context, which was met with the same problems. Then, it focuses on the ethical appraisal of the study that followed and the importance of taking different ethical perspectives into account. The final part describes the third pilot study that took place in Greece. Finally, it presents the Greek context in relation to ITE.

3.1 Initial research focus and first pilot study

My initial research focus was related to social media and the Postgraduate Certificate in Education (PGCE) students whose course required them to undertake school placements in the UK. The study focused on exploring PGCE pre-service teachers' perceptions and uses of Facebook and Twitter in connection with their school placements.

The study involved inviting two cohorts of PGCE students to participate. One of those cohorts was to have been assigned to use Twitter and the other to use Facebook. The Twitter cohort were to have used a hashtag (#) in their tweets that was to be provided by me. The Facebook group were to be invited to join a closed Facebook group that I had set up.

The overarching question of this intervention-based study was:

How do pre-service teachers use social media tools to interact with each other while on school placement?

The planned data collection methods included an online questionnaire that would be administered before the intervention, observation of participants' interactions on Facebook or Twitter, and an interview with the participants after the intervention.

I designed the pilot study following the ethical principles of protection from harm, informed consent and transparency and received ethical approval from the University of Leicester Ethics Committee (Kontopoulou and Fox, 2015).

As I lived in Greece at that time, I decided to recruit participants through the use of technology. In particular, my participant recruitment method involved contacting PGCE tutors of one university in the UK through emails. I introduced myself, explained the study and asked tutors to forward my invitational email to their students. In addition to the invitational email, I also included a link to a YouTube video in which I explained the study in detail ([Appendix B](#) for the video transcripts). I informed potential participants that the Facebook group would be closed and only research participants would be allowed to join. Additionally, I informed potential participants that the Twitter hashtag would only be revealed to participants.

Two PGCE students from the same PGCE programme responded to the invitational email and agreed to participate in the Twitter cohort. I emailed the link to the online questionnaire to the two participants. After I received their responses, I asked them to follow me and each other on Twitter, and sent them the hashtag. These two participants started using Twitter in November 2013 for one month and posted 18 tweets.

The second attempt to recruit participants for a Facebook pilot involved contacting more PGCE tutors and asking them to forward an invitational email to their students. In order to improve the chances of a successful recruitment, I invited PGCE students “to participate in as many aspects of the study as they wished” (Kontopoulou and Fox, 2015, p. 127). Despite this adaptation to the study, I did not receive a reply.

3.2 Second pilot study

Rather than attempting an interventionist study, the aim of the second pilot study would be to explore how PGCE students choose to use social media to engage in peer interaction during school placements. My data collection methods would be an online questionnaire and a semi-structured interview with participants. I asked the same tutors if they could forward my email to the students for a second time. I also used my own Facebook and Twitter accounts to advertise the questionnaire. At the same time, I searched for university student forums and posted the link to the questionnaire. This participant recruitment method proved to be more successful than the previous one, as I received 13 responses. However, there were no volunteers for the interviews. Based on this outcome, I decided to re-design the study.

At this stage, my supervisor introduced me to Stutchbury and Fox’s (2009) ethical framework, which is intended to assist researchers with ethical decision-making and developing a personal code of ethical conduct. It was expected that the ethical framework could help me identify the limitations of the study’s design and therefore, the possible reasons for the unsuccessful recruitment.

Stutchbury and Fox (2009) present the following perspectives of ethical research:

- An Ecological/External perspective, which focuses on cultural awareness. The researcher needs to remain alert to contextual expectations of the researcher, local agendas and needs as well as to comply with international and local laws and regulations.
- A Consequentialist/Utilitarian perspective. Consequentialism posits that actions can be seen as ethical or unethical when we take into account the anticipated result. It invites researchers to consider anticipated benefits of the study for

different groups (“potential beneficiaries” (Kontopoulou and Fox, 2015, p. 124) and proceed with the action that is regarded as the most beneficial. Applications of this perspective involve a conscious balancing of anticipatable positive and negative consequences – for example, “if breaking a promise brings ‘good’ to a large number of people then you are morally justified to do so” (Stutchbury and Fox, 2009, p. 490).

- A Deontological perspective. Deontology is concerned with ““doing your duty”” (Stutchbury and Fox, 2009, p. 490). From this perspective, the researcher should remain focused on the specific duties they have toward the participants, such as being truthful and transparent with the participants, and avoiding doing wrong. Deontologists argue that these duties are to be fulfilled at all times, “regardless of the consequences” (Stutchbury and Fox, 2009, p. 490) but that there can be work done by a researcher in identifying their obligations and, when they appear to be in conflict with one another or with personal values, decide to which duties they will be beholden.
- A Relational/Individual perspective, which focuses on relationship building. Researchers should ensure that participants’ views are respected and their needs and preferences are catered for throughout the research process. This involves decision-making about how respect will be shown to all those involved in a study and includes minimising the imposition on participants by the researcher.

The framework is also accompanied by a list of relevant questions that correspond to each ethical perspective and help researchers conduct the appraisal.

The ethical appraisal suggested that the study had been designed with a clear focus on deontological principles (i.e., providing participants with safe online spaces to interact in, and being transparent about the study). The appraisal also suggested that the other three perspectives of the ethical framework had not been adequately addressed.

Taking the consequentialist/utilitarian perspective into consideration, the appraisal suggested that PGCE students might have felt that the study was not likely to benefit them in any way. The Facebook group and the Twitter hashtag that I designed for the study might not have been perceived as valuable, especially since –as PGCE tutors later informed me- they had already set up their own student-initiated groups on social

media. Therefore, the new study would need to be reconsidered and adapted in a way that would allow potential participants to benefit from their participation. The framework also allowed for a broader and more inclusive view of potential beneficiaries to be identified, such as teacher education institutions and research communities. Several steps needed to be taken, in order for the study to bring benefit to these potential beneficiaries.

As far as the external/ecological perspective is concerned, the appraisal of the study suggested that I was lacking important knowledge about the context and the population that I was interested in researching. This became evident when I asked PGCE tutors to offer me their views with regards to the unsuccessful recruitment. The tutors informed me about different aspects of the particularities of the context. In particular, I was informed about the demanding nature of the school placement period. PGCE students might have been unwilling to participate in a study which consisted of different stages (a survey, join an online group and participate in an interview), during that specific period. Additionally, I was informed that PGCE students are frequently invited to participate in research studies. My invitation to research “coming ‘cold’ from someone outside the course, may indeed have seemed not only unnecessary but also unreasonable” (Kontopoulou and Fox, 2015, p. 128). Access to this contextual information could have helped me design a study that participants might have been more eager to participate in. Therefore, the ethical appraisal suggested that spending more time in the context that I was interested in exploring before sending my invitational emails would have contributed to designing an ethical study. I reflected on this realisation and decided that, since I could not work closely with UK gatekeepers as I was based in Greece, I needed to reconsider the context of the main study.

Lastly, the appraisal of the study from the individual/relational dimension suggested that the recruitment method I employed was not conducive to the development of trust between myself and participants. First of all, since the information about the study was communicated through emails (and a video), PGCE students were not given the opportunity to ask further questions about the study or their participation. Taking into consideration that I invited them to participate in a study that would make demands on participants’ time, a personal contact with potential participants could have had better results in terms of recruitment. These considerations suggested that the study needed to

be redesigned in a way that would be more participant-friendly.

Based on the experiences with the pilot studies and the above ethical considerations, I proceeded with the redesign of the third pilot study:

The first change involved the context of the study. The ethical appraisal highlighted the importance of recruiting participants face-to-face for the establishment of trust. For this reason, I decided to recruit pre-service teachers who studied in Greece, as I could organise meetings with gatekeepers and ask them to introduce me to their students. Also, I could ask my personal network of friends for help with recruitment. Most importantly, I could have face-to-face discussions with participants and communicate my research more effectively. The second change involved the aim of the study. I decided that studying pre-service teachers' experiences with social media *on their own initiative* would allow me to focus on 'learners' voices', responding, in this way, to calls from the literature (Manca et al., 2017). Additionally, I decided to abandon the initial idea to focus on two social media tools (Facebook and Twitter). There is a wide variety of social media tools that students choose to use depending on their needs, all of which I would like to investigate as to their use for informal purposes. This would give a much more holistic and detailed picture of pre-service teachers' repertoire of social media use. Therefore, I decided not to restrict the study to any particular tools, but allow the participants to present their own choices and the reasons behind their usage. It was hoped that this would allow the findings to be more generalisable with reference to the principles of their use, rather than relying on the particularities of specific tools. Finally, the third change involved the use of data collection methods that would allow for the participant's voice to be heard. I decided that the main data collection method would be semi-structured interviews, which would allow participants space to direct the discussion and deviate from my core line of questioning. This would be supplemented by other methods, such as pre-interview questionnaires, diaries of social media use and follow-up interviews, which would enrich this data, informing and complementing the main interview findings. These methods would make fewer demands on the participants' time as they only needed to consent to each method one at a time as they were happy to do so (Chapter 4), whilst also allowing participants to talk about their worlds, experiences and perspectives in different ways.

3.3 Third pilot study – Greek context

I conducted a third pilot, based on the above ethical appraisal, in June 2014. Participants were recruited through my personal network. 14 pre-service teachers and other university students filled in the questionnaire, five participated in an interview and three completed the diary. For time constraints, I invited participants to keep a diary for three days.

The third pilot showed that I could recruit participants for the main study. Teacher education tutors in Greece agreed to introduce me to their students face-to-face for the purposes of the main study. Additionally, the pre-service teachers that participated in the pilot study offered to personally introduce me to their classmates.

For my main study, the main research question was phrased as follows:

How do pre-service teachers in Greece use social media for academic purposes?

The study was organized around four research questions:

- 1) How do pre-service teachers in Greece use social media in their everyday life?
- 2) How do pre-service teachers in Greece use social media for academic purposes?
- 3) How do pre-service teachers in Greece use social media for professional purposes?
- 4) What factors influence use and non-use of social media? (later removed from the thesis)

Overall, the current research focus was the result of the recognition of the limitations of the previous research designs after an ethical appraisal of the study (Figure 3). These experiences also gave me the opportunity to publish the false starts, reconsiderations and challenges in a response to an invitation to a special issue of a journal interested in such complexity (Kontopoulou and Fox, 2015). My supervisor and I responded to calls from the literature for the messiness of the research process that is “*often hidden from published view*” (Clark et al., 2007, p. 110, italics in original) to be reported and openly presented and discussed (Donnelly, Gabriel and Özkazanç-Pan, 2013; Mellor, 2001;

Opie, 2009). This offered a way to inform and encourage other researchers who might encounter similar challenges and for fruitful discussions about ethical research to be invited (Clark et al., 2007).

As the main study was conducted with pre-service teachers from teacher education departments in Greece, the next section describes the context of initial teacher education in Greece.

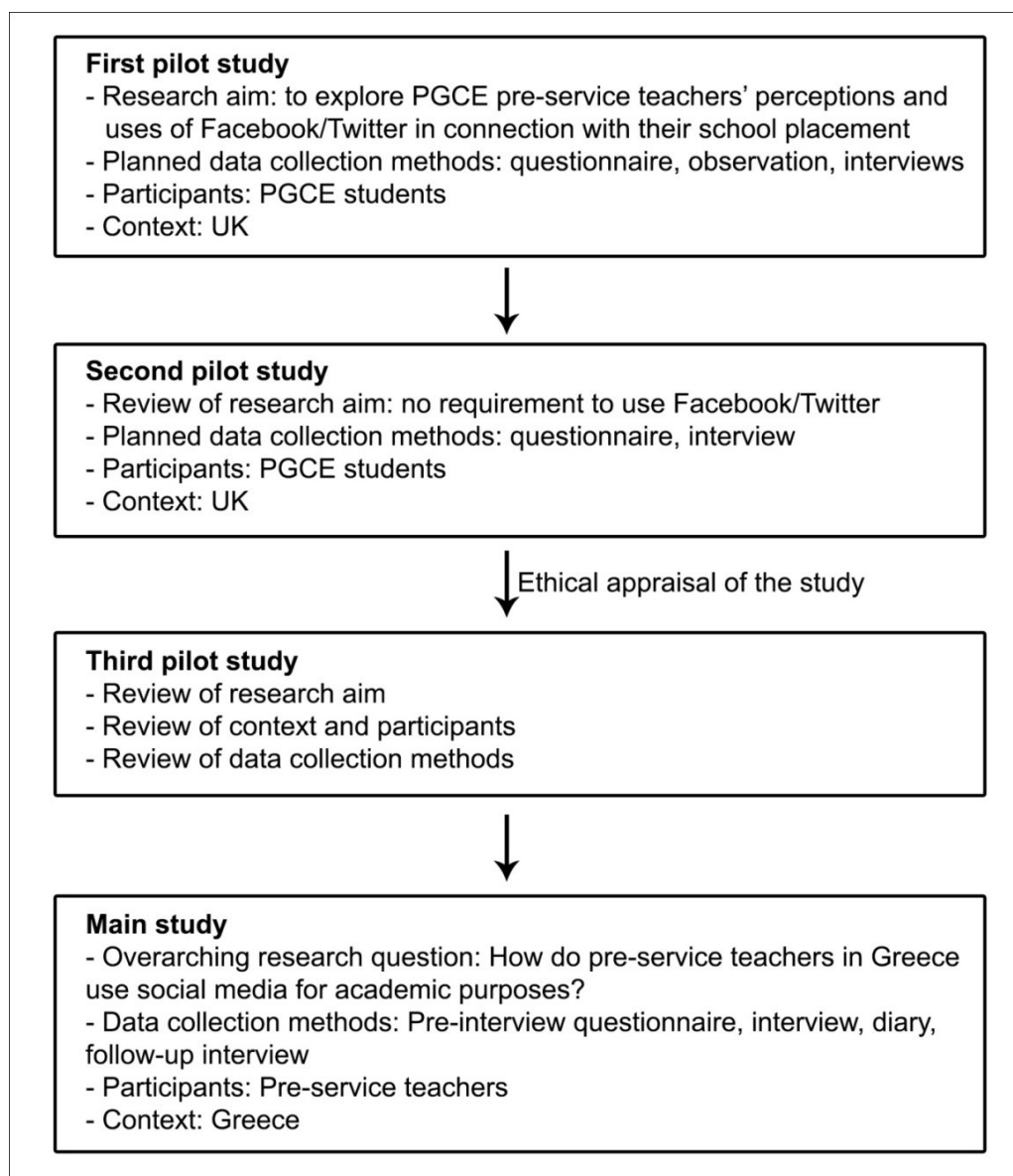


Figure 3. Pilot studies

3.4 Initial Teacher Education in Greece

Primary-level education consists of pre-primary schools (kindergartens) and primary schools (Eurydice, 2018; OECD, 2017; Sarakinioti and Tsatsaroni, 2015; UNESCO, 2015). In Greece, ITE for pre-primary and primary teachers involves attending undergraduate programmes (Eurydice, 2009; Karadimitriou, Rekalidou and Moumoulidou, 2014; Sarakinioti and Tsatsaroni, 2015; Stylianidou, Bagakis and Stamovlasis, 2004). The majority of the overall undergraduate student body in Greece start their Higher Education between the age of 18 and 20 (Griffiths, Kaldi and Pires,

2008) and the main route to Higher Education is through National entrance exams (Griffiths, Kaldi and Pires, 2008; Sarakinioti and Tsatsaroni, 2015).

There are nine Universities in Greece with Early Childhood Education and Primary Education Departments, which qualify Early Childhood and Primary pre-service teachers, respectively (Doliopoulou, 2006; Sarakinioti and Tsatsaroni, 2015; Zervas, 2016). Both types of departments offer four-year courses and the programme of studies consists of compulsory and elective courses, as well as a teaching practice component in schools (kindergarten or primary schools respectively) (Doliopoulou, 2006; Trilianos, 1998). There is also one Pedagogical Department of Special Education, which qualifies pre-service Special Education Early Childhood and Primary Education teachers at an undergraduate level (European Agency for Development in Special Needs Education, 2003). Students of the Pedagogical Department of Special Education can choose one of the following two specialisations: Special Education Early Childhood teacher, or Special Education Primary Education teacher. The Pedagogical Department of Special Education also offers a four-year course and the programme of studies consists of compulsory and elective courses, as well as a teaching practice component in schools (kindergarten or primary schools, depending on the specialisation).

For the purposes of this thesis, I recruited participants from the three types of Department: Primary Education (PE), Early Years Education (EY), and Special Education (SE) as a result of convenience sampling from those approached and whose programme leaders were conducive to their pre-service teacher students being approached.

3.5 Chapter summary

This chapter outlined my initial research ideas and the three pilot studies that preceded the main study. It discussed the ethical appraisal of the study that helped me design the main study, which was conducted in Greece. Finally, it presented the teacher education context in Greece. The next chapter focuses on the research design.

Chapter 4: Methodology

This chapter presents the research design and discusses the philosophical considerations that guided the study and informed my methodology. This is underpinned by my appreciation that ontology, epistemology, research design and methods are interlinked – one influencing the other (Cohen, Manion and Morrison, 2011; Creswell, 2009; Fleetwood, 2005; Guba and Lincoln, 1994; Neuman, 2014; Opie, 2009; Waring, 2012). It presents my methodological approach, followed by an outline of my participant recruitment approach, and discusses the four research methods that I used to collect data to answer my research questions. It presents the ethical considerations that informed the study and the strategies I employed to ensure that quality criteria for my study were met. Finally, it describes the strategies I used for the analysis of my data.

4.1 Philosophical considerations

Philosophical considerations focus on the ontological and epistemological positions that a researcher adopts. Ontology studies the “nature of reality” (Cohen, Manion and Morrison, 2011, p. 3; Spencer, Pryce and Walsh, 2014, p. 82; Merriam, 2009, p. 8; Neuman, 2014, p. 94). In social research, ontological questions are concerned with whether social entities are objective and “relatively inert”, or are constantly produced by social actors (Bryman, 2012, p. 6). Although there are many positions which can be taken with regards to mapping ontology (e.g. Cohen, Manion and Morrison, 2011; Neuman, 2014; Saunders, Lewis and Thornhill, 2009), in this study I see them as sitting between arguably the two opposing ontological positions: *objectivism* and *constructionism* (Bryman, 2012; Klaggert, 2015; Tuli, 2010).

The objectivist stance posits that there is a universal truth that exists “out there” (Bryman, 2012, p. 37) irrespective of the people involved in it. On the other hand, constructionism rejects the idea of an external social reality and argues that social entities should be seen as “social constructions built up from the perceptions and actions of social actors” (Bryman, 2012, p. 32). Since social entities are created, constantly evolving and always changing through social interaction, there is no external reality that can be measured (Saunders, Lewis and Thornhill, 2009; Tuli, 2012).

The ontological position underpinning this study sits far from objectivism, as I take the view that there is not any objective reality that exists independent of the person. Instead, I believe that “social phenomena and their meanings are continually being accomplished by social actors” (Bryman, 2012, p.33). As a researcher, my aim was to explore participants’ perceptions of their realities with social media use, acknowledging that they are “subjectively experienced” (Opie, 2009, p. 20) and give a voice to these different perspectives. This ontological stance informed my epistemology (Neuman, 2014) and heavily influenced my decisions on how knowledge might be investigated (Cohen, Manion and Morrison, 2011).

Epistemology focuses on the question “how can what is assumed to exist be known?” (Waring, 2012, p. 16). Arguably, there are two opposing epistemological positions; *positivism* and *interpretivism* (Bryman, 2012; Waring, 2012). Positivism, which is closely aligned with study of the natural sciences, tends to adopt an objectivist ontology and posit that reality can be empirically discovered "through direct observation or measurement" (Waring, 2012, p. 16). Positivism has been associated with quantitative methodologies. Positivist researchers use deductive reasoning (Neuman, 2014) which involves them formulating hypotheses which are tested and then proved or disproved (Bryman, 2012; Saunders, Lewis and Thornhill, 2009).

The epistemological stance underpinning this study sits far from positivism. As an interpretivist researcher, I take the view that it is not possible to study the social world in the same way as we study the natural world. Hughes (1976, p. 25) argues:

Human beings are not things to be studied in the way one studies rats, plants or rocks, but as valuing meaning-attributing beings to be understood as subjects and known as subjects (in Radnor, 2002, p. 20).

Taking the interpretivist perspective, involved me engaging in interactions with participants in an effort to understand their perspectives and “what is meaningful or relevant” to them (Neuman, 2014, p. 104). The aim of this study was an in-depth exploration and understanding of individual pre-service teachers’ subjective perceptions and experiences with social media, as well as the development of an analytical model that derived from this particular data, adopting an inductive approach and bottom- up

processes (Neuman, 2014). This involved me looking for patterns that were found in the data sets and starting to develop tentative themes. As an interpretivist researcher, I do not believe that research can be “value-free” (Saunders, Lewis and Thornhill, 2009, p.114). This held implications for my role as a researcher in the research process. Rather than attempting to be “detached, neutral, and objective” (Neuman, 2014, p. 102), I acknowledge that it was through interaction between myself and the participants that “understanding is reached, meanings are constructed and interpreted” (Radnor, 2002, p. 21). This was particularly important in a study that sought to explore the phenomenon of *social media*, which a) may mean different things to different people, cultures and academic disciplines, and b) is a constantly evolving phenomenon (Chapter 2). I also acknowledge that my own background as a teacher, my personal interest in technologies, my prior and current uses of social media, along with my pilot study experiences and the ethical learning that followed, informed my academic interest in the topic. All of this personal context shaped the development of the research questions, the design of the study, my choice of research strategy and my interpretation of the findings (Creswell, 2009). In line with interpretivist principles, I make explicit the ways in which my own subjectivities, assumptions and previous experiences were inevitably brought into the design and conduct of the study, as well as the analysis of the findings. The importance of the researcher’s reflexivity in interpretative inquiry is stressed by Radnor (2002): “The researcher cannot remove her own way of seeing from the process, but she can engage reflexively in the process” (p. 31).

My epistemological stance informed my choice of research strategy and research methods. I aimed to develop frequent interactions with my participants, mostly through the use of interviews, but also through other complementary data collection methods relevant to understanding their world and experiences of using social media (Radnor, 2002, p.21) (Section 4.2.3).

4.2 Research strategy

As has already been presented, there are two main strategies; *quantitative* and *qualitative*.

Quantitative researchers tend to employ deductive reasoning in order to test hypotheses (Creswell, 2013; Merriam, 2009). As the aim of the quantitative study is generalisation (Flick, 2009), probability sampling is employed, which involves “draw[ing] a representative sample from the population” (Marshall, 1996, p. 522). There are several methodologies that are linked with quantitative studies, “the most common of them being the survey, experimental, quasi-experimental and correlation designs” (Solomonidou, 2014, p. 77-78). Questionnaires with predetermined closed-ended questions, structured interviews, experiments, and structured observations are among the most popular research methods that allow the researcher to collect numerical data, and, finally, quantify the results (Bryman, 2012; Flick, 2009). Since the aim of the study was to allow for participants’ voices to be heard, I considered that the quantitative strategy was not appropriate. I did not seek to confirm or dispute a particular hypothesis or obtain statistical findings as to participants’ frequency of social media use or identify the most popular tools. Moreover, rather than seeking to make generalisations, I aimed at gaining an in-depth understanding of participants’ perspectives of their realities, and rich details about pre-service teachers’ subjective experiences with social media. As is explained below (Section 4.2.3), although I used questionnaires and structured diaries that are commonly associated with positivist epistemology and the quantitative strategy, the main data collection method was semi-structured interviews.

The qualitative research strategy that I adopted aligned with my interpretivist epistemological stance. My research aims focused on how pre-service teachers choose to use social media on their own initiative for their needs. Such ‘how’ questions tend to fit a qualitative approach to research (Merriam, 2009). As a qualitative researcher, my emphasis was on collecting non-numerical data (Bryman, 1988; Neuman, 2014). Since statistical results and generalisations were not the aim of the study, the sampling processes that I used involved recruiting participants through non-probability sampling (Section 4.2.2).

There are several approaches that are typically linked to qualitative studies, such as case study, grounded theory, ethnography, phenomenology, narrative analysis and action research, each with its own key characteristics (Kahlke, 2014; Merriam, 2009). These were all considered in relation to this study’s research design and each discounted as not being the most accurate description. This study did not focus particularly on culture, as

is distinctively the case of ethnographic studies, and did not foreground theory building through grounded theory (Caelli, Rae and Mill, 2003, p. 2). It is important to note that my initial plan was to employ three case studies, where the cases would be a) the Special Education pre-service teachers, b) the Early Childhood Education pre-service teachers, and c) the Primary Education pre-service teachers. However, as I started recruiting participants from different universities and from different stages of their studies (3rd and 4th year onwards), I realised that my cases were not ‘bounded’ so as to justify each being a case. This became evident when I considered Merriam’s (2009) ‘rule’ for determining whether a study meets the criteria of a case study. She considers the recruitment of participants to be the defining factor and invites researchers to ask themselves if the number of participants that could potentially be invited to research is finite or infinite.

If there is no end, actually or theoretically, to the number of people who could be interviewed or to observations that could be conducted, then the phenomenon is not bounded enough to qualify as a case (Merriam, 2009, p. 41)

Merriam and others have proposed that, although less recently claimed as such, many studies should instead be described as *basic qualitative* (Merriam, 2009), *generic qualitative* or *basic interpretative research* (Caelli, Rae and Mill, 2003; Kahlke, 2014, Merriam, 2002). A basic qualitative study is seen as encompassing the characteristics of qualitative research – “how people make sense of their lives and their worlds” (Merriam, 2009, p. 24) – without the key characteristics that are particularly important in the other qualitative approaches. This approach was deemed to be appropriate to adopt in this study.

4.2.1 Research questions

The research questions that guided the main study were the following;

RQ1: How do pre-service teachers in Greece use social media for personal purposes?

RQ2: How do pre-service teachers use in Greece social media for academic purposes?

RQ3: How do pre-service teachers use in Greece social media for professional purposes?

RQ4a: What factors influence pre-service teachers' use of social media?

RQ4b: What factors influence pre-service teachers' non-use of social media?

It is important to note that RQ 1 was not going to be tackled in the same systematic analysis as RQ2 and RQ3, since the reason I included it in the study was to provide complementary information and further context for the study. It is also important to note that during the data analysis it became evident that RQ4a and RQ4b were problematic and were later removed from the thesis (Section 4.5.6).

4.2.2 Participant recruitment

The approach to recruitment of participants was purposive (Bryman, 2012; Lincoln and Guba, 1985; Merriam, 2009; Oppong, 2013; Robinson, 2014). Purposive sampling is a form of non-probability sampling, which does not aim to obtain a representative and random sample. A researcher recruits participants that are eligible to answer the research questions (Bryman, 2012; Robinson, 2014) based on the researcher's criteria for participation. The form of purposive sampling I employed was snowball sampling (Oppong, 2013), to identify participants who met three initial participation criteria (Table 3).

Table 3. Criteria for participation in research

Participation criteria	Rationale	Limitation
Criterion 1: Participants needed to be students in one the following pre-service teacher education undergraduate programmes from departments at Greek universities: Special Education, Primary Education, Early Childhood Education.	I could have access to these teacher education programmes.	The teacher education programmes that I recruited from were 4-year undergraduate programmes in Greece. It is possible that if I had recruited from Postgraduate Teacher Education programmes (that are shorter in length and have

		different structure) I might have obtained different results.
Criterion 2: Participants needed to be at least in their third year of their four-year undergraduate study.	I assumed that this group of students, being well into their studies, could share more about whether and how they had been using social media to supplement their studies.	It is possible that first and second-year university students might use social media differently than the older students that were included in this study.
Criterion 3: Participants needed to have at least one profile on a social media tool.	I was interested in students who had at least some experience with social media, and opportunities to use social media every day, so that they could help me to answer my research questions.	It is possible that by setting out this criterion the people that volunteered to participate were likely to be the ones that were more enthusiastic in the topic of technologies, which might not be reflective of Teacher Education students.

For participant recruitment, I used three complementary methods:

- 1) I contacted teacher education tutors from different universities and asked them if I could introduce myself to their students, talk to them about my research, and invite them to participate.
- 2) I contacted my network of friends and acquaintances and asked them if they could refer me to any pre-service teacher friends.
- 3) I used snowball sampling (Bryman, 2012), as participants referred me to their peers.

Initially, I aimed to recruit 30 participants for the initial pre-interview questionnaire and the interview. The take-up exceeded my expectations. Overall, 55 pre-service teachers consented to participate and completed the pre-interview questionnaire. I conducted an interview with 36 participants, two of whom had decided not to complete the survey. At

the end of the interview I informed participants about the next stage of my study and asked them if I could contact them again in a few months' time. Of the 36 interviewees, 19 participants completed the diary and 17 people agreed to a follow-up interview.

4.2.3 Research Methods

I employed a variety of methods: pre-interview questionnaires, semi-structured interviews, diaries and follow-up interviews. While each of these methods served a particular purpose in the research design, the interviews formed the main research method that helped address the research question set, allowing for participants' voices and perspectives to be heard.

There were two phases in my data collection; the first phase consisted of an online questionnaire and a semi-structured interview, and the second phase a diary and a follow-up interview. The procedure is depicted in Figure 4 and the rationale for each data collection method is summarised in Table 4.

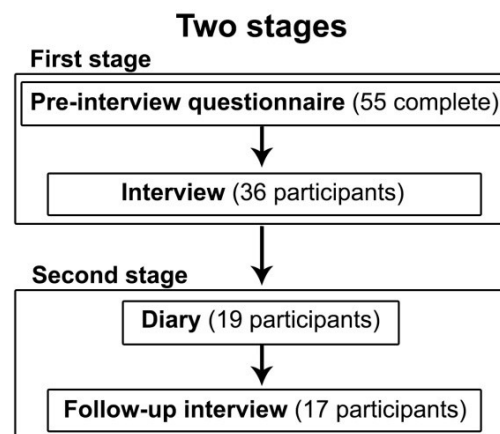


Figure 4. Data collection methods and number of participants

Table 4. Rationale for data collection methods

Data collection method	Rationale
Pre-interview	To collect demographic data

questionnaire	To exclude participants that did not meet the participation criteria To inform my interview questions
Semi-structured interview	To gain a rich insight into individual pre-service teachers' informal use of social media
Diary	To get a snapshot of their individual experiences with social media To triangulate the interview data (finally not used as such)
Follow-up interview	To get additional information about their diary entries To discuss possible discrepancies between the interview and the diary

4.2.3.1 *Pre-interview questionnaire*

The questionnaire in this study is referred to as a “pre-interview questionnaire” (Francis, 2007, p.114), in order to emphasise its role as a complementary tool that would help me to conduct the interviews, which were the main data collection method in this study. As mentioned above (Section 4.2), questionnaires are commonly associated with quantitative studies. However, in this study, the aim of the pre-interview questionnaire was to collect demographic data, exclude participants that did not meet the participation criteria and act as prompts for the subsequent interview, rather than collect numerical data for analysis.

The questionnaire was developed and administered online rather than in a paper-based form, for practical reasons related to the ease with which it could be sent to potential participants (Bryman, 2012; Couper, 2008; Fox, Murray and Warm, 2003), as well as ethical reasons. As I recruited participants from different parts of Greece, it was more convenient to send them the link to the questionnaire online instead of setting a date with each participant for administration of the questionnaire. Moreover, the online questionnaire gave participants the opportunity to read my informational letter and consent form in their own time. I considered that allowing the potential participant time to read the information about the study and what was expected from participants in

detail, was not only the ethical thing to do but also a way to ensure that participants would be those who would find the study interesting, worthy of their time and maybe participate in as many stages as possible. Despite the fact that I included my contact detail for queries, none of the potential participants contacted me with queries at that time.

I used SurveyMonkey for my questionnaire ([Appendix C](#)) and I sent the link to potential participants prior to the interview through email. One pre-service teacher informed me that a friend (a peer) of hers would also be happy to participate in the interview, but they would rather not complete the questionnaire.

The questionnaire involved two types of questions: a) questions where respondents could choose from a list of pre-determined answers, b) questions where respondents could write their own replies. The structure of the questionnaire is shown in Table 5.

Table 5. The structure of the questionnaire

Question number	Topics covered
Question 1	Information about the study Researcher's and supervisors' contact details Consent form
Questions 2-15	Questions that aimed to collect demographic data Questions related to general social media use
Question 16	Questions related to use of social media for personal purposes
Questions 17-32	Questions related to use of social media for academic purposes
Question 33	Invitation to participants to provide their email address if they wished to be contacted

	for participation in the subsequent interview
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As is shown in [Appendix C](#), I applied the Question Skip Logic feature to the questionnaire. Skip logic, which is also referred to as filter or branching, ensures that respondents would be directed to relevant questions that applied to them, based on their previous responses (Bryman, 2012; Couper, 2008, p. 219). For example, respondents who answered ‘Yes’ to Question 18, were directed to question 19, while respondents who answered ‘No’ to the same question, were directed to question 21.

I received 70 responses, of which 55 were complete. Of those 55 responses, 30 were from participants from Early Childhood Education departments, 18 from Primary Education departments and 7 from Special Education.

As mentioned in the Introduction (Section 1.5), several limitations have been identified in relation to the use of questionnaires for exploring social media use. Such limitations became evident during the subsequent interviews, which involved participants’ misreporting their social media tools due to a) a different understanding of social media tools between them and myself, b) mistakes in completing the questionnaire, and c) difficulty in remembering all the tools they used, without prompting. There were also instances of participants’ writing contradictory/confusing responses that merited further clarification ([Appendix J](#)).

However, despite the limitations, the questionnaire was helpful in my study, as it helped me prompt participants during the interviews, particularly when they said that they could not remember all the tools that they use. Overall, the questionnaires proved to be a complementary tool to the semi-structured interviews that followed.

4.2.3.2 *Semi-structured interview*

As the aim of the study was to develop a rich understanding of individual pre-service teachers’ informal use of social media, I considered semi-structured interviews to be the most appropriate data collection tool. Semi-structured interviews are interviews where, although basic interview questions have been pre-planned, the researcher can change

the phrasing and the sequence of questions, as well as omit questions where appropriate and prompt the interviewee to clarify or expand on their replies, by using probes and follow-up questions, depending on the circumstances (Brinkmann, 2013; Bryman, 2012; Opie, 2009). I discounted the option of unstructured interviews, because I started the inquiry having a specific research focus that I wished to explore (Brinkmann, 2013; Bryman, 2012; Merriam, 2009). Therefore, I had prepared an interview guide, which helped me focus on the topics that would help me answer my research questions ([Appendix E](#)). I also discounted the option of structured interviews, as the aim was to gain an in-depth understanding of participants' experiences. Unlike structured interviews, which involve a standardised procedure of asking every participant the same questions in a pre-determined order, semi-structured interviews can offer "much more leeway for following up on whatever angles are deemed important by the interviewee" (Brinkmann, 2013, p. 21). Additionally, as discussed in the Literature review, social media terminology and other concepts that were central in the study may mean different things to different people (Sections 2.1.1 and 2.2.2). Structured interviews are "based on the shaky assumptions that respondents share a common vocabulary and that the questions will be interpreted the same by all respondents" (Merriam, 2009, p. 90).

Through semi-structured interviews, I created an opportunity to explore participants' perspectives on, and experiences with, the topic in question, and to engage in a dialogue with them by inviting them to provide me with further details about the things they considered to be important.

I employed semi-structured interviews with 36 participants. Of the 36 people that participated in the interview, 18 were Early Childhood, 11 were Primary and 7 were Special Education pre-service teachers.

The interviews were conducted in Greek and were either face-to-face or online through the use of Skype depending on participants' preferences. Skype – and other similar VoIP (Voice over Internet Protocol) tools – have started to be increasingly used in qualitative research (Deakin and Wakefield, 2014; Janghorban, Roudsari and Taghipour, 2014; Sullivan, 2012), as they provide participants with the opportunity to be interviewed at a place of their convenience (Lo Iacono, Symonds and Brown, 2016). The interviews lasted from approximately 30 minutes to 2.5 hours. The venues for the

face-to-face interviews included cafeterias, participants' houses or offices, and university cafes and restaurants, depending on each interviewee's preference. All interviews were audio-recorded and transcribed into Greek, and later, analysed from Greek (Section 4.5.3.1).

As mentioned above, in each interview that I conducted the questionnaire responses of each participant were used for reference, although this was not possible for the two participants who had preferred not to complete the questionnaire prior to participating in the interview stage.

Consent was given by participants prior to each interview. Each interview started with an introduction of myself and a repetition of the study's aim. In order to break the ice and develop rapport with participants the initial questions were warm-up questions (Lincoln and Guba, 1985), which focused on their choice of university degree and their background experiences with technologies. The next stage of the interview focused on the social media which they used. This started with a mind mapping activity, adapted from that used in research exploring teachers' personal networks (Fox and Bird, 2017b; Fox et al., 2007; Fox and Wilson, 2015; Fox and Wilson, 2009). I showed participants a mind map that I had drawn for myself and included information about the social media I use, the purposes I use them for and the people I interact with through them ([Appendix H](#)). I asked participants if they could draw their own map and gave them a piece of paper and pens. The decision to share my own mind map as an example of what I was asking them to do was based on an assumption that it would contribute to a stress-free and friendly interview. This proved to be helpful in this sense, as some participants expressed their concern about drawing something when I told them about the activity. Having an example of a completed mind map helped them understand that the activity did not require having good drawing skills. While most participants drew a map in a similar way to mine (i.e. a circle with the name and arrows pointing to each tool being used, followed by the purposes), there were some examples of participants who wished to draw it differently ([Appendix H](#)).

Initially, after they had finished the mind mapping activity, I asked interviewees if they could talk about their map in detail. However, after ten interviews I changed the guidelines for the activity. I asked them if they could talk to me while they were doing

the mind map activity. I found the commenting part particularly valuable, as it helped participants talk freely about how they used social media without me having to ask them particular questions. Apart from the map activity, the interview also consisted of questions related to participants' personal, academic and professional uses of social media tools, which corresponded to my research questions (Table 6).

Table 6. The structure of the interview

Stages	Topics covered (and relationship to the research questions)
1.	Questions about the department Questions about general use of technology and the internet (Warm-up questions)
2.	Questions about background with technologies, the internet and digital devices Questions about social media use now and in the past
3.	Questions about social media use for personal purposes (RQ1)
4.	Questions about social media use for academic purposes (RQ2)
5.	Questions about social media use for professional purposes (RQ3)
6	Questions about factors that influence use/non-use of social media (RQ4a, RQb – these research questions were later reviewed, Section 4.5.6)
7.	Questions about the future (Concluding the interview)

Three important findings emerged during the interviews in relation to researching social media use. Firstly, it became apparent that participants might have been using social media terminologies differently from myself as the researcher. I found for example that 'communicating on Facebook' was sometimes referred to as 'emailing' and 'Facebook groups' were sometimes referred to as 'sites'. It is possible that, if I had used only questionnaires, such nuances would not have become apparent. Additionally, it became evident that participants' frequency of social media use was not fixed, but depended on

different factors, such as personal circumstances, and was not something they could accurately record. If I had used only questionnaires (where participants were asked to note down the time spent on each tool) this might not have been evident.

At the end of the interview, I asked participants if they wished to participate in the next stage of my research, which was the completion of a seven-day diary.

4.2.3.3 *Diary*

I used a seven-day diary as a method that would complement interview findings (Connaway et al., 2017). The diary was structured and consisted of the same lists of questions for each of the seven days (DeLongis, Hemphill and Lehman, 1992). Although structured diaries, such as the one I used in this study, produced quantitative data (Bryman, 2012), I did not seek to quantify participants' choices of social media tools and their daily practices. Instead, the aim of the diary was to help me access a snapshot of participants' social media practices. This data – which were further complemented by subsequent follow-up semi-structured interviews – helped me gain a deep understanding of participants' experiences with technologies.

I was aware that diaries could be demanding in terms of dedication on the part of the participant (Lavrakas, 2008). It was also possible that the participant would not carefully follow the instructions. For example, instead of completing the diary every day, there would be a danger of forgetting and completing it at a later stage with possible inaccuracies (Lavrakas, 2008). For this reason, when I made the telephone contact prior to sending them the diary, I repeated that this was a voluntary part of the study.

I designed the diary on a Microsoft Word document ([Appendix F](#)). I used Microsoft Word, rather than online tools for the design of the diary, as I had already piloted diaries in that format and the pilot participants had reported that it was easy to use. I sent participants who agreed to participate in this stage the diary template via email. The first two pages of the diary included a consent form and instructions on how to complete the diary. Participants were asked to write which social media they used, and how they used them every day for one week. (Table 7).

Table 7. The structure of the diary

	Topic covered
	Informational letter Consent form Instructions
Day 1-7	(For each day, participants were asked to:) Tick the social media tools that they used on that day from a list of tools that I had compiled. Write how long they used each tool for Write the purpose for which they used it Write whether any of the activities that they engaged in were related to their studies or future profession. If the answer was positive, they were asked to briefly describe the activity.

Of the 36 interview participants, 19 completed the diary. Of those 19 participants, 6 were Early Childhood Education, 7 were Primary Education and 6 were Special Education pre-service teachers.

4.2.3.4 *A follow-up interview*

The aim of the follow-up interview was to invite participants to elaborate on their diary entries and focus on the factors that influenced their decisions to use or not use social media. All follow-up interviews but one were conducted online, through Skype and/or Facebook chat, depending on participants' preferences. I sent participants a consent form to complete prior to the interview. Of the 19 participants who completed the diary, 17 agreed to do the follow-up interview. The follow-up interviews lasted from approximately 9 minutes to 30 minutes and were audio-recorded. I had each participants' diary with me while I was conducting the follow-up interview and I asked them further questions with regard to their entries and the extent to which their social

media use during the week of the diary was reflective of their general use of social media use ([Appendix G](#)).

Of the 17 pre-service teachers that completed the follow-up interview, 6 were Early Childhood Education, 5 were Primary Education and 6 were Special Education pre-service teachers.

4.3 Ethical considerations

Ethical dilemmas and concerns arise in all research that involves interaction with participants at different points of the research, from the initial planning to the completion of the study and beyond that, when results are disseminated (AoIR, 2011; Mertens, 2012; Opie, 2009; Stutchbury and Fox, 2009; Traianou, 2014) and several international and national professional and academic bodies have issued ethical guidelines that aim to support researchers plan and conduct studies that comply with ethical standards (i.e. American Association of Internet Researchers (AoIR), 2012; BERA, 2011). Building on Stutchbury and Fox's (2009) ethical framework (3.2), the University of Leicester published "The Ethical Appraisal Framework mapped against BERA 2011 guidelines" (no date).

Consideration of ethics was continuous and iterative, and started from the beginning of the pilot studies and continued throughout the main study (Kontopoulou and Fox, 2015). As mentioned in Chapter 3, I used Stutchbury and Fox's (2009) ethical framework as a tool that helped me plan and conduct an ethical research.

