

Use of Facebook to Enhance Student Engagement in Undergraduate Higher Education

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ABSTRACT

Many researchers have commented on the extent of the suitability of Facebook as a means of interaction between students and staff in higher education. The purpose of this paper is to conduct an initial exploration of this topic amongst undergraduate students. This research is an extension of two earlier pieces of research conducted by the authors that explored the use of Facebook for (a) interaction between students and staff in undergraduate courses in the wake of a crisis event and (b) interaction between students and staff in professional masters students in a context that was not in the wake of a crisis event at the same institution.

This paper explores the use of Facebook for interaction between students and staff in undergraduate courses, without being in the wake of a crisis event with the aim of being able to explain the differences in the findings of the earlier studies. This was done through summarising the findings of the two earlier studies and analysing the responses of 661 undergraduate students to the question of how they felt about using Facebook to interact with students and staff.

The findings of this paper are consistent with the findings of the study based on the perceptions of professional masters students that included that the use of Facebook in this context is best limited to interaction between students and that its use should not be mandatory. Implications for further research were identified including the need to further explore the perceptions of undergraduate students and to explore the issues surrounding Maslow's Hierarchy of Needs and the desire or need for privacy surrounding the use of social media.

Keywords: Facebook, student engagement, higher education

1. INTRODUCTION

An earlier study conducted by two of the three authors (Nesbit & Martin, 2012) explored the use of Facebook to enhance student engagement in large undergraduate lectures at a particular higher education institution. Part of the context of this earlier study was that it was in the wake of a significant natural disaster that impacted on course delivery at the institution in question. A more recent study (Chan, 2018) conducted by the third of the authors explored the use of Facebook to enhance student engagement in professional masters programmes at the same institution in a context that was not in the wake of a significant natural disaster.

This paper presents an analysis of the differences between the findings of the studies conducted by Nesbit & Martin (2012) and Chan (2018), and draws on some of the findings of a survey that was conducted of undergraduate students at the institution in question four years after the crisis event to help explain the differences. The relationship between this paper and the two earlier studies is shown in Table 1.

| | In the wake of a crisis event | NOT in the wake of a crisis event |
|-------------------------------------|-------------------------------|-----------------------------------|
| Undergraduate Students | Nesbit & Martin (2012) | This paper |
| Professional Masters Student | | Chan (2018) |

Table 1 - Relationship of the Earlier Studies to the Current Study

The aim of this paper is therefore to analyse how much of the differences in the findings of Nesbit & Martin (2012) and Chan (2018) can be attributed to either (a) the presence or lack of a crisis event or (b) the difference between undergraduates and professional masters students. Part of the analysis includes an analysis of how the impact of a crisis event can impact on where students are placed in Maslow's hierarchy of needs (Maslow, 1943) and how that may explain some of the difference between the two studies.

2. RESEARCH QUESTION

The research questions to be addressed by this paper are:

- "What are the benefits and risks associated with using Facebook to enhance student engagement in large undergraduate classes in contexts not associated with crisis events?"
- "What are the best ways to use Facebook to enhance student engagement in large undergraduate classes in contexts not associated with crisis events?"

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3. REVIEW OF LITERATURE

The literature review that follows highlights the issues relating to the use of Facebook to enhance student engagement in higher education with some of this being drawn from the literature reviews conducted in Nesbit & Martin (2012) and Chan (2018). The topics to be covered in the literature review include the current situation regarding the use of Facebook; the benefits, challenges and barriers associated with using Facebook in higher education; and current practice regarding the use of Facebook in higher education.

3.1 Current Situation

Facebook's popularity makes it a suitable choice as an educational tool as most students are already familiar using it (Qureshi, Raza & Whitty, 2014; Roblyer, McDaniel, Webb, Herman & Witty, 2010) and its ease of access coupled with stability and reliable performance (Thongmak, 2014) only intensifies its appropriateness. Despite research showing an increase of usage in the higher education environment (Staines & Lauchs, 2013), it is still being used in an informal manner (Lee & Chong, 2017; Mazman & Usluel, 2010) and only partially implemented (Manca & Ranieri, 2016a; Radovanović, Hogan & Lalić, 2015) which is surprising given that Facebook is widespread and popular (Arteaga Sánchez, Cortijo & Javed, 2014).