I used several strategies to ensure that my study was ethical (see Table 8 for a mapping of the strategies that I employed against Stutchbury and Fox's (2009) ethical framework). The study was designed following BERA's (2011) guidelines for ethical research. I proceeded with the main study after I had been granted ethical approval by the University of Leicester Ethics Committee.

As mentioned in Section 3.3, I was introduced to participants both by tutors and mutual friends. This helped me establish rapport with participants and allowed me to personally explain the aim of the study in detail. On the informational sheet, I included my

personal information, the name of the University, the names of my –then- two supervisors and their contact details.

I was transparent about the research aim and design at all times. I received informed consent from all participants and for every stage of the study (pre-interview questionnaire, interview, diary and follow-up interview). Participants were informed that a) their participation was voluntary, b) they had the right to participate in one or more stages freely, and that they could withdraw at any time, c) all the data would be stored confidentially and used anonymously for the purposes of the thesis and academic articles.

I respected participants' wishes with regards to their engagement with the study. For example, two participants expressed a wish not to complete the online questionnaire, but were happy to do the interviews. Another example includes four participants who asked if they could do the interview together with their friend, which resulted in conducting two joint interviews. I also respected participants' wishes with regards to the type of interview (face-to-face or online), the venue and the timing that would suit them. Throughout my interaction with participants, I was careful about my role in the study and the possible "power imbalances" (Råheim et al., 2016, para. 2) that were likely to occur and took steps to minimise these risks. For example, as was described in the Literature review (Section 2.1.1) I did not provide interview participants with a definition of social media in the interviews, as I was interested in their perspectives on the subject. However, some participants insisted on me giving them at least some brief definition. When this happened, I did provide a brief definition, but at the same time I encouraged them to include whatever they felt was relevant. I believe that if I had not responded to their question, insisting on not giving a definition, this might be perceived as exercise of power. An additional risk could be that I might have been seen as an expert who was withholding the 'true' answer and assessing their knowledge. Finally, I made myself available to further questions. Some participants contacted me after the study for advice with regards to postgraduate studies, research methods, etc.

Finally, it is important to note that I designed the study taking into consideration a) benefits to participants, b) benefits to ITE institutions and research community.

As far as benefits to participants are concerned, the steps I took to establish trust and rapport, as well as my attempts to take into account their perceptions of how several practicalities of the research would be conducted (venue, mode of delivery and timing of the interview, starting time of the diary, etc) ensured that their participation would not disrupt their everyday routines to a significant extent. It is of note that some participants reported that they enjoyed learning how an academic research study is conducted.

With regards to the benefits to ITE and the research community, the thesis aims to provide insight into the current practices of pre-service teachers' use of social media. This insight is important as it adds to the discussion about better preparing pre-service teachers through social media and the possible design of future interventions in ITE. By allowing pre-service teachers' voices to be heard, this study fills research gaps that have been identified by the literature (Section 1.5) and contributes to the discussion about teachers' experiences, duties, aspirations and needs with regard to social media. Initial findings of the study were disseminated at conferences in the UK and Greece.

Finally, this study was a result of continuous ethical appraisal that went beyond university ethical approval. It is expected that the transparency about the process will help future researchers track its process and how unanticipated issues were addressed, sharing in this way research experience (Clark et al., 2007; Donnelly, Gabriel and Özkazanc-Pan, 2013; Mellor, 2001). Failure to be transparent is unethical, as it promotes an unrealistic perception of research (Opie, 2009). Transparency about how the methodology and study design was shaped after unexpected challenges and the epistemological assumptions that led me to make methodological decisions allows researchers to follow and critically engage with my interpretation of the data. I consider this to be inextricably tied with my ethical stance, agreeing with Opie (2009) who argues that an ethical researcher should be "reflective and reflexive" (p. 30).

Table 8. Ethical strategies mapped against ethical frameworks

Ethical perspective (according to Stutchbury and Fox's (2009) framework).	Strategy used.
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External/Ecological (focus on cultural awareness and compliance with laws and regulations).	<p>I followed BERA's (2011) guidelines for ethical research</p> <p>I started the study after receiving ethical approval by the University of Leicester.</p>
Consequential/Utilitarian (focus on anticipated benefits to multiple beneficiaries).	<p>Benefits to participants</p> <p>I took into account their perceptions of how several practicalities of the research would be conducted (venue, mode of delivery and timing of the interview, starting time of the diary, etc).</p> <p>Participants reported that they enjoyed participating in a research interview.</p> <p>Benefits to Teacher Education institutions</p> <p>The study adds to our understanding of pre-service teachers' use of social media.</p> <p>The study allows pre-service teachers' voices to be heard.</p> <p>Benefits to researchers</p> <p>The study adds to the discussion on societal expectations of teachers with regards to social media (Fox and Bird, 2017b; Kimmons and Veletsianos, 2015).</p> <p>Transparency about the methodology and study design.</p> <p>This study discusses the importance of taking different ethical perspectives into account before and during the design, which could help other researchers plan ethical studies.</p> <p>This study aimed to fill research gaps that have been identified by the literature.</p>
Deontological (focus on the	I was transparent about the research aim and design.

duties of the researcher).	<p>I received consent for every data collection method.</p> <p>I informed participants of the voluntary nature of their participation.</p> <p>I made myself available to further questions.</p> <p>I informed participants about their rights.</p>
Individual/Relational (Focus on the establishment of trust and rapport between the researcher and the participant. Focus on informed consent, limited imposition, voluntary participation).	<p>I personally explained the study to the participants.</p> <p>I provided participants with my personal information, the name of the university, the names of my two supervisors and their contact details.</p> <p>I respected participants' wishes with regards to their engagement with the study.</p> <p>I conducted a stress-free interview and, in some cases, maintained contact with participants.</p>

4.4 Quality criteria

The aim of every study should be to present findings using strategies that ensure quality and rigour (Lincoln and Guba, 1985; Merriam, 2009, p. 210). While validity and reliability are two common criteria that are used to assess quality in quantitative studies, several writers have challenged their appropriateness in qualitative enquiries, arguing that they “presuppose that a single absolute account of social reality is feasible” (Bryman, 2012, p. 390). Lincoln and Guba (1985) propose the criterion of *trustworthiness*, against which the quality of qualitative research should be assessed.

I adopted Lincoln and Guba's (1985) criteria of Credibility, Transferability, Dependability and Confirmability, which form the four components of trustworthiness,

and used different strategies proposed by different writers (Bryman, 2012; Lincoln and Guba, 1985; Merriam, 2009) to strengthen the quality of my research project (Table 9).

Table 9. Quality strategies mapped against criteria

Criterion	Strategy adopted
<p>Credibility</p> <p>This refers to whether the study provides “credible findings and interpretations” (Lincoln and Guba, 1985, p. 301).</p>	<p>I used different data collection methods that allowed me to obtain rich data of participants’ personal experiences with their social media, as well as snapshots of their online practices.</p> <p>I reached saturation of findings, which takes place when “you begin to see or hear the same things over and over again and no new information surfaces as you collect more data” (Merriam, 2009, p. 219).</p> <p>I explicitly reported my “biases, dispositions, and assumptions regarding the research”, displaying reflexivity (Merriam, 2009, p. 220)</p>
<p>Dependability</p> <p>This refers to whether “findings are consistent with the data presented” (Merriam, 2009, p. 221).</p> <p>Confirmability</p> <p>This refers to whether findings clearly emerge from the research data and are not products of researcher bias.</p>	<p>I present an audit trail, where I report in detail on my research journey (Chapter 3) and all the decisions I made during the design of the study, while I was conducting the study and during the analysis stage.</p> <p>I provide evidence of how provisional coding and themes emerged, as well as of the findings that I obtained by using raw data. I presented the philosophical considerations that informed my methodological approach, and I acknowledge my positionality as an interpretive researcher.</p> <p>I was transparent about my own biases and background and assumptions that guided the choice of my research topic, methodology and analysis (Sections 4.1, 4.2 and 4.5).</p> <p>I present an audit trail where, I report on experiences from my pilot studies which informed the design of the study</p>

	and the refining of the research questions.
Transferability This refers to whether findings can be applied in different contexts.	I recruited participants from different contexts (three different Teacher Education programmes, different years of study). My interpretations are followed by verbatim data from the participants.

In the next section I describe how I proceeded with the analysis of the data. This is an important dimension to reporting qualitative studies in order to provide an audit trail for transparency of the research methodology for readers to be able to judge the quality of the study and its findings (Bryman, 2012; Merriam, 2009).

4.5 Data Analysis

This section outlines the iterative process that I adopted in the analysis of the data and justifies my decision to include the interviews as the main tool on which the data analysis was based. I discuss issues of transcription and interpretation and present the development of my coding framework with reference to academic and professional purposes. Then, I present two approaches to data analysis with a focus, the challenges that I encountered and the refinement of the data that followed. After that, I discuss the emergent themes and the refinement of the research questions. I continue by presenting the approach to data analysis in relation to everyday purposes and the factors influencing non-active participation. Finally, I discuss the role of the diaries and the follow-up interview in the analysis.

4.5.1 An Iterative Process

My data analysis was iterative rather than linear. It is fair to say there was a planned and an unplanned side to the iterative process. The planned side involved mapping the data collected against the research questions that I had set initially in order to start the analysis. The unplanned side involved me refining my research questions in response to the emerging data.

The mode of data analysis was primarily inductive, as I did not bring a pre-existing framework or *a priori* hypothesis with me to the field (Bryman, 2012). That said, I acknowledge that despite not testing any particular theories, my understandings from reading published work about a) formal and informal learning and b) university students and pre-service teachers' use of social media informed my understanding of the topic and my design of the research questions to which I mapped participants' quotes.

Recognising the inevitable influence of reading previously published work is stressed by several writers, such as Merriam, who adds:

This is not to say that the qualitative researcher has a blank mind bereft of any thoughts about the phenomenon under study. All investigations are informed by some discipline-specific theoretical framework that enables us to focus our inquiry and interpret the data. However, this framework is not tested deductively ... rather, the framework is informed by what we inductively learn in the field. (Merriam, 2009, p.16)

However, the main analysis was an inductively-oriented process that involved me going back and forth to my original data and literature that helped me develop “abstract categories and concepts” (Merriam, 2009, p. 17). As I was undertaking analysis, I continued expanding my bibliography relevant to the provisional themes that were emerging. In particular, provisional findings led me to the literature on a) social assemblages, b) social capital building and c) identity (Chapter 2).

In other words, I developed an emergent model which involved a review of the data – a search for recurrent patterns and irregularities and identification of categories and connections among them – followed by several reviews of the literature in order to find concepts that would help me illustrate the data, a review of the research questions and, finally, the development of findings as a contribution to knowledge.

The data from the pre-interview questionnaires, interviews, diaries and follow-up interviews were collected in 2014-2015 and initial data analysis started during the fieldwork. In Figure 5, arrows illustrate how data from each method link to the others.

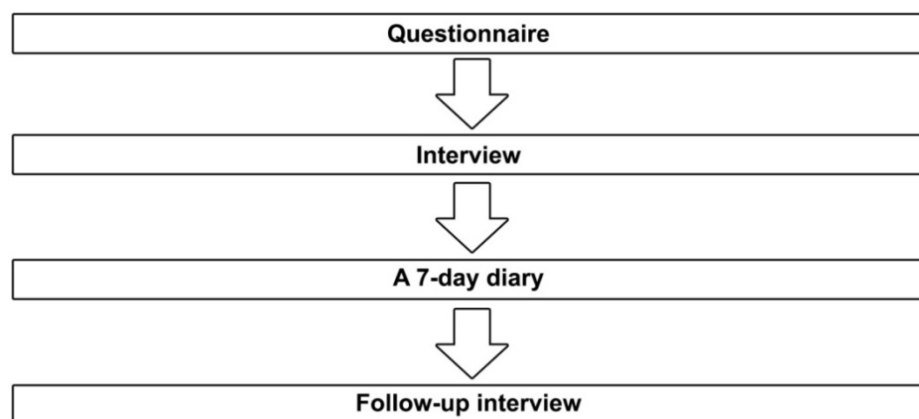


Figure 5. Link between data collection methods

As was mentioned in the previous section, the pre-interview questionnaire helped me prompt the interview participants to expand on and/or clarify their questionnaire responses (for example, when a discrepancy was found between the questionnaire and interview response). Moreover, based on the social media mentioned during the interview stage, I designed the diaries by compiling a list of the most frequently mentioned tools. Finally, based on participants' diary entries, I proceeded with follow-up interviews. As each tool was linked to the next, initial data analysis started after the collection of the questionnaires and while designing and conducting each next stage of the study. However, the main data analysis started after all the data had been collected. My initial approach to integrating the different data sources was to divide the data set into three cohorts:

Cohort 1. Special Education pre-service teachers (n=7)

Cohort 2. Early Childhood Education pre-service teachers (n=18)

Cohort 3. Primary Education pre-service teachers (n=11)

I started my analysis with data from the Special Education cohort as I thought that the small number of participants would make it easier for me to begin to identify provisional codes. Early findings about this cohort were published in a conference paper (Kontopoulou, 2016).

4.5.2 The role of the questionnaire in data analysis

I began the analysis of the data generated by the interviews, instead of the questionnaire. As mentioned in the previous section, the decision not to analyse questionnaire data as part of the main dataset was made after considering the limitations of questionnaires in exploring the unique ways participants use social media (Appendix J) .

4.5.3 Interview data analysis

4.5.3.1 Translation and transcription

I started familiarising myself with the data by listening to the interviews many times (in addition to having listened to them in order to design the final version of the diary) to immerse myself in the data and appreciate the range of views expressed. I transcribed all interviews verbatim in Greek. I kept the transcripts in the original language at this stage as I felt that in this way I would be more confident that my analysis would best reflect participants' actual words and points of view. This became important because some Greek words could not be easily translated, such as *S.O.S. topics* (Chapter 5). Therefore, I proceeded with analysis in the original language and only translated those quotes that I felt illustrated the main arguments of the text for inclusion in the thesis.

4.5.3.2 Mapping research questions- Special Education cohort

I started the analysis by printing out all the transcripts and reading each one of them many times. I listened to the recordings once again, so as to spot any inconsistencies in the transcription. Then I started mapping the responses against each research question (Kontopoulou, 2016).

I started the initial analysis by making notes and annotations of what I considered important at that time, such as words, phrases and even whole answers, paying attention to whether the participant referred to social media use for personal (everyday), course-related (academic), or profession-related (professional) purposes; broad definitions for these are presented in Table 10.

Table 10. Mapping the data against research questions

Research questions	Definitions
Everyday use of social media. (RQ 1: How do pre-service teachers use social media for everyday purposes?)	Use of social media for purposes unrelated to university.
Academic use of social media. (RQ 2: How do pre-service teachers use social media for academic purposes?)	Use of social media for purposes related to the participant's university course.
Professional use of social media. (RQ 3: How do pre-service teachers use social media for professional purposes?)	Use of social media for purposes related to the participant's future profession (the profession for which the participant was studying).
Factors influencing use of social media (RQ 4a: What factors influence pre-service teachers' use of social media?)	Factors that influence the participant's decision to use social media for academic purposes.
Factors influencing non-use of social media. (RQ 4b: What factors influence pre-service teachers' non-use of social media?)	Factors that influence the participant's decision not to use social media for academic purposes.

After this process, I imported the Microsoft Word document of transcripts for each Special Education participant's interview into NVivo, using pseudonyms.

During the course of the analysis presented above, I wrote a summary on paper of each interview, beginning with the Special Education cohort. The use of summaries has been suggested by different authors (Harding, 2013; Hrastinski and Aghaee, 2012; Saunders, Lewis and Thornhill, 2009) as a way to help the researcher identify key information. Each participant summary was organised around the sections shown in Table 11.

Table 11. The structure of participant summaries

Sections covered in the summaries
1. Prior experiences with technology (as school pupils)
2. Current use of social media
3. Change of social media use between prior to university and now?
4. Criticism of social media//disadvantages
5. Perceptions for future use of social media (as a professional teacher)
RQ1: Use of social media for personal purposes
RQ2: Use of social media for academic purposes
RQ3: Use of social media for professional purposes
RQ4: Factors that influence use or non-use of social media

The summaries created focused on participant responses to the four research questions and other topics (1-5 on Table 11), such as prior experiences with technology or criticism of social media etc. Topics 1-5 were included to provide rich information about participants' perceptions and past experiences, which helped contextualise each participant's dataset. They also served as a profile for each participant, which formed the basis of vignettes. Vignettes later proved helpful in relation to analysis when applying the Visitor-Resident framework, which I used to illustrate participants' practices on social media, as well as the presentation of findings.

4.5.4 Research questions 2 and 3: Developing a coding framework

4.5.4.1 Analysis phase 1: Focus on tools

Since the main focus of the study was RQ 2 and RQ 3, I continued by focusing the analysis on these two questions.

The first attempt at data analysis involved developing codes for RQ 2 (Academic use of social media) and RQ 3 (Professional use of social media), based on specific tools that were mentioned by participants. I used codes named “Facebook”, “Wikipedia”, “YouTube” etc. However, this emphasis on tools did not prove to be suitable for the purposes of this study which aimed at an in-depth analysis of the purposes for which participants used social media. Such emphasis on tools would result in a descriptive presentation that would only allow me to answer ‘what’ pre-service teachers used for academic purposes, rather than ‘how’ they were using them. Therefore, I continued the analysis with a different approach.

4.5.4.2 *Analysis phase 2: Focus on interactions and access and unpacking academic purposes and professional purposes*

I continued the analysis by trying to identify what participants reported doing on social media. The first pattern that I noticed was that participants used social media in two ways: a) *to access material*, or b) *to interact with others*, such as another individual or a group of individuals (Table 12). I later used the term *Person-Material mode* to refer to former, and *Person-Person mode* to refer to the latter. Throughout the study, I made reference to the typologies of Person-Material to refer to access to material, as well as Person-Person for interactions with other people.

Table 12. Access-Interaction Modes of use

Mode of use	Examples
Person-Material (Access to material).	Participants used social media to watch videos on YouTube, read a Wikipedia entry, see images on Pinterest, etc.
Person-Person (Interactions with other people)	Participants used social media to email someone, reply to a Facebook post, have a Skype discussion, etc.

I proceeded with the analysis using the dichotomy *access* or *interaction*. I noticed that, as far as academic purposes were concerned, participants reported both access to materials and interactions with others (Figure 6), while as far as professional purposes were concerned, participants reported mostly access to materials (Figure 7).

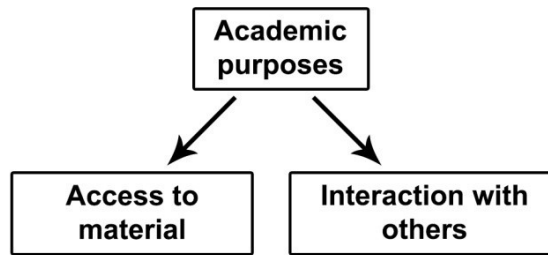


Figure 6. Academic purposes modes of use

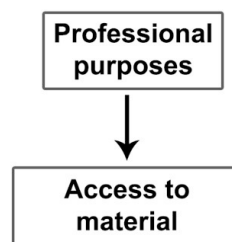


Figure 7. Professional purposes mode of use

Using this access-interaction dichotomy, I continued reading the data. My analysis was informed by thematic analysis (Bryman, 2012). I started to identify provisional codes for RQ2 and RQ3.

4.5.4.3 *Refining the coding framework including other cohorts - Early Childhood and Primary Education*

I imported the interview transcripts from Early Childhood and Primary Education pre-service teachers into NVivo and started reading the texts, again, using the access-interaction dichotomy, and continuing the coding process. Further reading of the data resulted in refinement of the codes and the development of a coding framework (Table 13 and Table 14).

Table 13. Coding framework academic purposes

RQ2: Academic purposes – Codes	Description	Typical examples of quotes
Get started (Access to material)	Use of social media for clarification of terms/a quick summary of the topics in order to get started (i.e. with assignments)	“initially if I don’t understand the initial term, I will go there let’s say for an initial idea about what it is” (Silvia, PE)
Help with teaching practice (TP) (Access to material)	Use of social media to access material for TP.	“I visited YouTube and I was watching how they make musical instruments in kindergarten...it helped me a lot... it was easier to make it step-by-step as they have it on YouTube.” (Kelly, ECE)
Help with exams	Use of social media to access material for help with exams.	“because in the class we say many things...sometimes as time goes by you forget it. And when I study for exams, I may come across a term and I may not remember whom it is from. So, I may go directly to the internet. I mean, I may not search for it in my notes.” (Olympia, PE)
Self-directed learning (Access to material)	Use of social media to delve deeper into a topic presented at the university.	“I sometimes use Wikipedia to get informed mostly for myself, not necessarily in order to use something in my assignment” (Michelle, PE)
Solve course-related queries/collaboration (Interaction with others)	Use of social media for interactions about course-related queries and information exchange.	“To communicate, to exchange an assignment with the kids [peers] if it is needed, or for them to tell me something that they did not understand, or to discuss something that I did not understand.” (Gina, SE)

Joyful/irrelevant posts (Interaction with others)	Use of social media for joyful or irrelevant interactions with peers.	“I may post a song (on the Facebook student group), too, like, to have a bit of fun.” (Elektra, ECE)
Interactions with teachers (Interactions with others)	Use of social media for interactions with teachers	Tina: I have my university (email) that I mostly (use) with teachers Me: Oh, you talk with the teachers, right? Tina: Very rarely. When I want to ask something” (Tina, ECE)

Table 14. Coding framework for professional purposes

Professional purposes - Codes	Description	Typical examples of quotes
General information about the field (Access to material)	Use of social media to find out more about their future profession.	“I follow one (or) two sites... I did it – don’t laugh- it is for crafts (laughter)..... Because I am completely hopeless with artistic (things) etc. I am not skilled at doing things with my hands.” (Chris, PE)
Future reference (Access to material)	Use of social media to save resources/join groups for future reference.	“I became a member because I think that they will post some articles that will interest me ...And I feel they will post things that I will be interested in for later.” (Kelly, EY)

With the above codes in mind, after finishing with coding on Nvivo, I opened a Microsoft Word document for each research question. I copy-pasted the quotes that I had categorised under these themes in Nvivo and underlined the quotes that I found to be more illustrative of the code. This resulted in a descriptive analysis, which laid the foundations for a more interpretative analysis. It also helped me gain an overall idea of the theme, and consequently erase the quotes that seemed to describe a different action. This helped me see ‘the bigger picture’ and make several refinements in the codes themselves.

4.5.4.4 *Challenging the Access – Interactions dichotomy*

Upon further review of the data, I realised that the binary of *access* or *interactions* was not entirely useful in listing participants’ reported activities with social media. For example, according to the data, participants visited Facebook student groups sometimes only to access other people’s contributions and discussions (*access*), while other times they visited the group both to access content and interact with others (*access and interaction*), depending on the circumstances. Another example of the overlapping boundaries between the concepts of interaction and access was when participants reported browsing on the internet for information about an assignment that they needed to write, finding material that they were interested in (which could be classified as *access*) and later emailing the information to a friend that might also find it useful (as *interaction*). This raises questions as to whether a participant may be aware or willing to describe the whole sequence of actions like the one described above. Similar questions kept emerging throughout the data analysis with other participants and their experiences, which prompted me to re-examine whether a binary view of access and interaction is appropriate on social media. This re-examination of the dichotomy seemed to be particularly important to data collected from participants living in a modern “networked society” (boyd, 2014, p. 195; Rainie and Wellman, 2012, p. 304) where people engage in multitasking on social media (American Press Institute, 2015; Eley, 2012; Jacobsen and Forste, 2011) making it difficult to use *access* or *interaction* to categorise their activities online.

In retrospect, I realised that my conceptualisation of *access to material* and *interaction with others* had been influenced by literature of *passive* (also commonly referred to

lurking) and *active* forms of engagement with social media, which are described in the Literature review (Section 2.1.5). I decided to proceed with this distinction, whilst making sure that I underlined the blurred boundaries between the two.

4.5.4.5 *Analytic Phase 3: Distinguishing academic from professional and refining research questions*

As I continued reading the data carefully, I started challenging my initial plans to research *academic purposes* separately from *professional purposes*, as I identified significant overlap between the two. For example, participants, driven by a need to perform better in class, searched for educational material on several social media. This had initially been categorised as *academic purposes* ('help with TP', 'help with exams' codes), as participants did so in order to respond to a component of their course. However, I found myself thinking that this search for educational material online contributed to *professional purposes*, as through this exposure to material they learned more about the field of education. It was becoming obvious that *academic* and *professional* purposes influenced one another. I decided to use the term *academic* as a broad category that would include course-related and profession-related purposes.

This identified overlap prompted me to revisit the two initial research questions that guided my study (RQ2. How do pre-service teachers use social media for academic purposes? and RQ3. How do pre-service teachers use social media for professional purposes?). The data suggested that the two questions could be merged into RQ2. *How do pre-service teachers use social media for academic purposes?*

4.5.4.6 *Developing themes*

I continued reading the data and the coding framework and made several refinements. Firstly, I merged the codes that I considered could be grouped together under a theme. It is important to note that after developing the themes, I continued reading the data and developing subthemes. In this way, my analysis also involved going from broad to specific. The themes and subthemes are presented in the Findings chapter (Chapter 5).

4.5.5 Research question 1: Everyday purposes

As mentioned above, I had not planned to analyse the data for this question in the same in-depth systematic way as the previous one, which was the overarching research question, as I had included this question in order to contextualise the findings for Research question 2.

I started reading the transcripts, with a particular focus on the everyday purposes participants reported for using social media, rather than the tools they used them for. Again, I started the analysis with the Special Education cohort.

I identified four broad purposes for which participants used social media. Initially, I identified the following purposes: a) interaction and communication with other people, b) entertainment and passing the time, c) current affairs and information, and d) work (unrelated to teaching)/ postgraduate purposes.

At this point, after continuous reading and refining of categories, I realised that there was considerable overlap across the above purposes. In particular, I decided that the last category had to be merged, as there was considerable overlap with '*communication with other people*' and the '*information*' purpose. For example, the overlap became evident when a participant reported using social media in order to find a part-time job as a waitress, and when another reported using social media to find postgraduate opportunities (an overlap with '*information*'). Other participants mentioned using different social media, such as emails, Facebook and forums in order to communicate with their clients and employees (overlap with communication).

Finally, the data allowed me to challenge my assumption that exploring 'personal use' and 'academic use' of social media would be straightforward. Participants' interview replies and comments made me appreciate the overlapping boundaries between the two categories. For example, in the following quote, one participant felt that her use of Skype was entirely for personal use, although she also used it with classmates for academic purposes. She added that she viewed some of her classmates as her friends, which explains why she considered the purposes for which she used Skype 'entirely personal':

Participant: ... The peers that I communicate with there, are my friends. So, that is why I say it is entirely personal

Me: I see

Participant: How can you distinguish them when your friend is in the department?
... You can't make such a (distinction). How can you categorise him/her? Should you categorise him/her as a peer or as a friend?

4.5.6 Research question 4: Factors that influence use and non-use of social media

RQ4 was initially formed with two sub-questions: a) factors that influence participants' *use* of social media and b) factors that influence participants' *non-use* of social media. Having conducted the analysis for RQ1 and RQ2, I started the initial analysis for RQ4 and developed provisional codes (Appendix K).

However, I realised that attempting to identify and examine all the factors that influence *use* and *non-use* would be beyond the scope of this PhD. The data that had emerged suggested that the terms *use* and *non-use* needed to be reviewed. For example, I debated whether I should list activities, such as having an account on a social media tool, such as Twitter, and only visiting it rarely, under *use* or *non-use*. A similar question emerged when a participant reported having a university email account but they preferred visiting their personal one, or when another participant said that they had recently joined a Facebook student group, but they had not participated in any discussions yet because they needed to become familiar with it first.

At this point, I decided to remove RQ4 from the aims of the thesis. However, the data generated in this study allowed me to include the voices of participants whose use of social media could have been considered non-participatory. Such users engaged in social media mostly in a Person-Material mode, whilst their Person-Person mode was limited, only involving interactions with close friends on private tools such as email and Skype. This led me to White and LeCornu's (2011) concepts of Resident and Visitor,

which allowed me to examine and illustrate the non-active participation identified in the data. The framework helped depict how participants used specific tools for both personal and academic purposes through applying the mapping tool (Connaway et al., 2017) and creating vignettes to present the outcomes of the analysis.

I chose to discuss non-active participation through the use of vignettes, by selecting four participants who used social media in different modes. I read each interview and noted the tools, and using the Interaction (Person-Person) - Access (Person-Material) dichotomy (Table 12), placed the tools in different parts of the map. When a participant described using a tool only to access content, I placed the tool in the Visitor part of the map. Typical tools that were used in the Visitor mode included YouTube (when only used to watch a video), Wikipedia (when only used to read an entry) and Google (which was referred to by some participants as a social media tool). When a participant described using a tool to interact with other people, I placed the tool in the Resident part of the map (when the activity involved leaving visible traces) or in the Visitor part of the map (when the activity involved non-visible traces) (see White, 2013). For example, posting comments on Facebook groups was placed under the concept of Residents, and using emails was placed under 'Visitors'. Finally, using the Personal-Academic dichotomy, I decided on the specific compartment in which the tool was to be placed. Apart from the interview data, I used each participants' diary entries to provide the vignettes with more details about participants' overall use of social media.

4.5.7 Analysis of the diary and follow-up interview data

Having undertaken initial analysis of the interview data for the Special Education cohort, I proceeded with data from the participants' diaries. I read the diaries multiple times in order to familiarise myself with the data. Then I printed out the diaries and, using Microsoft Word, produced tables for the social media tools mentioned by the participants, as well as the reasons for which they used each tool. As the focus of the study was on academic purposes for social media use, this was done with particular emphasis on addressing RQ2 and the codes that I had identified from the initial analysis of the interview data.

After producing the Microsoft Word document for each participant's diary, I listened to their respective follow-up interview recordings. As mentioned above, the aim of the follow-up interview was to allow participants to expand on their entries. Although I did not produce whole transcripts for each follow-up interview, I listened to the recordings many times and transcribed verbatim the parts which I considered more important in order for me to illustrate to the readers of this thesis the points made by the participants.

As participants said during the interviews, their use of social media varied and depended on different factors, such as their daily schedule. Another interesting finding was there were several cases of participants who clarified that the amount of time they spent on the activities that were listed in the diary was an approximation of their use, and not the accurate estimate. There were also several cases of students who clarified that the fact that they wrote a specific amount of time using a social media tool, does not necessarily mean that they were online all that time. They may stop using the internet (or the tool in question) for a while and resume their activity later. Therefore, it was clear to me that diaries (and follow-up interviews) served as a snapshot of one week's use, which may or may not be indicative of their general practices. Also, despite the structured design of the diaries that were aimed to help compare participants' entries, each participant decided to complete their diaries in different time periods, depending on how busy their schedule was or how much free time they could devote to the completion of the diary. This meant that any attempt to compare participants' uses of social media would be meaningless and unproductive. Therefore, I realised that the usefulness of the diaries was limited, and for this reason I did not engage in systematic analysis of the data collected.

However, I used data from the diaries and follow-up interviews in the vignettes that I produced (Section 5.3) for the selected four participants. In particular, data from the diaries and follow-up interviews, together with information taken from each participant's summary (Section 4.5.3.2) complemented the Visitor-Resident maps drawn from vignette participants. This allowed me to provide specific examples of social media use for academic purposes, as reported by the participants.

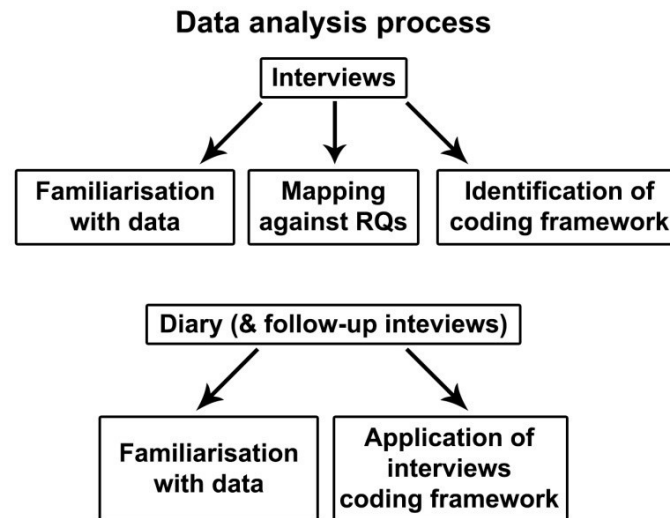


Figure 8. The process of data analysis

4.6 Chapter Summary

This chapter focused on the research design along with an outline of my philosophical stance, my decision to adopt an interpretative approach and the roles each data collection method played in the analytical processes. It outlined my decision to use purposive sampling in order to recruit participants for the study and presented in detail how my ethical appraisal informed the design and conduct of the study. This was related to strategies for quality assessment. Finally, it presented a detailed outline of how I conducted the analysis of the data and a justification of my decisions. The next chapter presents the findings of the study.

Chapter 5: Findings

This chapter presents the findings from the study. The chapter is in three parts; the first section presents the findings in relation to the first research question that focuses on social media use for personal purposes. The second section presents the findings in relation to the second research question that focuses on social media use for academic purposes, which was the main research question that guided the study. The quotes that are included for the presentation of findings are a selection of typical quotes that help illustrate the themes. The third section presents four vignettes of participants using the Visitor-Resident mapping tool (Connaway et al., 2017; White and Le Cornu, 2017).

5.1 Exploring personal purposes

This section focuses on the first research question:

How do pre-service teachers in Greece use social media for personal purposes?

As mentioned in the Methodology Chapter (Chapter 4), although the main focus of the study was on the informal ways pre-service teachers use social media for *academic* purposes, I decided to set this focus within the context of participants' use for personal purposes. This was informed by evidence from previously published research which implied that distinctions between informal (which has also been referred to as 'personal') and formal (which has also been referred to as 'academic') may not be straightforward in a social media environment (Sections 2.2.1.5 and 2.2.2). Secondly, 'personal purposes' and 'academic purposes' have been found to mean different things to different people, such as researchers and research participants (Kumar et al., 2012; Vivian et al., 2014). This further supported the decision not to focus on particular purposes in isolation.

The inclusion of personal purposes provided me with a picture of participants' overall uses of technologies, as well as the context to better understand their *academic* uses. As is discussed below, personal and academic purposes were found to overlap. For this reason, while the Findings chapter is structured in a way that presents personal and academic purposes separately, I discuss the overlap that was identified. The Residents-

Visitor framework introduced in the Literature review (Section 2.1.4) further facilitated a holistic analysis of the data, which allowed personal and academic purposes to be considered as a continuum instead of binary opposites.

5.1.1 Pre-service teachers' use of social media for personal purposes

According to the data, pre-service teachers studying in teacher education settings in Greece use social media for three different personal purposes from the dataset of 36 interview participants in this study (Table 15).

Table 15. Pre-service teachers' use of social media for personal purposes

Personal purposes	Description
Communicating	Participants used social media to interact with other people. This theme involved Person-Person mode.
Pursuing entertainment and hobbies	Participants used social media to pursue their hobbies and have fun. This theme involved both Person-Person and Person-Material modes.
Finding information and news	Participants used social media to receive information about their everyday queries and get the news. This theme involved both Person-Person and Person-Material modes.

As is shown in the discussion below, the boundaries between the themes were not clear-cut. Instead, overlapping boundaries were identified across the themes (Figure 9).



Figure 9. Personal purposes and overlapping boundaries

5.1.1.1 *Communicating*

Communication includes instances of interaction with other people for purposes other than studies. Communication was a very popular activity, pursued by all 36 participants to varying extents. Participants mainly used social media to talk to members of their offline network, such as friends, family and acquaintances, with Facebook being the tool of choice, followed by Skype and email.

Very few participants communicated with strangers using those tools. The vast majority of participants chose to add people on Facebook with whom they had a connection somehow in real life.

I don't add (on Facebook) someone who I don't know and (with whom) I don't have any mutual friend. (Tina, ECE)

The prevalence of Facebook for these pre-service, undergraduate students was also reflected by the fact that, of the four out of the total of 36 participants that did not mention Facebook for communication, three did not have a Facebook account, while one chose email for communication purposes with personal members of their social network.

The effect of not 'being on Facebook' on maintaining relationships was revealed in the following quote by Gina, who had recently deleted her Facebook account. Gina felt that

the frequency of contact with her friends had diminished considerably, due to the fact that all of her friends used Facebook for communication.

While we used to speak once a week, it has now become once a month Yes, it has decreased a lot, because everyone is on Facebook. (Gina, SE)

An important finding is that, while Facebook seems to be the most prevalent tool as far as communication with different people is concerned, Skype was mostly used for communication with closer friends and family. As participants noted, this meant that they had fewer contacts on Skype than on Facebook

I have very few contacts here ... and of those few ones, I speak with 10 people ... I consider Skype to be like calling someone It's more personal. (Regina, ECE)

While it was not possible to classify participants' relationships as either strong or weak (since the concept of social capital building was inductively-derived, and therefore, I had not planned the study with this aim in mind) it can be assumed from the data that the contacts people had on Skype were likely to be strong.

Overall, communication with other people was found to be one of the most popular social media uses for these pre-service teachers. It should be added that this category also overlapped with academic purposes, as participants used social media to organise and discuss assignments, as well as communicate with their peers for other purposes. In the following quote, the informal attitude, as well as the ease with which participants transcend everyday and academic purposes is reflected.

We do group chat ... and we may start (discussing) about an assignment and it will end up ... in silly things, I mean where we will go, what we will do ... it gets off track I mean, someone remembers something, they write them (laughter). (Vasiliki, ECE)

This overlap between communication about everyday purposes and course-related purposes is further discussed under the 'Being Students' theme, where participants reported interacting with their peers to complain about their teachers and discuss several tangential and off-topic issues, which could also have a 'hidden' course-related dimension (Section 5.2.2.2).

Additionally, communication was found to overlap with other everyday purposes, as is shown below.

5.1.1.2 *Pursuing entertainment and hobbies*

In addition to communication, entertainment and hobbies were very popular activities for social media use – again, pursued by all 36 participants. Participants reported using Facebook, YouTube and Instagram, among others, in order to entertain themselves, by watching videos, listening to music, seeing pictures about fashion and take part in competitions. Participants also used social media to pursue their hobbies, such as fashion, dance and sports, cooking, and Do-It-Yourself.

An example of a participant who used social media for hobbies was Silvia, whose passion with Korean culture began with, and was strengthened by, social media use. She started developing an interest in a Korean television series some years before. From that point on she started watching Korean TV series and visiting websites, wikis and Facebook groups in order to stay up-to-date with news about the actors and other upcoming series. She felt that social media not only helped her become familiar with the fundamentals of Korean culture, but also helped her to sustain her interest.

It's like I am practically there So, I feel that this also prompts (me) more, because I have immediate contact ... this is why I think it continues. (Silvia, ECE)

As was the case with the previous theme, the use of social media for entertainment and hobbies was found to overlap with academic purposes. Typical examples of this overlap were found in the 'Exploring other specialisation routes' subtheme (Section 5.2.3.1). Such instances included participants who were studying, for example, Early Childhood or Primary Education, but used social media to learn more about Special Education, in which they were interested and considered pursuing further. Another example of these overlapping boundaries was provided by David, who visited various blogs and Facebook groups to pursue his hobby of politics. David felt that politics is inextricably connected with education and his future profession.

I see that it is connected and I actively keep up with it, because it is involved in all that, with the ministries and the (teacher) appointment. (David, SE)

Overlapping boundaries between entertainment and hobbies and communication were also identified, for instance, in cases where participants reported interacting with other users on forums, Facebook groups or blogs for entertainment. An example that shows this overlapping of boundaries between communication and a wish to pursue hobbies was revealed in the following quote, where Kevin discusses his engagement with his favourite forum that addresses people who are passionate about television series.

I will comment on them, discuss what will happen in the next episode, what I don't remember from ... previous seasons. (Kevin, SE)

5.1.1.3 *Finding information and news*

The use of social media for everyday information and news was also a very prevalent personal theme. Participants used social media to access information in which they were interested, such as current affairs, cultural events, everyday information, employment opportunities, or any other on-the-spot query that they had. Nicky for example, used Facebook as a source of information for almost all everyday queries.

... especially nowadays it (Facebook) has entered our lives so much ... once I even searched to find about a bus, about how often it runs. (Nicky, ECE)

Again, overlapping boundaries were apparent across themes. In fact, one participant explicitly referred to the overlap between communication and information.

... communication-information, they are somehow linked many times. (Ismini, ECE)

When I asked her to expand on her statement, she responded:

For example, because I am active political-wise, an announcement may come up and that means that someone is also interacting with me ... they simultaneously communicate with me and inform me I think 'communication' and 'information' are kind of mixed. (Ismini, EY)

Similarly, Annita reported using forums, Facebook groups, professional sites and Google, in general, both to learn more about her current job (which was unrelated to

teaching, and therefore presented as a personal purpose), and communicate with her colleagues.

... these are groups where we discuss, either colleagues from the same city, or across Greece. An issue might emerge (for) which we would like a second opinion and talk about (it). (Annita, SE)

Similar overlapping boundaries were identified in cases where participants reported sharing news articles with one another, thus engaging in communication and information/news exchange. Not surprisingly, such overlapping boundaries between purposes was particularly evident in the case of Facebook, which was referred to by participants as a tool that allowed multitasking across purposes. On Facebook, participants could find all the things that they were interested in, communicate with people and access the information they were interested in at the time.

It kind of combines everything I like. (Eleni, ECE)

It is like a page that includes it all. (Mirto, PE)

5.1.2 Summary

Overall, participants used an array of social media for three broad personal purposes: Communicating, Entertainment and hobbies, and Information and news. Overlapping boundaries between categories were identified. Facebook was mentioned as a tool where such overlapping can take place.

The implication of such fuzzy boundaries for researchers is important. It raises questions about whether questionnaires that invite respondents to tick boxes of predetermined themes of social media use (e.g. 'Communication', 'Entertainment', etc.) allow for a nuanced understanding of participants' use. This inductive study confirmed findings of other qualitative studies that social media use reflects multitasking and overlapping of boundaries.

This data helped me to appreciate the context of participants' academic use of social media. As is discussed in the following section in more detail, academic and personal purposes overlapped in certain categories and influenced each other.

5.2 Exploring academic purposes

This section focuses on the main research question:

How do pre-service teachers in Greece use social media for academic purposes?

The section begins with a presentation of the two aspects of academic purposes that were identified. Then, it presents the findings with reference to course-related purposes, followed by a presentation of the findings with reference to professional purposes. Each purpose is discussed separately for analytical purposes. However, it is important to note that overlap between sub-themes was also identified in academic purposes.

5.2.1 Pre-service teachers' use of social media for academic purposes

The data suggest that *academic* purposes could be subdivided into two aspects:

- a) *course-related* purposes, which refers to purposes that are directly related to participants' teacher education courses, and
- b) *profession-related* purposes, which refers to purposes that are related to their future profession, beyond their courses.