Students are the ones that are more willing and enthusiastic in its adoption (Arteaga Sánchez et al., 2014; Balakrishnan, 2017; Pérez, Araiza & Doerfer, 2013; Roblyer et al., 2010) when compared to academics. Academics perceived Facebook as a social tool and not a pedagogical tool (Foogoo & Ferdinand-James, 2017) and highlight that there are more obstacles than advantages in its usage, resulting in low level of faculty adoption (Manca & Ranieri, 2016) despite it being an influential driver of change for teaching and learning. Radovanović et al., (2015) commented that academics are not up to speed with all technological advancements and are playing catch up. Contrary to popular belief, there is also research that found that it was the students who were not eager to use Facebook for educational purposes due to context collapse (Dennen & Burner, 2017) but in contrast, says that they learned from posts from their peers.

In general, the verdict is still out in the open as there are mixed feelings about using Facebook in an educational context (Dennen & Burner, 2017; Foogoo & Ferdinand-James, 2017; Manca & Ranieri, 2016a) and there are others who are questioning its ethical usage (Purvis, Rodger, & Beckingham, 2016). The usage of social media in education is like a double edged-sword (Smith, 2016) and before deciding whether Facebook can be used to enhance higher education learning, the benefits and challenges that are associated with it must first be explored while not neglecting the barriers that exist in preventing its usage. There is also research that provides suggestions on how its use can be managed successfully.

The key aspects that are relevant to this research are that there is an increase of Facebook usage in higher education although informally, and students are the drivers of this usage while lecturers are more conservative.

3.2 Benefits of using Facebook in higher education

Research has shown that using Facebook in an educational context can be a useful tool (Cheng, Chan, Kong, & Leung, 2016) and can enhance the knowledge and understanding of the student (Staines & Lauchs, 2013). It can also increase communication and interaction (Ahern, Feller, & Nagle, 2016; Liburd & Christensen, 2013; Pérez et al., 2013) where discussion with other students was improved and expanded

(Milošević, Živković, Arsić, & Manasijević, 2015). These interactions via communication, collaboration, and participation can lead to in-depth learning (Liburd & Christensen, 2013) and can be further divided into 4 different types namely learner-learner, learner-instructor, learner-content and learner-interface (Said & Tahir, 2013). The relationship between students and academics can also improve due to this increase in communication (Qureshi et al., 2014) while also facilitating knowledge construction (Cheng et al., 2016).

Other benefits identified include an increase in student engagement (Cuesta, Eklund, Rydin & Witt, 2016; Roblyer et al., 2010) and the convenience of educational resource sharing (Jong, Lai, Hsia, Lin & Liao, 2014; Smith, 2016). Facebook can allow for communities or groups being formed regardless whether it is within the course or within peers (Purvis et al., 2016) and this informal community can foster a sense of togetherness by promoting understanding (Smith, 2016), offering peer support (Ahern et al., 2016) and facilitating collaboration amongst students (Milošević et al., 2015). Apart from these benefits, Pérez et al., (2013) found that Facebook can also help in a students' professional development and assisted in increasing a students' creativity (Qureshi et al., 2014).

In a study focussing on academics conducted by Akçayır (2017), social media was found to be a platform for fast and efficient communication, convenience with resource sharing, time-saving, increasing interaction and facilitating in collaborative classroom activities.

Most higher education institutions already have their own Learning Management System (LMS) and Staines & Lauchs (2013) commented that Facebook is better and more convenient than a LMS while Lee & Chong (2017) disagree and suggested that it complements the LMS and both can work in parallel. Cooke (2017) went on to add that social media is beneficial as a supplementary educational tool as it can improve the overall learning experience.