As stated in the Methodology chapter (Chapter 4), it is useful to distinguish between the Learner-Person mode of use (which refers to when participants used social media to directly interact with others) from the Learner-Material mode of use (which refers to when participants used social media to access material).

As was the case with personal purposes (Section 5.1), there was evidence of overlap between course-related and profession-related purposes. Table 16 summarises the findings.

Table 16. Pre-service teachers' use of social media for academic purposes

Course-related purposes	Description
Surviving the course	Participants used social media to ask and answer course-related queries and exchange advice and practical help, as well as collaborate and coordinate their university-assigned tasks and provide and receive help about the content of their classes. This

	<p>theme mostly involved a Person-Person mode, as participants engaged in interactions with other people, mostly their peers. A Person-Material mode was also noted, particularly in the case of Facebook student groups, where participants had the opportunity to access information that was posted by other people without directly interacting with another individual.</p>
Being students	<p>Participants engaged in light-hearted interactions with peers and expressed their student identity by socialising with peers, expressing their emotions about the course and tutors and engaging in off-topic discussions and tangential posts. This theme mostly involved Person-Person mode, again by engaging in interactions with others.</p>
Accessing helpful resources	<p>Participants used social media for help with their courses by accessing resources that helped them pass exams, complete their assignments and other university tasks, as well as delve deeper into academic topics that interested them. This theme represents a mixture of course and profession-related purposes, as through this use they became more familiar with profession-related blogs/groups/ forums, etc. This theme involved a Person-Material mode, as there was no intention for active interactions with other people at that time</p>
Profession-related purposes	
Exploring the future profession	<p>Participants used social media to keep abreast with news and developments of their future profession, access professional development opportunities and authentic content by in-service teachers, as well as explore other possible specialisations apart from the one that they were studying. Thus, they began to connect with professional communities and to access future colleagues' artefacts, expanding, in this way, on their knowledge of their profession. This theme involved a Person-Material mode, as there was no intention for active interactions with other people at that</p>

	time.
Building a repository of tools and resources	Participants used social media to save or store useful resources and join, ‘like’ or subscribe to profession-related groups for future reference. Although they were not directly interested in this material for the time being, they displayed a proactive attitude by building a repository, hoping it would be useful later. This theme involved a Person-Material mode, as there was no intention for active interactions with other people at that time.

As shown in Figure 10, the overlapping area is reflected in the “Accessing helpful resources” theme.

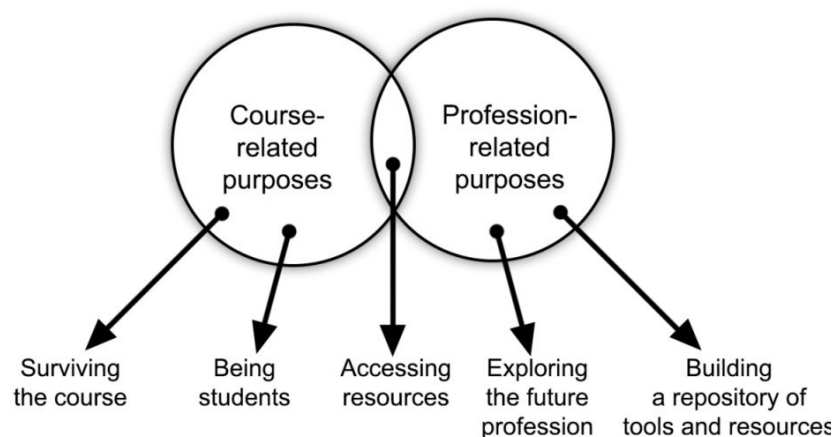


Figure 10. Academic purposes

Each theme is presented below in the following way: a) a small vignette box, which presents the theme situated in a story of a participant, b) a presentation of the theme and its subthemes using illustrative quotes by participants’ interviews, and c) a summary of the theme.

5.2.2 Course-related purposes

Course-related purposes was centred around participants’ use of social media for purposes related to their courses. It is further subdivided into the following themes:

- a) Surviving the course

b) Being students

c) Accessing resources

The first two themes are characterised by both Person-Person mode and Person-Material mode, while the third one is characterised by Person-Material mode. It is important to note that, as far as the Person-Person mode is concerned, peers were the people with whom participants interacted for course-related purposes the most, while other people, such as family or prior school teachers, were also mentioned. Brief interactions with teachers for course-related purposes were also mentioned by most participants. However, such interactions with teachers were described as brief emails requesting specific information that participants needed. For this reason, I decided not to include them in the thesis.

As far as participants' interactions with their peers is concerned, it became evident from the data that Facebook was the tool of choice. Other tools were also mentioned, such as emails, Skype and Viber; however, participants' interviews were overwhelmingly about their Facebook use. For this reason, the data that are presented mostly focus on this specific tool.

Two different features of Facebook were mentioned: a) Facebook student groups and b) "private embedded-applications", such as Facebook chat with peers who were in their list of Facebook friends (Vivian, 2012, p. 239).

By 'Facebook student groups' I refer to groups that participants mentioned as spaces where pre-service teachers came together to solve queries and discuss. Participants also mentioned Facebook groups that were set up by their teachers in connection with specific modules. As the study sought to explore how pre-service teachers used social media on their own initiative, I considered teacher-initiated groups to be beyond the aim of this study, and therefore were not included in this thesis.

Membership of student groups was mentioned by almost all participants that had a profile on Facebook. Of the four participants that had not joined such groups, three did not have a Facebook account, while only one participant was on Facebook and chose not to join.

Participants mentioned being members of different Facebook student groups. These included small groups of peers that were formed so as to coordinate and collaborate on a particular group assignment, and bigger groups of pre-service teachers in the same year of study, or even in different years of their study, including students who had graduated from the department and did not leave the groups after graduation.

It seemed from the data that participants' main aim in joining such groups was to exchange information about different aspects of their studies. The concept of sets (Dron and Anderson, 2014) was useful in conceptualising such assemblages of people. As discussed in the Literature review (Section 2.3.3), sets involve aggregations of people with "a shared interest in a topic" (p. 166). In the case of student groups, the topic of interest could be broadly understood as their easy navigation into their studies. Participants' narratives suggest that such groups reflected a loose aggregation of people, with participants visiting the group in order to have their questions answered, rather than "a collective intention ... to steward a domain of knowledge and to sustain learning about it", which characterises COPs (Wenger, Trayner and de Laat, 2011, p.9).

As is shown below, this involves a different form of assemblage of people than when participants reported using more private social media tools, such as emails, Skype or Viber calls, or Facebook chat, to interact with specific peers that they personally knew. The concept of networks was useful in conceptualising these assemblages of people.

Finally, it is important to note that the narratives that are related to student groups are based on participants' accounts of their activities on these spaces. Therefore, I acknowledge that the presentation of the findings is a summary of what participants thought was important to say about those groups rather than an objective description of those spaces.

5.2.2.1 *Surviving the course*

Box 1. Surviving the course – A vignette

Tina, ECE, 3rd year

Tina had repeatedly been faced with the dilemma of whether or not to permanently

delete her Facebook account. On the one hand, she was critical of Facebook. She disliked the prevalent idea that the more Facebook ‘likes’ you get, the more popular you are. She was also worried about her privacy and for this reason she started deleting people she did not know personally, or did not have a close connection with from her list of friends. On the other hand, she was aware of the fact that not having a Facebook profile meant that she could not communicate with her university peers easily, as they “are on Facebook all the time”.

Some time ago, concerned about the amount of time she spent on the tool, she decided to close her account. However, she soon felt that she had to re-activate it, as she became worried about the effect this lack of communication with her peers would have on her studies.

I had to reopen it as, because of the department, I get informed from there a lot. I talk with my classmates, we communicate about our assignments I can’t leave it (laughter).

Apart from discussing and collaborating on group assignments and presentations with her peers, who were also her friends, Tina valued the closed Facebook student group. Membership to the group guaranteed a timely answer to a query, as it was visited by a big number of other Early Childhood Education pre-service teachers who were eager to help.

It helps me because I get informed immediately ... whenever you ask something, you always receive an answer.

Apart from logistical queries (such as teachers’ office hours and registration dates), she also visited the group to read about what other members were writing about modules she was thinking of registering in.

I will definitely take into consideration what (exam topics) are given by the teacher, if the teacher marks fairly or low or high (and) definitely how many assignments (the class) has, (this is) important.

Such information helped her pick her courses with more confidence, as she heard the

opinions of different people.

Finally, Tina visited the group in order to confirm the exam material with others. Although she stressed that she did not rely on the group to find out such important information, she always double-checked it with other members.

Overall, Tina used Facebook, in general, and Facebook groups in particular, as a way to survive her teacher education course. The value of the group for Tina was reflected in the following quote:

This group has saved me many times (laughter), for real.

The theme ‘Surviving the course’ reflects participants’ use of social media in order to navigate their academic studies. This involved them engaging in Person-Person and Person-Material modes for the following activities:

- accessing logistical information
- accessing tips and practical help
- coordinating university tasks
- receiving course content help

As described below, the first three activities mainly reflect timely access to information and relevant resources, which is referred to as informational support (Stutzman, 2011; Utz, 2016). The last activity reflects more cognitive help, that is drawn from other people’s knowledge and skills, which is referred to as their human capital (Hargreaves and Fullan, 2012). However, both types of support also seemed to help participants feel reassured and in control of their studies, which I refer to as emotional support.

Accessing logistical information

Participants used social media to exchange just-in-time logistical information, such as information about class cancellations, time changes, exam schedules, registration dates, teacher meeting hours and emails and announcements of exam results. Participants considered such information of considerable importance, as it could have an immediate

effect on their studies. For example, timely access to this type of content ensured that they would not miss important dates or exam results and they would not waste time going to the university or even need to consult the official study guide, provided as part of their programme, to find out such information.

Facebook student groups were found to be a helpful space where students posted and accessed such information easily and time efficiently, probably because they were visited by numerous members and therefore questions were more likely to be answered than they would be if participants relied on individual peers. Participants benefitted from a wider number of pre-service teachers that were not currently members of their immediate networks, as represented by those who may not be personal Facebook friends. Members included pre-service teachers who were in different years of study, who may not have known each other personally, but were willing to help each other.

One participant, Fotini, found such information exchanged by students who were in their later years of study to be especially important, as she felt that the University did not provide adequate guidance. Older students guided younger ones about registration procedures:

These sites [Facebook groups] helped us a lot ... older (students) solved our queries For example, (we could find out) how many courses we should enrol in [for] our degree [in order to graduate], how many courses should be ... required, elective. Because we did not have any guidelines from anyone. (Fotini, PE)

For Fotini, the group “fills the gap of the department”, as students were not adequately informed about lesson cancellations and reschedules by the university. This caused significant challenges to students who commuted to the university only to find out that the class had been cancelled. Being a member of the group helped her feel assured that she would be adequately informed about announcements.

Similarly, Annita believed she had benefitted a lot as a mature student who lived in a city far from the university. The fact that she was based in a different city meant that whenever she had an administrative query she would need to call the Department’s Administrations Office or specific peers that she possibly considered to be closer to her.

Her membership of the Facebook student group kept her up-to-date with departmental announcements without having to turn to individual peers.

(prior to joining the group) I found out about lots of things too late ... I had to call ... if the Administration office picked it up, or to call a classmate if he/she was in the mood to talk to me While now, I can post something to the group, for example what is the exam material, and receive a prompt reply from my peer.
(Annita, SE)

The same was true for Kevin who also resided in a city far from the university. This meant that sometimes he could not attend some lectures and therefore, missed some administrative information that was mentioned in the classroom. Additionally, Kevin started his studies later than his classmates, as he entered the department through *katataktiries*¹. For this reason, he turned to his peers (who he did not know at the time) for guidance and advice on administrative and procedural issues about registration; through the Facebook student group, Kevin managed to quickly have his questions answered and transitioned successfully into his new environment.

I missed lots of lectures when I entered (the department) Within 2 days that I became a member in the groups, (I found out) which courses have obligatory attendance, which have assignments, in which (courses) the assignments are optional ... all that without needing to ask the teachers or the Administration Office. (Kevin, SE)

Kevin found this information more helpful, efficient and up-to-date than the study guide issued by the department.

I consulted the study guide, but sometimes (information about) assignments are not included (there). (The teacher) might decide on an obligatory assignment on

¹ 'Katataktiries' is a different procedure of being accepted to university. It is only available to university graduates who wish to register in a second Bachelor's degree without sitting for the Panhellenic exams (the standard way of entering university). Each department announces the number of graduates that can be accepted for their Bachelor's degree through katataktiries. Candidates may be exempted from the first semester or semesters (Government Gazette of the Hellenic Republic, 2013; Ministry of Education, Research and Religious Affairs, no date).

the spot, in that semester ... there were occasions when there was a discrepancy between what the teacher asked and what the study guide had. (Kevin, SE)

It is evident from the quotes above that administrative purposes form an important part of student lives. Not having access to such administrative information could cause unnecessary stress and a feeling of becoming dependent on other people. Valeria explains:

I believe that if I didn't have (a Facebook account), my partner would have (a) Facebook (account) But the thing is that the other person is not obliged to visit (it) all the time (to) ... inform you ... it would be hard. I would have to always be with the phone in hand ... it would also cause me more stress. (Valeria, PE)

It is important to note that there were also some participants who felt that they would have been able to access the information they needed, even if they had not been members of the group. However, it was reported that their membership made this access significantly easier.

Overall, although the nature of such interactions might not seem to be 'strictly academic', they were meaningful and important for participants. In some cases, seeing such posts, or getting a prompt reply from peers had a direct effect on their progress, as the following quote reveals:

If it [an announcement] hadn't come out (on Facebook), I wouldn't have known that I had to be at the university on Tuesday ... I would miss my appointment and then, ok, this would bring negative results to me as well, on my mark. (Valeria, PE)

The extent of this usefulness was exemplified by Fotini, who said that many of her classmates set up Facebook profiles only to have access to those groups. She referred to two friends in particular who had not been Facebook users. Both decided to set up a profile that year as they "felt exasperated" that they could not get informed about important information without being members to the student group.

That's why I am telling you that it is necessary, I mean both of my friends hadn't had (Facebook) for 3 years, and in the fourth year, during which we have many

assignments, they had to set up (one) for information ... only for the department.
(Fotini, PE)

It is interesting that, according to Fotini, it was the Facebook student group that her friends considered most useful for such informational support, rather than the peers that they already had a closer connection to. While it can be assumed that participants also exchanged logistical information on more ‘private’ tools, such as the Facebook wall or chat with their Facebook friends, or Skype or Viber, it seemed that Facebook groups were perceived as more useful with regards to timely access to information, possibly because they consisted of people who had “a shared interest” (Dron and Anderson, 2014, p. 166) in helping each other with their everyday queries about the department. In other words, the simple act of joining the group, even without engaging in Person-Person interactions, ensured timely access to informational support that helped them feel in control of their progress.

Accessing tips and practical help

Providing each other with important information about examination and other practical help was mentioned by participants. This help was in the form of exchanging S.O.S² topics, past exam topics, notes and books, drafts for assignments, recommending courses and finding peers for TP. This type of exchange reflected feelings of solidarity among pre-service teachers.

This type of exchange was also mentioned as taking place through the use of more private tools, such as emails, Skype and Facebook chat. Participants mentioned reaching out, not only to their peers, but also older students in their wider network:

I will talk with specific (people) through mail ... they will suggest to me some courses to choose ... which fit me more and I can complete them let’s say, maybe because they do not have (obligatory) attendances. Or they might suggest an assignment that they have done (in the past) ... (they suggest) what I should pay attention to, (such as) the way some teachers mark. (Annita, SE)

²“SOS topics” is an informal term to denote topics that are likely to be exam questions. Participants here referred to the act of exchanging ideas of possible exam topics, based on prior examinations or their personal understanding of teachers’ preferences.

and

(My) hotmail (is) full of assignments ... from (students of) older years ... so that I can have them as templates ... I am generally very sociable and I have a big network ... (laughter). (Chris, PE)

It was not possible to determine from the data whether Annita and Chris used the above-mentioned tools to engage in bonding or bridging social capital. As mentioned in the Literature review chapter (Section 2.4.1.2), distinguishing between strong and weak ties (and consequently bonding and bridging capital) is difficult on social media, especially in a study like this one which was not designed with this aim. However, there was evidence from participants' interviews that Facebook student groups allowed for bridging social capital, as it helped them reach out to people that they did not have on their Facebook lists (or possibly, to peers that did not feel comfortable to approach them through Facebook chat).

On those groups, S.O.S topics, assigned exam material and past exam topics were frequently-mentioned areas of discussion, as a way of helping each other revise for exams, especially during the exam period where there is a "bombardment of questions" (Kelly, ECE). Although it was accepted that these tips were subjective and unofficial, as they were based on peers' opinions on what was important for exams and what was not, as well as their interpretations of teachers' advice (see David's quote below), students felt they benefitted from those suggestions, showing that they expected and trusted each other's advice.

The teachers said "We have given you 5 chapters, well, the fourth one is very theoretical, you don't need to study it so much ..." We go (to the group) and write "Don't study the fourth one, he [the teacher] told us this and that" ... and they [group members] follow it [the advice], nobody studies it (laughter)". (David, SE)

Again, the simple act of joining those groups, even without posting something, ensured that participants accessed this important information. Kelly, who had studied the S.O.S. topics shared by members of the group, did well on her exams, as they happened to be actual exam topics.

In fact they were spot on and I wrote very well. (Kelly, ECE)

These suggestions helped participants anticipate possible exam questions and plan their studying accordingly. For Kevin, S.O.S. topics helped him figure out the teachers' logic behind what their choice of exam questions might be and therefore he felt that he could predict the forthcoming exam topics.

They help me in terms of my understanding the philosophy (of the teacher), the way (the teacher) chooses the topics ... what (the teacher) asks from you. (Kevin, SE)

Another topic that they discussed was instructions on assignments. Although it might be assumed that pre-service teachers who always attended lectures would not find their peers' guidelines necessary, data suggest that they too felt that they benefitted from information posted on Facebook groups by other students, as they could double-check that they had understood the teachers' instructions properly.

I attend the classes, but when I hear other people's opinions is more helpful ... I might not have understood what ... that he/she (the teacher) wanted us to write something extra, too, and if I see it there, I will include it (in the assignment). (Melina, ECE)

In addition, peers helped each other obtain important notes and textbooks. Participants reported using social media to ask for such practical help.

I asked for them in the groups and within 2 days, I had all the books. (Kevin, SE)

Mirsini felt gratitude towards her peers when they provided her with books that she needed. For her, as a mature student with few opportunities to have a personal connection with her peers, she explained that this access to peer help was a basic reason why she kept her Facebook account.

I mean this is a basic reason why I am keeping Facebook as a (social) media ... and many times, many kids -bless them- helped me a lot find some way around it. (Mirsini, PE)

Apart from the exchange of books, other practical help was mentioned, such as finding peers for group teaching practice. Mirsini could not attend many lectures, due to the fact that she had a job (unrelated to teaching). As she did not know her peers very well, she used the Facebook student group to find peers for the teaching practice that needed to be done in groups. Although she knew that she could have asked a teacher to place her in a group of peers she felt that, by taking the matter into her own hands, she had a greater sense of agency.

I posted an announcement ... “this is me, I don’t have someone (to do teaching practice with)” In this way, I got to know the group I am (now), strange as it may sound ... I would go to the teacher and he would place me somewhere. But, ok, it gave me a sense of security ... that we got it over with to some extent.
(Mirsini, PE)

The example above suggests that, apart from access to material, such Facebook student groups allow for previously unknown peers to reach out to one another for help and to become connected. In other words, such groups allowed for the building of latent ties and lay the foundation for potential activation. When a member of the group decided to personally connect with another member who they did not know, activation of latent ties is achieved (Bodell and Hook, 2011) (Section 2.4.1.2).

Another example of an activation of latent ties was reported by Sylvia. When she saw a post of a person asking for help with a draft, she decided to send her a personal message with it.

(A girl) wanted me to show her the crafts I had made for Art. So, I sent them to her on a private message ... so that she could have a draft ... I didn’t know her.
(Silvia, ECE)

An interesting post, a query, or simply the fact that they were members of the same Facebook group could prompt a friend request between users, and so latent ties were activated.

Another topic that was mentioned was requests for personal views on elective modules for which the pre-service teachers needed to register as part of their degree, so that they would make informed choices.

I asked in the group for example “Which (course) would you suggest to me? “Which is easier?, Which has [is assessed] by exams? Which has [is assessed by] an assignment? (Michelle, PE)

Like S.O.S. topics, such suggestions on courses were based on peers’ subjective views, rather than objective facts, which was acknowledged by some participants, such as Magdalena.

If someone posts “guys, is he [the teacher] good enough for me to have a dissertation with him?”, she [another member of the group] might post “look, he did this to me”. He [the person who asked the question] will immediately have a negative view You need to see it wholly critically, that’s the thing. (Magdalena, ECE)

However, despite the subjectivity of opinions, the fact that they often asked each other for such information suggested that peers trusted each other’s opinions and advice to some extent. The safety that they felt on Facebook enabled students to discuss topics that were important to each other but that they would have felt uncomfortable to share with teachers. Although such safety is commonly associated with close-knit relationships (bonding social capital) and communities, evidence from this study suggested that it can also be experienced in looser assemblages, such as the ones on Facebook student groups.

Overall, asking and receiving information and practical help from peers was found to be an important aspect of course-related interactions, as it provided students with the self-assurance and security they needed. The “give and take” mentality that was apparent in such peer interactions was stressed by Kevin:

I ask, I answer, I help. Because in the groups we have a relationship that you give and take. (Kevin, SE)

Similarly, Michelle, as an older student felt that she held the knowledge to guide younger students into making wise course choices. In this way, she engaged in helping people beyond her current personal network. In other words, although she did not personally know the people who requested informational support, she offered her perspective:

I often go to see if they ask something which I can answer or give advice ... As a fourth-year now that I have taken almost all the courses. A first-year might ask something about an elective For example “between this and that course, which one shall I choose?” I may talk for example about its content, the method of assessment, about the teacher. (Michelle, PE)

Michelle’s quote was further evidence that these groups could be conceptualised as sets of people that are bound by a common interest (Dron and Anderson, 2014), which in this case was to help and be helped so as to ‘navigate’ their university environment in as stress-free a way as possible.

Coordinating university tasks

Another aspect of the Person-Person mode for course-related purposes was coordinating assignments and tasks and exchanging guidelines. According to the data this was done mainly through the use of more private tools, such as Skype, or through Facebook chat and small Facebook groups, with people that already belonged to a participant’s network.

On Facebook, on messenger, we do groups only (with) the people we are in the assignment and say: “in which part are you?” “in this one”, “oh, I am in that one”, “have you done/completed your part?”, “yes”, “send it so I (could) take a look, get an idea”. (Kevin, SE)

So, many times, I mean, we would send each other some parts (of the assignment) ... because we did not have any specific guidance from the teacher ... we help each other a little, so that we have the same things, so that there won’t be any discrepancies. (Olympia, PE)

Apart from coordinating their writing, exchanging guidelines was also a frequently mentioned activity.

(We write): “Girls, I haven’t understood this question. Does (the teacher) wants us to write this?” (Silvia, ECE)

As was the case in the previous sub-theme, narratives such as the ones posted above show exchanges between people who knew each other personally; it was not possible to determine whether they represented weak or strong ties.

It is of note that participants also expanded their existing social circle, by adding new peers to their Facebook list of friends, so as to form small chat groups and discuss and organise group work, engaging, in this way, in collaboration and social capital building.

Very often it’s the first thing we do when a team is formed ... we may become friends only for that ... to coordinate the assignment. (Mirto, PE)

Overall, the data suggest that participants preferred turning to their peers for clarifications and instructions, rather than their tutors. For example, Lambrini explained why she would not like to have teachers on the Facebook student group:

Some even think that they have explained well what they have explained and get insulted, like “What are you asking now? We have talked about it so many times. (Lambrini, ECE)

Such views were typical of participants in this study. Facebook groups seemed to be viewed as spaces where they could ask questions in a safe environment that consisted of people with whom they shared a common student identity. Data suggest that they expected fellow students to provide each other with useful information without judging each other (also ‘Being Students’, Section 5.2.2.2).

As was the case in the previous two categories, access to such information helped pre-service teachers feel reassured and in control of their progress.

Exchanging content help

Exchanging content help involved assisting each other with the content of the lessons. For example, participants asked for help with understanding particular concepts that they could not understand on their own or from their class notes. This sub-theme reflects the more cognitive aspect of social capital building, where participants engage in problem solving and knowledge exchange. Participants drew on their existing network for cognitive help, in order to benefit from other people's knowledge and skills, or human capital of more knowledgeable others.

For example, Lambrini stated that she likes to audio-record or take pictures of her queries as she is studying and send them to her peers, who are also her friends, for help in clarification.

My phone has this thing in this application, WhatsApp or Viber ... you start talking and you send ... a phrase that I have not understood ... what is the ZPD (Zone of Proximal Development) and so on. (Lambrini, ECE)

As was previously the case, it cannot be safely determined from the data whether the friends she referred to suggest close-knit relationships or not. This was also reflected in this case where the participant used the words *acquaintance* and *friend* to refer to the same people.

If there is ... something that I did not understand in the class ... I will discuss it with my acquaintances, with my friends, with my circle. Not, so broadly ... I don't want others to think that I am a bit dumb, too. (Apostolia, PE)

Such data suggest that participants chose to post such cognitive questions to their 'more personal' social media, such as Facebook chat, emails and (to a lesser extent) Skype, rather than on Facebook student groups. Apostolia's view was illustrative of why she turned to closer friends when she wanted something deeper than administrative or S.O.S topics.

On certain cases, it was possible to determine strong ties. Aphroditi communicated with her brother whenever she had a problem with educational technology modules at

university. As she described, her brother had extensive knowledge of technology and often offered to help her understand how to do the task.

I did not know about this (computer) programme ... we were on Viber in order for him to help me, to explain to me the way I could do it. (Aphroditi, ECE)

Despite the fact that the majority of students turned to their peers for such queries, Fotini (PE) described how she used Facebook to ask an old school Philology teacher for help with a university assignment. As she stressed, Facebook allows for past connections to remain valid. In this way, Fotini drew on her bridging social capital to benefit from her teacher's human capital.

Overall, this sub-theme was not as frequently mentioned as the previous ones. One possibility for that could be that participants engaged in such discussions about the content of their classes face-to-face, rather than online. It is also possible that they engaged in such discussions while discussing other topics with their peers and did not consider it important enough to mention in the interview. Another possibility might be that they did not want to mention it in the interview for fear of being perceived as doing something that was "academically improper" (Gray et al., 2010, p. 973).

Summary: Surviving the Course

As evidenced from the data, participants used social media in different ways to 'survive' their teacher education courses and benefit informationally and cognitively. As it was shown, access to information and cognitive support also helped them feel reassured, which is linked with emotional support. Pre-service teachers engaged in the Person-Person mode and drew on their existing networks, as well as extending this to include other people (by adding peers to the Facebook friend list or by joining loose aggregations of peers in the form of Facebook student groups) in order to exchange logistical queries and discuss S.O.S. topics, drafts and templates, as well as receive practical help, coordinate their tasks and exchange help about the content of their courses. While it was not possible with certainty to distinguish between bonding and bridging social capital based on the data, it became evident that Facebook student groups allowed for the building of latent ties between previously unknown individuals, as pre-service teachers could have access to more individuals than their existing

Facebook friends. Sometimes, these ties were activated on those groups, when participants decided to personally connect with each other on their personal Facebook pages, thus engaging in bridging social capital. Overall, such groups could be conceptualised as sets as people who came together to help each other deal with everyday queries that arose in their academic studies. It seemed from the data that participants were interested in having their questions answered, without focusing on who the person replying was (and in some cases, without necessarily knowing the person who was helping them). This is another characteristic of sets (Dron and Anderson, 2014). On Facebook chat, participants seemed to aggregate in networks, in a similar way to how they used more private tools, such as Skype, Viber and emails, to interact with those within their established networks.

It is also important to note that the mere act of joining Facebook student groups made it possible for members to benefit informationally and emotionally (since it helped them feel in control of progress in their studies), as they could access other people's posts and discussions, without engaging Person-Person or participating actively in the discussions. As was shown, some participants set up or reactivated their Facebook accounts when they started their studies or during the course of their teacher education courses, despite their initial reservations, so that they could join such students groups (exemplified in Fotini's quote, 'Accessing logistical information', and Tina's quote, Box 1). In this way they came to benefit from the information and advice posted by their peers.

While this theme reflected the practicalities of being a student, the following one was less specifically academic, albeit being reported as an important aspect of student experience. As will be shown below, the overlap between personal and academic purposes was particularly evident.

5.2.2.2 *Being students*

Box 2. Being students – A vignette

David and Gina, SE, 4th year (joint interview)

David and Gina had different relationships with technology. David reported being “very active” on social media, particularly Facebook, which he used in order to “express

himself” through posting. Gina, on the other hand, started becoming involved with the internet when she entered the department. She recently deleted her Facebook profile because she felt that she spent a lot of time online. As she used to be a Facebook user (and a member of her department’s Facebook student group), she shared her experiences too.

David felt that Facebook helped him get to know his peers better and expand his social circle at university:

I started many connections through Facebook and then (we had) face-to-face contacts.

In fact, he stressed that his Facebook friends list consisted of almost all his classmates of the same year, as well as others with whom they attend the same classes. Connecting with other students had always been very important to him as a university student.

David was also particularly fond of their Facebook student group. He enjoyed the fact that members could talk about everything that concerned them “freely”. Group discussions would include complaints and gossiping about the teachers. For instance, David offered a typical example of this type of posting. The post was a complaint about a teacher who was continuously failing students.

I mean, we write there “Oh, no, what this teacher did ... “He failed me” and things like that, “look how many (students) he failed” (part of this participant's quote was published in Kontopoulou, 2016, p. 259).

Mutual understanding among peers when such information about teachers is requested or presented was emphasised by both participants. Also, both agreed that the presence of teachers in the group would significantly reduce the freedom that the group offered. As they mentioned, in the past there was a discussion among students about whether to add a teacher into their Facebook group. The majority of the members were negative about the idea:

Gina: I think that then, there is no reason (for the group to exist) ... you are wary of asking a question ... if you say “Oh, ok, I am not choosing it [the course] because he [the teacher] failed me last year”

David: No one will say anything, they will understand you. I mean (they will say) “Ok, he’s right”

Gina: While the teacher will say “Ok, if you had studied, you would have passed”.

Overall, both participants agreed that on Facebook groups students could ‘just be students’, without worrying about being criticised by teachers.

The theme ‘Being students’ is centred around participants’ use of social media to get to know their peers and engage in light-hearted and off-topic interactions and discussions that were not directly relevant with their courses. This involved using social media in attempts to:

- socialise with their peers,
- express feelings,
- discuss tangential topics.

Although joyful interactions were mentioned as taking place in different social media tools, I mostly focus on Facebook student groups as it seemed from the data that this tool was highly used for this purpose. The safety that they felt in these places and the relative freedom enjoyed there seem to have been deciding factors for engagement. As was the case above, such student groups could be conceptualised as sets, as members were interested in discussing aspects of their studies, which included complaining and gossiping.

Socialising with peers

Socialising with peers is essentially centred around social capital building with peers. Facebook was described as a tool that allowed them to socialise with peers, both at the beginning of their studies and later.

For example, Efthimia created a Facebook account in her first year of university, not only to benefit from the exchanges that were made by people who had a common interest in their courses, but also to remember her new classmates.

I did it in the first year ... I simply saw that they have ... a group ... where they upload both notes and different things ... most importantly, I did it also because I was meeting lots of people and because I forget faces and names very easily. But finally I found them there and I (could) see “this is him, ok, perfect”. (Efthimia, PE)

Efthimia’s quote illustrates the extent of the popularity of Facebook among pre-service teachers. Having an account, and the mere act of joining the group, allowed her to keep track of her newly met peers, even without actively participating in the group (or adding them to her list of Facebook friends) and helped her with her transition to her new environment.

Similarly, for Kevin, Facebook had always been the link that connected him with his peers and helped him build social capital. Living in another city, he had fewer opportunities to get to know his peers and make new connections. He described the social dimension of the group, where Facebook was seen as “a link”:

I also have contact with people that I met through Facebook ... because I am going back and forth, I don’t have (time) to meet people ... I can’t remember so many faces Facebook has always been like a link. (Kevin, SE)

As was the case in the previous theme, Facebook student groups allowed participants to engage in the Person-Person mode with a wider number of people and helped them make new connections with unknown peers (activating latent social capital). For example, it was mentioned that an interesting post on the group could trigger a friend request from a peer who was previously unknown. Additionally, befriending peers prior to meeting them face-to-face at the university, simply because they are fellow members of the student group, was another example of student groups enabling activation of latent social ties. In other words, the group consisted of a pool of students and the act of joining the group could potentially provide the platform for the activation of those ties.

The shared student identity and the common challenges they faced, was a factor that appeared to have influenced their decision to befriend unknown peers (that were also members of the Facebook student group), in this way expanding their social circle.

I have [made] connections with people that we didn't speak from my own department. Through Facebook, they saw me post a status and they added me. And because we had the same problems we have even become friends, I mean we speak. Yes, we worry about the same things. (Magdalena, ECE)

Overall, these socialisation processes taking place on Facebook helped students feel connected to their peers and/or expand their university network through the activation of latent ties. In this way, it aligns with Madge et al.'s (2009) conclusion that Facebook seemed to be "part of the 'social glue' that helped students settle into university life" (p.141).

Expressing feelings of frustration, criticism and anxiety

Participants mentioned using social media, and particularly Facebook, as a safe space where they could express their emotions about the realities of being a student. Since these spaces were closed to outsiders, some users felt the freedom to engage in such expressions of feelings. Throughout this category, the personal and the academic were overlapping, through posts of exasperation and light-hearted comments.

We created the group so that we can express ourselves. (Elektra, ECE).

This category included complaining about delays in exam results announcements, nagging about their marks and gossiping about teachers.

This group is only for students ... I think so that they (the teachers) won't be able to see the comments ... "X is not good, Y..." ... They may also swear at a teacher. (Michelle, PE)

It is interesting to note that, while these instances of discussing teachers might be perceived as trivial, chatty and completely unrelated to academic purposes, this study's analysis of the data allowed for a more nuanced understanding of the usefulness these interactions had for students. For instance, some participants mentioned that these discussions helped them make more informed choices when electing modules. An example of this was Annita who did not view posts on teachers' marking as insulting for the teacher. Instead, she described them as "*a simple statement of a fact*", which helped her pick elective modules.

Personally, I think I haven't posted nor have I seen, something which insults them ... I have seen, let's say, an announcement by a classmate (that wrote) "don't take this [module] because it is very difficult, he [the teacher] fails them all". (Annita, SE)

Knowing more about teachers' marking patterns, overall behaviour and requirements helped Annita, as well as others, elect the modules that would suit them. This suggests that a basic reason students comment on the teachers' character may not be to insult or praise them per se, but to help others pick less demanding modules. Despite the fact that such criticism was based on their peers' subjective opinions, participants reported taking them into account when registering for new modules.

When I was young, (in the) first year, without necessarily asking, just by looking at the posts, they would comment on different modules or teachers, and I could also kind of orientate myself. "Oh, they are saying these (things) about the teacher" or "they are saying this module is easy", for example. "I (need) to learn more about it. Perhaps I will take it, too". (Michelle, PE)

Participants felt that these spaces allowed for the expression of problems, anxieties and frustrations that are common to all students. Therefore, gossiping about teachers and complaining could be viewed as expressions of their common student identity.

You gossip there, too All of us are supposed to belong in one group ... in which are all the students and they have some common worries, concerns, irritations? We express them. (Magdalena, ECE)

Overall, challenging authority was presented as common practice in those groups. In fact, as the following quote reveals, criticism was perceived as the expected thing students normally do when their teachers are not present.

Teachers cannot enter, so you can imagine (the amount of) gossiping. (Eleni, ECE)

Additionally, they were able to complain about their own limited preparation for exams, projecting in this way an image of what Selwyn (2009a) calls the "incompetent" student (p. 168)

When the exam period is approaching (we write) “I haven’t studied” and “what are we going to do, where are we going, what (exam questions) will he (the teacher) put?” (Gina, SE)

The importance of such posts not being visible to teachers was stressed by participants, who were worried about the effect it would have on their marks:

We had written several (things) about the teachers and if they saw them ... you don’t know how they would mark (us) after that. (Vasiliki, ECE)

In fact, Fotini highlighted an incident when a teacher joined the group, which resulted in a negative situation;

For example, someone happened to ask ... “Which of these 3 modules is easier so that I (can) elect it?” ... and because the most difficult one was of this teacher and some comments were written ... It became a big deal, yes, a big deal, because our teachers are also of old age (laughter)”. (Fotini, PE)

This quote suggests that what was considered a typical interaction among students was not perceived as such by the teacher, who found the comments inappropriate and insulting. In turn, the teacher’s behaviour was perceived by Fotini as overreaction and blowing it out of proportion, attributing it to teachers’ age. It could be argued that teachers were seen as not belonging to such sets of people. The set consisted of people who got together to discuss different aspects of their student life. Teachers, on the other hand, were seen as not being able to understand this and could react (and according to Fotini, one of them did react) negatively.

Overall, these posts seemed to reflect the participants’ need to express their emotions in a space where they could complain freely about the realities of being students. Gossiping about teachers and challenging their authority reflects a common student identity. At the same time, such posts helped participants make wiser choices.

Engaging in tangential and off-topic posts

Participants referred to some posts on the Facebook student group where pre-service teachers uploaded songs, announced university social events, and expressed their views

on politics, i.e. were posting beyond what was directly relevant to the course – which again reflects an overlap between personal and academic purposes.

An example of a tangential post was described by a participant. As she noted, some peers posted selfies of their first day of TP.

The first day all the girls were in a selfie mode and “first day in the class!” (laughter). And below (the post) the same girls that were in their group (wrote): “Wow!” ... (laughter). Ok, it was a bit ridiculous! ... Some boys (commented) below “But, come on, you were in the same group” (laughter) “and you were there when the selfie was taken”. (Olympia, PE)

While posting a selfie might seem to be a trivial act that did not match with the fact that students joined this set to navigate their studies (and perhaps this was the reason why they were met with criticism), it can also reflect an instance of presenting evidence of common experiences and their common student identity.

Similarly, other participants mentioned posts with songs that they post either for fun or to reflect their disappointment in the university administration who were late in announcing examination results:

... there were uncountable posts (about this) (laughter) ... Genuine exasperation (laughter) ... each one (of us) continuously posted something. For example, many times, we might have even uploaded songs, irrelevant things, but we knew the reason why this was happening. (Vasiliki, ECE)

The exasperation Vasiliki referred to was expressed through the posting of songs that concealed a hidden meaning that would only be understood by their peers who had similar experiences with exam result delays. This common experience and the recognition of the hidden message could be seen as a “token[s] of group membership” (Julien, 2015, p. 365) which reflected a common student identity.

Other tangential posts included expression of political views that sparked arguments. Two participants from the Primary Education cohort expressed their dislike for such posts, although they added that they were interesting to read.

that many times (students from) political parties visit (the group) ... they publish their views etc about politics and sometimes they may comment on some public affairs ... I don't really like this ... Ok, it is interesting to watch, but I don't really want this. (Michelle, PE)

Likewise, Fotini shared the same opinion about such political discussions and felt the group should remain academic-oriented, otherwise the objective of the group as a place for academic help and guidance is not met. She gave an example of posts about Nikos Romanos, an imprisoned anarchist who was denied educational leave from prison in order to attend university lectures on campus. Following this, Romanos started a hunger strike to protest and university sit-ins followed in solidarity with him (BBC, 2014; Efimerida ton Syntakton, 2014). This incident was discussed in the group. For Fotini, such posts deviated from the aim of the group.

This (thing) that happened with the (university) sit-ins with Romanos ... there were for example the people that were a bit more anarchists and supported Romanos ... and some others that ... they were against that ... I would prefer ... for it to be academic I think that we are kind of missing ... the objective of the page. (Fotini, PE)

Overall, such tangential posts were sometimes mentioned as a disadvantage of those groups, as they could be distractive and annoying. However, none of the participants that expressed their dissatisfaction towards those posts expressed a wish to leave the groups. This could suggest that they felt that they benefitted from other aspects of these groups. Additionally, it suggests that different members of the same group might have joined driven by different motivations (Charteris et al., 2018). In other words, while for some pre-service teachers posting on topics beyond their studies was welcome, for others it was seen as something that could be avoided.

Summary: Being Students

This theme was characterised by light-hearted posts and attempts at socialisation, and reflected the emotional benefits that could be derived from social capital building and their membership of a student group. It seemed that these were important ways for pre-service teachers to feel part of the student cohort and develop their student identity. As

participants described, such socialisation helped them to make friends with or get to know their peers during their first year of university, and to transition into the new environment. Additionally, through those interactions, participants were able to vent and express their feelings about their experiences in their department, knowing that they would not be judged by others, particularly their teachers, who participants felt had the ‘power’ to punish them for inappropriate posts by giving them low marks. As was shown above, by criticising teachers, they indirectly helped their peers choose elective courses that seemed to be easier than others. In this way, although this category mostly reflects the affective side of interactions, these interactions helped them access important informational support that helped them with their courses.

As was the case with the previous theme, the mere act of joining Facebook student groups allowed for the building of latent ties, which were sometimes activated.

The following theme involves the Person-Material mode, as participants reported using social media to access content that they hoped would help them with their teacher education courses.

5.2.2.3 *Accessing helpful resources*

Box 3. Accessing helpful resources – A vignette

Grace, SE, 4th year

Grace described herself as a shy person who did not feel comfortable posting on social media. She used an array of social media, such as Wikipedia and YouTube, to access information posted by other people that would help her with her course.

When she was searching for resources that would help her with a university assignment, she discovered a relevant online course and signed up. Although she did not complete the course, she particularly enjoyed reading other people’s posts on the course’s discussion forum. She felt that those posts helped them learn more about the topic, even without participating in the discussions.

As she wanted to get inspiration for her TP, she searched for several Special Education Facebook groups. After finding an interesting activity on Pinterest, she decided to set

up a profile in order to ensure future access to in-service teachers' materials.

Throughout the interview, Grace stressed the importance of students' taking the initiative to expand on the theoretical knowledge provided by university. She was particularly interested in finding practical applications of learning and teaching theories and considered Wikipedia to be a useful tool:

... how what they told us in the department is done. That is, how it is translated in reality. Because ok, ok, this is in theory ... what does it mean exactly? (part of this participant's quote was published in Kontopoulou, 2016, p. 258).

She provided the following example:

Piaget's theory, for example. Ok, it (the department) says all the theoretical (things), but, I mean, in educational practice, how is it translated in educational reality? I mean, inside the school, what is the theory of Piaget supposed to mean? ... what does the teacher do and is considered to be of this theory?

Grace visited Wikipedia and watched YouTube videos in order to enhance her knowledge, by accessing practical examples posted by in-service teachers.

Overall, Grace mainly used social media to access helpful content that was uploaded online by other people and was the result of their knowledge and skill. In this way, she prepared for her university tasks and expanded into theoretical topics that interested her.

The theme 'Accessing helpful resources' was centred around participants' use of social media to support their formal education and perform better in their studies. Participants reported using social media to engage in Person-Material mode, by accessing resources that would help them complete university tasks, revise for exams and better understand theoretical knowledge. The difference between this theme and the previous two ('Surviving the course', and 'Being students'), is that the 'Accessing helpful resources' theme does not involve any interactions with other individuals and entails accessing content that is received from other people's knowledge and skills reflected in their online contributions. In other words, participants did not intend to contribute or form

networks. In this theme, for cognitive support, participants mostly accessed content that sets of people had created and posted on tools, such as Wikipedia, YouTube, Pinterest, etc.

This involved using social media in attempts to:

- getting started with assignments
- revising for exams
- finding ideas for teaching practice and in-class presentations
- delving deeper

Getting started

Participants from all cohorts used social media to help them get started with assignments, such as Wikipedia, YouTube, SlideShare, forums, blogs and Google. Not surprisingly, Wikipedia was the most frequently mentioned tool used for this purpose. Pre-service teachers visited Wikipedia for quick information, for background information and for clarification of terms, benefitting in this way from collective knowledge. It is of note, that Wikipedia was sometimes used interchangeably with Google.

Using Wikipedia to get the gist of a topic/concept was frequently mentioned:

... you get an idea immediately. (Annita, SE)

Clarifying terms that may not be explained thoroughly in coursebooks and were needed for assignments was also mentioned:

... several terms that may not be referred to very well in the powerpoint or in the book and (also when) I must use the term in an assignment for some reason or (when) I do not understand it. (Megan, ECE)

Additionally, Wikipedia was used for a quick summary of a topic so they could start the assignment:

... sometimes we have to, let's say, combine different pedagogists, what each of them said, many times the books have 700 pages ... on Wikipedia they have them a bit more concisely. (Olympia, PE)

As expected, participants stressed the ease and convenience as factors that influenced their use of Wikipedia as a “starting point” (Kim, Sin and Yoo-Lee, 2014, p. 453). However, reliability was a topic of concern for participants. Due to the prevalent idea that Wikipedia lacks reliability, they either double-checked the information with more reputable sources, used it in combination with other tools, or tried to avoid it altogether. In fact, several participants mentioned using it as a last resort, when attempts to find “more official” information failed.

However, despite the reliability concerns, it was evident from the data that Wikipedia was used extensively by participants. Its pervasiveness in participants' use is evident in the word ‘inevitably’ used by some participants when they described incidents where they used the tool for course-related purposes.

(We had to do an assignment) so inevitably, we visited Wikipedia, too, and find information. (Aphroditi, ECE)

Wikipedia was described as the “necessary evil”, because no matter how hard one tries to avoid using it, sometimes it cannot be helped:

... it is the necessary evil. Because sometimes you cannot find information elsewhere. (Tina, ECE)

Overall, by accessing Wikipedia, participants benefitted from human capital from collective knowledge.

Revising for exams

Social media were used by participants for help with exams, again benefitting from other people's human capital. Annita, after several unsuccessful attempts at understanding a mathematical concept for the exams, turned to YouTube tutorials made by other people interested in the same topic. She stressed that, if she had not found the online tutorials created by practitioners, she might not have passed the particular exam:

I could not attend the class that the specific teacher did. And she did specific systems ... which I could not (understand) ... I visited YouTube and there was a whole lesson there and through that I understood what number systems are ... I wouldn't have been able to manage ... thanks to that I passed the class. (Annita, SE)

A similar success story was narrated by David who used the internet to help him prepare for and pass an exam, by helping him understand some content which he considered very difficult. He turned to the internet to find a simple explanation for “snowball sampling” and similar research terms that he could not understand from the coursebook.

I was completely disappointed. I could not understand anything, neither from the book, nor the notes. I searched on the internet and read/studied from the internet ... and luckily I passed the course ... I really understood it. (David, SE)

For both participants, the material found on social media, which was produced by other people's human capital (a demonstration of their knowledge and skills), not only help them pass their exams, but, as they said, helped them to understand complicated concepts more fully.

Finding ideas for teaching practice and in-class presentations

Participants from all cohorts also used social media for ideas to help them with teaching practice. For example, Facebook pages, Pinterest and YouTube were mentioned as tools that helped them access resources. As in the previous subtheme, social media helped them access other people's knowledge and artefacts.

Silvia used YouTube for ideas for her teaching practice:

I have also used it generally, let's say for teaching practice where we wanted to do (things) about shadows, how they are created. We went on the YouTube video to search for several videos about what experiments you can do with the kids. (Silvia, ECE)

In reviewing the data for this subtheme, it became evident that participants actively sought not only to become better prepared for their teaching practice, but also for

practice in their future careers, which suggests an overlap of course-related purposes and profession-related purposes. Such activities, which were characterised by the Person-Material mode, not only helped participants succeed in their courses by accessing other people's, such as practitioners', human capital (e.g. by accessing lesson plans, ideas for arts and crafts, songs), but they also helped introduce them to their future profession by starting to locate groups of professional teachers online, forums, blogs, YouTube videos and other people's resources.

An example of this was Apostolia, for whom the forthcoming teaching practice drastically changed her way of using social media. She described a transformation in herself from an "indifferent" student who did not care about advancing her knowledge, to a more conscientious pre-service teacher who felt that she had a duty towards learners to be well-read. She considered technologies to be the "source that gives you the trigger" to become better prepared for class:

Before we started TP, I wasn't interested at all. Neither to learn new things about my field, nor to be informed about the (lesson) plans I must do. When it was time for me to present myself in front of the kids and take this responsibility, I said "Apostolia, from now on you must do it all this much more conscientiously". (Apostolia, PE)

Delving deeper

In this sub-theme, participants, triggered by something they heard in class or read in a university book, took the initiative to 'delve deeper' into and expand on the topic with the help of social media, driven by their own individual motivation. Examples of these strategies included watching videos to learn more about teaching methods, visiting sites to explore how theoretical concepts are applied in real classrooms, reading about theorists and writers, etc.

A typical example of this theme was reflected in Claire's narrative. Claire visited YouTube when she wished to expand on her learning of something she has heard in class, such as autism:

I will hear something and then I might need YouTube to see some things...and generally with interventions ... I searched a lot on my own about autism, for things that I heard in the class ... I would go home and search some more things.
(Claire, SE)

Another example of delving deeper was searching for practical examples of pedagogy that was presented in class:

I am searching for many videos on Special Education because there are many videos with kids, with practical examples which you can see ... you may sometimes get an idea. Simply to see what the sequence and the teaching is like.
(David, SE)

Overall, there was evidence from the data that participants used social media to support their course-related learning (Creighton et al., 2013; Kumar, Liu and Black, 2012; Vivian, 2012).

Summary: Accessing Helpful Resources

Overall, participants visited several social media tools to find helpful resources that would help them better prepare for their assignments, exams, presentations and TP, as well as delve into topics that interested them. This last sub-theme is characterized by a Learner-Material mode of engagement, rather than social capital building. In other words, rather than directly interacting with people in their existing networks, participants reported visiting social media such as Wikipedia, YouTube or Pinterest, and learning from sets of more knowledgeable people who they did not know and who had posted on the topic that interested them at the time. In other words, they tried to achieve their learning goals by accessing other people's human capital.

Throughout this theme, participants' narratives reflect a read-only pattern, as none of the participants edited or produced any Wikipedia entries or YouTube videos, or posted on any other tool, despite the fact that these tools enable such actions. Similar consumption patterns were noted for profession-related purposes that are presented in the following section. As indicated earlier, in this study participants reported using these tools in a non-participatory fashion, which was also confirmed by the diaries..

This category also brought to the fore the issue of overlapping boundaries between course-related and profession-related purposes, as, despite the fact that participants' social media use was prompted by course demands, participants were indirectly led to profession-related learning as they started becoming acquainted with profession-related communities and accessed practitioners' human capital.

5.2.3 Profession-related information

Profession-related information was centred around participants' self-preparation for future transitions into their profession. It is further subdivided, from the most to the least prevalently represented themes, into:

- exploring their future profession
- building a repository of tools and resources

Both categories are characterised by a Person-Material mode and a wish to be gradually introduced into their new profession, by joining what can be termed as loose aggregates of people, 'sets' (Section 2.3.3) in which, as in the *Accessing helpful resources* category, they did not intend to contribute or form networks with individual people. Participants visited such sets of people because they were interested in the topic being discussed, rather than the individual people who made the posts. However, as will be discussed below, through accessing Facebook groups and pages, blogs, forums, participants could be seen as building latent ties with other users. As in the case of Facebook student groups where previously unknown peers activated their ties by sending each other a friend request, it is possible that similar activation of ties could potentially take place in those professional groups in the future.

The difference between the two themes (*Exploring their future profession* and *Building a repository of tools and resources*) is that while in the former, participants sought to access their artefacts and resources, in the latter category participants engaged in more indirect and proactive behaviours of saving such resources and groups for the future, when they expected they would need them. In both cases, participants were found to be taking the initiative to use technologies for their own professional learning opportunities. As will be shown below, there was evidence that suggests that seeking such profession-related resources reflected a wish to prepare themselves for the

transition into their future profession and their designated identities (Sfard and Prusak, 2005).

5.2.3.1 *Exploring their future profession*

Box 4. Exploring the future profession – A vignette

Fotini, PE, 4th year

Fotini was a Primary Education pre-service teacher who was also very passionate about Special Education which she is considering pursuing further academically in the future. She considered social media to be useful in learning more about both the profession for which she was currently studying (Primary Education) and exploring Special education as a possible career choice. To do so, she joined several Facebook groups about Primary and Special Education. In this way, she stayed up-to-date with information about forthcoming free seminars. She raised the importance of such information becoming known to students who, due to the current economic situation, could not afford additional seminars which required a fee. As she noted, she saw many peers at the free seminars that were advertised on the Facebook student group:

... because these are difficult times ... every time we meet at a seminar, there are many classmates.

Fotini was also interested in accessing authentic pedagogical material for Primary and Special Education by in-service teachers. She felt that, in this way, she could learn more about what an authentic classroom is like and how a teacher organises classroom time. For this reason, she watched YouTube videos and read several forums and blogs (she used the terms interchangeably) that were set up by professionals who posted on the topic of her interest:

They publish crafts, poems for celebrations, educational material, spreadsheets based on the class they work for They are showing us how they lesson should be kind of structured.

She was also particularly interested in practical examples on classroom management:

It has simulations of lessons ... I have visited (YouTube) to see how the teacher kind of manages children's voices ... when all of them speak at the same time. That is, how she (the teacher) applies rules so that there is quiet, or the tone of her voice, her gestures ... I see things like that.

She considered Pinterest and TeacherTube particularly useful in exploring her passion for Special Education, as she could benefit from Special Education practitioners' contributions:

It shows us methods ... They are some methods which you use for kids with autism. And it shows you how the place and the objects should be structured so as the kids could learn better.

Fotini considered such knowledge important for her as a future teacher. She also started developing a passion for sign language and enrolled for sign language classes in her free time. She found that TeacherTube helped her complement this passion, as it allowed her to access practical examples posted by sign language professionals.

I also use it for sign language, to kind of see what it is like because I do sign language ... how the mouth aligns with the movement of the hands and it generally helps me.

Fotini did not participate in any online profession-related discussions that were initiated by teachers; as she was currently a student she felt she did not have the knowledge and skills that would enable her to contribute. However, she took the opportunity to send private messages to several professionals on Facebook, such as child psychologists or Special Education teachers to ask questions. In this way, she used social media to draw on professionals' expertise about a topic:

The people write "talk to me for whatever questions you want". And they post articles all the time. I mean, they are willing (to answer) ...

Overall, Fotini used an array of social media to explore different aspects of her current studies in Primary Education and her personal interest in Special Education (which she was contemplating as a future profession). She considered social media to be a helpful

way to become equipped with knowledge that would allow her to prepare for her future profession.

The theme, ‘Exploring their profession’ was centred around participants’ use of social media to start learning more about their future profession. While most participants referred to social media use for exploring the teaching specialisation that they were currently studying for at the time of their interview (Special Education, Early Childhood Education, Primary Years Education), there were cases of pre-service teachers who wished to learn more about other specialisations, which they contemplated pursuing as a future profession.

This theme involved participants using social media for the following activities;

- keeping abreast with news of their future profession
- finding professional development opportunities
- exploring possible specialisation routes
- accessing activities and methodologies

Through these activities, which are presented below in more detail, pre-service teachers were introduced into (what they expected to be) their future profession.

As will be described below, the first three activities are mostly characterised by informational support. Cognitive help was particularly evident in the last sub-theme where participants reported using social media in order to learn from in-service teachers and benefit from their expertise.

Keeping abreast with news of the profession (teacher appointment process, strikes, legislation)

This sub-theme involved pre-service teachers’ keeping abreast of news and recent developments in profession-related topics they were interested in. Visiting professional groups kept them up-to-date with news and current developments.

They talk about political programmes, about the developments, what the ministers of Education did and things like that. All that. They are very informative ... some of them are very useful ... (Valeria, PE)

Exposure to such information by educational groups may not have been possible without social media. It seems that the ease with which they could access material online by simply joining or ‘liking’ groups and pages was a factor that influenced such profession-related use, even by participants who would not think of searching for this information on their own. This is illustrated in Annita’s case – a full-time professional with a job unrelated to teaching. As she explains, she mostly used social media for information regarding her current job. However, she tried to access profession-related information that was available online:

It is not my first priority. Nevertheless I visit several sites, let’s say, about teachers. Mostly about both practical and employment issues. (Annita, SE)

Overall, participants used social media in order to maintain currency on legislation and other issues that were important for their future.

Finding professional development opportunities

Professional development opportunities were also referred to as a profession-related purpose for which participants used social media, for example in terms of finding out about seminars or conferences. This access to timely information was considered to be important.

I also attend online seminars which, again, I have seen through Facebook, where I belong to a group of teachers. And if I hadn’t used Facebook, I wouldn’t have been informed. (Melina, ECE)

Michelle, who has attended several seminars that she has seen advertised on Facebook, stressed the importance of feeling that she was up-to-date with conferences and seminars, regardless of whether she could attend all of them. Social media provided her with the opportunity of accessing such information:

For example, something may be published, an article about a workshop, about something, about a conference, whatever. In this way, I like to get informed ... although I may not be able to participate in all of them ... generally, I like seeing what is out there. (Michelle, PE)

The importance of finding professional development opportunities that matched their personal interests in educational topics which were not covered by the university was revealed in the following quote by Magdalena; she felt that as a future teacher, she had to be equipped with knowledge about child psychology:

We don't have any compulsory (module) that tells us about depression, mourning ... I like child psychology, I think that every teacher should know the psychological background of the child, so I like searching for these (things) ... I really like to specialise and learn more about this. (Magdalena, ECE)

By attending seminars on her topic of interest, Magdalena felt that she was becoming better prepared for her professional future. Such views seem to echo what Sfard and Prosak (2005) describe as attempts to bridge the “gap between actual identity and designated identity” (p. 18). In the case of these participants, such attempts could be seen as bridging their current studenthood and future teacher identity.

Overall, social media were seen as tools that helped the pre-service teachers with the process of staying up-to-date with professional development opportunities, which they considered to be important for their transition into future identities.

Exploring other specialisation routes

Social media were also mentioned as tools that helped pre-service teachers explore possible specialisations that they might be considering for the future, other than the one that were currently studying for. As was the case in the previous sub-theme, participants considered learning more about other careers they were considering pursuing, as this may be useful for their self-preparation to transitioning into possible designated identities.

For example, Grace used social media to help her start exploring her topic of interest, Play therapy, further:

For example, you see if you really want to be involved in this thing, what its practical application is, what it actually is, (if) it is actually what you had imagined it (to be). (Grace, SE)

For Grace, watching videos posted by practitioners of Play therapy gave her the invaluable opportunity to make a more informed decision about whether she would like to pursue further training in it. Such material allowed her to see practical applications of the techniques used in Play therapy that she might not have had the chance to access without social media. Similar ways of using social media for exploration of other possible specialisation routes were mentioned by other participants, such as Claire, a Special Education pre-service teacher who was contemplating getting further training in Dance therapy, and Melina and Aphroditis, two Early Childhood Education pre-service teachers who became interested in Special Education. Those participants used social media to search content posted by other people who were also interested in similar topics (5.3.3)

Accessing activities and methodologies

Several participants referred to the importance of accessing profession-related material on various social media, such as arts and crafts and teaching methodology in order to access new perspectives on teaching, benefitting from the material posted by experienced in-service teachers. This subtheme reveals the participants' wish to access craft and pedagogical knowledge, which, as in the case above, they considered important for their transition into their future profession and their designated identity. In this way, it seemed that participants self-prepared for such future transitions by accessing products of other people's human capital:

They [the videos] are very helpful, they generally give you some other perspective. (Apostolia, PE)

(I use YouTube to watch) several techniques ... For several topics, for instance about multiplication How you can teach to it [in a way] other than - what we call - 'learning by heart'. (Vasilis, PE)

This exposure to resources also served as a way for participants to start contemplating their future teacher selves, as they started thinking about what type of teacher they wished to become. Chris for example, visited a Facebook group where he learned important things about child psychology, which he considered important for all teachers. It is important to note that he uses plural to refer to himself (“we the teachers”, “my information as a teacher”), which suggests an identification with teaching professionals:

It posts several things that are about child psychology. For example how we, the teachers are sometimes negatively pre-disposed against certain children and positively prejudiced in favour of other kids, which is definitely the worst thing that a teacher can do I think it is the most useful for my information as a teacher. (Chris, PE)

Similarly, Magdalena joined a Facebook group mostly populated by in-service teachers in order to benefit from their knowledge, or what Hargreaves and Fullan (2012) refer to as human capital. Like Chris, Magdalena refers to teaching as “our field” which again suggests an identification with professional teachers:

... to learn what is happening in our field anyway ... because they are in-service already, they may suggest things for teaching that they have applied and are good ... they are more experienced and better-informed than me. (Magdalena, ECE)

Although such posts by practitioner teachers were perceived to be helpful in preparing pre-service teachers for their future transition into teaching, not all material found online was valued positively. For example, Lambrini challenged the quality of teaching practices that practitioners presented online in a group of which she reported herself as a member and felt that she would do things differently as a teacher.

I am a little bit disappointed, I expected it (to be) a little different ... I am in a page and she [a member] posts what they drew and what craft they made and she is even happy (about it). Ok, girl, is this what you did? A craft?

When I asked her what she would expect to see in those groups instead, she replied:

Something that the child learns through it ... and I am in this page where they do, let's say 20 Tsoliades³, 20 eggs and that. Why doesn't she/he let the child draw what it wants? (Lambrini, ECE)

Lambrini's quote suggests that she has begun to contemplate what type of teacher she would like to become, like Chris did, by criticising the material she has found online in relation to her emerging values and aspirations for practice as a teacher.

It is important to note that challenging the quality of such posts was not uttered openly. There was a pattern of pre-service teachers feeling they had to remain silent rather than engage in a dialogue with future colleagues who also used these social media tools. For example, Vasilis described the following incident that illustrates his choice to remain silent. Vasilis was willing to search for profession-related material online that would help him improve his teaching skills. More particularly, he wished to find practical examples of techniques that would allow him to teach mathematics without asking the children to memorise the multiplication table. He visited YouTube and found videos posted by practitioners:

[I visited YouTube to search] in what other way you can learn. Several teachers – not necessarily Greeks, have posted. (Vasilis, PE)

However, when Vasilis tried to use an innovative idea about teaching multiplication which he found on YouTube, it did not bring a satisfactory result. This experience consolidated his view that traditional ways of teaching are more effective and left him sceptical about the extent to which innovative techniques can be applied in real classrooms, thus reflecting his ideas about the values and practices he envisaged for his future self.

We spent a lot of time and the result was zero They are saying that we are against learning by heart For some things there is no other way, come on! (laughter). (Vasilis, PE)

³ Tsoliades = soldiers of the Greek army in the past. The participant refers to drawings of tsoliades that school children do, usually on national days

When I asked him if he posted his view on the video's comment section, he explained that, since all the comments to the video were positive, he did not want to become the target of the audience.

I did not attempt that, no, because I generally see that the comments are very ... let's say, encouraging, in all the videos and now if I say my own (comment) which is not very positive, they might start criticising So, better forget about it. (Vasilis, PE)

Such a pattern of non-active participation in profession-related videos, discussions and materials was evident throughout the data, irrespective of whether they liked the content posted or not. A typical example is illustrated by Valeria, who felt that her student status would make it inappropriate to join in the conversations:

Me: Have you commented on anything that you see in there?

Valeria: In this page, no, to tell you the truth

Me: (What about) in others?

Valeria: No, no. Mostly, I see that in-service teachers discuss, retired teachers, of that age. I mean, not young people who haven't finished the university yet (Valeria, PE)

Therefore it can be assumed that, although participants started joining groups of practitioners and accessing their artefacts, which suggested an identification with teachers, the feeling of not fully belonging to the profession yet, could justify the pattern of non-active participation on professional groups.

An interesting finding was that although participants took the initiative to join professional groups, profession-related posts – in the form of videos on pedagogy and articles on education – on the Facebook student groups were not welcomed by all members. Some participants expressed their annoyance when they saw such material on their student groups. It seemed that as the main aim of these student groups was to 'survive studenthood', other content (including profession-related posts) was potentially seen as distractive, unnecessary, inappropriate or "showing off".

They upload many articles to show for example that people with special needs can do this, they can do that. Ok, I feel that in a group for the department this may be a bit redundant ... I can find also find it on my own. (Claire, SE)

Claire's criticism suggests that some participants reported finding professional posts alien and not welcome to a group that was formed by and addressed to students.

It is important to note that several participants expressed a wish to become more actively involved in social media when they started teaching, either by contributing content or by interacting with their colleagues, engaging in this way in social capital building and human capital development. The following quotes are examples of participants who felt that they were likely to become more active on the professional spaces that they only used as peripheral members for the time being:

If I worked as an Early Childhood teacher somewhere, I might truly become involved in the process of interacting. (Eleni, ECE)

In fact, Nicky described how she started comparing the material they had created at the university for their TP with the ones she saw posted online by in-service teachers. She started considering uploading her own material online, hoping to help other people in the same way that in-service teachers had helped her when she was searching for material. This suggested an appreciation of the importance of social capital building and the development of human capital:

Some teachers post the material they did in the classroom ... we also have material and I compare it In general, we have material, let's say and we could think of uploading (it). (Nicky, ECE)

Other participants were more certain that they would actively participate in discussions with colleagues in the future. Two examples are provided by Tatianna and Kevin:

Tatiana: ... In that period (when starting teaching) I will need to become a member somewhere

Me: Why? What do you think they (social media) will offer you then, which you don't need now?

Tatiana: Maybe nothing, but I might get feedback, too. To see what others are doing

(Tatiana, ECE)

and

Kevin: (When I graduate) what I will visit all the time is educational pages

Me: Oh, will you visit them?

Kevin: All the time. I will both visit (them) and contribute (Kevin, SE)

Such views also reflect the fluidity of active and non-active participation in social media. Rather than being static, it can change from non-active participation to active participation, according to participants' changing needs. It is possible that the Facebook professional groups which participants have joined could provide them with opportunities to engage in future networking, as they could be seen as pools of latent ties with future professionals.

Such change in use was also reflected in the case of two participants who, as more knowledgeable people, had already started using social media to help school students. For example, Kevin used a forum to help school students with information about and advice on university departments.

They (school students) ask about the departments, what awaits them, what they can choose and why ... I will gladly answer them and suggest to them. (Kevin, SE)

Similarly, Aphroditis reactivated her account on one of her childhood's favourite forums. She felt that as a university student with academic experience, she could help school students with their studies. Although she had not started using the forum in this way, she hoped to find the time to do so in the future:

I reactivated my (forum name) account about 8 months ago, as a university student, though ... so as to be able to help kids at school, now that (I am) older,

with more experience now (laughter). So as to help them in whatever they need.
(Aphroditi, ECE)

Although she identified herself as a “university student”, Aphroditi was willing to act as a teacher, by helping school pupils. Such narratives about participants’ reactivating accounts (or deactivating accounts, as was the case with Tina, Box 1) according to specific needs that were changing at different points of participants’ lives, further show that social media use is not static.

However, it is important to reiterate that the case of Kevin and Aphroditi as pre-service teachers who use (Kevin) and expect to use (Aphroditi) social media to help school students were the exception rather than the rule (and discussed further in 5.3.3 and 5.3.4).

Summary: Exploring Their Profession

Overall, this theme presented how pre-service teachers used social media “as resources for learning” (Ala-Mutka, 2010, p. 50) for their future profession. It showed how through:

- keeping abreast with news of the profession
- finding professional development opportunities
- exploring other possible specialisation routes
- accessing activities and methodologies

participants benefitted, not only by being up-to-date with developments in the field and seminars, but also by accessing other people’s knowledge and skills, or their human capital (for example, by watching their teaching videos, suggested arts and crafts). This shows an interest in their future profession and a wish to prepare for their transition into their future, or designated identities. However, the teachers did not all move towards such identities at the same time and some were more forward-looking than others, which even created some tensions on student group sites when non-course, profession-related material was shared.

While participants did not engage in direct networking with other members of the sets of in-service teachers that they joined, the act of joining (and remaining in) sets of in-service teachers could be seen as laying the foundation for the activation of latent social capital. It is possible that, through these memberships, they might network with individual teachers in the future when they have officially entered the teaching profession. This possibility was also mentioned by some participants.

5.2.3.2 *Building a repository of tools and resources*

Box 5. Building a repository of tools and resources – A vignette

Nicky, ECE, 4th year

Nicky started using technologies more systematically when she entered university, which was also when she bought her own computer.

Although she visited professional groups where people upload interesting material, she did not “dedicate time” to thoroughly read the content, apart from cases where she saw something particularly interesting. She felt that she did not consider it particularly useful for the time being. Nevertheless, she saved material that she thought would be useful for her when she would enter her own class as a teacher:

I have seen things ... educational videos that educators have created for their class, which, yes, I said I will keep them so as to have them for the future, too.

Nicky also subscribed to an educational blog ‘proactively’. Despite the fact that she was not impressed by the quality of some blog posts (“*ok, they weren’t so original*”), she found some interesting material, which she hoped would benefit her as an in-service teacher.

(I subscribed) for the future. I mean, because I saw that it has very good educational information.

Nicky felt that she would start using social media for professional purposes more in the future. She was certain that she would “make a habit” of visiting blogs, forums and other professional groups, contemplated uploading her own material for others to see,

and mentioned that she could set up a blog with her class. She stressed that, as students use the web a lot, teachers should not lag behind in this respect.

Overall, Nicky's profession-related purposes were limited to proactively subscribing to a blog and saving interesting materials for future reference. Despite the fact that she did not see any real value for the time being, she felt that it would be her duty as a teacher to be able to use technologies both for resources and in the classroom.

The final theme is centred around participants' using social media to build repositories for future reference. This involved participants proactively setting up accounts on social media, joining or liking Facebook profession-related groups and pages, and saving resources that they found online. In these instances, they did not actively engage with the material (as was the case in the previous theme, where participants engaged in reading or watching the resources), or visit the groups that they joined/liked, but kept them as a repository for possible future use. As is shown below, by keeping a repository for future reference, participants engaged in negotiation of their current needs and what they considered to be their duties as professional teachers. In other words, although they did not consider engaging in professional purposes to be necessary for the time being, they felt that it would be necessary for the future. Keeping a repository for future reference was their way of compromising current and (perceived) future needs, and therefore, current selves and images of future selves. This negotiation echoes Alsup's (2006) concept of borderland discourses.

Michelle's response was a typical example of this theme. Michelle had joined an educational group on Facebook but she did not visit it. She felt that she might pay more attention to it and the artefacts that are posted there in the future and explained how she had only recently started becoming interested in her field as she was nearing graduation.

I think I have 'liked' (a group for) substitute teachers But I do not really pay attention to it, to tell you the truth ... I think mostly from now on I will start becoming more interested. I mean from this semester when I am also graduating, I have started the process of searching (for these things) and I may search a bit more from now on. (Michelle, PE)

Kelly had joined a Facebook educational group for in-service teachers hoping that it would not only help her later as a professional, but also in the more immediate future for her TP the following year. Although she did not use it so much for the time being, she stated that she often saved things from this group for future reference.

I am thinking that it will help me later. I am trying to lay foundations, because we also have teaching practice next year To tell you the truth I don't use it that much, I'm only its member I think I did it for later. (Kelly, ECE)

Letizia, used a word document to save links to videos that interested her. She felt that showing videos to students helps them understand key concepts. For this reason, she made a selection of video links that she felt could be useful in the future.

I mostly save them ... for the teaching to become more interesting and the kids to get something out of it. I mean, instead of me telling them in words what racism is. I feel it would be completely useless. Whereas if they see a video ... it will be imprinted better in their minds. (Letizia, PE)

Examples of negotiations between their current preferences and perceived future needs were identified in the following cases:

Isimini offered an example of a student who joined such groups on Facebook simply because Facebook suggests them to Facebook members. Ismini reported that she did not find them helpful, at least “for the time being”. Her decision to join, following an automatic suggestion from Facebook, was made because she thought they might prove to be useful in the future:

... because they are many times suggested (automatically by Facebook) Why not? (Ismini, ECE)

some participants explained that, despite the fact that they were not personally interested in learning more about their profession for the time being, they saved resources and joined groups because they wanted to feel reassured that they would have access to them when they needed them:

These (pages/ groups) have material for crafts ... I think it will be useful mainly next year when I will have a more complete and well-rounded opinion in the kindergarden. When I will have entered (the kindergarden). (Aphrodite, ECE)

I became a member because I think that they will post some articles that I will be interested in And I feel they will post things that I will be interested in for later. (Kelly, ECE).

This proactive mentality was also evident in the following example. Lambrini, whose personal view on the quality of such groups was not positive, decided to remain in the group 'just in case' it would be useful in the future:

I think that it's useless that I have (become a member), I don't find something that I would really like ... I don't know if later, as an Early Childhood teacher, some of the things they say will help me in my job. (Lambrini, ECE)

These types of narrative suggest an awareness of the responsibilities of a teacher, and a compromise of their personal preferences.

Some participants explained that, despite their personal dislike towards some media, or some social media, they 'gave in' and started using them, as they felt this would benefit them professionally when the time comes. This was revealed in the following quote by Isabella who describes how, despite her initial negativity towards Facebook, she decided to create a profile hoping it would help her in the future, especially with regards to professional development opportunities. She felt that in the future, it would be important for her as a teacher to stay informed about such opportunities:

I was very negative ... (But) there are a lot of webpages on Facebook for seminars ... when I finish the department, we will be interested in them. So, I said "let's do it". (Isabella, SE)

Isabella felt that the tension between her future professional needs and her personal dislike towards social networking sites in general, and Facebook in particular, had to be dealt with. She decided that the former was more important for her than the latter.

As in the previous theme, participants explained how they expected their social media use to change in the future. For example, Claire felt that she might start communicating with future colleagues for advice and to contribute to discussions.

Claire: I might also become involve more involved in all that

Me: Why do you think you will become involved more?

Claire: Because it will be my profession, I will need to search for it more ... and all this will help me For example, I will need to speak more with educators, too, to ask their opinion (Claire, SE)

Although none of the participants mentioned activating latent ties with other members of professional groups, social media allow for such activation to happen (for example, by sending a friend request to another member). It is possible that upon starting teaching, pre-service teachers might decide to become connected with colleagues with whom they shared the same membership to a group. In fact, such activation of ties was noted in Facebook student groups, where participants became Facebook friends with pre-service teachers who they did not know following an interesting post to the common group.

Summary: Building a repository of tools and resources

Overall, this sub-theme represents instances where participants engaged in proactive activities for future reference. They saved and stored resources and joined/liked groups although they were not entirely relevant for their needs for the time being.

Such strategic and proactive activities suggest that participants have begun considering what they thought their future responsibilities and duties as professional teachers would be (Jensen and Jetten, 2015). As participants were approaching the completion of their studies, they started preparing for their future roles and equipping themselves with tools, resources and potential networks that they felt might be beneficial for their future roles.

5.2.4 Summary- Academic purposes

Overall, participants used an array of social media for academic purposes, which are furthered subdivided into course-related and profession-related purposes.

Five themes were identified from the data:

- 1) Surviving the course
- 2) Being students
- 3) Accessing helpful resources
- 4) Exploring their future profession
- 5) Building a repository of tools and resources.

Data suggest that participants used social media to “survive their studenthood” and engage in student identity building. At the same time they were found to use social media to prepare for their future transition into their professions. In other words, they used social media to access information and material that would help them manage their studies and learn more about their future careers. Data also suggest that participants used social media to engage in two different forms of assemblages for academic purposes; networks and sets.

Overall, participants appeared to be wary of their still-effective student status, which made them feel somewhat outsiders, or peripheral members of professional groups, and not in a place where they could contribute by posting. However, it is important to note that participants felt they were learning important things related to their profession even by not actively participating in social media tools used by these groups and communities. Additionally, it should be stressed that participants engaged in all the above professional activities on their own initiative, taking responsibility for their own professional learning, exercising their agency.

5.3 Visualising engagement with social media

This section presents four vignettes of participants who use social media in different ways. I aimed to respond to a call from the literature for more criticality into studies of social media use that would highlight how participants actually use social media, rather than how they should capitalise on the affordances – at least, the ones that have been

identified by the literature – of such tools (Sewlyn and Stirling, 2016). To do so, in this section I include the voices of participants whose use of social media was mostly non-participatory, except in cases of interactions with their established network of family and close friends, particularly in less ‘visible’ spaces. I used Visitor-Resident maps (Connaway et al., 2017; White et al., 2012; White and Le Cornu, 2017) as a heuristic tool which helped me to identify and present two participants with Visitor characteristics – an engagement characterised mostly through the Person-Content mode – and a wish to remain “relatively anonymous” online (White et al., p. 6). These are contrasted with two participants whose engagement could be characterised as a mixture of Visitor and Resident, involving visible interactions with other people. In this way, the complexity of participation and non-participation in social media use is illuminated.

In the Visitor-Resident map (provided by Connaway et al., 2017; White et al., 2012; White and Le Cornu, 2017) the horizontal axis included *Personal* and *Institutional* uses. While the authors’ definition of *institutional* is almost the same as my definition of *academic*, I decided to present my map using the term *academic* for thesis coherence purposes.

In this thesis, I created the maps for participants based on their interview, data and follow-up interviews. I acknowledge the challenges that emerged due to the fact that I drew participants’ maps. Firstly, as the two axes (Personal-Academic, Visitor-Resident) were seen as a continuum, I did not have enough data to ensure that the exact place on the continuum where I put the boxes reflect participants’ perceived use. For example, in Vignette 1, the participant reported using Wikipedia and YouTube only to access content (i.e in a Visitor mode). Based on the data that was provided to me, it was difficult to decide on the exact place in the Visitor axis to place these in relation to other tools that were mentioned. So, I decided to group the tools that were used in a similar way in the same box, while the place on the axis may not be reflective of where the corresponding participant would place them themselves. I acknowledge that this is a limitation of the study, as participants might have drawn their own maps differently.

Finally, it should be reiterated that, as the study highlighted the fuzziness of personal-academic purposes and acknowledged that social media use is not static, but ever-changing according to participants’ needs and expectations at any particular time, the

maps should not be understood as an objective illustration of participants' practices. Instead, the inclusion of the maps served as a heuristic tool that allowed me to illustrate and contextualise a snapshot of pre-service teachers' modes of engagement with social media, as these were reported by participants and interpreted by me, as the researcher.

5.3.1 Vignette 1: Megan, ECE, 3rd year

Megan is an example of a user whose overall use of social media was characteristic of a Visitor. She mostly used technologies to engage in Person-Material mode, while her Person-Person mode was limited to only occasional interactions with her strong ties, such as her family and people she knows offline. However, she recently started using social media for building latent social capital with future colleagues, which she might activate in the future. This proactive online behaviour shows evidence of thinking strategically about her transition to her future profession.

Throughout the interview Megan spoke extensively about her strong relationship with her family, which consists of people that are involved in education. As Megan stressed at various points of the interview, her family always played a determining role in her (non-) engagement with social media. Firstly, her family had instilled in her an appreciation for books, and Megan felt "lucky" to have been born in a house surrounded by encyclopaedias, which she trusted more than the internet for academic purposes. Secondly, her family had always been worried about her online safety. For this reason, they did not allow her to have social media accounts as a school student, not even an email. This had influenced Megan's perceptions of social media which she considered dangerous and "against her philosophy". Thirdly, she trusted her family's opinions more than anybody else's, so whenever she had a problem, either personal or academic, she discussed it with them, rendering interaction with peers unnecessary.

Her strong relationship with her family seemed to be the most important factor that has influenced her non- active participation. She felt that her family can help her with her academic questions better than anyone else:

When an issue emerges, for example with my dissertation, and PhDs and (all) that, I discuss a lot with them because they have very good ideas.

I found this statement very interesting and the semi-structured interview framework allowed me scope to find out if Megan felt this had something to do with the fact that she did not have Facebook or any similar social networking site. Megan replied positively:

It has a direct connection with the fact that I have a very good relationship with my family ... I mean, I never had to discuss important things with my friends. I always discussed with my parents, my grandparents, my uncles/aunts And in fact when there is an issue, either personal or about the department, I will not initially address my peers.

It was becoming evident that, as her learning and personal needs were covered by her family in face-to-face discussions, she felt she had nothing to gain from social capital building with other people on social media.

I believe that interpersonal communication is much better. And communication via the phone ... I even avoid sending messages via the phone.

Megan set up her email account in the first year of university and started using most of the other social media tools (Skype, LinkedIn and Academia) the year the interview was conducted. She did not have a Facebook account and nor was she planning on having one. Her mother and grandmother recently encouraged her to open a LinkedIn account for academic networking.

As can be seen from Figure 11, Megan engaged with social media in Visitor mode and mostly for academic purposes, rather than personal, which was also confirmed by her diary. As she reported, when she did not have university obligations that would require her to use the internet, she switched on her PC about every 2 days.

Her online behaviour resembled what White and Le Cornu (2011) describe as a typical Visitor behaviour:

Visitors are unlikely to have any form of persistent profile online which projects their identity into the digital space. They are anonymous, their activity invisible (IV. Visitors and Residents section, para. 1)

With the exception of YouTube, she only visited the other tools when she wanted to do a specific task, such as to communicate briefly with someone, or if she felt she could benefit academically and/or professionally from it. Overall, her narrative suggested a rather instrumental use of social media, which is characteristic of Visitors who “need to see some concrete benefit resulting from their use of the platform” (IV. Visitors and Residents section, para. 1).

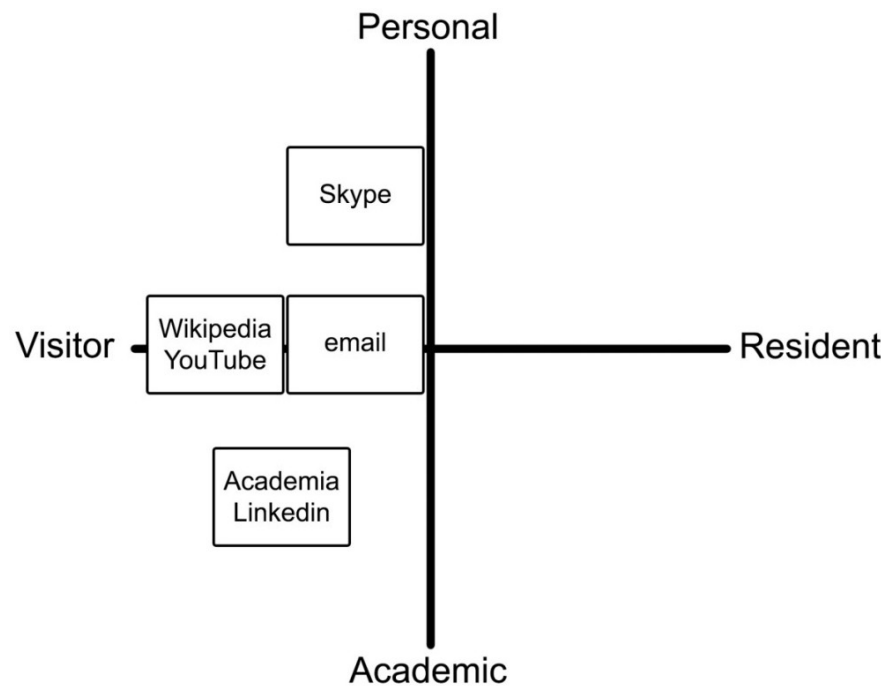


Figure 11. Megan's engagement with social media map
(based on Connaway et al., 2017. From ["The Many Faces of Digital Visitors & Residents: Facets of Online Engagement"](#) , OCLC Research, licensed under [CC BY 4.0](#))

Personal purposes

The only tool that Megan used for purely personal purposes is Skype, which, however, was utilised as a “last resort” (when face-to-face, telephone and email failed), or for people who live far away. Taking into consideration that Skype does not leave online traces for other people to access, it was placed in the Visitor axis.

Course-related purposes

Megan sometimes interacted with her teachers and peers (and sometimes family) to solve one-off course-related queries through email, whose frequency of use depended on the semester. Again, taking into consideration that sending emails could be considered a “private method” (Vivian, 2012, p.67) which does not leave visible traces, they were placed in the Visitor axis.

Additionally, she used Wikipedia to access content as a starting point for assignments when she did not understand a specific term, and sometimes for everyday queries. However, she stressed that she trusted books and encyclopaedias for academic purposes. This is indicative of a Visitor as White and LeCornu (2011) note “the ‘non-referenced’ or non-expert opinion and notions such as the wisdom of the crowd are avoided” (IV. Visitor and Resident, para. 2). Her Visitor mode was also reflected in her use of two tools, Academia (for course-related purposes) and LinkedIn (for profession-related purposes). She recently discovered Academia while searching for material for an assignment and created an account to have full access to an article. Through it she managed to access the authors’ human capital:

Mostly for access, yes. You know, communication, how shall I put it? Networking with other people, students of the same department, let’s say, and with teachers who like, upload very interesting articles.

Profession-related purposes

Another tool she had recently started using was LinkedIn. She joined LinkedIn a few days prior to the interview. At that time she was a Visitor (her only connections were her family and people she knew offline and she hadn’t updated her personal information). She felt that through time she would update her personal information and start building her social capital, suggesting a possibly more Resident mode in the future.