Facebook is an interactive social environment that is suitable for social and peer learning. Activities in Facebook such as communicating with friends, watching the news, sharing photos and videos, and involvement in discussions are all user-generated contents and this platform is a great tool for promoting learning community, knowledge discussion and student engagement (Sobaih, Moustafa, Ghandforoush, & Khan, 2016).

As Facebook is a free application, it is cost-effective (Thongmak, 2014) and being mobile friendly makes it easily and quickly accessible (Dennen & Burner, 2017; Smith, 2016) as most students have a smartphone and are quite often logged on which allows for immediate notification of new information (Foogoo & Ferdinand-James, 2017). The characteristic of social media being ubiquitous minimises the geographical barriers and allows for interaction regardless of where the students are even if it is outside of normal class hours (Qureshi et al., 2014).

Overall, Facebook has been found to enhance the learning process as a whole (Staines & Lauchs, 2013) by providing support in task execution, quality improvement of educational process and expansion of the total quantum of knowledge (Milošević et al., 2015).

The key aspects that are relevant to this research are that activities in Facebook can encourage communication, collaboration and participation and that this can increase interaction leading to more in-depth learning and an increase in student engagement while facilitating knowledge construction.

3.3 Challenges in using Facebook in higher education

The usage of Facebook brings about benefits but it also comes with challenges, the challenges involved if a higher education institution implements Facebook whether formally or informally can be further divided into academic, students and general challenges.

Academic Challenges

Most evident of all is the resistance to change from academics (Foogooa & Ferdinand-James, 2017; Radovanović et al., 2015). Foogooa & Ferdinand-James (2017) with this being broken down to include the causes of resistance to cultural resistance, pedagogical issues, and institutional constraints. They also noted that some academics appear to have a positive attitude but are actually reluctant to integrate Facebook into their teachings and this may be due to lack of experience (Akçayır, 2017). Some academics fears that by utilising Facebook, their credibility will be undermined (Smith, 2016) and students will be able to access their Facebook accounts and find out about their personal life (Akçayır, 2017).

Managing another platform is also time-consuming (Akçayır, 2017; Purvis et al., 2016; Radovanović et al., 2015) on top of current workload. It is a challenge for academics to exploit the advantages appropriately (Arteaga Sánchez et al., 2014) as they are more used to the traditional methods of learning and feel that social media is not worthwhile for education (Akçayır, 2017). Due to this reason, students can feel that their lecturers are not keeping up with the technological advancement (Pérez et al., 2013) and utilizing them to their advantage. In some cases, academics also have a track record of not only discouraging but actually prohibiting such usage in their classes (Roblyer et al., 2010).

Student Challenges

To interact in Facebook, one needs to be friends with the other person first and this feature of acceptance and rejection for a friend request could affect the self-esteem of that person (Qureshi et al., 2014). Other undesirable outcomes such as jealousy, social tension, social overload, isolation and ultimately depression may result as well (Said & Tahir, 2013). There is the danger where social engagement takes precedence instead of academic work and this may also be a form of distraction to the student if not managed well (Purvis et al., 2016; Qureshi et al., 2014; Smith, 2016; Stanley, 2017). The question of whether the student has the practical ability to use so many platforms can also arise (Miron & Ravid, 2015). For some students, there may be a preference for them to learn via other methods and not socially (Smith, 2016).

General Challenges

Privacy and security is the main challenge that can affect both students and academics, and appears on the top of the list of challenges found in most research (Balakrishnan, 2017; Cheng et al., 2016; Foogooa & Ferdinand-James, 2017; Miron & Ravid, 2015; Smith, 2016; Stanley, 2017). There is an obligation for the instructor to protect the student's privacy and vice-versa (Said & Tahir, 2013). The identity that has been cultivated on Facebook amongst friends and family may not be the one they want to share with students or lecturers (Dennen & Burner, 2017) and both parties may be uncomfortable being friends with one another (Balakrishnan, 2017). Some may have the opinion that social media is less effective as an educational tool (Stanley, 2017) and is inappropriate to be used in such settings (Balakrishnan, 2017).