(I created it) mostly for a prospect ... through LinkedIn you can find a job ... because they can see you. You know, they see the education you have and they might send you some (opportunities). I am saying this because it has happened to an acquaintance of ours.

The above quote reflects Megan's proactive behaviour, as she had created her account with the prospect of building social capital which she might activate later. It is interesting to note that her family suggested LinkedIn to her, as they had already set up accounts and explained to her that they felt they themselves had benefitted as professionals, in terms of promoting their work and networking. Although Megan could not clearly explain how she expected to benefit from the tool, she trusted her family's advice.

They told me it would be good ... to create an account on LinkedIn, as a university student. So I say "Ok, let's try it to see what it will be like". (laughter)

In this way, Megan used LinkedIn as a repository of latent ties;

I don't know how (it will benefit me) exactly ... I may speak with a teacher via LinkedIn ... all is possible I don't have something more concrete in my mind, now.

Overall, Megan's Visitor's mode of engagement was mostly centred around content through "set-based" social media tools (Academia, Wikipedia and YouTube) and accessing other people's knowledge and artefacts, for course-related and profession-related purposes. As far as social capital building is concerned, Megan did not seem to be interested in forming bonding and bridging social capital with friends and peers on social media, mostly because she did not see any benefit from it. However, she started contemplating social capital building with people that might benefit her professionally in the future. In this way, LinkedIn was used as a repository of latent social ties. This proactive behaviour suggests evidence of the preparation for transitions into her designated teacher identity.

Information from Megan's diary

Megan's diary also reflected her Visitor mode. With the exception of emails, which she used every day in order to communicate with her teachers and peers for course-related purposes, all the other activities involved accessing content on Amazon and YouTube (as well as registering for courses and signing up for academic textbooks). In the follow-up interview she stressed that she generally avoids using emails, but the

week during which she completed the diary was an exception due to her university obligations and the information she needed from other people. However, she stressed in the follow-up interview that the time she reported spending on emails (ranging from 3 to 6 hours) does not mean that she was actually interacting all of this time (but she was online during those hours). During that week, she did not visit LinkedIn or Academia because she did not have free time.

It is important to note that Megan referred to visiting Facebook during that week, despite not having an account. In the follow-up interview she explained that she visited a page just to read a post about an assignment she had written.

Summary

The unique characteristic in Megan's case was that her relationship with her main support system, her family, influenced her non-active participation in social media although they did themselves use social media and even advocated it to her. Additionally, perceptions of usefulness, risks associated with social media use, along with her personal preferences for ways of communication, were additional factors for her non-active participation.

However, Megan had already started building latent social ties with future colleagues and employers on LinkedIn and she hoped that she would be able to benefit from any potential activation in the future. The decision to join LinkedIn was taken after a negotiation between her personal characteristics and what she believed would benefit her future self. Despite the fact that she personally did not like the idea of social networking sites, she felt that LinkedIn would help her transition into her professional future.

5.3.2 Vignette 2: Isabella, SE, 4th year

Isabella is a fourth-year Special Education pre-service teacher, whose overall use of social media was characteristic of that of a Visitor. Like Megan, Isabella's relationship with technologies essentially started when she entered university. She said she "inevitably" started having internet access when she entered university. She bought her first laptop and created an email account in her first year of university. She had always

been negative towards the idea of social media and her most important reservation was the fear of exposing her personal information.

Unlike Megan, Isabella recently decided to “give in” to joining Facebook, although she had been very critical of that tool in the past and the last of her friends to create an account. The only reason that she was prompted to do that was the belief that it could be beneficial for her professional future, as it would give her the opportunity to access Special Education groups, seminars, etc. Her instrumental way of using technologies fits White and Le Cornu’s (2011) description of a Visitor: “They have defined a goal or task and go into the shed to select an appropriate tool which they use to attain their goal” (IV. Visitors and Residents section, para. 1).

Isabella used social media for communication and entertainment (personal purposes). In fact, as her diary revealed, her academic uses were limited to brief interactions with teachers on email and one interaction with her peers, and she mostly used Facebook to check for course-related information, notifications and profession-related information.

As can be seen from Figure 12, Megan engaged in Visitor mode, as almost none of her activities involved leaving visible traces online.

Skype, Instagram, movie websites and Viber were the tools that she used for purely personal purposes – communication and entertainment. All the other social media were used for both personal and academic purposes ([Appendix I](#)).

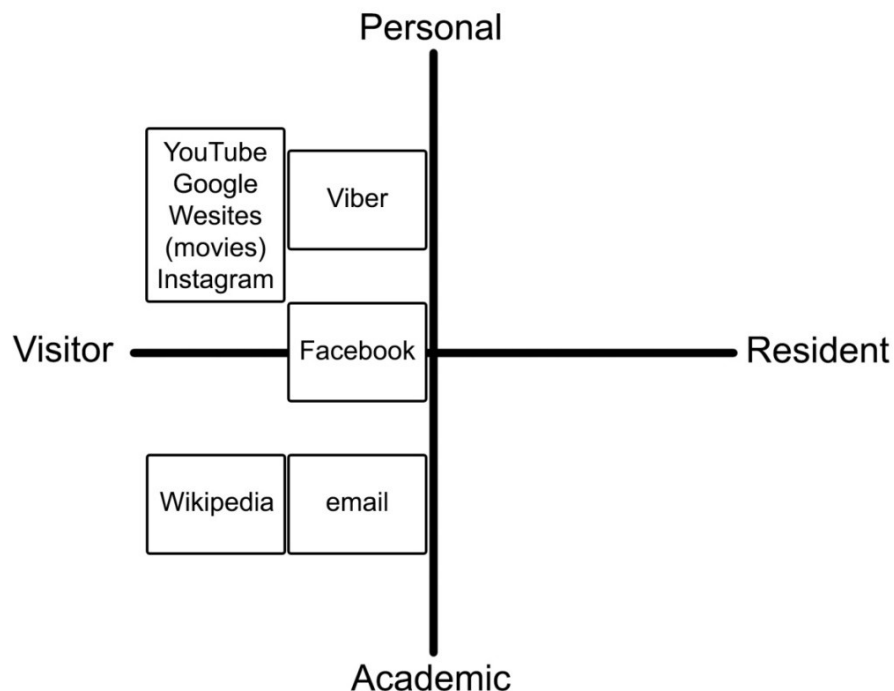


Figure 12. Isabella's engagement with social media map
(based on Connaway et al., 2017. From ["The Many Faces of Digital Visitors & Residents: Facets of Online Engagement"](#) , OCLC Research, licensed under [CC BY 4.0](#))

Personal purposes

Isabella's tool of choice was Viber, which was the only tool that she reported using in a Person-Person mode to communicate with her friends. Additionally, she used YouTube, Instagram and sites to access content for entertainment. She created her Instagram account the year the interview was conducted, because she felt jealous that everyone was using it. She mostly used it to get informed about her hobbies and celebrities (although she uploaded a few pictures). This Person-Material mode characterises a Visitor.

Isabella used Facebook in a Visitor mode too. Her profile was closed for safety concerns. As an extra precaution, she always logged off after visiting it. This is indicative of a Visitor mode: "one who logs on to the virtual environment, performs a specific task or acquires specific information, and then logs off" (White et al., 2012, p. 3). She felt particularly annoyed when she found out that she would need to include her date of birth on the profile, and later deleted it. She had uploaded very few photographs

and asked her friends not to tag her to common pictures. She had added only a few people on her own initiative. The rest of her Facebook friends were people that sent her a friend request. She considered ‘likes’ and posts meaningless. Again, this data fits with White and Le Cornu’s description of a Visitor: “there is also a sense that social networking activities are banal and egotistical” (IV. Visitors and Residents section, para. 1). This is confirmed from Isabella’s statement that she joined Facebook to have access to professional development opportunities after she graduated.

Course-related purposes

Isabella used email to communicate with teachers. She exchanged documents and solved queries, mostly through Facebook and Viber. She rarely used Wikipedia, because she felt she did not need it.

Her academic use of social media was limited. Although she had joined the Facebook student group, she did not participate in it.

Profession-related purposes

Isabella had joined profession-related groups that she expected to be useful in keeping her up-to-date with seminars, conferences and profession-related events. In other words, despite the fact that she did not need it at that time, she decided to keep it as a repository. This proactive and instrumental behaviour, which was also apparent in Megan’s use of LinkedIn, suggests a wish to become prepared for the future, by locating ‘key communities’ of colleagues and accessing their human capital. In other words, Isabella had begun to use social media ‘thinking as a teacher’, compromising her personal and professional needs, which is evidence of an emergent teacher identity.

Information from Isabella’s diary

Isabella’s diary also reflected her Visitor mode of engagement with social media. Her academic use of social media was limited to communicating with her peers on Viber once (for simple clarifications regarding the forthcoming examination period, as she explained in the follow-up interview), contacting her teachers twice through emails (which she described as a brief interaction), checking her Facebook account twice for Facebook group notifications about the university and a seminar on Autism that she was

interested in, and visiting Wikipedia and YouTube for helpful resources once for each activity. The rest of her online activities were related to personal communication and entertainment, as a Visitor too.

In her follow-up interview, Isabella explained that typically she would not use social media for academic purposes as often as she used them that week. For example, she rarely sent emails to her teachers and she rarely visited Wikipedia, as she prefers to use books from the library, or Google.

Summary

Isabella's Visitor attitude was reflected by instrumental use of social media, mostly to access material, rather than engage in Person-Person interactions on more private tools, such as Viber – apart from her close friends – and mostly for personal purposes.

Like Megan, her professional use is mostly focused on the creation of a repository and the creation of latent ties. The need to feel prepared for her future led her to reconsider her views on Facebook and adapt its use to her own circumstances, which suggests her developing teacher identity.

5.3.3 Vignette 3: Aphroditi, ECE, 3rd year

While the first two vignettes focus on Visitors, Vignette 3 is a user who chose to engage with social media both as Visitor and Resident. Unlike the previous two participants, Aphroditi decided not to keep the seven-day diary due to her busy schedule. Therefore, the data that are presented below are only taken from her interview.

Her relationship with technologies started at a very early age, as she attended a private primary school which provided them with computer lessons. She bought a PC when she was 8, which she used mostly for games, including an educational one focused on Mathematics suggested by a private tutor. She felt that her passion towards technologies was attributed to her older brother to a large extent, who is a technology enthusiast and a computer engineer graduate. Her brother not only helped her with technologies but also always encouraged her to solve her technological queries on her own, by trial and error. Aphroditi felt this was the reason she became so confident with her technological skills.

Her prior experiences with technologies were extensive. For example, she talked enthusiastically about a forum she frequently used as a high school student in order to interact with other school students (who she did not know) and get help for school. She formed a close connection with a school student who was also a user of the forum, as they helped each other with school subjects. Aphroditi mostly helped him with Ancient Greek and he helped her with Mathematics (which she really hated as a subject). She would send him an exercise she could not solve, and he would guide her towards the solution. She also formed social capital with other members there, including a girl with whom she was still in contact. She felt she benefitted a lot through these interactions and stated that she felt she also benefitted the other members. As a school student, she also used Wikipedia for assignments. She was particularly excited when she first found out about Facebook at the beginning of high school and started spending countless hours on it:

(I thought) “Wow, what is that?”

As a child with mobility issues herself, she was interested in the topic of special needs and used to spend many hours on YouTube to learn more about a particular approach to neurological rehabilitation, which she found fascinating and, as she says, influenced her career options (initially she wanted to study Occupational therapy or Speech therapy).

I was searching here and there, I was searching on sites, I was seeing the exercises they were doing to them, how they were doing it. I was fascinated. I was saying “I wish I could do it myself”

Although she did not eventually proceed with her initial ideas of areas of study, she still searched for YouTube videos and online articles about children with special needs. She also visited several blogs and sites that post activities, songs and crafts, as well as several Facebook professional groups on Early Childhood Education.

As can be seen from Figure 13, Aphroditi mainly engaged in a combination of modes. Figure 13 shows how she used the vast majority of those tools for both personal and academic purposes.

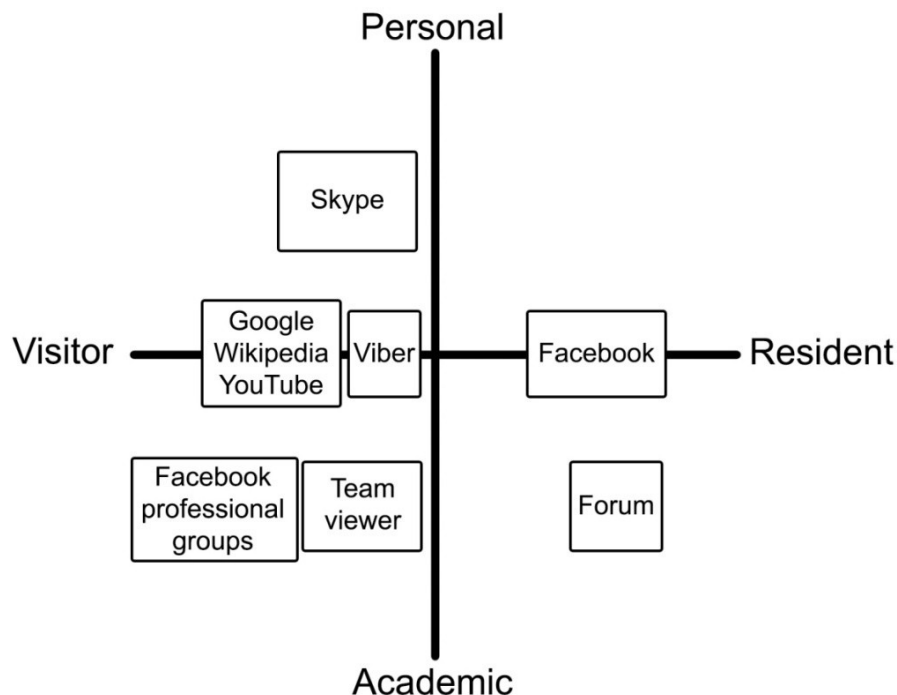


Figure 13. Aphroditi's engagement with social media map
(based on Connaway et al., 2017. From ["The Many Faces of Digital Visitors & Residents: Facets of Online Engagement"](#) , OCLC Research, licensed under [CC BY 4.0](#))

Personal purposes

The only social media tool Aphroditi used for purely personal purposes was Skype, which she used every day.

Course-related purposes

She used Viber and TeamViewer to interact with her brother for both personal and academic purposes. Skype, Viber and TeamViewer were placed on the Visitor axis, as they were unlikely to leave searchable footprints behind. As far as Facebook and her favourite childhood forum were concerned, Aphroditi reported a Resident mode of engagement, as she spent a lot of time on it, posting and communicating with people. It is important to note that Aphroditi did not use the blog at the time of the interview, as she had stopped using it after finishing high school. However, I decided to include it in her map because she recently reactivated her account, hoping that the skills she has acquired at university would be useful to school students that use this forum. This suggests an expectation on her part to continue using it as a Visitor, as she once had.

Course-related purposes

Aphroditi's use of Google and Wikipedia reflect a pattern of consumption, as she reported visiting them for gaining information that had to do with both her everyday life and courses (assignments, teaching practice ideas). She also used YouTube for both personal (for music and entertainment) and academic purposes (for educational videos). Email was another tool she sometimes used, mostly to interact with her teachers. She actively participated in the Facebook student group, where she responded to peers' queries as well as engaging in discussion with peers about less academic subjects, such as trips, university theatre performances, etc.

Profession-related purposes

Unlike her personal use of Facebook, in which she is active by posting, Aphroditi's use of Facebook professional groups largely consisted of accessing material, such as children's songs. Although she visited several profession-related blogs, Facebook groups and sites on Early Childhood Education, she never participated in any of the discussions, and this is why it has been placed on the Visitor axis. In fact, she did not feel these sites were particularly useful for the time being and felt that she would be visiting them more often the following year when she would have "a more complete and well-rounded idea about the kindergarden".

It is important to note that Aphroditi was particularly concerned about addiction to social media use. As she noted, she tried to reduce the number of hours that she was on Facebook because she felt that she was already addicted to it. Additionally, she was concerned about violations of privacy. She narrated a negative experience of stalking that scared her. Additionally, as she jokingly said, Facebook "*airs your dirty laundry*", since a lot of personal information about someone could be found. Also, she chose not to add teachers into her list of friends, as she felt that she would not want them to know everything about her life. These concerns affected her use of Facebook, as she kept her profile closed and made sure that her Facebook friends were people she knew well in real life. Although she used Facebook as a Resident for personal purposes and for interactions with peers, it is possible that her Visitor mode of engagement as far as professional uses is concerned could be explained by these privacy concerns.

Summary

Overall, Aphroditi's case was characteristic of a user who reflected characteristics of Residents. Aphroditi's case is also important because it suggests that a user can use the same tool in different modes (White and Le Cornu, 2017). While she used Facebook in a Resident mode as far as personal and course-related purposes were concerned, she only used Facebook professional groups in a Visitor mode. Her case was also enlightening because it demonstrated how modes of engagement and tools change over time – once a Resident in a forum for school students, she deactivated her account when she graduated from high school, only to reactivate it now as a university student, hoping to provide help to school students, as a more knowledgeable person in Resident mode.

5.3.4 Vignette 4. Kevin, SE, 3rd year

Kevin had already received a bachelor's degree in Primary Education. At the time of the interview he was studying Special Education. He is an example of a user whose use of social media reflected characteristics of both Visitor and Resident mode. Kevin's case was important to include, because of his tendency to leave "visible traces, of personal presence" in several social media, such as forums, Twitter, Facebook and Instagram (White and Le Cornu, 2017, Introduction, para.1), and engaging in social capital building with strangers online. Similar to Aphroditi, Kevin also chose not to keep a diary.

Kevin described himself as a "technology-lover" who had always been passionate about gadgets from a young age, "from smartphones to cherry pit removers". He bought his first PC in the first year of junior high school. His favourite social media tools changed through the years, from Twitter and Instagram, to Facebook (which was his current tool of choice).

He was one of the few participants who actively participated in forums, which he used to pursue his hobbies. Similar to Aphroditi, his participation in forums started when he was still at school. The first forum he became involved with focused on film series, which was one of his hobbies. At that time, his favourite TV series was "Lost". He found interactions with others extremely useful because they could discuss the plot which "they could not make sense of". Kevin also used a forum for school children as a

pupil. He continued using that forum, participating in a sub-thread that focused on university students and discussed developments in Higher Education, which is a topic that interested him, with university students from around Greece. As he said, this sub-forum is sometimes visited by school students who were requesting advice from university students on their future choice of departments. Kevin liked providing such advice to fellow forum members:

They ask about the department ... what they can choose and why. We are saying/advising (them) about whatever they are asking related to departments. A question about Primary Education which I have finished, the Special Education department ...

As can be seen from Figure 14, Kevin used a wide variety of tools in both Visitor and Resident modes for both personal and academic purposes.

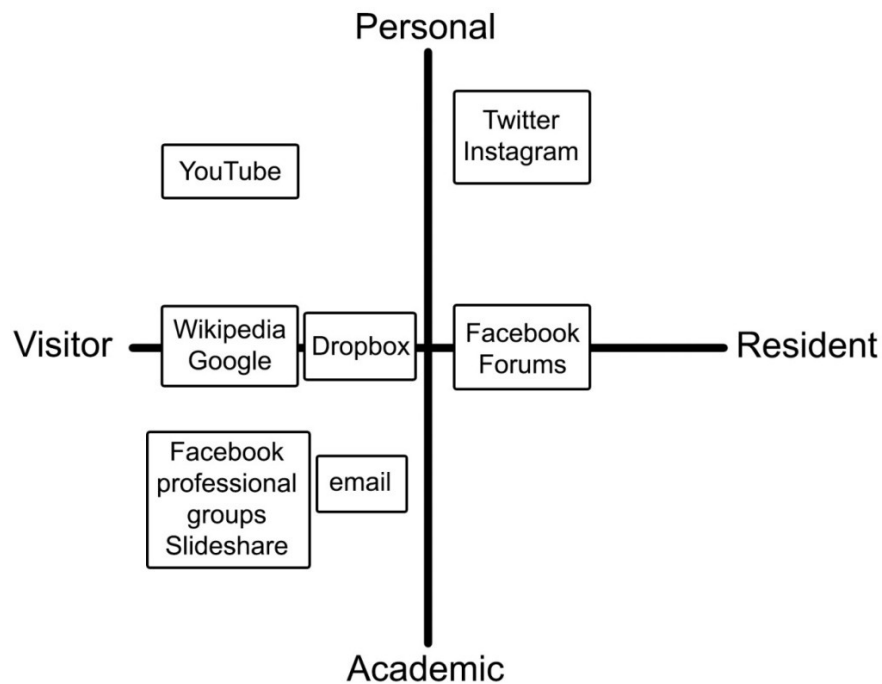


Figure 14. Kevin's engagement with social media
(based on Connaway et al., 2017. From ["The Many Faces of Digital Visitors & Residents: Facets of Online Engagement"](#) , OCLC Research, licensed under [CC BY 4.0](#))

Personal purposes

The only tools that Kevin used for purely personal purposes are Twitter, Instagram and YouTube. In the first two tools he engaged as a Resident, as he participated by posting and leaving traces.

He stressed that he enjoyed interacting with strangers on those tools, which fits the description of Residents: “Residents are happy to go online simply to spend time with others” (White and Le Cornu, 2011, IV.2. Residents, para. 1). In fact, this was one of the reasons why he started using those two tools.

I have my friends mostly in my everyday life. On Twitter I could write ... something that I know that nobody will see, nobody will take offence to ... we know that half of what we say is not even true, they are for self-deprecating purposes, which a friend on another social media tool might not understand.

However, he expressed strong dissatisfaction with the way Twitter users use it to promote themselves and their friends, which drove him to stop using it so often:

... they are using it to build a career, a career on the social media field. The X person with the jokes, his usual jokes, who has created for example 30 friends who consistently retweet him all the time While I initially was having a good time with the whole thing, I later saw that it was a lot for the show.

His Resident mode was also reflected in his use of forums. He reported being particularly active in three forums that are centred around his hobbies: technology, university student life and TV series.

(We talk about) the departments, the examination periods, different legislation reforms that they may be passing and we are interested in, how we can get hold of the student grant ... if (there is) any law that closes or merges or creates new departments. Whatever concerns students, the country's university map.

As far as YouTube was concerned, Kevin reported that he never commented or liked anything there. For this reason, YouTube was placed on the Visitor axis.

Course-related purposes

Like the majority of other pre-service teachers, Kevin uses Wikipedia as a starting point for both personal and course-related queries and assignments (i.e. when he did not understand a specific term), as well as to delve deeper into education-related topics heard in class or read in the coursebooks. He never contributed to Wikipedia, making him a Visitor to the tool.

He also finds useful resources for his course through Facebook education-related groups he joined. He liked using SlideShare for help with teaching practice in Primary Education, and considered the tool to be an “excellent” way to access ready-made artefacts produced by teachers:

There were excellent presentations for almost all subjects, History, Enviromental studies, ready-made by teachers ... they are excellent and I think I will also use them in the future for Special Education if I have the chance. Especially in autism

cases, where visual material helps the students. It catches their interest and mostly helps them stay concentrated.

Finally, he used emails and Dropbox mainly to exchange books and other documents with his peers. Again, taking into consideration that interacting through email does not leave traces openly on the web, it could be considered “a private method” (Vivian, 2012, p. 62). For this reason, emails were placed in the Visitor axis.

At the same time, Kevin used several social media as a Resident for course-related purposes. Overall, he placed great emphasis on his interactions with peers for course-related queries. He preferred using Facebook rather than the telephone, because “I don’t want to annoy them”. The Facebook student groups were very important to him, as he felt that he got “informed very effectively” from a wide variety of peers; he particularly stressed the strong solidarity among peers:

Sometimes when you send a teacher (a question) an email –you may also not have the courage to ask him something that you will ask the group- he (the teacher) will say “why you didn’t come to the lecture, you should have attended it”.

The Facebook student groups are spaces where peers can ask whatever questions they want, including what Kevin describes as “silly”.

... (even) the silly question “When will X post the results? We are anxious”.

Kevin’s personal circumstances may explain the importance he attributed to the group and the gratitude he felt towards its members. Kevin resided in a different city than the university, which meant that he could not ask his peers for advice face-to-face, nor could he socialise with his peers outside class hours. He described how he formed and developed social capital with fellow peers when he started in the department:

I can’t retain so many faces ... thanks to Facebook I have also created personal contact ... because when you are in one city and your classmates in another, it is difficult to create some contacts otherwise.

... it makes student life easier, and specially (the life) of a student who due to the financial crisis, which is really important now, cannot be in the place where he

studies. It makes life much easier through the communication with others. And there's always people around to help ... there's always people that want to help their peers without necessarily expected anything (back).

His Resident mode of engagement was reflected when he stressed the importance that he attributed to “giving something back” to the group. Kevin was active in posting videos and contributing to the discussion, instead of just viewing the posts.

It is also important to note that Kevin preferred interacting with his peers for course-related purposes through Facebook groups, rather than with individual people on his friends list. However, as he said, he accepted friend requests from peers.

I don't pursue it myself, because the groups are enough for me for communication ... but I will never reject a peer.

Profession-related purposes

Kevin also used social media to stay up-to-date with developments in both Special and Primary Education. He was worried that, by the time he graduated from his current department, he would have forgotten all about his previous specialisation. He was afraid that he might feel ‘numb’ when invited to teach. For this reason, he tried to keep abreast of developments in both Special and Primary education. He used a number of Facebook profession-related groups and pages to access and store material, coursebooks, teacher's books and extra activities, without participating in the discussions. The importance he attributed to being well-prepared reflected the perceptions of his designated identity as a teacher.

Studying to be a teacher was a conscious decision. I don't want to neglect my ... to leave [neglect] my first degree. I have the teacher degree in [date] and in between that I am unemployed, I'm not at all involved. I don't see the developments in the education field at all When they invite me (to teach) I'll be ‘numb’. I don't want to feel that I am ‘numb’ whenever they invite me to teach.

Summary

Overall, the characteristic that made Kevin's case stand out, as became evident throughout the interview, was that Kevin is driven by a need to communicate with other people and engage in social capital building that includes strangers. He was an active contributor, and he felt comfortable that his online traces "remains once logged off" (White et al., 2012, p. 6). He felt that social media would help him transition successfully in both specialisations. It is important to note that he was planning to continue engaging in Resident mode on social media for professional purposes, once he started working. In particular, he stressed that he planned to visit professional groups "without fail. I will both visit (them) and participate".

5.4 Chapter summary

This chapter presented the data that emerged from the study. Firstly, it presented data in regard to pre-service teachers' use of social media for personal purposes. Then, it presented data about the use of social media for two aspects of academic purpose. An overlap between personal and academic purposes was noted, as well as overlap across sub-themes. The chapter also highlighted the issue of non-participation that emerged from the data. Finally, four vignettes of participants whose use of social media reflected Visitor (Sections 5.3.1 and 5.3.2), and a combination of Visitor and Resident modes (5.3.3 and 5.3.4) were presented. The following chapter discusses the findings in relation to the key concepts that were presented in the Literature review (Chapter 2).

Chapter 6: Discussion

This chapter discusses the findings that emerged from the study and connects them with the key concepts that were discussed in the literature review (Chapter 2). Firstly, it focuses on the issue of overlapping boundaries that was identified across the themes. Then, it discusses four themes, starting with those more deductively derived and ending with those more inductively derived: academic purposes, social assemblages, social capital building, non-active participation and identity.

The links between these themes are illustrated in Figure 15. The framework is further discussed in Section 6.7.

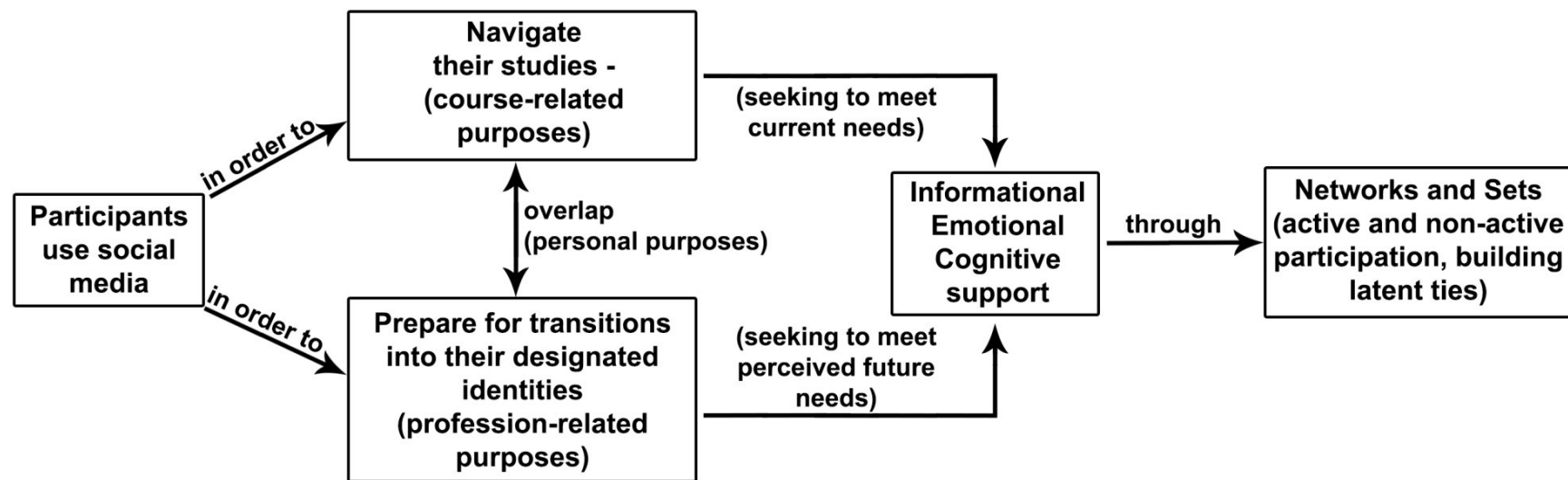


Figure 15. Emergent framework

6.1 ‘Messy’ realities explored: Overlapping boundaries

As mentioned in the Methodology (Chapter 4), although the focus of the study was on academic purposes, I decided to include personal purposes, as a way to help me contextualise my findings in relation to the overarching research question.

It is important to note that I started the study by defining ‘personal purposes’ as activities for purposes that were not related to the participants’ teacher education course, ‘academic purposes’ as activities for purposes that were related to their course, and ‘professional purposes’ as activities for purposes related to the participant’s future teaching profession. This was in line with other writers that made similar distinctions between purposes (Table 2).

However, evidence from this study suggested that distinguishing the purposes for which social media are used by participants into fixed categories would not be straightforward in the context of social media. Fuzzy and overlapping boundaries of purposes seemed to reflect the messy reality of users’ experiences with social media. This is an important finding that stresses the importance of exploring participants’ social media uses as a whole.

The first instance of overlapping boundaries that was identified was between what I had termed ‘personal purposes’ and ‘academic purposes’. This was reflected in instances where pre-service teachers used social media to learn more about their interests for their own curiosity, which may have been linked to their future profession (for example, Magdalena’s quote, ‘Finding professional development opportunities’) who used social media to find seminars on children’s psychology and depression, or David (5.1.1.2) who considered his passion for politics to have a direct connection with his teaching profession), or might influence the teaching specialisations they might be exploring in the future (‘Exploring other specialisation routes’). A similar overlap was also identified in instances where participants reported interacting with their peers. Both Facebook in general, and Facebook student groups in particular, were used as spaces where participants engaged in a mixture of course-related purposes and joyful interactions, transcending personal and academic boundaries. A typical example of this was where participants reported using those spaces to complain about a teacher’s low marking patterns. While these posts might seem to be unrelated to their studies, there was

evidence that they also served to help participants form an opinion about a teacher that they did not know (and therefore, make decisions about whether or not they would like to register for a particular module) and the exam topics the teacher might put in the exam (and therefore, plan their revision for the forthcoming examinations better).

In a similar vein, the line between what constitutes course-related and professional purposes was also fuzzy. For example, participants were found to be using social media to access helpful material about a university assignment or their teaching practice, and locating, in this way, forums and Facebook groups that helped them learn more about their future profession more broadly. In some cases, this could involve setting up a profile to the tool where they found relevant material for the course (exemplified in Megan's vignette, 5.3.1), or Grace, who set up a Pinterest account (Box 3). Both created their accounts after finding helpful resources for their courses in the said social media tools).

Further overlapping boundaries were identified in the sub-themes for both personal and academic purposes. Personal communication, entertainment and information were found to overlap. For example, communication with other people was often driven by a need to spend time and have fun with others, or a wish to get informed about news and current affairs from another user (5.1.2).

The finding about overlapping boundaries offers a challenge to the literature, which makes the assumption that purposes can be compartmentalised into set categories of binaries that are often presented as personal-academic, or formal-informal (e.g. Kumar and Vigil, 2011; Kumar et al., 2012; Eley, 2012; Madge et al., 2009; Towner and Muñoz, 2011). This assumption –which was also reflected in my design of the research questions – may explain the different results of my study from other studies. Such studies found that course-related purposes seem to constitute a less significant category than personal purposes (Madge et al., 2009; Selwyn, 2009a) and that university students did not engage in pro-active professional purposes beyond the educational institution (Gray, Annabell and Kennedy, 2010; Garoufallou and Charitopoulou, 2011). It is possible that such overlapping boundaries were not taken into consideration in these studies.

The finding about overlapping boundaries, in particular between personal and academic purposes, aligns with the literature that finds student-initiated groups to be spaces where such personal and academic purposes could co-exist (Ahern, Feller and Nagle, 2016; Charteris et al., 2018; Gray, Annabell and Kennedy, 2010; Nicolai et al., 2017). The term “edusocial space”, proposed by Ahern, Feller and Nagle (2016, p. 45) to describe Facebook student groups, seems to be justified by my study findings. It is important to note that although participants’ narratives mostly focused on Facebook and Facebook groups, it could be assumed that such overlapping boundaries could be identified in their interactions with others on other social media, such as Skype, Viber and email. Building on previous research that highlights the phenomenon of multitasking on social media (American Press Institute, 2015; Eley, 2012; Jacobsen and Forste, 2011; Rainie and Wellman, 2012), it is safe to assume that this overlap is not exclusive to Facebook, or any other tool. That being said, it is important to stress the fact that Facebook has been identified as the tool of choice for interactions with other people, both by this study and others (Ofcom, 2016; Pew Research Center 2016; 2018), which can explain why overlapping boundaries between personal and academic purposes were mostly identified on Facebook.

Overall, the thesis presented evidence that participants used social media for an array of purposes that cannot be easily distinguished from each other, and that academic purposes cannot be viewed separately from participants’ overall social media use. Participants used social media informally to support and expand on their formal education and engage in the course-related exchange of information and joyful interactions with their peers, as well as for professional purposes that went beyond their courses. My contribution to knowledge lies in highlighting the significance of recognising multiple overlapping boundaries when conceptualising the use of social media by pre-service teachers, which allows for the synergetic nature of participants’ practices to be identified and stressed. This allows for a more complex picture of social media use than the one presented in the literature to be brought to the fore. In this way, this thesis contributes to the ongoing discussions for more criticality into studies of technology use (Hennessy et al., 2018; Selwyn, 2015).

This finding invites future researchers to go beyond ‘neat’ categories of purposes, binaries, or a focus on affordances of specific tools. More importantly, it invites

researchers to explore overall social media use, even when the main research focus is on one aspect (e.g. academic purposes), without making distinctions between purposes and allowing learners to express their voices about their overall social media practices (Conole et al., 2008; Manca et al., 2017).

As will be discussed in the Recommendations chapter (Chapter 7), I identified the distinction upon which I designed the research questions that guided the study, and subsequently the initial analysis of the data (Chapter 4), as a limitation of my research. However, this study invited pre-service teachers to discuss their practices in a less structured way through in-depth interviews that helped identify their ‘messier’ experience.

Finally, it is important to note that the reason I chose to discuss personal and academic purposes under separate themes (see below) was for pragmatic reasons that related to presentation purposes. It is not intended to imply that they formed easily distinguished themes.

6.2 Understanding personal purposes

Evidence from the study suggests that pre-service teachers used an array of social media tools in their everyday lives. Participants’ personal purposes for the use of social media were found to consist of three themes that are listed below from the most to the least prevalent:

- a) Communication
- b) Entertainment and hobbies
- c) Information and news

It was found that participants engaged in both social capital building by Person-Person interactions, and in accessing material through Person-Material. Despite this overlap, which was identified across the themes (Section 6.1), I discuss the three themes separately below.

Consistent with the findings from other studies (Smith and Caruso, 2010; Ophus and Abbitt, 2009; Sadowski, Pediaditis and Townsend, 2017; Sponcil and Gitimu, 2013;

Sheldon, 2008; Pempek et al., 2009), *communication* was a very popular activity using social media, pursued by all 36 participants.

Overall, participants used social media to interact with their existing networks of strong and weak ties that included friends, family and acquaintances (Bigelow and Kaminski, 2016; Smith and Caruso, 2010; Ophus and Abbitt, 2009; Pempek et al., 2009; Vivian, 2012) rather than making new connections and building wider social capital with complete strangers. However, communication with complete strangers was noted by some participants when they participated in Facebook groups/pages, forums and blogs and other groups, which they visited for entertainment and informational purposes, and can be seen as *sets* (exemplified in Kevin's vignette, Section 5.3.4). This finding adds to the literature, by inviting future researchers to explore the role of such loose assemblages of people, their interactions and relationship-building (the concept of sets is discussed in detail in Section 6.4). Additionally, another finding from the study is that participants broadened their personal network by adding peers they did not know yet, or did not know well yet, to their list of Facebook friends. This was reported when, for example, they entered university and added other university students in their department, when they added peers to their Facebook list of friends in order to discuss or coordinate a group assignment, or when an interesting post on their Facebook student group caused one user to send a Facebook friend request to another. In fact, participants reported that the number of Facebook friends was much bigger than the number of contacts on other social media tools that were also common, such as on Skype. This difference between Facebook and Skype might be attributed to the difference in popularity between the social media tools, with Facebook being found to be the most popular among undergraduate students (Bigelow and Kaminski, 2016; Garoufallou and Charitopoulou, 2011; Jeon et al., 2016; Hew, 2011; Vivian, 2012). It is likely that, due to this popularity, a larger number of "ties from different contexts" (Jeon et al, 2016, p.888) were also registered users of the tool. In this way, they were able to connect with both "homogeneous and heterogeneous connections" (Geismar and Olsen, 2014, p. 10).

It is important to note that participants did not interact with all of their Facebook friends. Participants explained that their Facebook contacts were not limited to what they would describe as real-life friends, and included acquaintances, classmates, and people that they would greet on the street which, as was mentioned above, was not the

case with Skype. In other words, for participants, having someone as a Skype contact implied that they had a stronger connection, and therefore could perhaps be seen as a strong tie. Some participants likened Skype to the telephone, unlike Facebook where it was difficult from the data to determine whether contacts were strong ties or not. To my knowledge, this has not been adequately stressed in the literature. Although both Skype and Facebook afford connectivity with users, they were shown to be used differently by participants. This was an example of a nuance of social media use beyond the prescribed concept of affordances (Vivian, 2012).

Apart from communication, entertainment was an equally popular activity that was classified as personal purposes. Again, in line with the published literature, participants used social media for fun and entertainment (Eley, 2012; Garoufallou and Charitopoulou, 2011; Sadowski, Padiaditis and Townsend, 2017; Pempek, 2009; Sheldon, 2008; Sponcil and Gitimu, 2013; Zinyeredzi and Zinn, 2016). YouTube was the most popular social media tool for entertainment and hobbies, such as music and songs. Other tools, such as Facebook and Instagram, were used by participants in order to see pictures from their networks of friends, join groups of people with shared interests, and watch funny videos and interesting pictures for fun and entertainment. Participants also used social media for light-hearted and off-topic interactions with their peers, sometimes with implications for their studies, as was presented in Section 5.2.2.2 and is further discussed in Section 6.3.1, which reflected an overlap between entertainment for personal purposes and academic purposes.

Finally, *access to information and news*, for which the vast majority of participants used mostly Wikipedia, Facebook, YouTube and email. Participants reported being interested in political news, events, everyday information, newsletters, etc. Other studies present similar findings; Sin and Kim (2013) studied 180 university students in the USA, finding that almost all participants used SNSs for everyday information. The American Press Institute (2015) reports “88 percent of those surveyed get news from Facebook at least occasionally, 83 percent from YouTube, and 50 percent from Instagram” (p. 25), while Head and Eisenberg (2010) found that 70% use SNSs for everyday information. As was the case with the previous themes in the preceding paragraphs, although this category was initially formed to refer to personal purposes unrelated to university academic study, overlapping boundaries were identified. Evidence of this overlap is

presented in Section 5.2.3.1 ('Exploring other specialisation routes'), where participants accessed information and news about specialisations that were different from the ones they were currently studying. For example, as was presented in Vignette 3 (5.3.3), Aphroditi's use of social media to learn more about an approach to neurological rehabilitation stemmed from her personal experiences as a child with mobility issues. Although she studied to be an Early Childhood teacher, she continued to access information about Special Education and was contemplating a future specialisation in Special Education.

Overall, while it was not the aim of this thesis to explore participants' use of social media for personal purposes in-depth, including these kinds of uses helped gain an appreciation of the context for participants' academic purposes and exposed the overlap of boundaries between personal and academic use.

6.3 Understanding academic purposes

Evidence from the study suggests that pre-service teachers chose to engage in both course-related purposes (such as passing exams, preparing assignments and presentations, and doing their teaching practice) that aimed to aid and supplement their formal teacher education courses, and profession-related purposes (those beyond the course that were related to their future profession) on social media on their own initiative. As presented in the Findings chapter (Table 16), the former theme comprised the following subthemes: *surviving the course*, *being students* and *accessing resources*, while the latter comprised *exploring their profession*, and *building a repository of tools and resources*.

While in the beginning of the study academic purposes and professional purposes were perceived to be distinct, evidence suggested that there was significant overlap between the two. As the Figure 6 shows, the two purposes influence and overlap with each other in *accessing resources*. In this theme, while it was course demands that initiated participants' use of social media (e.g. participants heard about a learning theory in class and wished to expand on their understanding of its practical application in real classrooms), they located professional Facebook groups, pages, blogs, forums, etc., which they often joined/liked/followed or simply visited, becoming, in this way, introduced into and advancing their knowledge of their future profession.

The overlap between course-related and profession-related social media uses is important as it adds to the discussion of what is academic purposes in a social media environment (Kalogiannakis, 2013; Kumar et al., 2012). In light of these findings, I propose that the term ‘academic’ use of social media is a broad term that includes not only course-related but also profession-related aspects of pre-service teachers’ social media use, with the latter less researched than the former in existing literature (Kontopoulou, 2016). It is important to note that the participants in this study were approaching the completion of their studies (being in their third year or fourth year of their four-year degree), which could explain participants’ interest in learning more about their future professions through social media. Further research that includes participants in earlier years of study could provide more insight as to whether similar profession-related activities are also undertaken.

6.3.1 Course-related purposes

As can be seen from the data, all participants engaged in course-related purposes to some extent. The purposes and value of these activities involved:

a) Surviving the course. This included exchange of ‘simple’ information which helped them stay up-to-date with logistical queries (e.g. registration deadlines, lesson cancellations, announcement of examination results), receive practical help in the form of drafts, templates, notes or books that they could not get hold of, find peers for group TP, exchange their views on possible exam topics and ‘easy’ elective modules, or exchange brief queries pertaining to an assignment that was not well understood. Similar informational-sharing activities were also identified by other studies that were conducted with university students of different specialisations (Madge et al., 2009; Towner and Muñoz, 2011; Kumar et al., 2012; Stutzman, 2011; Tsoni, Sypsas and Pange, 2015; Vrocharidou, Asderaki and Korres, 2011). However, these studies obtained quantitative data using survey questionnaires, which did not allow for the benefits that participants could derive from these activities to be identified (Section 6.4). This qualitative study contributes to the literature by providing in-depth data about university teachers’ social media use. The sub-themes that were identified (logistical information, tips and practical help, coordination and discussion about university tasks, content help) echo findings from studies that involved observation of participants’ posts

on Facebook and /or semi-structured interviews with participants (Bosch, 2009; Charteris et al., 2018; Creighton et al., 2013; Selwyn, 2009a; Nicolai et al., 2017; Vivian, 2012). All those studies mention the information exchange that participants engaged in. However, the importance of such information exchange from the perspective of the students is not adequately highlighted. Findings from this study suggest that such information exchange could be viewed as not strictly academic – and therefore an ‘unsophisticated’ way of using social media which does not capitalise on the affordances of social media for ‘deeper’ knowledge exchange. Despite this, participants’ narratives reflect the importance of this information exchange in terms of the progress of their studies. Through these interactions, participants managed to stay informed efficiently and quickly about important departmental events and class meetings, meet their deadlines, revise for exams, double-check their understanding of teacher instructions, and choose assignment topics or elective modules that met their personal preferences. The importance of this exchange for students can be understood when we take into consideration that some participants reported that they only set up Facebook accounts and joined student groups to benefit from this information (Bosch, 2009; Nicolai et al., 2017).

Finally, Selwyn’s (2009a) study of university students’ public posts on Facebook found that participants’ exchanges about the content of lessons were not as frequent as other types of exchange. This study showed that participants engaged in exchange of help with the content of their courses – for example, when they reached out to people who were considered more knowledgeable than themselves in order to understand concepts. Although the study concurs with Selwyn (2009a), as their interactions mostly revolved around logistical queries, practical help and coordination and discussion about tasks, evidence from the data suggests that participants preferred discussing their content queries with their closer friends, on less public tools such as Viber and Skype, or Facebook chat; this aligns with Vivian’s (2012, p. 15) findings.

b) being students. This included socialising with other pre-service teachers, making joyful and tangential posts. Similar to the previous theme, rather than viewing those interactions as ‘not academic’ I argue that they may also have practical implications for students’ studies. Participants engaged in social capital building with their peers, and even expanded their existing social circle of peers by adding new people to their

Facebook friends list. For some participants this was particularly helpful when they entered university. Building their university network helped with the “settling-in process” (Madge et al., 2009, p.147) and their smooth transition to Higher education (Baker and Stirling, 2016; Stutzman, 2011). This expansion of their network also continued throughout their studies, through the Facebook student group. An interesting post to the student group, initiated personal connections between members, who then sent a friend request to each other.

Additionally, joyful and light-hearted posts that involved nagging about the university and their forthcoming exams allowed them to vent out, which may have enhanced their “feeling of belonging” (Charteris et al., 2018, p. 466). Political discussions and arguments gave them the opportunity to engage in dialogue with their peers and express their views about wider societal topics. Even the posts that were seemingly irrelevant and off-topic, such as songs, could conceal a hidden meaning of exasperation with the university practices, further strengthening their identity. Selfies of students on their first day in TP, although met with jokes and criticism, could suggest that participants felt that they already belonged to a group of people with common interests about to go through similar experiences. This finding aligns with Selwyn’s (2009) findings of Facebook:

Much of the data showed students coming to terms with the roles and the nuances of the ‘undergrad’ culture within which they found themselves located (2009, p. 171).

This freedom of expression in student-initiated groups often resulted in gossiping, off-topic or repeated posts, as well as political discussions. While the opinions of those participants who saw this as a disadvantage of these groups should not be ignored, this disadvantage was not seen to be important enough for them to leave the group. This is in contrast to Christakis et al.’s (2018) study who found that “Some of the pre-service teachers do not use Facebook very much and although they are aware that there is a student-run Facebook group, they did not want to participate in it, preferring the official university-sanctioned online space” (p. 463). In the current study, only one participant who had a Facebook account chose not to join those groups (Section 5.2.2). It is possible that participants felt that the benefits that they were gaining from their

membership outweighed these possible disadvantages. Such groups were considered to be so helpful that pre-service teachers who did not hold positive views of Facebook (for example, Isabella, 5.3.2) or became tired, bored or disillusioned of Facebook (for example, Tina and Fotini, Box 1 and 5) created accounts or continued their Facebook membership in order to benefit informationally from it.

Overall, the importance of student-initiated groups on Facebook has also been identified by other studies (Ahern, Feller and Nagle, 2016; Deng and Tavares, 2015; Gray, Annabell and Kennedy, 2010; Liu, 2010; Nicolai et al., 2017; Song, 2017; Vivian, 2012). This study responds to calls for in-depth research into these underexplored spaces. An important difference between my study and the ones I reviewed with relation to Facebook student groups was that my participants did not form a homogeneous cohort (such as the ones conducted by Deng and Tavares (2015) or Song (2017) and therefore, findings related to the student groups are not specific to a particular group used by participants. Participants were students of different teacher education departments and in different years of study, and therefore, they referred to different student groups in their interviews. It was found that those groups were used for similar purposes across cohorts. Another difference between my study and others that explored student-initiated groups was that my results did not emerge from researcher observation (Nicolai et al., 2017) or participants' descriptions of particular groups (Gray et al., 2010). A further difference is that, unlike other studies that I reviewed which used questionnaire surveys (Ahern, Feller and Nagle, 2016), my study's findings emerged from semi-structured interviews which allowed for participants' perspectives to be heard in relation to the benefits that they thought they were gaining from their membership.

A question that arises in light of these findings is whether a teacher presence in those groups would be beneficial for students. Research suggests that university students do not want their teachers to join those student-initiated groups (Ahern, Feller and Nagle, 2016; Deng and Tavares, 2015; Gray et al., 2010). Data from this study confirmed these findings, as participants value the safety that is enjoyed by the fact that teachers are not present.

c) finding helpful resources. This involved participants searching for content that they hoped would be helpful to get them started with assignments, pass their exams, find inspirational ideas for their teaching practice, and delve deeper into topics discussed at university. Similar to other studies (Creighton et al., 2013; Liu, 2010; Selwyn and Gorard, 2016), this study showed that participants used different social media tools, such as YouTube, Wikipedia and Facebook, for this purpose. To my knowledge, in-depth research into pre-service teachers' use of social media tools, such as YouTube and Wikipedia, which do not typically involve direct interactions with other people (unlike Facebook) remains scant. Research tends to focus on social media tools that are typically associated with the affordance of interaction, such as Facebook (Section 2.1.2). In this way, however, the rich ways social media are used remains obscure, as the focus is on “what *should* happen, and what *could* happen” (Selwyn, 2012b, p. 81, italics in original), rather than on what is happening. This study aimed to contribute to this gap in the literature.

Wikipedia was found to be a very popular social media tool, as pre-service teachers of all cohorts used Wikipedia for quick information, for background information and for clarification of terms. Similar patterns of use were shown by other studies (Conole et al., 2008; Head and Eisenberg, 2010; Kim, Sin and Yoo-Lee, 2014; Selwyn and Gorard, 2016).

Just as Facebook was prevalent in Person-Person interactions for course-related purposes, Wikipedia was almost ubiquitous for course-related access to content. Overall, participants stressed the ease and convenience as factors that influenced their use of Wikipedia as a starting point for assignments – factors also reported in the literature (Head and Eisenberg, 2010; White et al., 2012; Selwyn and Gorard, 2016). Issues of reliability and quality were discussed by participants as reasons why they only used Wikipedia as a starting point for academic purposes. Some participants mentioned that, due to the prevalent idea that Wikipedia lacks reliability, they either double-checked the information with more reputable sources, or used it in combination with other tools (also found by Head and Eisenber, 2010). My data suggest that Wikipedia was considered to be very helpful by the participants, to the point of ‘inevitability’ (Aphroditi’s quote, Getting started).

While participants took the initiative to locate helpful resources informally that would aid and support their formal education, their narratives reflect a Person-Material mode, and none of the participants reported editing or producing any Wikipedia entries, a finding that has been stressed in other studies (eg. Selwyn and Gorard, 2016). Similarly, none of the participants reported commenting on videos on YouTube, uploading to Pinterest etc.

Further research on how pre-service teachers' use of Wikipedia and other social media tools that are visited for access to information is needed. The notion of 'Learning Black Market' (White et al., 2012), where students prefer not to share the extent of their use of Wikipedia with their teachers, is worth further exploration – also in connection with other social media tools. For example, Gray et al., (2010) provide a possible explanation as to why participants in their study under-reported their uses of Facebook groups for educational purposes: “they did not wish it known that they were doing something that might be academically improper” (p. 973). This echoes the concept of 'Learning Black Market'.

Overall, the rich ways with which participants were found to be using social media challenges other studies that suggest that course-related uses comprise a secondary function of undergraduate students' uses of social media when compared with personal uses (Eley, 2012; Hrastinski and Aghaee 2012; Selwyn, 2009a; Madge et al., 2009; Towner and Muñoz, 2011; Kumar et al., 2012; Tsoni, Sypas and Pange, 2015; Vivian, 2012). However, it is of note that unlike some of the studies mentioned above, the aim of this study was not to compare the frequency of personal and academic uses. Additionally, the studies mentioned above either focused on how participants chose to use one social media tool (most often Facebook), or they explored participants' overall social media use adopting a narrower definition of social media which did not include Wikipedia or YouTube, despite them being rich sources of information that is socially produced (Dron and Anderson, 2014). By inviting participants to talk about the wider number of tools that participants had at their disposal, I identified a wide range of social media course-related practices that align with studies with a similar take on definition (Creighton et al., 2013; Hrastinky and Aghaee, 2012). Finally, unlike other studies that involved observing participants' social media activities (Selwyn, 2009a; Wodzicki, Schwämmlein and Moskaliuk, 2012), the findings of this study were primarily derived

from participants' interviews. It is possible that researchers' understanding of what is *academic use* (and consequently, the evidence that they search for) might be different from the participants' understandings (Kalogiannakis, 2013; Kumar et al., 2012; Vivian, 2012)

6.3.2 Profession-related purposes

Overall, the literature on university students' voluntary use of social media for academic purposes is almost exclusively focused on course-related issues. In this way, participants' possible social media uses for more forward-looking purposes beyond their course and towards their future profession tends to be ignored. This tendency suggests an assumption of linearity of social media uses where, for example, university students focus on their formal education and start engaging in profession-related learning when they begin their careers. Several authors, however, seem to reject this assumption, and underline the importance of professional networking (Baker-Doyle, 2011; Bodell and Hook, 2011; Kumar and Leeman, 2013; Ritchie, 2012; Steinbrecher and Hart, 2012) and awareness of existing online professional communities (Pilgrim and Bledshoe, 2011) for undergraduate students who are still at university. Such studies focus on how Higher Education institutions could guide pre-service teachers to this type of 'professional purposes' activities that would help them transition into their future profession. This study contributes to the literature by highlighting the ways pre-service teachers use social media, on their own volition, for profession-related purposes while they are still at university.

In particular, my study presented evidence that pre-service teachers use social media for forward-looking career networking, mostly by joining professional groups on Facebook. In other words, while they did not engage in direct networking and communication with a future colleague and engage in knowledge-sharing, they proceeded in an indirect way by becoming members of groups of professionals and accessing other people's perspectives, materials and discussions (Section 6.4). Based on this finding, I partly agree with studies that report that university students did not use social media to connect with people beyond their departments for academic purposes (Garoufallou and Charitopoulou, 2011; Gray, Annabell and Kennedy, 2010), but I challenge findings that they were not aware of "the possible advantages that social networks could offer in

terms of professional networking and exchange of knowledge” (Garoufallou and Charitopoulou, 2011, p. 497). Therefore, my contribution to knowledge lies in highlighting the importance of acknowledging the more indirect ways of connecting through professionals’ groups, which involves the building of latent ties with future colleagues. A possible explanation for this indirect way of connecting is that, since participants were still at university, they did not have many opportunities to meet in-service teachers and educational experts so that they could add them as Facebook friends.

The study also showed evidence of using social media as sources that could help participants prepare themselves for their future careers. Profession-related purposes, according to the data from this study, comprised the categories of *exploring the profession* and *building a repository of tools and resources*. In both cases, participants were found to be taking the initiative and exercising agency (Priestley et al., 2015) as to how to use technologies for purposes related to their future profession. The two themes are similar in that both are characterised by participants’ preparation for their future (and therefore, their designated identities, as discussed in Theme 5). However, the second theme is characterised by more indirect and proactive behaviours, such as saving interesting resources hoping that they would be useful in the future and joining groups of practitioners without intending to read the discussions and artefacts posted there for the time being, but ensuring that they have this repository for future reference. It could be argued that this is an example of participants using social media for purposes that met their needs in ways that did not necessarily reflect designers’ intentions (keeping a repository instead of engaging in collaboration with other people). It became evident that participants started thinking strategically about their future transition, and felt that saving material and becoming a member of practitioner groups could benefit them professionally. To my knowledge, there have not been any studies that have identified this proactive behaviour of building repositories on the part of pre-service teachers. As is discussed in the following section, these behaviours may suggest the beginning of contemplation about their future selves and their professional duties and obligations (Jensen and Jetten, 2015).

Overall, while participants did not report social capital building with future colleagues or other people related to education, they joined groups of teachers as peripheral

members and visited blogs and forums without participating in the discussions, as Visitors (Connaway et al., 2017; White and Le Cornu, 2011; White et al., 2012; White and Le Cornu, 2017). It can be argued that such actions enable the building of latent social capital which may be activated in the future, particularly in the case of Facebook, if and when they decide to ‘friend’ one of the fellow members, and therefore build networks. For the time being, they had several motivations for joining these Facebook groups and visiting professional blogs and forums, ranging from accessing examples of good practice and the ‘craft of teaching’ (Wilson and Demetriou, 2007) from ‘experts’ that cannot be found in university coursebooks, and innovative classroom activities and material, practitioners’ accounts and discussions. Additionally, participants were interested in forthcoming teaching seminars and conferences that they believed were important for teachers’ professional development, as well as news and developments in the teaching field. While most participants referred to using social media for learning more about the teaching specialisation that they were currently studying (Special Education, Early Childhood Education, Primary Education), there were cases of students who wished to explore other specialisations that they might pursue for their postgraduate studies or shorter courses beyond their current degree. Examples include Fotini’s interest in learning more about Sign language and autism (Box 4), although she is currently studying to become a Primary Education teacher, Kevin’s interest in keeping up with his previous bachelors degree in Primary Education, although he is currently studying Special Education (5.3.4), and Claire and Grace’s interest in Dance therapy and Play therapy, respectively (‘Exploring other specialisation routes’). Therefore, social media were used as tools that could potentially broaden their perspectives of the teaching profession and expose them to other routes and possibilities. Arguably, without social media, access to such important information would be limited.

6.4 Understanding forms of assemblages

Another important contribution of the thesis lies in the mapping of different forms of assemblages on social media. Many previous studies explored the potential of virtual CoP in education (Section 2.3.1). However, the emphasis was on particular tools, such as Facebook, that could facilitate the development of CoPs, while other forms of

assemblages that do not necessarily involve active participation in a small-knit community (such as YouTube or Wikipedia) were not explored.

The thesis provides empirical evidence of the different ways in which pre-service teachers in Greece engage in social forms for different purposes, by using the concepts of networks (“distributed individuals and groups of individuals, one node and edge at a time” (Dron and Anderson, 2014, p. 76) and sets (“a social form are made up of people with shared attributes... a shared interest in a topic, a shared location, a qualification in a particular subject area, or a shared outlook” (Dron and Anderson, 2014, p. 166).

The first social form involved networks. Data suggest that participants used social media to form and maintain relationships with other people and engage in social capital building. Categorising with confidence the different forms of social capital building (bonding or bridging) was difficult, especially since the exploration of this issue was not the aim of the study (and therefore, the research questions were not formed for this purpose). Using participants’ narratives to determine whether the relationships that they referred to were “tightly-knit, emotionally close” or “loose connections” (Steinfeld, Ellison and Lampe, 2008, p. 436) was not always helpful. For example, as participants’ narratives included references to their Facebook friends (the literature typically considers bonding social capital to be associated with *friends*), the term *friend* does not necessarily mean a close relationship, or even an offline friendship (Beer, 2008; Bosch, 2009; Jeon et al., 2016; Kimmons and Veletsianos, 2014; Manca and Ranieri, 2017; Towner and Muñoz, 2011). Therefore, unlike other studies that distinguish the forms of social capital building (Ellison, Steinfeld and Lampe, 2007; Geismar and Olsen, 2014; Greenhow and Burton, 2011; Steinfeld, Ellison and Lampe, 2008), this study aligns with literature that notes the difficulty of distinguishing between bonding and bridging on social media (Manca and Ranieri, 2017; Utz, 2016; Utz and Muscarell, 2015). That being said, while being a Facebook friend does not necessarily mean that it is translated to an offline close friendship, it can be assumed that not being a Facebook friend (when both individuals are Facebook users) means that an offline close friendship would be less likely. Additionally, evidence from this study suggests that participants engaged in social capital building with their closer friends (therefore what could be assumed to be their strong ties) using the non-openly-visible spaces, such as Facebook chat and small groups, or Skype, Viber, etc. in addition to Facebook. Facebook student groups allowed

participants to also interact with people that were not in their personal networks, as Facebook friends, and therefore they did not have a close relationship. Consequently, it is safe to assume that Facebook student groups allow for bridging social capital to develop.

The second form of assemblage was sets. Sets were conceptualised as loose assemblages that are drawn together by “intentional engagement around a topic” (Dron and Anderson, 2014, p. 175), and “Beyond that, there need be no social engagement, no direct communication, no exchange of information, not even a shared purpose” (Dron and Anderson, 2014, p. 167). Facebook student groups was one example of sets. The broad topic that drew participants together in those groups was their studies. Participants visited those sets of people in order to get useful information that would help them navigate their student experience. Participants’ narratives suggest that such visits were on an ad-hoc basis, whenever they wanted to find an answer to a specific query, rather than a sustained effort to advance a common domain and develop a shared practice (both of which are characteristics of a CoP, Section 2.3.1). Instead, those sets of people allowed for social capital building with participants’ wider network, including peers that they did not have on their Facebook lists of friends, as well as among previously unknown peers, such as pre-service teachers who were in other years of study, or attended different modules in the same department, or even people from more “heterogeneous” circles (Steinfeld, Ellison and Lampe., 2008, p. 434), such as graduates that had not left the student groups after finishing the degree (and could also contribute to the online discussions and bring in their perspective on several issues). At the same time, through such sets of people, participants formed new networks, when they sent friend requests to other set members. Facebook student groups can, therefore, be viewed as a pool of latent social ties (Haythornthwaite, 2005), where future potential networks may be built. As mentioned in the literature review (Section 2.4.1.2), when latent ties are activated they morph into weak ties (Ellison, Steinfeld and Lampe, 2007; Geismar and Olsen, 2014; Manca and Ranieri, 2017; Nardi, Whittaker and Schwarz, 2000). In this study, ties were activated when members sent friend requests to each other (following, for example, an interesting post). Thus, it became evident from the data that sets could be further developed as networks, supporting Dron and Anderson’s (2014) argument that social assemblages are fluid.

This study highlights the importance of taking into consideration building latent ties, as it can lay the foundation for possible activation (Nardi, Whittaker, Schwarz 2000; Manca and Ranieri, 2017). This broader notion of networking that is not limited to interactions with individuals, but also includes joining groups (which can potentially lead to interactions with individuals), challenges the literature that reports that university students do not use social media for networking beyond their course (Selwyn, 2009a). For example, Selwyn notes:

in terms of education-related interaction, *Facebook* was used primarily for *maintaining* strong links between people already in relatively tight-knit, emotionally close offline relationships, rather than creating new points of contact with a ‘glocalised’ community of students from other courses or even institutions (Selwyn, 2009a, p. 170)

Evidence from this study suggests that on student groups new links were formed. It is important to note that Selwyn’s study focused on the use of the Facebook wall, where only interactions among Facebook friends – and therefore among people of their already established network – can be observed.

Other examples of sets are also identified in the thesis, such as Facebook professional groups, as well as other social media tools, such as blogs, forums, Wikipedia, YouTube that participants reported visiting in order to learn from other people with whom they had a common interest at that specific time. That being said, it is important to stress that it is not implied that these social media tools should be generally seen as sets (or any other form of assemblage of people). Although it was not the aim of the thesis to explore how other members of those professional groups, such as in-service teachers, described their engagement with those groups, it can be assumed that different users use tools in different ways depending on their needs (Selwyn, 2009a). For example, a pre-service teacher visiting a Facebook group for teachers on an ad-hoc basis (or even using it as a future repository) could be seen as using it as a set of people interested in a common topic, while for an in-service teacher the same group could be seen as a CoP, where colleagues engage in sustained interactions and group learning. This is stressed by Dron and Anderson (2014) who argue that tools do not prescribe the aggregations

that people engage in. This is an important point that invites us to see social media use beyond the media's perceived affordances and the designers' intentions (Section 2.1.2).

While participation in sets did not involve any interactions on the part of participants (with the exception of the Facebook student groups), it is possible that such tools could also be seen as a pool of possible latent ties that, at least theoretically, could be activated in the future. In other words, for the time being, participants visited such sets only "in order to discover an answer from the set of people who have posted on this topic to a question" (Dron and Anderson, 2014, p. 176) and did not make posts or engage in network building with other members. However, the act of joining professional communities could be seen as an attempt to start networking professionally, as in this way they start building professional latent ties with future colleagues who are also members of the same groups. While most social media that provide friending and following features have the potential for activation of latent ties, special attention should be paid to Facebook groups and pages, which were extensively used by participants. As Manca and Ranieri (2017) note, the way that specific social media are designed, make activation of latent ties easier. In particular, they refer to Facebook and Google+ which allow users to read information about another user on their profile and make a decision about whether connecting would be helpful. Additionally, it can be argued that unlike blogs and forums, for example, where users may be anonymous or under a username, Facebook requires its users to provide their real name. Knowing the real identity of a person may influence a user's decision to personally connect with another person with whom they share similar interests, but are strangers offline (Ellison, Steinfield and Lampe, 2007).

In fact, evidence from this study supports the view that latent ties were indeed transformed into weak ties in the case of Facebook student groups. On the other hand, in the case of Facebook professional groups, such activation of latent ties was almost non-existent, as participants' motivation for joining such groups was to access information or make sure they would have access to information when the need arose, rather than direct networking with in-service teachers or participation in discussions. It is possible that similar activation of ties with colleagues could happen when participants start teaching. To my knowledge, the importance of latent ties has not been explored in the literature on university students' social media uses. A longitudinal study with beginner

teachers that would explore the factors that influence activation and non-activation of latent ties built through Facebook groups (and possibly other tools as well) during university teacher training could help gain more insight into this phenomenon.

Therefore, the simple act of joining or liking a professional page on Facebook does not only give participants valuable access to lifelong learning and professional development (Dron and Anderson, 2014; Manca and Ranieri, 2017) through accessing practitioners' human capital, but also provides them with an opportunity to build their network further (Nardi, Whittaker and Schwarz, 2000) by building latent ties with individuals. This is stressed by Bodell and Hook (2011) who refer to this opportunity for networking between students and professional occupational therapists:

There are over 100 occupational therapy related groups on Facebook from all over the world; however, the critical factor is that behind those groups are real people who share the view that networking will benefit occupational therapists and the profession ... all can be approached or added as a 'friend' with a click from one's home. (p. 589).

Similarly, pre-service teachers could start engaging in professional network building on social media while still at university.

The significance of this finding is that it sheds some light onto the nuances of engaging with social media in the modern networked society that goes beyond fixed forms that are characterised by a list of easily defined criteria. By exploring participants' overall repertoire of tools, this finding contributes to the existing literature by offering insight into how participants use social media tools. Participants engaged in different structures on social media, which could be helpfully characterised as networks and sets, but which in practice might not be as clearly defined as joining a set could lay the foundations for latent social ties.

This finding also invites us to challenge assumptions about the benefits people may derive from those different forms. For example, while cognitive, emotional and informational support is commonly associated with social capital building through networking, evidence from the study suggests that such support (and particularly cognitive and informational) can also be received from participation in sets (see below).

6.4.1 Benefits of social capital building

As discussed in the Literature review (Section 2.4.1.2), different types of social capital building are linked to different benefits. Research suggests that bonding social capital is associated with emotional support, while bridging social capital is associated with informational support (Greenhow and Burton, 2011; Fox and Wilson, 2015). However, taking into consideration that distinguishing between the types is not straightforward on social media, the task of making similar distinctions among the benefits is problematic.

Overall the benefits, as far as course-related purposes were concerned, that were described by relationship-building facilitated through the use of Facebook, email, Skype, etc., can be summarised as:

- 1) informational support
- 2) emotional support
- 3) cognitive support

The informational support about their courses involved accessing timely information that was deemed important for their studies and was mostly obtained by their peers and – to a lesser extent – by families and other people. It ranged from logistical information, S.O.S and past exam topics, practical help and course suggestions, to collaboration and discussion of tasks and note exchanging. As mentioned above, logistical information, was perceived to be particularly helpful for participants and saved them from unnecessary stress and commuting. Participants stressed the immediate effect of this networking (Section 6.3.1). Similarly, peer suggestions on which courses are better or easier than others were perceived by participants as valuable personalised information that helped them choose the courses that would be better for them, and therefore, graduate with better marks. As was mentioned by Kevin (‘Accessing logistical information’) it is not possible for a student to receive the same amount of personalised information from university-issued study guides. Peer solidarity, in the form of exchanging books and double-checking tutors’ instructions on assignments, was also mentioned as examples of help that affected their university progress. Overall, participants seemed to create an “underworld of communication and information-sharing invisible to tutors” (JISC, 2007, p. 11). As in other studies (Baker and Stirling, 2016; Deng and Tavares, 2015), participants appeared to prefer to turn to their peers for

information sharing, rather than their teachers. In a similar vein, informational support about their future profession was obtained by their participation in sets of people, mostly through Facebook professional groups, where they sought to keep abreast of news of their future profession, access information about conferences and seminars, and explore possible specialisation routes.

Emotional support was also identified in other studies (Selwyn, 2009a; Baker and Stirling, 2016; Bosch, 2009; Madge et al., 2009; Steinbrecher and Hart, 2012; Towner and Muñoz, 2011; Vivian, 2012). In this study, such support involved participants' attempts to socialise and engage in light-hearted interactions with their peers, express their criticism towards authority, and engage in tangential posts (this was true, not only for students that had minimal opportunities for face-to-face networking, such as the ones that had full-time jobs and/or lived in a city far from the university, but also for students that were based in the city where the university is located). It was shown that, although these posts were not purely academic, they functioned as ways to strengthen student identity and sense of belonging. This finding aligns with Selwyn's (2009) findings that Facebook is a site for identity building:

Facebook has become an important site for the informal, cultural learning of 'being' a student, with online interactions and experiences allowing roles to be learnt, values understood and identities shaped (2009, p. 171, italics in original)

The findings are also consistent with Madge et al.'s (2009) study that considers Facebook the "part of the 'social glue' that helped students settle into university life" (p. 141). While their study involved first-year university students, results from my study seem to suggest that socialisation continues in later years of study (as my participants were in their third year onwards) and was an important function for participants. In some cases, socialisation started on Facebook and, for some participants, the relationship moved offline in university settings. The socialisation aspect that takes place in these groups may be attributed to the fact that Facebook has become a place where the majority of students have an account.

Cognitive support involved participants' drawing on other people's knowledge and skills, or the human capital (Hargreaves and Fullan, 2012) of more knowledgeable people (peers, family and former teachers), for both course-related and profession-

related purposes. Such support for course-related purposes involved accessing material that would help them pass exams, get started with their assignments or get inspiration about the activities they would include in their TP, while cognitive support for profession-related purposes involved accessing activities and methodologies that would help them learn more about teaching. It is important to note that participants reported engaging in social capital building for cognitive support with the peers that they considered closer than others. Cognitive support with regard to professional purposes was mostly obtained through visiting sets.

Therefore, there was evidence from the study that participation in sets also provided participants with benefits that are commonly associated with active networking. Facebook professional groups, forums and blogs offered participants the opportunity to access in-service teachers and other people's perspectives of their profession, as well as their narratives about their personal experiences of classroom realities.

At the same time there was evidence that the types of benefits are interlinked. Access to timely information helped students feel emotionally reassured, in control of their studies and well-prepared for their future profession. Cognitive support also helped participants informationally and emotionally, as it helped them feel that they became better equipped to be good teachers in the future.

6.5 Understanding non-active participation

A fourth contribution of the thesis lies in its presenting evidence of the benefits that could be derived from non-active participation. A pattern that was revealed from the findings was that, while participants engaged in both active and non-active participation for course-related purposes, profession-related uses were almost entirely characterised by non-active participation. Non-active participation has often been referred to in the literature as "lurking" and "passive" behaviour (Nonnecke and Preece, 2000; Yeow, Johnson and Faraj, 2006; Zhu, 2016). In this study, I chose to use the term 'Person-Material mode' as a synonym for non-active participation, in order to describe participants' uses of social media with the intention of accessing something, rather than actively engaging in dialogue, or posting a comment or a post.

Evidence from this study echoes views by writers that there are several benefits that can be derived from non-active participation (Geismar and Olsen, 2014; Thorpe et al., 2007; White, 2015). My data concur with the view that non-active participation “provides access to expertise...” (Thorpe et al., 2007, p. 355). By engaging in reading other people’s contributions, or watching their videos, participants found solutions to their course-related queries and prepared for their future transition into teaching. In particular, through accessing both individual people’s and collective human capital, they were able to manage their studies and learn more about their future profession, as well as start contemplating how their social media practices might evolve when they become teachers.

Participants chose to join groups without necessarily aiming towards becoming a core member in those spaces, or towards networking with co-members – at least for the time being. Rather, they hoped to benefit from others in a different – non- participatory – way. In this sense, non-active participation is indeed a “legitimate activit[y]” (Thorpe et al., 2007, p. 355) through which participants dealt with current queries and problems, built latent ties with co-members and started preparing for professional challenges. As such, non-active participation should not be seen as inactivity.

Non-active participation mode partly aligns with the description of Digital Visitor behaviour (White and Le Cornu, 2011; White et al., 2012; Connaway et al., 2017). As mentioned in the Literature Review (Section 2.1.4), using social media in order to access material for a specific goal, while not leaving a digital footprint by commenting, was one of the key characteristics of Digital Visitors (in this case the goal being to stay up-to-date with professional development opportunities, join a group in order to ensure access for future reference, or because it was easy for them to join by clicking a button). Through accessing Facebook groups, blogs, forums, etc., participants thought that they were benefitting, in terms of exploring specialisation routes and getting a sense of the “wisdom of the practice” (Shulman, 1987, p. 11). This finding suggests that, rather than assuming that active participation in the form of commenting, posting and engaging in (visible) interactions is inherently better, it might be a good idea for future researchers to explore the nuances of non-active participation. In this study, participants explained that, for the time being, they did not feel that they had something to contribute to the online discussions made by practitioners or that they were not interested to do so. As

White et al. (2012) add, the Digital Visitor-Digital Resident concepts are on a continuum, and users may engage in one way or another as they see fit, depending on the circumstances. It is possible that participants may start to comment on professional posts when they begin their teaching career. This was further validated when they talked about possible future uses. While some expected to remain Visitors, others felt that they might actively participate, while others were certain that they would participate in groups of teachers in the future (5.2.3.1).

Overall, evidence from the data suggests that non-active participation helped participants access other people's – including more experienced practitioners' – human capital. This finding challenges assumptions that consider non-active participation to be less important than, or at best the preparatory stage before, active participation in the form of posting and contributing to online discussions. This is particularly important in today's world that is saturated with social media. Taking into account that people participate in different tools – and different features within those tools, such as the several groups/pages that users can join on Facebook – it is becoming evident that expecting users to be able to, or willing to participate in all their social media and the groups to which they are members may be unrealistic. This echoes White and Le Cornu's (2017) statement that there is no such thing as a purely Resident mode.

Finally, evidence from the data suggests that non-active participation was more nuanced than has been described in the literature, as there were activities which did not involve posting comments but could be described as participatory. This includes joining groups, 'liking' pages and saving sites for future reference. It could also include building latent ties with future colleagues and other people related to education, which, if activated, could become professional networks. Although they may seem non-active practices, they were perceived as beneficial for pre-service teachers, both academically and professionally.

At the same time, the distinction between participation and non-active participation could also be considered as blurred, for example in instances where they joined Facebook student groups in order to both participate in the discussions and access content depending on their needs and preferences. This finding challenges assumptions

that participation and non-participation are two binary opposites and can be easily distinguished from each other.

Therefore, the findings add to the existing literature by suggesting that participation and non-active participation should better be seen as a continuum, rather than “either-or” categories, with the former being more advantageous and beneficial than the latter. User participation in a tool or a group changes over time and may increase or decrease, begin, stop or not begin, depending on different factors. An illustrative example from the data is that of Aphroditi (see Section 5.3.3) who actively participated in a forum as a student, stopped for a while, reactivated her profile and planned to restart as a university student. Similarly, other participants described how, despite the fact that they did not use social media to contribute to professional discussions, they planned to engage in discussions with colleagues and parents as future teachers.

6.6 Understanding transitions in pre-service teachers’ identities

The final contribution to the literature revolves around the issue of identities. As mentioned in the Literature review (Section 2.5), identity was not a topic that I planned to explore when initially designing the study. However, evidence from this study suggests that, through the voluntary use of social media, participants engaged in student identity development, as well as preparation for their transition into their future professional identity.

6.6.1 Student identity as actual identity

As all the participants were still at university, it can be assumed that their student identity represented their actual identity (Sfard and Prusak, 2005). Evidence from the study suggests that participants’ student identity was primarily reflected in the ‘course-related purposes’ theme, where participants helped each other deal with several challenges that were common to all students, not only through practical help, but also through socialisation with peers and challenging of the authority of the teachers and the institution, as well as through joyful interactions where they projected an image of the “academically incompetent and/or disengaged” (Selwyn, 2009a, p. 157). The solidarity that was expressed through information exchange and suggestions for teachers and courses that took place, suggests that they trusted each other. Their accounts indicate

that they felt safe with their peers, they identified with them, and felt part of a wider student group with common problems and challenges, about which they would not normally talk to teachers. In some accounts, it was obvious that they felt ‘us, the students’ against ‘them, the teachers’ and considered challenging and gossiping about teachers was normal and the expected thing to do when they are not heard by teachers.

These data align with Selwyn’s (2009) finding that “*Facebook* would certainly appear to be an important arena within which the ‘behind the scenes work’ of being a student is being performed away from the gaze of the formal university setting” (p. 171, italics in original).

Overall, participants in this study used social media to ‘survive’ their temporary “studenthood” (Field and Morgan-Klein, 2010, p. 127). After the completion of their studies, students are expected to have a new identity (Field and Morgan-Klein, 2010). In the context of this study, pre-service teachers after graduation will cease to be university students (unless they pursue their studies further). Considering that teacher identity has been described as ongoing, non-linear and beginning prior to the teachers’ entering their own classrooms, during their teacher education studies (Balatti et al., 2010; Grow, 2011), there have been several calls in the literature that stress that teacher education departments should prepare students academically to become professional teachers, and therefore develop their teacher identity (Alsup, 2006). However, it has also been stressed (Fox and Wilson, 2015) that, apart from the ITE-provided support, it is important for pre-service teachers to be active in engaging in activities that facilitate the development of teacher identity:

BTs should not be passive in expecting ITE providers to provide sources of support but should look to a wide range of others to inform their development as a teacher (p. 105).

Data from this study suggest that participants exercised agency in their identity development by starting to prepare for their transition into their future profession, and therefore their designated identity (Sfard and Prusak, 2005), on their own initiative.

6.6.2 Preparing for transitions into designated identity (ies)

This thesis has presented empirical evidence of how pre-service teachers used social media in ways that they considered to be important for longer term identity development towards possible future or ‘designated’ identities (Sfard and Prusak, 2005). This finding suggests the potential of social media for facilitating future transitions into the participants’ profession.

This echoes findings of studies which show that social media can facilitate transitions of first-year undergraduates into college even before they enter college, by providing them with important informational and emotional support (Baker and Stirling, 2016; Bosch, 2009; Madge et al., 2009; Stutzman, 2011). These studies showed that students used Facebook to make connections with other students and exchange important information about the university prior to the beginning of their studies. However, an important difference between these studies and my own is that this study does not focus on particular tools. The studies that are mentioned explored the role of Facebook in the transitional period. This study showed that pre-service teachers used a range of social media for this purpose. Additionally, this study focuses specifically, on pre-service teachers’ preparation for transition from their student identity to their teacher identity.

The study showed that they used social media to seek information that they thought would be useful for them as future teachers. In particular, they strategically joined/liked communities of practitioners on Facebook, watched YouTube videos and visited Pinterest, not only to access information, such as seminars, employment opportunities and legislation, but also in order to access ready-made authentic material and examples of good practice. In other words, it seemed that they sought to access practitioners’ practical, intuitive knowledge (Cochran-Smith and Lytte, 1999; Wilson and Demetriou, 2007), or what Shulman (1987) describes as “wisdom of practice”. Although such tacit knowledge is acquired through personal experiences “through participation in social activities” (Wilson and Demetriou, 2007, p. 215), participants considered the ability to access artefacts and examples of the practical application of teaching methodologies to be important for them as pre-service teachers and future professionals, as these could not be accessed through university books. Additionally, they started exploring other areas of interest, again by accessing practitioners’ human capital.

Participants' narratives as to why they decided to use social media for such purposes revealed their perceptions of the ideal teacher; being up-to-date with recent developments and professional development opportunities, being able to use the internet for activities that would help the students understand the subject matter better, seeking the expertise of experienced colleagues, and finding resources that help them be as self-prepared as possible were among the reasons that were provided. Therefore, it could be argued that such decisions to search for profession-related opportunities suggest that participants were entering a new trajectory, which, as Wenger (1998) stresses, "connects the past, the present and the future" (p. 154). Social media were used to facilitate this trajectory that participants were entering. Participants felt that social media provided them with opportunities for proactive professional development and helped them become introduced into "an awareness of the values, responsibilities but also the personal resources that are essential in the future professional environment" (Jensen and Jetten, 2015, p. 2).

6.6.3 Personal vs Professional: Tensions and negotiations

For some participants such perceptions of an ideal designated teacher identity prompted a negotiation of tensions between their personal (actual) and professional (designated) selves, engaging in what Alsup (2006) describes as "borderland discourses". As mentioned in the Findings chapter (Section 5.2.3.2), tensions between personal dislike towards social networking in general, or particular social networks, and their perceived usefulness in the future, prompted participants to 'give in' and prioritise the professional benefits. For some participants, that involved setting up Facebook profiles or continuing being Facebook members (despite feeling disillusioned, tired of, or even worried about the lack of privacy/the possibility of addiction to the tool). For participants who had never used social media for anything other than entertainment and communication with friends, it involved starting to search for professional communities and resources (Isabella, Vignette 2, 5.3.2). Further negotiations between personal-professional tensions were revealed when participants reported disagreeing with the quality of the material (or the content of discussions) that some of their future colleagues posted online. However, they felt that their opinions should not be uttered openly, either because they did not want to create a friction with the online community, or because they felt that being students it was not their place to express their criticism. At the same

time, they did not leave those groups, hoping that they might prove to be useful when they transition to teaching. Additionally, they explained how they would do things differently if they were teachers. The most obvious example of such negotiations, however, was reflected in the *future repository* coding category. As participants described, although they did not feel that they needed to start engaging in profession-related learning for the time being, they started joining Facebook professional groups and liking pages (without engaging in reading the posts that were uploaded there) and saving resources to their computers for future reference, in the hopes that these would be useful when they enter their classes and when the need arose. In other words, tensions between current and future perceived usefulness for profession-related uses of social media led participants to take steps that might benefit their future selves.

I became a member because I think that they will post some articles that I will be interested in And I feel they will post things that I will be interested in for later. (Kelly, EY).

These types of narrative suggest an awareness of the duty of the teacher to stay up-to-date with pedagogical articles, and a compromise of their current preferences. As Alsup (2006) states, through these negotiations of personal and professional selves, the development of teacher identity can be facilitated:

It is at these discursive borderlands that pre-service teachers discovered how to move from being students to being teachers and honor personal beliefs and passions while meeting professional responsibilities and embodying a teacher identity ... (2004, p. 36)

As mentioned above, participants engaged in those activities as Visitors, as they did not report active networking with future colleagues. However, the act of joining communities of practitioners that took place online laid the foundation for potential future networking, by enabling them to build latent ties with other members which might later be activated and transformed into weak ties. Social capital building with other people and communities can help pre-service teachers begin to “‘think’ and ‘feel’ like a teacher” (Fox and Wilson, 2015, p. 94). While Fox and Wilson (2015) focus on bonding and bridging social capital among individuals for this purpose, my study shows evidence that the cognitive and informational support that they believe they need,

both for the time being and in the future, could be accessed without engaging in networking.

Whether or not their ‘peripheral’ membership in those sets will transform into active participation by posting material and engaging in online conversations or activation of latent ties, and the factors that may influence such a transformation, are beyond the scope of the current study, and would require longitudinal studies. However, it can be assumed that it is possible that their mode of engagement might be different once they start their teaching careers.

Overall, the findings invite us to rethink professional purposes in the pre-service teacher education context, as they provide evidence of prospective teachers’ agency in engaging in –or preparing to engage in – professional purposes prior to their transition into their classrooms as professional teachers and without being directly prompted by their tutors. The fact that pre-service teachers use social media for profession-related purposes on their own volition, while still at university, is a finding that invites us to rethink the calls for integration of social media into Teacher Education institutions in an effort to guide future teachers to use social media as learning and networking spaces safely and appropriately (Baker-Doyle, 2011; Kumar and Leeman, 2013; Mikulec, 2012; Pilgrim and Bledshoe, 2011). For example, many writers argue for the importance of teacher education institutions to provide pre-service teachers with opportunities to become introduced into professional communities (Carpenter, 2015; Pilgrim and Bledshoe, 2011) and to network (Baker-Doyle, 2011; Carpenter, 2015; Kumar and Leeman, 2013; Ritchie, 2012). While such initiatives can be beneficial for future teachers, we should not assume that pre-service teachers do not engage in self-directed professional purposes on their own, while they are still at university. The finding that students take the initiative to use an array of new technologies for their own professional purposes is promising.