In traditional education, classes are considered as semi-private spaces but social networking shifts this and even blurs the line between personal and professional space (Dennen & Burner,

2017). When something unpleasant happens, the relationship between the student and the academic could be affected (Qureshi et al., 2014). Facebook may be widespread and popular but in some countries, the access is still limited (Qureshi et al., 2014; Radovanović et al., 2015) and the digital divide of literacy and skills can be large (Purvis et al., 2016; Said & Tahir, 2013; Thongmak, 2014) which makes it a challenge should it be implemented.

The key aspects that are relevant to this research are that there are many challenges to the usage and implementation of Facebook in higher education and they can be divided into academic, student and general challenges. The chief academic challenge is lecturer resistance to change while for students it is a form of distraction. Privacy and security is the main challenge for both academics and students.

3.4 Barriers to usage

The key aspects that are relevant to this research are that there are a number of barriers that exist when one wants to adopt Facebook into higher education and these barriers can be grouped into students, faculty, and institutional barriers (Sobaih et al., 2016). Privacy and security, as well as grading and assessment, is the recurring barrier in all three (3) groups. Manca & Ranieri (2016) refers barriers to obstacles and grouped them into three (3) dimensions while Akçayır (2017) added that faculty's difficulty in giving up old habits and resistance to change is also a barrier.

Managing / Recommendation

The key aspects that are relevant to this research are that there is a gap in research on ways to manage and implement the usage. Documentation such as practice standard or guidelines are required in order to manage the prospective usage (Staines & Lauchs, 2013; Wang, Scown, Urquhart & Hardman, 2014) which includes being a study group (Cuesta et al., 2016) and potential LMS (Sharma et al., 2016). Following up on the list of barriers that Sobaih et al., (2016) found, for each barrier identified, there was an example as well as a corresponding recommendation.

3.5 Current Practise

There is much research into the potential and benefits of using Facebook in higher education but it is rare to encounter research on institutions that are actually utilising it. The School of Computing in the University of Dundee, United Kingdom currently has a Facebook strategy where the Facebook structure maps to the learning structure utilised in the school and maps closely to the student experience (Menzie, Petrie, & Zarb, 2017). There are three (3) elements within the model and research has shown that this holistic usage has proved to be positive and successful as it promotes collaborative learning and discussion while supplementing face to face delivery of curriculum content.

According to Menzie et al. (2017), the Virtual Learning Environment (VLE) is the first element and is used as the primary means of electronic communication with the student as well as a repository of course resources. The traditional learning methodology of face-to-face teaching and collaboration is the second element and this consists of lectures, tutorials, and laboratory sessions. Social media is the new and final element in this model and consists of Facebook pages and groups that are administered by staff and students.

The usage should start as early as possible and not only in higher education. In Denmark, all its secondary schools currently use Facebook as an educational tool as part of their learning. Aaen & Dalgaard (2016) in their studies of all the Danish secondary school found that the usage of Facebook is divided into three (3) spaces where the first space is to support

course management and are institutional Facebook groups while the second space is using Facebook as a SNS that supports social integration and identity building. The third and last space are students Facebook groups only and this combines and merges the elements of the first and second space. The research has shown that the class communities that are formed in the third space and where students participated in resulted in a shared practice of students helping each other in coping with and enriching school life (Aaen & Dalsgaard, 2016). This sense of community and inclusion with bring about a more fulfilling learning environment.

The key aspects that are relevant to this research are that despite Facebook showing benefits, there is still not many working models that could be emulated. The current model by the School of Computing at the University of Dundee is a holistic model that could be imitated and improvised. Children as young as primary school age should be exposed to the usage of Facebook or social media to enhance their learning and not only in higher education years.

3.6 Overall Summary

Roblyer et al. (2010) is the only researcher that was reviewed that highlighted that the potential of using Facebook is unclear. However, recent research has all been able to identify benefits and the promising potential of Facebook as a tool to enhance higher education learning. Those that dismiss its importance are missing an opportunity and methods need to be identified in order for it to co-exist with the current learning and teaching methodologies (Stanley, 2017). Social media usage can function as a backstage arena rather than becoming the main stage (Adalberon & Säljö, 2017).