Further qualitative research is needed to extend our understanding of professional purposes. I argue that particular attention should be given to Facebook professional groups and pages, as joining/liking a group/page can provide users with the opportunity to receive updates on their Facebook wall, without visiting individual sites. This is a practical way of being up-to-date with a group’s posts. Although becoming a member of

those groups/pages and receiving notifications about new posts does not necessarily mean that users actually read the content that is posted, further research into the factors that influence how pre-service teachers choose which groups/pages to join/like would be valuable. Additionally, longitudinal studies that explore whether teachers return to the groups/pages that they discovered and joined/liked while they were still at university (and if so, what are their perceived benefits, if any), would also add to our understanding of the potential these spaces have for professional learning.

Overall, the importance of social media lies in its enabling of pre-service teachers to access practitioners' products of knowledge and skills (human capital). As Shulman (1987) notes, as teaching is a solitary activity, teachers' knowledge and experience is often 'invisible' to other colleagues:

One of the frustrations of teaching as an occupation and profession is its extensive individual and collective amnesia, the consistency with which the best creations of its practitioners are lost to both contemporary and future peers (p. 11)

Shulman made the above statement in a pre-social media era. Since then, social media has afforded practitioners with the opportunities to engage in knowledge exchange with each other, through networking and participating in virtual communities of practice. In this study, although participants did not engage in active networking with future colleagues, they used social media to access information that they considered could be important for a smooth transition into their future in the profession.

6.7 Putting it all together: How (and why) do pre-service teachers in Greece use social media for academic purposes?

The framework that was presented at the beginning of the chapter (Figure 15) illustrates the links among the themes that derived from the data. This framework answers the second research question: How do pre-service teachers in Greece use social media for academic purposes?

The data suggest that participants used social media in two ways: firstly, in order to navigate their studies and develop their student identity, which could be conceptualised as their *actual identity*. This was reflected in the participants' practices that involved using social media to fulfil their current needs for course-related purposes, such as

progressing with their studies or expressing their emotions about their university experiences. Secondly, in order to prepare for their transitions from their temporary identity into their designated teacher identity. This was reflected in participants' practices that were more forward-looking and involved using social media to fulfil their perceived future needs for profession-related purposes. Overlaps between the two purposes, as well as personal purposes, were identified throughout the study.

Their current and future needs prompted them to seek different types of support, which –although they could not be easily distinguished from each other – could be conceptualised as informational, emotional and cognitive support. This support was derived from different assemblages that people engaged in. One of those assemblages was reflected in instances where participants engaged in social capital building with other people in networks. The other assemblage was reflected in instances where participants engaged in sets. Participants achieved this, either through visiting or engaging in active participation in their Facebook student groups, or through visiting other loose assemblages of people, where non-active participation was more common. These assemblages were also fluid, as participants' participation in sets also gave them the opportunity to build latent ties with other co-members.

6.8 Summary of findings and contributions to knowledge

This thesis' contributions to knowledge can be summarised as follows:

- The significance of recognising multiple and blurred boundaries when conceptualising the use of social media by pre-service teachers. Data from this thesis revealed a more complex picture of social media and social media use than has been previously highlighted in the literature.
- The reconceptualisation of academic purposes for social media use by pre-service teachers. This finding expands the notion of academic purposes to include professional purposes pursued by participants on their own initiative, which has not been adequately stressed in the literature (Kontopoulou, 2016). It is through those professional uses that pre-service teachers try to expand on their own specialisations, as well as others that fit their personal interests. The thesis

also highlighted participants' proactive behaviours of setting up social media accounts, joining groups and saving resources for future reference. These findings challenge assumptions that pre-service teachers need guidance in order to start recognising the importance of professional development and networking and developing their teacher identity. This assumption implies a linearity of practices (teachers start engaging in professional development when they start teaching) and identity development. Data from the thesis suggest that pre-service teachers start using social media for professional purposes on their own initiative before they enter their own classrooms, preparing for their future transitions, seeking to access "intuitive knowledge" (Cochran-Smith and Lytte, 1999; Wilson and Demetriou, 2007) from more experienced practitioners and contemplating what makes a good teacher. The study provides empirical evidence of how pre-service teachers use social media for help and guidance with principles of good practice and other professional development opportunities.

- The reconceptualization of different assemblages and social capital building through pre-service teachers' use of social media, which goes beyond CoPs and specific tools. By exploring participants' wide repertoire of tools, the thesis presents empirical evidence of different assemblages, including the under-researched form of *sets* (Dron and Anderson, 2014). The study also highlights that such social assemblages should not be seen as static, as users' engagement with them can change based on his or her current and perceived needs.
- The significance of recognising that distinguishing between strong and weak ties, or bonding and bridging social capital can be challenging on social media (Utz, 2016). At the same time, the study stresses the importance of acknowledging building latent ties, which has not been adequately highlighted in the literature. These findings add to our understanding of social capital building (and the benefits that are typically associated with them) on social media.
- The foregrounding of the significance of non-active participation. The study found that students accessed collective human capital by visiting tools, such as Wikipedia, YouTube and Pinterest, and sought to access practitioners' products of human capital. The study challenges assumptions that non-active participation means inactivity on the part of the user. In this way, it challenges the calls from

the literature that higher education should help students “de-lurk” (Sun, Rau and Ma, 2014, p. 110), or engage with social media in a participatory way.

- The significance of, and the conceptualisation of transitions into designated teacher identity through pre-service teachers’ engagement with social media. The thesis presented evidence of how pre-service teachers use social media to help them navigate their university experience and engage in student identity development. This is more closely associated with their current and transitional identity development. At the same time, they started preparing for their transition into their designated identities (Sfard and Prusak, 2005) and engaging in negotiation of their current and perceived future needs. Their social media practices revealed their current underlying perceptions of what they felt it means to be a good teacher, their values and how they imagined themselves as teachers, which was in response to their life experiences and personal interests. The significance of this finding lies in its bringing to the fore, not only the multiple identities on the part of pre-service teachers (student identity, emerging teacher identity), but also their agency in preparing themselves for their identity trajectories – their future transition into teaching and the specialisation they are currently studying or other ones that they are interested in.
- Finally, the findings of the thesis were obtained from the under-researched context of teacher education in Greece.

6.9 Chapter Summary

This chapter discussed the findings that emerged from the data in relation to the key concepts that were presented in the Literature review (Chapter 2). It also presented an emergent framework that illustrated how the interconnections among the concepts helped me answer the overarching research question that guided the study. The following chapter outlines the limitations of the study and discusses recommendations for ITE institutions and future research.

Chapter 7: Conclusion

This concluding chapter presents the limitations of the study that should be considered in relation to the findings. It then discusses the implications of the findings for teacher educators and teacher education institutions. Finally, it makes recommendations for future research.

7.1 Limitations

The limitations of the thesis concern sampling, research design, my prior assumptions, and self-reported data.

7.1.1 Purposive sampling

In this thesis, I recruited participants who were pre-service teachers, from different University Departments around Greece. The Teacher Education courses from which I recruited involved four-year undergraduate courses that consist of both university-based courses and teaching practice at schools. It is possible that, if I had recruited participants from teacher education courses that involved a different format, such as the postgraduate university-led or school-led programmes in the UK where pre-service teachers' education is shorter in length and the emphasis is on teaching practice in schools, this would have led to different results. However, one of the strengths of this thesis lies in the fact that it focused on the Greek context, which has been under-researched until now. Additionally, the fact that the findings were from participants who studied three different specialisations allows me to have more confidence in the applicability of the findings to other pre-service teacher cohorts.

Another limitation with regards to the sampling procedure is that I recruited participants who were in their third year onwards. While recruiting third and fourth-year pre-service teachers allowed me to explore the experiences of participants who had more opportunities to use social media throughout the duration of their studies, it is possible that participants in earlier years might use social media differently, particularly in relation to professional purposes. It is possible that the use of social media for professional purposes by the participants in the thesis may be because of the fact that

they were approaching the completion of their studies. Further research with earlier cohorts could suggest whether the findings of this study could be more broadly generalised into other Teacher Education courses.

Finally, it is important to note that the participants in this study were predominantly female (32 female participants, 4 male participants). This overwhelmingly female population is indicative of the gender of teachers in Pre-primary and Primary Schools in Greece (Hellenic Statistical Authority, 2014; 2016; UNESCO, 2015). Future work could explore whether these findings could be generalised into the under-represented male population.

7.1.2 Research design

In this study I employed four different data collection methods. Although I had stressed to potential participants that they were welcome to participate in as many stages of the study as they wished, it is possible that some might have felt discouraged to participate in what could appear to be a lengthy study. This could have resulted in attracting the participants who were mostly interested in the topic of social media. However, the thesis aimed to present the voices of participants whose engagement with social media ranged from active to non-active participation, which was facilitated through the use of vignettes. Further research with more participants could suggest whether the findings could be generalised to other populations.

Another limitation of the study involved the limited use of the data collected by the questionnaire, diary and follow-up interviews. As this study aimed at gaining an in-depth insight into participants' practices, the quantitative data collected by the survey were not particularly helpful in understanding the nuances of such practices, and therefore, were not included in the thesis. Similarly, the quantitative data collected by the diaries did not provide in-depth insight into participants' practices. Therefore, the limitations of the diaries resembled those of the questionnaires (Section 4.5.7). However, the usefulness of these methods was that they helped me inform the interview questions (in the case of the survey), and they provided important information that helped me create the vignettes (in the case of the diary and the follow-up interviews).

7.1.3 Prior assumptions

A further limitation of the study involved the fact that I started the study with the assumption that personal purposes could be explored separately from academic purposes. Consequently, the interview questions, as well as the structured nature of the diaries, were designed on the basis of that specific assumption. However, the semi-structured interviews allowed me to identify and stress the significance of overlapping boundaries between purposes. Further qualitative studies could build on these findings and shed more light into the fluidity of social media use. Future studies could employ in-depth interviews, where participants would be asked to describe their social media use and the purposes they used them for without a list of pre-determined categories; this would allow for a richer data set based on their own understanding of social media use.

7.1.4 Self-reported data

Another limitation of the study is that the findings emerged from self-reported data. It is possible that if I had used computer logs to record participants' online activities, or if I had accessed their online groups and analysed their contributions, I might have different findings. However, in line with my epistemological stance, self-reported data should be seen as a strength rather than a weakness, as it allowed participants to describe their experiences and their practices for themselves. Additionally, had I employed logs I would have run the risk of not being able to identify the overlapping boundaries as far as different aspects of their participation was concerned, which was a major contribution of this study.

7.1.5 Use of maps

Finally, a limitation lies in the way that I used the Visitor-Resident map. In this study I drew participants' maps based on the data that they provided me with. It is possible that participants would draw their maps differently. However, in this study the maps were used as a tool that could help me illustrate my interpretation of participants' use of social media, rather than a representation of their general practices.

7.2 Recommendations for initial teacher education

As mentioned in the Introduction chapter (Chapter 1), research on the informal ways in which university students use social media is important for Higher Education institutions (Gray, Annabell and Kennedy, 2010; Kumar et al, 2012; Kumar and Vigil, 2011; Greenhow et al., 2009). This section links the findings to recommendations for ITE.

7.2.1 Consider the implications of pre-service teachers' informal uses of social media

This thesis provides empirical evidence of the rich ways in which pre-service teachers use social media on their own initiative to meet their current and (perceived) future needs. This finding is important to teacher education institutions, as it provides insight into how future teachers choose to complement their studies, and contributes to the dialogue of the ways in which teacher education practice could be improved. Based on this finding, I propose the following recommendations for practice:

7.2.1.1 Help pre-service teachers become aware of their practices

Teacher educators could help pre-service teachers become aware of their current social media practices. Teachers could use the Resident-Visitor maps with their students as a tool that would help them reflect on the social media tools that they use, the different purposes they use them for and the different modes of engagement that they adopt. Further discussions that would allow them to identify other possibilities for social media use, in terms of participation and engagement with different social assemblages, could further help.

7.2.1.2 Provide teacher educator training

For teacher educators to be able to help pre-service teachers see all the possibilities that they have at their disposal on the web, it is important that they undergo training that goes beyond current professional development courses that they might engage in. Teacher Education institutions should offer teacher educators this support through the provision of training sessions.

7.2.1.3 Encourage pre-service teachers to recognise that they have human capital

According to the data, participants used social media for professional purposes in what can be termed a Visitor mode. While the importance of non-active participation has been stressed in this study, teacher educators should help pre-service teachers to become aware of the fact that they also have human capital (Fox and Wilson, 2015), which they could use to help others, including in-service teachers (Kumar and Leeman, 2013). It is important to note, however, that making it this an obligatory task – for example, by asking them to contribute to professional threads online – could potentially make students view this task as a burden in their already long list of mandatory tasks.

7.2.2 Consider the implications of agency in preparing for transitions

According to the data, participants started contemplating their designated teacher identity while still at university, and used social media on their own initiative to prepare for their identity trajectory and engage in borderland discourses. Based on this finding, I propose the following recommendation for practice:

7.2.2.1 Bring identity discussions to the fore

Teacher educators should take the opportunity to bring the issue of professional identity to the fore, as well as the agency that pre-service teachers have in their identity building. For example, this could be done by inviting pre-service teachers to consider how possible tensions between “personal subjectivities” and the “professional/cultural expectation of what it means to be a ‘teacher’” (Alsup, 2006, p. 27) are or can be negotiated. The importance of such open discussions is also recommended by Alsup (2006), whose findings suggest that the intersection of the personal and the professional self facilitates the development of teacher identity. While Alsup did not explore the role of social media in offering further opportunities for such intersections – or tensions – to occur (Fox and Bird 2017b), my study stressed this potential.

7.2.3 Consider the implications of student-initiated groups

Although the aim of this study was not to focus on particular tools, it became evident that Facebook deserves particular attention by teacher educators and teacher education institutions, as the findings confirm the overwhelming popularity of Facebook with

university students (Bigelow and Kaminski, 2016; Jeon, 2016; Vivian, 2012). Particular attention should be given by teacher educators to Facebook student-initiated groups (or similar groups that pre-service teachers might set up in the future in different tools). Student groups were found to be spaces for peer solidarity, where a mixture of purposes took place. As shown in the study, no matter how ‘superficial’ the information they might be getting from those groups or the joyful nature of the posts, such posts had an immediate effect on their studies and helped them strengthen their sense of belonging. Even in cases where participants complained about those groups, they did not express a wish to leave those groups, and some participants explained that they kept or reactivated their account only in order to enjoy the advantages of this membership. Their participation was transient and it was up to the individual pre-service teacher to decide if and how they would help a fellow peer, thereby, exercising agency.

Based on this finding, I propose the following recommendation for practice:

7.2.3.1 Re-think online teacher presence

It is possible that, if university teachers decided to join such groups, these types of peer-to-peer help would stop, either because the teacher might feel offended at the comments about themselves, or at the nature of the posts (largely logistical and not strictly academic), or because pre-service teachers might not want to lose face if they posted their queries openly. Therefore, since participants stressed the importance of those groups for their progress, the question of whether teacher intervention would actually do them a disservice needs to be carefully considered. Instead, teacher educators and institutions could contemplate the possibility of setting up their own groups for their courses. At the same time, they should recognise and value the emergence of solely student run groups and allow students to continue using their own groups ‘uninterrupted’ (Ahern, Feller and Nagle, 2016; Selwyn, 2009a).

7.2.4 Consider the implications of the ‘empowered’ student

Another important implication of the findings is that teachers and teacher education institutions should be prepared about how to respond to possible incidents of students posting something that could be considered inappropriate. While it can be assumed that discussing and complaining about teachers has always been common among university

students, the fact that it is now taking place online and in written form can hold several implications (Rowe, 2014). While evidence from this thesis suggests that complaining about teachers took place in closed Facebook student groups, where the chance of it being seen by the teacher is limited (although not impossible), students might do the same on public Facebook posts or on Twitter and other sites (Rowe, 2014). Additionally, sites where students publicly evaluate their university tutors, such as Ratemyprofessor.doc have become popular (Ackerman and Chung, 2017; Otto, Sanford and Ross, 2008). As students become more empowered through social media by being able to express their voices online, such issues are becoming more relevant. I propose the following recommendations for practice:

7.2.4.1 Prepare teacher educators to deal with possible negative incidents online

On YouTube, there are several videos where school and university teachers read comments about themselves posted by students on social media – such as *Harvard Professors Read Mean Comments* (OnHarvardTime, 2014), *Reading from Rate my Professors* (Lehigh University, 2014) or *Teachers Read Mean Tweets* (Winthrop High School, Media Department, 2017). While those videos seem to focus on the amusing aspect of such posts, it is possible that some teacher educators might find posts about themselves insulting and damaging to their reputation. ITE institutions could issue guidelines for teacher educators about how to deal with such incidents without sparking confrontations. Such guidelines could also include information about how teachers could access psychological support and counselling, if needed.

7.2.4.2 Discuss the importance of appropriate online behaviour

It is important that teacher educators openly discuss the importance of appropriate online behaviour with pre-service teachers and alert them to the possibility of comments being shared and exposed on more public outlets. In fact, there have been instances of teachers being fired for what was considered inappropriate, insulting or reckless online behaviour, as well as instances of pre-service teachers punished for the same reasons (Kimmons and Valetsianos, 2015; Mikulec, 2012).

Such events make significant the role of Teacher Education Institutions in guiding prospective teachers into appropriate online behaviour. Guidelines for appropriate social media behaviour, such as the ones published by educational bodies for in-service teachers (Fox and Bird, 2017b; Mikulec, 2012) might be helpful.

7.3 Implications for future research

7.3.1 Redefinition of social media and formal-informal purposes

The findings suggest that researchers should problematise what social media means in a networked society. This thesis presents evidence that participants used tools, such as Wikipedia, YouTube and emails, which may not be considered social media by some researchers (Dron and Anderson, 2014).

As social media evolve, new tools and inter-relations of tools could emerge that add to the current definitions. Dron and Anderson (2014) propose a broad definition of social media that allows for the inclusion of tools “that are only obliquely ‘social’” (p. 9).

While broader definitions of social media may be helpful, I argue that allowing participants to “decide what social media are and what they are not” will help us gain a more nuanced understanding of participants’ overall social media practices (Kalogiannakis, 2013, p. 2226).

Similar risks of not presenting participants’ experiences may be encountered when researchers attempt to distinguish formal and informal uses of social media, or use definitions of formal-informal and personal-academic purposes that exist in the literature (Towner and Muñoz, 2011; Madge et al., 2009), which do not take into account the overlapping boundaries among them.

Further research focusing on participants’ use of social media should be conducted in a way that goes beyond fixed definitions, prescribed affordances, and specific purposes. Qualitative studies employing in-depth interviews would help us expand our understanding of the ever-evolving concept of social media and what users actually do and hope to do when they decide to use them. Additionally, while focusing on evaluating and investigating specific social media tool use may bring important insights about the potential of that specific tool (Fox and Bird, 2017a), more holistic studies that

explore participants' general landscape of social media tools could bring findings that can be generalised more broadly. Such in-depth studies have been under-represented in the pre-service teacher education literature.

7.3.2 Selection of methodologies that would allow for learners' voices to be heard

The findings presented in this thesis were a result of a qualitative study which employed interviews as the main methodological tool. Future longitudinal research employing in-depth interviews over a longer period of time than the one covered in this study could build on these findings and start exploring other issues that were problematised, such as the possibility of the "learning black Market" phenomenon (White et al., 2012, p. 14) in tools other than Wikipedia.

Apart from interviews, diaries could also be used in future research. It is important to note that evidence from the study suggests that, if diaries are employed as the only research method, the nuances of social media use might not be easily explored. Taking into consideration that social media have become an integral part of our lives (Pew Research Center, 2018; Ofcom, 2016), inviting participants to report their online practices in written form might be challenging, or even impractical for them. It is of note that two of the participants, whose use of social media reflected Resident characteristics, decided not to participate in the diary method (5.3.3 and 5.3.4). It is possible that those two participants felt that reporting all their social media uses in a diary would require considerable effort and thus their participation would "make undue demands on their time" (Stutchbury and Fox, 2009, p. 500). Other researchers have noted limited participant participation in their diary phase (Connaway et al., 2017; White et al., 2012), perhaps due to participants' unwillingness to commit to what could be seen as a demanding activity. However, the benefit of using participants' diaries lies in their being able to help the researcher create vignettes that could be used to illustrate the findings, in a similar way to that used in this study. Better and richer diary methods could be developed in future studies to gain a fuller, contextualised and participant-led view of social media use in the round, in combination with in-depth interviews.

Additionally, future researchers could consider the usefulness of the Visitor-Resident conceptualisation as a framework for social media use mapping. This map could be used

in combination with diaries or as an introductory activity prior to the interview. In this study, the maps were designed by me based on participants' interviews and diary entries. Further research could consider inviting participants to draw their own maps (see Connaway et al., 2017; White and Le Cornu, 2017), as a way to further allow their voices to be heard.

7.3.3 Recommendations for new research

7.3.3.1 Explore student-initiated groups

Taking into consideration the popularity of student groups, as identified in this study, further in-depth exploration is warranted. As evidenced in the study, participants joined different student groups, ranging from smaller to bigger ones. Future research could explore the value of different groups for participants, as well as the different types of social capital building that may be facilitated in those groups. Future research should not focus on particular tools, and allow participants to describe other assemblages that they might be a member of.

A study where the researcher joins student groups in order to observe participants' practices might be difficult to design, taking into consideration the ethical implications that it could bring (Kontopoulou and Fox, 2015). For researchers who wish to use observation, one idea would be to approach groups of students that have already graduated (a clue for that could be given by the name of the group, as the date of graduation might also be included). Researchers should contact the administrator of the group and then each participant individually (and proceed with the study after every single member of the group has given their consent), while adhering to the rule of anonymity (participant, social media group title and university anonymity). Moreover, the researcher needs to consider whether the inclusion of participants' direct quotes may constitute identifiable information (AoIR, 2012). In this case, the avoidance of direct quotes might be necessary. However, it should be noted that researcher observation of such spaces may result in the participants' voices not being adequately highlighted. Observations could be complemented by in-depth interviews.

7.3.3.2 Explore transitions further

People use social media in different ways in line with their personal and evolving circumstances, for example, as they are experiencing transitions or as they are preparing for future transitions. It is important that researchers acknowledge that studies on social media use are generally limited to providing a snapshot of uses that take place at the particular time that was studied. Further longitudinal research designs that would follow pre-service teachers from their final years of study to their beginning teacher years could help us understand how their social media use may change throughout their transitions. A suggestion for future research includes the use of Visitor-Digital Resident maps in longitudinal research (White et al., 2012; Connaway et al., 2017). It can be assumed that participants' maps will be different as pre-service teachers from when they become in-service teachers, especially when taking into account participants' narratives that their social media use as school pupils was different from when they entered university. The analysis of this data could shed some light onto the role of social media prior to and during transitions.

7.3.3.3 Explore participation and non-active participation further

This study invites researchers to problematise the concept of non-active participation on social media, and employ methodologies that would further expand our understanding of it. In this study the nuances of non-active participation became evident in the interviews. Qualitative studies that could provide in-depth information about the factors that influence non-active participation would be useful. Special attention must be brought to what non-active participation means – and consequently if and how it could be measured and whether it is reported by participants. Important questions that should also be explored are: Is 'liking', sharing or retweeting a post, and other similar 'silent' ways, considered to be participation? Failing to take into account such silent ways might perpetuate the continuation of the discourse that university students use social media "passively", in a "lurking" fashion, and mostly for entertainment and fun. Additionally, longitudinal studies that would follow students from their pre-service years into the beginning teacher phase could help us understand how and why participation and non-active participation interplay throughout that period. Finally, as mentioned in Section 2.1.5, I acknowledge non-active participation might also carry

negative connotations, due to the prefix –non. Therefore, research could challenge this term and propose other, more positive phrases.

7.4 Chapter Summary: Conclusions

This thesis presented findings with regards to the overarching question that guided the study – *how do pre-service teachers in Greece use social media for academic purposes?* The main research data that helped me answer my research question was obtained through semi-structured interviews with 36 participants. The data suggest that pre-service teachers use social media to navigate their university studies and prepare for their perceived designated identities. Through social media they sought to access informational, emotional and cognitive support, not only through their existing networks but also through joining sets of people in a non-participatory manner and accessing the artefacts that others had produced, as well as building latent ties with other people.

The main contribution to knowledge of this thesis lies in its insight into participants' messy realities with social media use, which are characterised by fuzzy and overlapping boundaries. Such blurred boundaries that have been highlighted involve the boundaries between personal purposes and academic purposes, between types of social capital building, between assemblages of people on social media, and between participation and non-active participation. These findings hold implications for teacher education institutions and present fertile ground for future research to explore the nuances of social media use further.

Appendix A: List of definitions of social media

Author	Definition
1. boyd (2014)	“sites and services that emerged during the early 2000s, including social network sites, video sharing sites, blogging and microblogging platforms, and related tools that allow participants to create and share their own content.” (p.6).
2. Davis et al. (2011)	“web-based and mobile applications that allow individuals and organizations to create, engage, and share new user-generated or existing content, in digital environments through multi-way communication” (p. 1).
3. Kaplan and Haenlein (2010)	“Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content” (p.61).
4. Rutherford (2010)	"Web 2.0 resources that emphasize active participation, connectivity, collaboration, and sharing of knowledge and ideas among users" (p. 703).
5. Tess (2013)	"any number of technological systems related to collaboration and community" (p. A60)

Appendix B: Video transcripts for pilot study

(Video transcript for Twitter)

Hello PGCE students!

My name is Konstantina Kontopoulou and I am a PhD student at the University of Leicester, in the School of Education. I am researching social media and school placements. This year I am starting the pilot stage of my research. I created this video to describe the aim of my pilot study and the potential benefits for participants, as well as explain to you how it will be planned.

The title of the project will be 'Pre-service teachers' perceptions and use of social media on school placements'.

My request is to ask that PGCE students, such as yourselves, use a social media tool to interact with your peers while undertaking your placements at secondary schools. Your PGCE class will be asked to join Twitter a few days before you start your first placement experience. You will be asked to create a Twitter account. If you already have one, you are encouraged to set up a new one, for the purposes of this pilot study. This will ensure confidentiality and privacy. You will then be asked to follow each other's accounts and me and I will also follow your accounts. Then, you will be given a hashtag, which is a word preceded by the symbol # This hashtag should be included in all of your tweets.

On Twitter, you will be able to interact with each other through asking questions, uploading relevant articles, assisting each other, asking for advice, narrating interesting incidents, indeed in any way you may wish. In other words, you will learn from and with your peers.

It is hoped that Twitter will prove to be a beneficial space for support as during your placement experience you will be required to teach for the first time, deal with real problems that arise in the classroom and work independently. It will give you the opportunity to contact your peers who will be placed at different schools and to help each other throughout this demanding period.

The study will involve analysing your posts on Twitter, which are called tweets. Your tweets will be collected after the end of your first placement period. You will also be sent two online questionnaires, one before the beginning of your placement, and the second one after the end of your placement period. After that I will contact some of you to invite you to an online interview.

Your ideas and feedback will help me design my main study which will start in the next academic year with next year's PGCE students. I understand that this period will be very demanding and that you will be busy, so for that reason both the interview and the questionnaires will be online.

You are reminded that Twitter is an open social media tool, so other people may view your tweets. However, I can assure you that your tweets will be used anonymously in my pilot study. Your questionnaire and interview answers will also be used anonymously. I can also assure you that nothing will be used for assessment purposes.

If you are interested in participating in my study, please contact me at the email address that is included in the email I sent you.

Thank you very much for watching

(Video transcript for Facebook)

Hello PGCE Secondary students!

My name is Konstantina Kontopoulou. I am a PhD student at the University of Leicester in the School of Education. I am researching social media and school placements. I created this video to describe the aim of my pilot study and the potential benefits for participants, as well as explain to you how it will be planned.

The title of the project will be 'Pre-service teachers' perceptions and use of social media on school placements'.

My request is to ask that PGCE students, such as yourselves, use a social media tool to interact with your peers while undertaking your placements at secondary schools. For the purposes of this study, your PGCE class will be asked to use Facebook. First you will need to have a Facebook account. If you already have one, then you are ready to

start. If not, you will need to set up one. Then you will be sent the link to the Facebook group that I have specifically created for your PGCE class. You will be asked to join the group. You don't need to be Facebook friends with the people that participate in the group. This Facebook group will be a meeting place for your PGCE peers. You will be able to interact with each other through asking questions, uploading relevant articles, assisting each other, asking for advice, narrating interesting incidents, indeed in any way you may wish. In other words, you will learn from and with your peers.

It is hoped that the Facebook group will prove to be a beneficial space for support as during your placement experience you will be required to teach for the first time, deal with real problems that arise in the classroom and work independently. It will give you the opportunity to contact your peers who will be placed at different schools and to help each other throughout this demanding period.

The study will involve analysing your Facebook posts in this group. Those posts will be collected after the end of your first placement. You will also be sent two online questionnaires, one before the beginning of your placement, and the other one after the end of your placement period. After that I will contact some of you to invite you to an online interview after the end of your placement. Your ideas and feedback will help me design my main study which will start in the next academic year with next year's PGCE students. I understand that this period will be very demanding and that you will be busy, so for that reason both the interview and the questionnaires will be online.

Your Facebook posts in this group will only be viewed by me, as I will be the administrator of the group. I can assure you that nothing will be used for assessment purposes. Also, the Facebook group will be closed, which means that the posts will only be visible to the people that participate in the group. Your posts, interview and questionnaire answers will also be used anonymously.

If you are interested in participating in this pilot study, please contact me at the email address that is included in the email I sent you.

Thank you very much for watching!

Appendix C: Pre-interview questionnaire consent form and questionnaire

(Translated from Greek)

The * symbol indicates a required answer

Skip logic was applied to the following questions: 1 (consent form), 18, 21, 25, 27 and 29.

Informal use of social media by pre-service teachers for personal and academic purposes

Description of the study

Thank you for expressing interest in participating in the first stage of the Doctoral study entitled “Informal use of social media by pre-service teachers for personal and academic purposes”. The study is conducted by Konstantina Kontopoulou, student of the Doctoral programme of University of Leicester, School of Education.

The aim of the study is to report if and in what way pre-service teachers choose to use social media informally and on their own initiative for personal purposes, as well as for purposes related to their studies and their future profession.

Description of the study

Stage 1: The first stage of the study consists of a questionnaire and an interview. The aim of the first stage is to explore the informal use of social media by pre-service teachers for personal and academic purposes, as well as for purposes related to their future profession.

After the interview, I may contact you in order to invite you to participate in the following stages of the study, if you wish.

Stage 2: You will be given a 7-day diary. You will be asked to fill in a list of social media that you used, as well as note the purpose for which you used them, the time which you spent, and if it met the specific purpose.

Stage 3: You will be asked to participate in a second interview in order to discuss the answers that you gave in the diary.

The participation in the study is voluntary and you have the right to discontinue your participation whenever you wish and for any reason.

Your answers will not be revealed to anyone. They will be used anonymously and confidentially for the puproses of the specific Doctoral study and academic publications.

Your name and other personal information will not be used. The aim of this questionnaire is to inform the specific study exclusively. Your answers will be used anonymously and personal information will be removed.

PARTICIPANTS

Students of Pedagogical Departments that have at least one profile on a social media tool.

For further information, please contact me at the email

(Deleted from the thesis)

Researcher

Konstantina Kontopoulou

Student of the Doctoral programme of the University of Leicester, School of Education

Supervisors

Professor Grainne Conole

Institute of Learning Innovation

School of Education

Tel: (deleted from the thesis)

Fax: (deleted from the thesis)

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Dr Alison Fox

School of Education

Tel: (deleted from the thesis)

Email: (deleted from the thesis)

1. CONSENT FORM

1) I have read and understood the aim of the study

2) I understand that my participation in the study is voluntary and I can discontinue my participation whenever I wish to do so

3) I understand that the answers that I will give will be used for the current doctoral study and academic articles

4) I understand that my answers will be kept confidentially

5) I understand that my answers will be used anonymously

6) I understand that I can ask for the results of the study to be sent to me

* Do you agree to participate in the study, by filling in the questionnaire? If so, please click

YES

- ☐ Yes
- ☐ No

DEFINITIONS

Social media: Web tools and applications that allow for communication and collaboration among users, as well as the creation and sharing of material.

Examples of such tools are: YouTube, Wikipedia, Facebook, Twitter etc

Educational groups: Groups on the web, which promote discussions related to educational issues. These educational groups consist of classmates, teachers and other people that are related to education.

* 2. Gender

- ☐ Male
- ☐ Female

* 3. Age

- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45 ή άνω των 45

* 4. In which department and which university are you a student?

* 5. Which year of your studies are you currently in?

- ☐ 1st year
- ☐ 2nd year
- ☐ 3rd year
- ☐ 4th year
- ☐ 5th year onwards

* 6. Have you got Internet connection at home?

- ☐ Yes
- ☐ No

7. Which of the following devices do you use to connect to the Internet? (You can fill in more than one answers)

- ☐ Desktop computer
- ☐ Laptop
- ☐ Tablet/iPad
- ☐ Smartphone/iPhone
- ☐ Other (please specify)

8. In which place do you connect to the Internet most often?

- ☐ Home
- ☐ University

- Internet cafe
- Relative's or friend's house

9. On a typical day, how many hours do you approximately spend on Internet?

- More than 4 hours
- 2-4 hours
- 1 hour
- Less than 1 hour
- I don't use the Internet every day

10. Of the overall time that you spend on the Internet on a typical day, how much time do you spend on activities related to your personal life (interests, communication with friends/family, entertainment, information, etc)?

- More than 4 hours
- 2-4 hours
- 1 hour
- Less than 1 hour
- I don't use the Internet for this purpose

11. Of the overall time that you spend on the Internet on a typical day, how much time do you spend on activities related to your studies or your future profession?

- ☐ More than 4 hours
- ☐ 2-4 hours
- ☐ 1 hour
- ☐ Less than 1 hour
- ☐ I don't use the Internet for this purpose

12. How often do you use the following social media

	Always on	More than once a day	Once a day	2-6 times a week	Once a week	More than once a month	Once a month	Less than once a month	Never	I do not know the specific social media tool
Facebook										
Twitter										
Youtube										
Skype										
Personal blog										
Other blogs (if you use blogs, specify which one/ones on										

the box below										
Instagram										
Pinterest										
RSS feds										
Wikipedia										
Google+										
Linkedin										
Diigo										
Slideshare										
Flickr										
Forum (if you use forums, specify which one/ones on the box below)										
Second Life										
Other (if you use other, specify which one on the box below)										
13. If you use blogs, write which blog/blogs you use										

14. If you use forums, write which forum. forums you use

15. If you use “Other”, write which one/ones you use

16. Which social media do you use the most for personal purposes (interests, entertainment, communication with friends or family, information, etc)?

Write a) which one/ones do you use, and b) the purpose for which you use it/them for

17. Do you use social media for

	On a daily basis	On a weekly basis	On a monthly basis	Less than on a monthly basis	Never
Communication with peers for issues related to studies					
Communication with teachers for issues related to studies					

Participation in teams/groups related to education					
Access to educational material related to your studies (books, articles, videos, podcasts, etc)					
Access to information related generally to the field of education					
Access to information related to conferences, speeches, seminars, etc					
Access to department announcements, lesson announcements, etc					
Access to information related to finding a job					

18. Throughout your studies, do you use social media to communicate with your peers?

- ☐ Yes
- ☐ No

19. Which social media do you use to communicate with your peers?

20. For which purpose do you use social media to communicate with your peers? (you can fill in more than one answers)

- ☐ For questions/advice/psychological support related to the studies
- ☐ For access/sharing of material related to studies

- ☐ For issues unrelated to studies

Other (please specify)

21. Does your department have a group on a social media tool?

- ☐ Yes
- ☐ No

22. In which social media tool is this group?

23. Who started this group?

- ☐ Teachers
- ☐ Students
- ☐ I do not know

Other (please specify)

24. Are you a member in this group?

- ☐ Yes

- ☐ No

25. Do you think that social media is an effective way to communicate with your peers?

- ☐ Yes
- ☐ No

Please, briefly explain your answer

26. Which social media tool/tools do you think it is appropriate for this purpose?

27. Do you use social media for communication with your teachers?

- ☐ Yes
- ☐ No

28. Please write a) which social media tool do you use for communication with your teachers and b) for what purpose do you communicate with them?

29. Are you a member in groups related to education, or do you “follow” groups related to education on social media (e.g. on Facebook, Twitter, etc)?

- ☐ Yes

- ☐ No

30. Please write on which social media tool they (these groups) are?

31. For which purpose are you a member/do you follow these groups? (More than one answers)

- ☐ To read what other members of the group write
- ☐ For advice
- ☐ For access or sharing of material

Other (please specify)

32. Do you search for videos on issues related to your studies/education on social media?

- ☐ Yes
- ☐ No

If yes, please specify which social media tool do you use for this purpose

33. Thank you very much for your participation in the questionnaire. Please write your email so that I can communicate with you for the interview. Your email will not be revealed to anyone

Greek version

Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς

Περιγραφή έρευνας

Ευχαριστώ για την εκδήλωση ενδιαφέροντος συμμετοχής στο πρώτο στάδιο της Διδακτορικής έρευνας με τίτλο "Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς". Η έρευνα εκπονείται από την Κωνσταντίνα Κοντοπούλου, φοιτήτρια του Διδακτορικού προγράμματος του Πανεπιστημίου Leicester, Τμήμα Εκπαίδευσης.

Ο σκοπός της έρευνας είναι να καταγράψει αν και με ποιό τρόπο οι μελλοντικοί εκπαιδευτικοί επιλέγουν να χρησιμοποιούν κοινωνικά δίκτυα ανεπίσημα και με δική τους πρωτοβουλία για προσωπικούς σκοπούς και για σκοπούς σχετικούς με τις σπουδές τους και το μελλοντικό επάγγελμά τους.

Περιγραφή της έρευνας

Στάδιο 1: Το πρώτο στάδιο της έρευνας αποτελείται από ένα ερωτηματολόγιο και μία συνέντευξη. Ο σκοπός του πρώτου σταδίου είναι να διερευνηθεί η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς, καθώς και για σκοπούς σχετικούς με το μελλοντικό τους επάγγελμα.

Μετά την συνέντευξη ίσως επικοινωνήσω μαζί σας για να σας προσκαλέσω, αν επιθυμείτε να συμμετέχετε στα επόμενα στάδια της έρευνας.

Στάδιο 2: Θα σας δοθεί ένα ημερολόγιο 7 ημερών. Θα σας ζητηθεί να συμπληρώσετε μία λίστα με κοινωνικά δίκτυα που χρησιμοποιείτε, καθώς και να σημειώσετε το σκοπό για τον οποίο τα χρησιμοποιήσατε, το χρόνο που αφιερώσατε και αν εξυπηρέτησε το συγκεκριμένο σκοπό.

Στάδιο 3: Θα σας ζητηθεί να συμμετέχετε σε μία δεύτερη συνέντευξη για να συζητήσετε τις απαντήσεις που δόσατε στο ημερολόγιο.

Η συμμετοχή στην έρευνα είναι εθελοντική και έχετε το δικαίωμα να διακόψετε τη συμμετοχή σας όποτε το επιθυμήσετε και για οποιοδήποτε λόγο.

Οι απαντήσεις σας δε θα αποκαλυφθούν σε κανένα. Θα χρησιμοποιηθούν ανώνυμα και εμπιστευτικά για τους σκοπούς της συγκεκριμένης διδακτορικής έρευνας και ακαδημαϊκών δημοσιεύσεων. Το όνομά σας και άλλες προσωπικές πληροφορίες δε θα χρησιμοποιηθούν.

Το ερωτηματολόγιο έχει σκοπό αποκλειστικά και μόνο την εξυπηρέτηση της συγκεκριμένης έρευνας. Οι απαντήσεις σας θα χρησιμοποιηθούν ανώνυμα και θα αφαιρεθούν προσωπικά σας στοιχεία

ΣΥΜΜΕΤΕΧΟΝΤΕΣ

Φοιτητές παιδαγωγικών τμημάτων που έχουν τουλάχιστον ένα προφίλ σε κάποιο κοινωνικό δίκτυο.

Για περαιτέρω διευκρινίσεις, παρακαλώ επικοινωνήστε μαζί μου στο email [redacted] ή στο τηλέφωνο [redacted]

Ερευνήτρια

Κωνσταντίνα Κοντοπούλου

Φοιτήτρια στο Διδακτορικό πρόγραμμα του Πανεπιστημίου Λέστερ, Τμήμα Εκπαίδευσης

Υπεύθυνοι καθηγητές

Professor Grainne Conole

Institute of Learning Innovation

School of Education

Tel: [redacted]

Fax: [redacted]

[redacted]

Dr Alison Fox

School of Education

Tel: [redacted]

Email: [redacted]

*** 1. ΕΝΤΥΠΟ ΣΥΓΚΑΤΑΘΕΣΗΣ**

- 1) Έχω διαβάσει και κατανοήσει τον σκοπό της έρευνας
- 2) Κατανοώ ότι η συμμετοχή μου στην έρευνα είναι εθελοντική και μπορώ να διακόψω τη συμμετοχή μου όποτε το επιθυμήσω
- 3) Κατανοώ ότι οι απαντήσεις που θα δώσω θα χρησιμοποιηθούν για την παρούσα διδακτορική έρευνα και ακαδημαϊκά άρθρα
- 4) Κατανοώ ότι οι απαντήσεις μου θα φυλαχθούν εμπιστευτικά
- 5) Κατανοώ ότι οι απαντήσεις μου θα χρησιμοποιηθούν ανώνυμα
- 6) Κατανοώ ότι μπορώ να ζητήσω να μου σταλούν τα αποτελέσματα της έρευνας

Συμφωνείτε να συμμετάσχετε στην έρευνα, συμπληρώνοντας το ερωτηματολόγιο; Αν συμφωνείτε, παρακαλώ πατήστε ΝΑΙ

☐ Ναι

☐ Όχι

Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς

ΟΡΙΣΜΟΙ

Κοινωνικά δίκτυα: Εργαλεία και εφαρμογές στο διαδίκτυο τα οποία επιτρέπουν την επικοινωνία και τη συνεργασία μεταξύ των χρηστών, καθώς και τη δημιουργία και διαμοιρασμό υλικού.

Παραδείγματα τέτοιων δικτύων είναι: YouTube, Wikipedia, Facebook, Twitter και άλλα

Εκπαιδευτικές ομάδες: Ομάδες στο διαδίκτυο, οι οποίες προωθούν συζητήσεις σχετικές με εκπαιδευτικά θέματα. Οι συγκεκριμένες ομάδες αποτελούνται από φοιτητές, δασκάλους, καθηγητές και άλλους ανθρώπους σχετικούς με την εκπαίδευση.

* 2. Φύλο

☐ Άνδρας

☐ Γυναίκα

* 3. Ηλικία

☐ 18-24

☐ 25-34

☐ 35-44

☐ 45 ή άνω των 45

* 4. Σε ποιο τμήμα είσαι φοιτητής/φοιτήτρια και σε ποιο πανεπιστήμιο;

* 5. Σε ποιο έτος των σπουδών σου είσαι τώρα;

☐ 1ο έτος

☐ 2ο έτος

☐ 3ο έτος

☐ 4ο έτος

☐ 5ο έτος και άνω

* 6. Έχεις πρόσβαση στο Internet στο σπίτι σου;

☐ Ναι

☐ Όχι

7. Ποιές από τις παρακάτω συσκευές χρησιμοποιείς για να συνδεθείς στο Internet; (Μπορείς να συμπληρώσεις παραπάνω από μία απαντήσεις)

- ☐ Υπολογιστή desktop
- ☐ Laptop
- ☐ Tablet/iPad
- ☐ Smartphone/iPhone

Άλλο (παρακαλώ διευκρίνισε)

8. Σε ποιό χώρο συνδέεσαι πιο συχνά στο Internet;

- ☐ Σπίτι
- ☐ Πανεπιστήμιο
- ☐ Internet cafe
- ☐ Συγγενικό ή φιλικό σπίτι

Άλλο (παρακαλώ διευκρίνισε)

9. Σε μία συνηθισμένη μέρα, πόσες ώρες αφιερώνεις στο Internet κατά προσέγγιση;

- ☐ Περισσότερες από 4 ώρες
- ☐ 2-4 ώρες
- ☐ 1 ώρα
- ☐ Λιγότερο από 1 ώρα
- ☐ Δε χρησιμοποιώ το Internet κάθε μέρα

10. Από τον συνολικό χρόνο που αφιερώνεις σε μία συνηθισμένη μέρα στο Internet, πόσο χρόνο αφιερώνεις σε δραστηριότητες σχετικές με την προσωπική σου ζωή (ενδιαφέροντα, επικοινωνία με φίλους/οικογένεια, διασκέδαση, ενημέρωση κτλ)

- ☐ Περισσότερες από 4 ώρες
- ☐ 2-4 ώρες
- ☐ 1 ώρα
- ☐ Λιγότερο από 1 ώρα
- ☐ Δε χρησιμοποιώ το Internet γι'αυτό το σκοπό

11. Από τον συνολικό χρόνο που αφιερώνεις σε μία συνηθισμένη μέρα στο Internet, πόσο χρόνο αφιερώνεις σε δραστηριότητες σχετικές με τις σπουδές ή το μελλοντικό σου επάγγελμα;

- ☐ Περισσότερο από 4 ώρες
- ☐ 2-4 ώρες
- ☐ 1 ώρα
- ☐ Λιγότερο από 1 ώρα
- ☐ Δε χρησιμοποιώ το Internet γι' αυτό το σκοπό

12. Πόσο συχνά χρησιμοποιείς τα παρακάτω κοινωνικά δίκτυα;

	Μόνιμα συνδεδεμένος	Περισσότερο από 1 φορά τη μέρα	Μια φορά τη μέρα	2-6 φορές την εβδομάδα	1 φορά την εβδομάδα	Περισσότερο από 1 φορά το μήνα	1 φορά το μήνα	Λιγότερο από 1 φορά το μήνα	Ποτέ	Δε γνωρίζω το συγκεκριμένο δίκτυο
Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Twitter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
YouTube	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skype	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Προσωπικό blog	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Άλλα blogs (Αν χρησιμοποιείς blogs, γράψε ποιό/ά στο κουτάκι κάτω)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instagram	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pinterest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
RSS feeds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wikipedia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Google+	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Linkedin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diigo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Slideshare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flickr	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forum (Αν χρησιμοποιείς forum, γράψε ποιό-ά στο κουτάκι κάτω)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Second Life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Άλλο (Αν χρησιμοποιείς αλλό, γράψε ποιό στο κουτάκι κάτω)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Αν χρησιμοποιείς blogs, γράψε ποιο-ποια blogs χρησιμοποιείς

14. Αν χρησιμοποιείς forum, γράψε ποιό-ποιά forum χρησιμοποιείς

15. Αν χρησιμοποιείς "Άλλο", γράψε ποιό-ποιά χρησιμοποιείς

16. Ποιά κοινωνικά δίκτυα χρησιμοποιείς περισσότερο για προσωπικούς σκοπούς (ενδιαφέροντα, διασκέδαση, επικοινωνία με φίλους ή οικογένεια, ενημέρωση κτλ);

Γράψε α) ποιό/ποιά κοινωνικό-ά δίκτυο-α χρησιμοποιείς, και β) το σκοπό για τον οποίο το/τα χρησιμοποιείς

ΚΟΙΝΩΝΙΚΑ ΔΙΚΤΥΑ ΓΙΑ ΑΚΑΔΗΜΑΙΚΟΥΣ ΣΚΟΠΟΥΣ

17. Χρησιμοποιείς κοινωνικά δίκτυα για

	Σε καθημερινή βάση	Σε εβδομαδιαία βάση	Σε μηνιαία βάση	Σπανιότερα από μηνιαία βάση	Ποτέ
Επικοινωνία με συμφοιτητές για θέματα σχετικά με τις σπουδές	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Επικοινωνία με καθηγητές για θέματα σχετικά με τις σπουδές	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Συμμετοχή σε ομάδες/ γκρουπ σχετικές με την εκπαίδευση	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Πρόσβαση σε εκπαιδευτικό υλικό σχετικό με τις σπουδές σου (βιβλία, άρθρα, βίντεο, podcast κτλ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Πρόσβαση σε πληροφορίες σχετικές με τον τομέα της εκπαίδευσης γενικά	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Πρόσβαση σε πληροφορίες σχετικές με συνέδρια, ομιλίες, σεμινάρια κτλ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Πρόσβαση σε ανακοινώσεις της σχολής, μαθημάτων κτλ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Πρόσβαση σε πληροφορίες σχετικές με εύρεση εργασίας	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. Κατά τη διάρκεια των σπουδών σου, χρησιμοποιείς κοινωνικά δίκτυα για να επικοινωνήσεις με τους συμφοιτητές σου;

- ☐ Ναι
☐ Όχι

Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς

19. Ποιά κοινωνικά δίκτυα χρησιμοποιείς για να επικοινωνήσεις με τους συμφοιτητές σου;

20. Για ποιό σκοπό χρησιμοποιείς κοινωνικά δίκτυα για να επικοινωνήσεις με τους συμφοιτητές σου; (Μπορείς να συμπληρώσεις παραπάνω από μία απαντήσεις)

- ☐ Για ερωτήσεις/συμβουλές/ψυχολογική υποστήριξη σχετικά με σπουδές
- ☐ Για πρόσβαση/διαμοιρασμό υλικού σχετικό με σπουδές
- ☐ Για θέματα άσχετα με τις σπουδές

Άλλο (παρακαλώ διευκρίνισε)

Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς

21. Έχει το τμήμα σας ομάδα σε κάποιο κοινωνικό δίκτυο;

- ☐ Ναι
- ☐ Όχι

Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς

22. Σε ποιό κοινωνικό δίκτυο είναι η συγκεκριμένη ομάδα;

23. Ποιός ξεκίνησε αυτή την ομάδα;

- ☐ Φοιτητές
- ☐ Καθηγητές
- ☐ Δε γνωρίζω

Άλλο (παρακαλώ διευκρίνισε)

24. Είσαι μέλος σ'αυτή την ομάδα;

- ☐ Ναι
- ☐ Όχι

Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς

25. Πιστεύεις ότι τα κοινωνικά δίκτυα είναι ένας αποτελεσματικός τρόπος για να επικοινωνείς με τους συμφοιτητές σου;

☐ Ναι

☐ Όχι

Παρακαλώ εξήγησε σύντομα την απάντησή σου

Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς

26. Ποιό-ά κοινωνικό-α δίκτυο-α θεωρείς ότι είναι κατάλληλο-α γι'αυτό το σκοπό

Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς

27. Χρησιμοποιείς κοινωνικά δίκτυα για επικοινωνία με τους καθηγητές;

☐ Ναι

☐ Όχι

Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς

28. Παρακαλώ γράψε α) ποιο κοινωνικό δίκτυο χρησιμοποιείς για επικοινωνία με τους καθηγητές και β) για ποιο σκοπό επικοινωνείς μαζί τους;

Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς

29. Είσαι μέλος σε ομάδες σχετικές με την εκπαίδευση ή «ακολουθείς» ομάδες σχετικές με την εκπαίδευση σε κοινωνικά δίκτυα (πχ στο Facebook, Twitter κτλ);

☐ Ναι

☐ Όχι

Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς

30. Παρακαλώ γράψε σε ποιο κοινωνικό δίκτυο βρίσκονται;

31. Για ποιο σκοπό είσαι μέλος/ακολουθείς αυτές τις ομάδες; (Περισσότερες από μία απαντήσεις)

☐ Για να διαβάσω τι γράφουν τα άλλα μέλη της ομάδας

☐ Για συμβουλές

☐ Για πρόσβαση ή διαμοιρασμό υλικού

Άλλο (παρακαλώ διευκρινίστε)

32. Ψάχνεις στα κοινωνικά δίκτυα video για θέματα σχετικά με τις σπουδές σου/ εκπαίδευση;

☐ Ναι

☐ Όχι

Αν ΝΑΙ, παρακαλώ διευκρινίστε ποιο κοινωνικό δίκτυο χρησιμοποιείτε για αυτό το σκοπό.

Η ανεπίσημη χρήση των κοινωνικών δικτύων από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς

33. Ευχαριστώ πολύ για τη συμμετοχή σας στο ερωτηματολόγιο. Για να επικοινωνήσω μαζί σας για τη συνέντευξη, παρακαλώ γράψτε εδώ το email σας. Το email σας δε θα αποκαλυφθεί σε κανένα

Appendix D: Interview consent form

(Translated from Greek)

Thank you for the expression of interest to participate in an interview for the Doctoral study entitled “Informal use of social media by pre-service teacher for personal and academic purposes”. The study is conducted by Konstantina Kontopoulou, student in the Doctoral programme of the University of Leicester, School of Education.

The aim of the interview is to report the informal use of social media by pre-service teachers for personal purposes, as well as purposes related to their studies and their future profession. The interview will consist of questions about how how use social media and the purposes for which you use them. The interview will last approximately 45 minutes. The interview will be recorded. Your answers will be stored securely and will be used anonymously and confidentially.

CONSENT FORM

- 1) I have read and understood the aim of the study
- 2) I agree to participate in the interview which will be conducted by Konstantina Kontopoulou
- 3) I understand that the interview will be recorded
- 4) I understand that my participation in the study is voluntary and I can discontinue my participation whenever I wish to do so
- 5) I understand that the answers that I will give will be used anonymously for the current doctoral study and academic articles. My name and other personal information will not be used
- 6) I understand that my answers will be stored securely and confidentially

7) I understand that I can ask the researcher to send me the transcribed text to read or change my answers before they are used for the study

8) I understand that I can ask the researcher to send me the results of the study

If you agree to participate in the interview, please fill in your name and your email

Name

Email

Date

Appendix E: Interview guide

(Translated from Greek)

TOPIC	QUESTIONS
1. Breaking the ice	<p>Can you tell me a few things about your department? (Prompts: Why did you choose to study there?)</p> <p>Can you tell me a few things about your involvement with technologies/ the Internet?</p>
2. Exploring background with technologies	<p>Can you tell me about your past experiences with technologies? (Prompts: When did you buy your first PC? What kind of activities did you use on the PC? When did you first started using the Internet? How?)</p>
3. Focusing on social media	
3a. Understanding general social media use/ differences with the past	<p>Let's focus on social media. I am going to show you a map that illustrates the social media tools I am using, along with the purpose I am using them for. Can you do something similar for yourself? You don't need to do it in the same format as mine. (An instruction that was added later: Can you talk about it while you are drawing your map?) (Prompts: Which of those tools are for personal purposes? Which are for educational purposes? Which are for both? Why?)</p> <p>Has the way you use social media changed since you were a school student? Has the way you use social media changed throughout your university studies? If so, how/ If not, why not?</p>
3b. Everyday social media use	<p>How do use social media outside your department, for personal purposes? (Prompts: Who do you interact with? What material are you searching for? Why?)</p>
3c. Academic social	<p>How do you use social media for academic purposes? (Prompts: Who</p>

media use	<p>do you interact with? What material are you searching for? Why?)</p> <p>How effective has this use been for you? Can you give me an example of something that you did on social media that helped you with your studies? (Prompts: Groups on Facebook)</p> <p>Do you use social media to learn about your profession? (Prompt: How? Why? Can you give an example?)</p>
3d. Factors for use and non-use	<p>What are the advantages of social media for you?</p> <p>What are the disadvantages of social media for you?</p>
3e. Imagining the future	<p>Do you expect to use social media in the future as a teacher? (How? Which tools? Why?)</p>

Appendix F: Diary and consent form

(Translated from Greek)

Thank you for expressing an interest in participating in the second stage of the Doctoral study which is conducted by Konstantina Kontopoulou, student in the Doctoral programme of the University of Leicester, School of Education. The aim of the study is to explore the informal use of social media by pre-service teachers for personal and academic purposes, as well as purposes related to their future profession. In the second stage you are asked to complete a diary.

The aim of this diary to report how pre-service teachers use different social media tools. You are asked to keep this diary for 7 days and fill in which social media tools you used and the purpose for which you used them.

Your participation in the study is voluntary. You can discontinue your participation whenever you wish to do so. After I receive the diary, I may communicate with you for a follow-up interview related to your diary answers, if you wish to participate.

Consent form for the diary

- 1) I have read and understood the information about the study
- 2) I agree to keep the diary for 7 days. The diary will be given to me by Konstantina Kontopoulou participate in the interview which will be conducted by Konstantina Kontopoulou
- 3) I understand that my participation in the study is voluntary and I can discontinue my participation whenever I wish to do so

4) I understand that the answers that I will give will be used anonymously for the current doctoral study and academic articles. My name and other personal information will not be used

5) I understand that my answers will be stored confidentially

6) I understand that I can ask the researcher to send me the results of the study

If you agree to participate in the interview, please fill in the following

Name:

Department:

University:

Email:

Date:

DIARY

Instruction for completion:

The diary is structured in 7 days. For each day, you are asked to complete some information about the social media tools that you used. The social media tools that are included in the list are the nine most popular of those that you drew during the interview.

1st column: The first column is a list of several social media tools

2nd column: In the second column you are asked to complete how much time you used each social media tools (e.g. "10 minutes")

3rd column: In the third column you are asked to briefly write the purposes for which you used each social media tool (e.g. 1)....., 2).....)

Below the list with the social media tools, you are asked to answer the question: “Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly”

Please, do not forget to click on ‘save’, each time you complete the diary.

When you finish the completion of the diary, please send it to me at the email: (Deleted from the thesis)

1st DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email		
2. YouTube		

3. Facebook		
4. Skype		
5. Wikipedia		
6. Instagram		
7. Viber		
8. Blogs		
9. Twitter		
10. Other/others (please specify)		

Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

.....

.....

.....

.....

2nd DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email		
2. YouTube		
3. Facebook		
4. Skype		
5. Wikipedia		
6. Instagram		
7. Viber		
8. Blogs		
9. Twitter		
10. Other/others (please specify)		

Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

.....

.....

.....

.....

3rd DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email		
2. YouTube		
3. Facebook		
4. Skype		
5. Wikipedia		
6. Instagram		
7. Viber		

8. Blogs		
9. Twitter		
10. Other/others (please specify)		

Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

.....

.....

.....

.....

4th DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email		

2. YouTube		
3. Facebook		
4. Skype		
5. Wikipedia		
6. Instagram		
7. Viber		
8. Blogs		
9. Twitter		
10. Other/others (please specify)		

Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

.....

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.....

5th DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email		
2. YouTube		
3. Facebook		
4. Skype		
5. Wikipedia		
6. Instagram		
7. Viber		
8. Blogs		
9. Twitter		
10. Other/others (please specify)		

Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

.....

.....

.....

.....

6th DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email		
2. YouTube		
3. Facebook		
4. Skype		
5. Wikipedia		
6. Instagram		
7. Viber		

8. Blogs		
9. Twitter		
10. Other/others (please specify)		

Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

.....

.....

.....

.....

7th DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email		
2. YouTube		

3. Facebook		
4. Skype		
5. Wikipedia		
6. Instagram		
7. Viber		
8. Blogs		
9. Twitter		
10. Other/others (please specify)		

Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

.....

.....

.....

.....

Thank you very much for your time!

(Note: In the diary I used the Greek term *μέσα κοινωνικής δικτύωσης* (often translated as *social media*), instead of the term *κοινωνικά δίκτυα* (often translated as *social networks*) which I used in the questionnaire and interviews. In the follow-up interview I asked participants if they consider this term to be different from the one I had used in the questionnaire and the interview. All of them replied that the two terms mean the same thing to them)

Greek version, only the consent form and the first day

Ευχαριστώ για την εκδήλωση ενδιαφέροντος για συμμετοχή στο δεύτερο στάδιο της Διδακτορικής έρευνας που εκπονείται από την Κωνσταντίνα Κοντοπούλου, φοιτήτρια του Διδακτορικού προγράμματος του Πανεπιστημίου Leicester, Τμήμα Εκπαίδευσης. Ο σκοπός της έρευνας είναι να διερευνηθεί η ανεπίσημη χρήση των μέσων κοινωνικής δικτύωσης από μελλοντικούς εκπαιδευτικούς για προσωπικούς και ακαδημαϊκούς σκοπούς, καθώς και για σκοπούς σχετικούς με το μελλοντικό τους επάγγελμα. Στο δεύτερο στάδιο σας ζητείται να συμπληρώσετε ένα ημερολόγιο.

Ο σκοπός αυτού του ημερολογίου είναι να καταγράψει πως χρησιμοποιούν οι μελλοντικοί εκπαιδευτικοί διάφορα μέσα κοινωνικής δικτύωσης. Σας ζητείται να κρατήσετε αυτό το ημερολόγιο για 7 ημέρες και να συμπληρώνετε ποια μέσα κοινωνικής δικτύωσης χρησιμοποιήσατε, για πόση ώρα και για ποιο σκοπό τα χρησιμοποιήσατε.

Η συμμετοχή σας στην έρευνα είναι εθελοντική. Μπορείτε να διακόψετε τη συμμετοχή σας όποτε το θελήσετε. Αφού παραλάβω το ημερολόγιο, ίσως επικοινωνήσω μαζί σας για μία συμπληρωματική συνέντευξη σχετικά με τις απαντήσεις σας στο ημερολόγιο, αν επιθυμείτε να συμμετέχετε.

Έγγραφο συγκατάθεσης για ημερολόγιο

- 1) Έχω διαβάσει και κατανοήσει τις πληροφορίες σχετικά με την έρευνα
- 2) Συμφωνώ να συμπληρώσω το ημερολόγιο για 7 μέρες. Το ημερολόγιο θα μου δοθεί από την Κωνσταντίνα Κοντοπούλου.
- 3) Κατανοώ ότι η συμμετοχή μου στην έρευνα είναι εθελοντική και μπορώ να διακόψω τη συμμετοχή μου όποτε το επιθυμήσω.
- 4) Κατανοώ ότι οι απαντήσεις που θα δώσω θα χρησιμοποιηθούν ανώνυμα για την παρούσα έρευνα και ακαδημαϊκά άρθρα. Το όνομά μου και άλλες προσωπικές πληροφορίες δε θα χρησιμοποιηθούν
- 5) Κατανοώ ότι οι απαντήσεις μου θα φυλαχθούν εμπιστευτικά.
- 6) Κατανοώ ότι μπορώ να ζητήσω από την ερευνήτρια να μου στείλει τα αποτελέσματα της έρευνας.

Αν συμφωνείτε να συμμετάσχετε παρακαλώ συμπληρώστε τα παρακάτω:

Ονοματεπώνυμο:

Τμήμα:

Πανεπιστήμιο:

Email:

Ημερομηνία:

ΗΜΕΡΟΛΟΓΙΟ

Οδηγίες συμπλήρωσης:

Το ημερολόγιο χωρίζεται σε 7 ημέρες. Για κάθε ημέρα, σας ζητείται να συμπληρώσετε κάποιες πληροφορίες σχετικά με τα μέσα κοινωνικής δικτύωσης που χρησιμοποιείτε. Τα μέσα που συμπεριλαμβάνονται στη λίστα είναι τα 9 δημοφιλέστερα αυτών που γράψατε στο σχέδιο που ζωγραφίσατε κατά τη διάρκεια της συνέντευξης.

1η στήλη: Η πρώτη στήλη είναι μία λίστα από διάφορα μέσα κοινωνικής δικτύωσης.

2η στήλη: Στη δεύτερη στήλη σας ζητείται να συμπληρώσετε πόση ώρα χρησιμοποιήσατε το κάθε μέσο κοινωνικής δικτύωσης (πχ. «10 λεπτά»)

3η στήλη. Στην τρίτη στήλη σας ζητείται να γράψετε σύντομα τους σκοπούς για τους οποίους χρησιμοποιήσατε το κάθε μέσο κοινωνικής δικτύωσης (πχ 1ον)..... 2ον).....)

Κάτω από τη λίστα με τα μέσα κοινωνικής δικτύωσης, σας ζητείται να απαντήσετε στην ερώτηση: «Ήταν κάποια από τις παραπάνω δραστηριότητες σχετική με τις σπουδές σου (πχ πρόσβαση σε υλικό σχετικό με μαθήματα, επικοινωνία με τους συμφοιτητές/καθηγητές/εκπαιδευτικές ομάδες για θέματα σχετικά με σπουδές, κτλ) Αν ναι, παρακαλώ περιγράψτε σύντομα τη δραστηριότητα»

Παρακαλώ, μη ξεχνάτε να κάνετε save κάθε φορά που συμπληρώνετε το ημερολόγιο.

Όταν τελειώσετε με τη συμπλήρωση του ημερολογίου, παρακαλώ στείλτε το μου στο mail: (Deleted from the thesis)

1η ΗΜΕΡΑ

ΗΜΕΡΟΜΗΝΙΑ:

1. Χρησιμοποίησες κάποιο από τα παρακάτω μέσα κοινωνικής δικτύωσης σήμερα; Αν ναι, συμπλήρωσε τις παρακάτω πληροφορίες στον πίνακα

Μέσο κοινωνικής δικτύωσης	Πόση ώρα το χρησιμοποίησες;	Για ποιό/ποιούς σκοπούς το χρησιμοποιήσατε; (μπορείτε να γράψετε περισσότερο από ένα σκοπό)
1. Email		
2. YouTube		
3. Facebook		
4. Skype		
5. Wikipedia		
6. Instagram		
7. Viber		
8. Blogs		
9. Twitter		
10. Άλλο- άλλα (παρακαλώ διευκρινίστε)		

Ήταν κάποια από τις παραπάνω δραστηριότητες σχετική με τις σπουδές σου (πχ πρόσβαση σε υλικό σχετικό με μαθήματα, επικοινωνία με τους συμφοιτητές/καθηγητές/εκπαιδευτικές ομάδες για θέματα σχετικά με σπουδές, κτλ) Αν ναι, παρακαλώ περιγράψτε σύντομα τη δραστηριότητα:

.....
.....
.....
.....

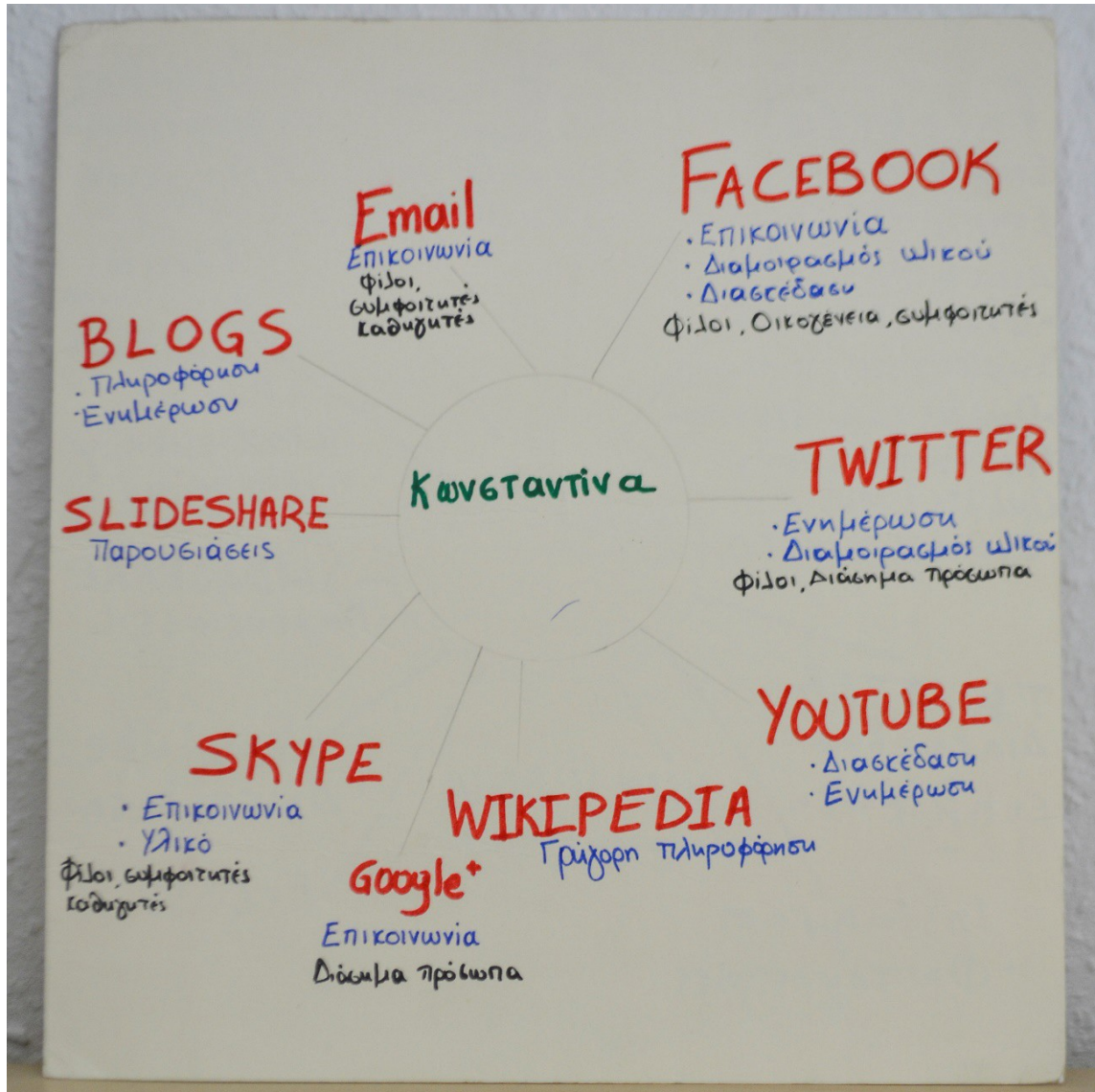
Appendix G: Follow-up interview guide

(Translated from Greek)

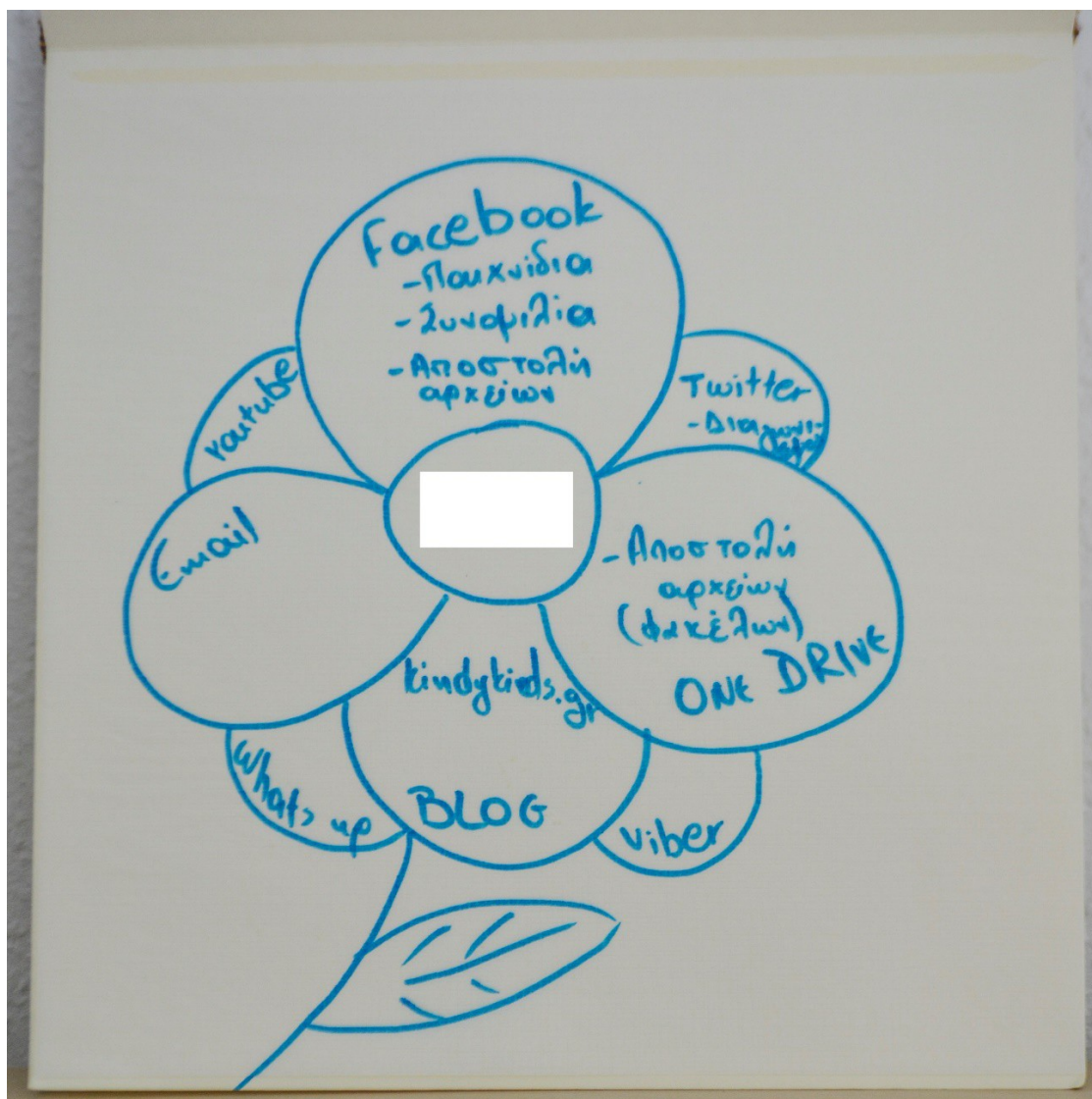
1. To what extent was the week during which you completed the diary a typical week?
2. To what extent was the use of social media use this week typical of your overall social media use?
3. (Go through every day of the diary) Ask for details for each activity/tool
4. How would you describe your overall social media use this week?

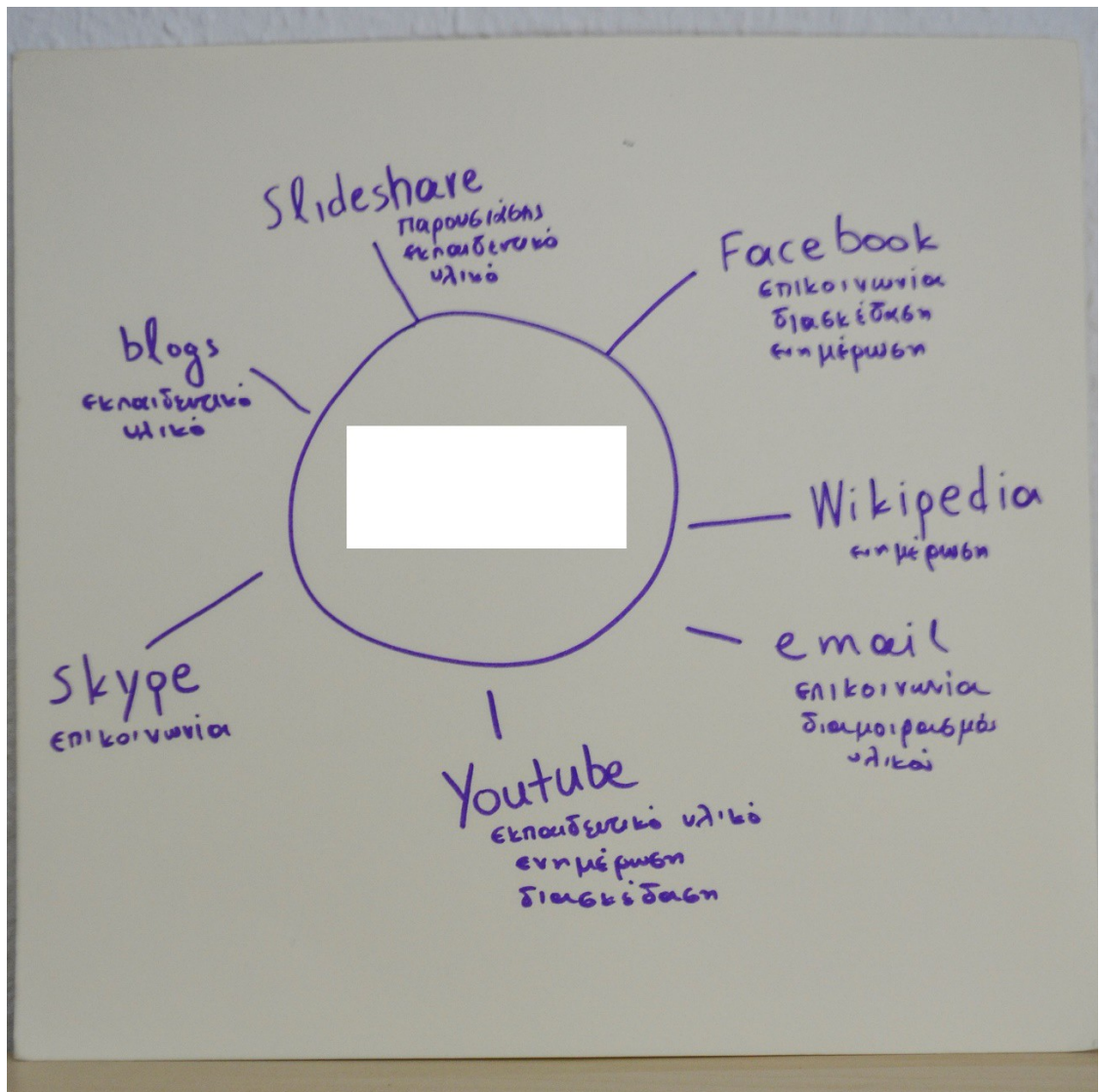
Appendix H: Mind maps

1. My mind map



Examples of participants' mind maps





Appendix I: An example of a completed diary – Isabella, ECE

(Isabella's answers are in bold, underlined and translated from Greek)

1st DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email	<u>3 minutes</u>	<u>To check out possible emails and take a look at earlier ones</u>
2. YouTube	<u>4 hours</u>	<u>I listen to music as I work on the web</u>
3. Facebook	<u>10 minutes</u>	<u>I check if I have any notifications and new announcements related to the University</u>
4. Skype		
5. Wikipedia		
6. Instagram	<u>10 minutes</u>	<u>A little update about celebrities</u>
7. Viber	<u>Connected almost all day</u>	<u>I exchange information about the University</u>

8. Blogs		
9. Twitter		
10. Other/others (please specify)		

Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

Yes, Facebook and Viber. Facebook for notifications about the University and clarifications with teachers and Viber for information related to the forthcoming examinations

2nd DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email	<u>10 minutes but I regularly checked it out</u>	<u>Clarifications with teachers about the course</u>
2. YouTube	<u>Connected almost all day</u>	<u>I listen to music</u>

3. Facebook	<u>20 minutes</u>	<u>Possible new updates that I am interested in</u>
4. Skype		
5. Wikipedia		
6. Instagram	<u>10 minutes</u>	<u>Purely for entertainment-gossip</u>
7. Viber		
8. Blogs		
9. Twitter		
10. Other/others (please specify)		

Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

Email: I asked a teacher for clarifications about a course

3rd DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email		
2. YouTube	<u>Connected almost all day</u>	<u>I listen to music during the writing of my assignment</u>
3. Facebook	<u>5 minutes</u>	<u>Possible updates</u>
4. Skype		
5. Wikipedia	<u>30 minutes</u>	<u>I searched for information for the preparation of an assignment of mine</u>
6. Instagram		<u>A little update about celebrities</u>
7. Viber		
8. Blogs		
9. Twitter		
10. Other/others (please specify)		

Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

Wikipedia: I searched for information-terminologies for the preparation of a University assignment

4th DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email	<u>2 minutes</u>	<u>Checking new messages</u>
2. YouTube		
3. Facebook	<u>10 minutes</u>	<u>Possible new notifications</u>
4. Skype		
5. Wikipedia		
6. Instagram		
7. Viber		
8. Blogs		
9. Twitter		

10. Other/others (please specify)		
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Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

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5th DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email		
2. YouTube	<u>Connected almost all day</u>	<u>I listen to music</u> <u>I was searching for videos of educational content to incorporate them in the presentation of my assignment</u>
3. Facebook	<u>10 minutes</u>	<u>Possible information</u>

4. Skype		
5. Wikipedia		
6. Instagram	<u>20 minutes</u>	<u>A little update about celebrities</u>
7. Viber		
8. Blogs		
9. Twitter		
10. Other/others (please specify)		

Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

The presentation of my assignment also requires presenting educational material, with which the specific social media tool helped me

6th DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
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1. Email	<u>10 minutes</u>	<u>Clarifications about a module that I will sit (for exams) in the examination period.</u>
2. YouTube	<u>2 hours</u>	<u>I listen to music</u>
3. Facebook	<u>Connected almost all day</u>	<u>I was searching for information and announcements about a seminar related to special education which will take place at our University</u>
4. Skype		
5. Wikipedia		
6. Instagram	<u>10 minutes</u>	<u>A little updates about celebrities</u>
7. Viber		
8. Blogs		
9. Twitter		
10. Other/others (please specify)		

Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

Facebook: I was updated and received information about a special education seminar

Email: Clarifications about a specific module by a teacher

7th DAY

DATE:

1. Did you use any of the following social media tools today? If so, complete the following information on the table.

Social media tool	How much time did you use it for?	For which purpose/purposes did you use it for? (you can write more than one purpose)
1. Email		
2. YouTube	<u>2 hours</u>	<u>I listen to music and watch movies</u>
3. Facebook		
4. Skype		
5. Wikipedia		
6. Instagram		
7. Viber	<u>Connected almost all day</u>	<u>I was talking with my friends who study in other cities</u>
8. Blogs		
9. Twitter		

10. Other/others (please specify)		
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Was any of the activities above related to your studies (e.g. access to material related to courses, communication with peers/teachers/ educational groups for purposes related to studies, etc)? If so, please describe the activity briefly

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Appendix J: Limitations of the questionnaire

(P=Participant)

Limitations of the questionnaire (that became evident during the interviews)	Examples
Participants' misreporting their social media terms, due to a misunderstanding of the terms that I used in the questionnaire.	<p>One interview participant did not mention having a 'personal blog', although she had ticked this tool from the list of social media tools that I had included in the questionnaire. The participant confirmed that she considered 'personal blog' to include use of someone else's personal blog, rather than her own (which was what I meant by the term). Exactly the same incident happened with another interview participant. The participant wondered if she had misunderstood 'personal blog' for 'personal profile on Facebook'</p> <p><i>Me: you have ticked 'personal blog' (and) 'more than once a day'</i></p> <p><i>P: Maybe I understood the personal profile on Facebook?</i></p> <p><i>Me: Oh, that could be (it)</i></p> <p><i>P: Because I do not have a blog, I mean, where I write something specific</i></p> <p><i>Me: Ok</i></p> <p><i>P: I must mean that...</i></p>
Participants misreporting their social media tools/ frequency of social media use due to	One interview participant did not mention Twitter, despite the fact that she had ticked this social media tool in her questionnaire. I asked her about it and she replied;

mistakes in completing the questionnaire	<p><i>P: Have I put 'once a week'?</i></p> <p><i>Me: Yes, for Twitter...</i></p> <p><i>P: Right. I made a mistake. It was 'never' for Twitter.</i></p>
Participants under-reporting their social media tools	<p>One participant realised that she had forgotten to mention several social media tools in the questionnaire</p> <p><i>P: From what I see, I forgot to write a lot from what I am connected with (laughter).</i></p> <p>Exactly the same incident as above</p> <p><i>P: Now that I remember, I didn't write about email in the questionnaire, which I remembered later.</i></p>
Participants writing contradictory/ confusing responses that merited further clarification	<p>One interview participant wrote a reply which needed further clarification</p> <p><i>Me: ... the question (in the questionnaire) is 'Do you think that social media is a useful way to communicate with your peers?'. And you wrote 'No'. But then, (later) you wrote 'Through them we arrange meetings and exchange educational material'. Is 'no' (still) valid?</i></p> <p><i>P: Yes, that is, I mean that it is...that social media are necessary, but they are not the most useful way</i></p> <p><i>Me: Oh, it is a useful (way) but it is not the most useful (way)...</i></p> <p><i>P: Yes...</i></p>

Appendix K: Coding framework for RQ4 (later removed from the thesis)

Code		Description
3ai	Ease/ Convenience	Participants use SM because they are easy to use/fast/convenient (focus on technological features)
3aii	Personalised opportunities	Participants use SM because they cater for their individual needs
3aiii	Solidarity	Participants use SM because they provide the means to give or get help
3aiv	New paths and opportunities	Participants use SM because they provide opportunities that would not be possible otherwise
3av	Prior experience	Participants use SM because they are familiar with them
3avi	Safety	Participants use SM because they are safe
3b	NON-USE	
3bi	Mentality/ Personality	Participants do not use SM because of ideological reasons or personality
3bii.	Boredom/ Perceived unusefulness	Participants do not use SM because they find them boring or of limited value. They may use other tools/means to do the task.
3biii	Lack of familiarity	Participants do not use SM because they feel that they do not have prior experiences/ the necessary skills to do so.

3biv.	Fear of addiction/privacy violations	Participants do not use SM because they are worried about risks associated with their use
3biv	Unreliability	Participants do not use SM because they feel that they do not provide reliable information
3bvi	Being an outsider	Participants do not use SM because they feel that they do not belong to the groups/communities

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