Social networking is here to stay and it is up to society to see how to exploit its technologies to enhance the learning experience and use it to complement the current teaching methodologies (Falahah & Rosmala, 2012; Purvis et al., 2016). Facebook may not be equipped to manage a class entirely on its own but the facilities it offers cannot be neglected (Foogooa & Ferdinand-James, 2017). Due to difficulty in usage formalisation, it may be easier to incorporate a few useful features into the current LMS instead (Balakrishnan, 2017). Dennen & Burner (2017) suggested that some of Facebook's features like profiles, likes and news feed can be built into learning specific platforms to promote social networking like interaction while maintaining privacy and context collapse. Regardless of lecturer choices, Facebook can still be used by students to support their own learning such as study group and group project communications (Dennen & Burner, 2017).

The addition of Facebook or social media to higher education represents a form of pedagogical re-engineering as it signifies the introduction of a new educational tool. However, this does not necessarily entail the eradication of the traditional lecture/seminar structure, but a more interactive environment in which teaching and learning can occur (Cooke, 2017). In a crisis situation, Facebook serves as an effective pedagogical tool (Ramadan, 2017).

The key aspects that are relevant to this research are that the addition of Facebook into higher education signifies the introduction of a new educational tool, and the need to find the best way to manage its usage so that it can complement the current learning methodologies being used.

4. REVIEW OF FINDINGS FROM NESBIT & MARTIN (2012)

The study conducted by Nesbit & Martin (2012) was based on the benefits and risks involved in using Facebook as an additional communication channel between students and staff

in large undergraduate information systems courses in the wake of a crisis event.

The main findings of this study included:

- That the decision to use a social media tool in the courses as an additional communication channel appears was well justified from a student perspective, provided that it is not made a mandatory requirement for all students in these courses, with this partly being due to the compulsory nature of the courses).
- The decision for the social media tool to be Facebook was justified from the student perspective, mainly due to (a) it being a highly used tool amongst the students and (b) very few students suggesting other possibilities.
- The use of Facebook across the courses served to increase the level of student engagement, with a particular emphasis on cognitive engagement.
- Many of the advantages of the use of Facebook that were identified by the respondents were likely to have been shaped by the context of the earthquakes that caused the initial disruptions and that continued throughout the year.
- That more than a third of the students perceived there was no risk associated with having the Facebook groups may be due to the risks being very minimal compared to the benefits in what was a very difficult time.

The conclusions to this study also suggested that a study relating to the use of social media in higher education in similar ways to this study, but without the context of natural disasters, may highlight some differences to the findings.

Of particular note to the findings of this study was that none of the students surveyed had any negative comments to make

5. REVIEW OF FINDINGS FROM CHAN (2018)

The study conducted by Chan (2018) was based on the benefits and risks involved in using Facebook as an additional communication channel between students and staff in professional masters courses, with the usage not being in the wake of a crisis event.

The aim of this research by Chan (2018) was to assess whether students in the professional masters believe that the inclusion of Facebook could enhance their learning experience. The results showed that while 97% of the participants were Facebook users, only 16% were using it in their studies. In addition, 66.7% of the participants disagreed with Facebook being made compulsory and are not comfortable nor positive in its usage for interaction between students and lecturers. Similar to the research by Ahern et al. (2016), the students resisted its full usage as a formal learning tool despite the known benefits. The result from this research contradicts those found by (Mazman & Usluel, 2010; Arteaga Sánchez et al., 2014; Staines & Lauchs, 2013) where students were positive and enthusiastic about its usage in their learning.

Despite these results, the benefits created by the usage of Facebook in an educational context cannot be ignored. Openness, interactivity, and sociability (Manca & Ranieri, 2016) which are part of the nature of social media bring about an increase in communication, collaboration, and interaction, and all these can lead to an increase in educational engagement while enhancing the knowledge, understanding, and creativity of the student. This can also create a sense of community for the students and promotes resource sharing and peer support. Being an informal platform, it appears to be more relaxing and approachable, especially for students who are uncomfortable voicing in class. Its instant, quick, and easy access all add to its appeal. All these can serve as an influential catalyst for change for teaching and learning.

With all these benefits, its importance cannot be denied and one needs to find the best fit possible so that it can co-exist with the current learning methodology. This research concludes with recommendations for it to be used in an informal and voluntary manner and should not be made compulsory. Forming study groups as well as being used for group project communication are two of its suggested usage and both are student-driven. This will ensure that the student will have greater control and choice over its usage. There is the potential for resistance from all stakeholders should it be made compulsory. The usage would be most beneficial when used between student and student rather than between the student and lecturer. From a student perspective, this can ensure that the privacy of the lecturers is protected.

These conclusions of Chan (2018) are consistent with Dennen & Burner (2017) who said that student could use it on their own to support their learning and Adalberon & Säljö (2017) who said that this platform serves as a backstage arena for the students to manage the practical and social aspects of their academic university life. The study conducted by Menzies, Petrie, & Zarb (2017) also supports this conclusion wherein promoting a holistic education, Facebook promotes collaborative learning and discussion while supplementing face-to-face learning. Cooke (2017) concluded that benefits emerged from Facebooks' role as a supplementary tool rather than a predominant teaching methodology. Conversely, these conclusions contradict those found by Qureshi et al. (2014) who suggested Facebook be used in an educational context and as a formal e-learning tool (Sharma et al., 2016).

6. FINDINGS FROM A SURVEY OF UNDERGRADUATE STUDENTS

A survey that was completed by 990 students at the same university included the following open-ended question that was answered by 661 of the respondents:

“How do you feel about using social media (for example Facebook) as way of interacting with fellow students and teaching staff as part of your learning?” A summary of the responses to this question are shown in Table 2.

| Response | N | % of total | % of comments |
|--|------------|---------------|---------------|
| Students Not Responding | 329 | 33.2% | |
| Positive Response | 234 | 23.6% | 35.4% |
| Slightly Postive Response | 102 | 10.3% | 15.4% |
| Positive Response - Specifically Mentioning Student Interaction | 92 | 9.3% | 13.9% |
| Positive Response Regarding Student Interaction - Negative Response Regarding Interaction With Staff | 57 | 5.8% | 8.6% |
| Neutral Response or No Opinion | 8 | 0.8% | 1.2% |
| Slightly Negative | 24 | 2.4% | 3.6% |
| Negative Response | 144 | 14.5% | 21.8% |
| | 990 | 100.0% | 100.0% |

Table 2 –Frequency of Reposnses

This shows that 33.2% of the 990 students did not answer that particular question, and of the 661 that did answer the question just over half (50.8% = 35.4% + 15.4%) had a positive response or a slightly positive response to the question.

A further 13.9% had a positive response that specifically mentioned student interaction but made no mention of interaction with staff, and as such it is unclear how these respondents viewed the use of Facebook for interaction between staff and students. A futher 8.6% of responses had a positive response regarding interaction with students and a negative response regarding interaction between staff and students.

It is noted that over a quarter of responses were negative (25.4% = 3.6% + 21.8%), while only 1.2% had a neutral or no opinion response.

Overall this shows that of the students who responded to the question, there was a reasonably high level of agreement that the concept was a good idea, however unlike the study conducted by Nesbit & Martin (2012) there were a significant number of negative responses to the idea.

Of particular interest was the strength of feeling associated with some of the negative responses, with a selection of these being shown in Table 3.

| |
|---|
| Hate it. Absolutely hate it. I use Facebook to keep in contact with Friends abroad but apart from that I do not want to use it or "interact" with people in a social media environment. |
| I dislike the idea. I can't see what benefit there would be to this over emails or moodle? |
| I do not like this idea. My social media is part of my personal life. My education is part of my professional life. I would like to keep the two separate. |
| I don't like it. I prefer to keep my professional associations away from social media |
| I don't think interacting private life with study will be a good idea |
| I don't want them to interlink |
| A little weird |

Table 3 –Selection of Negative of Reposnses

This suggests that the use of Facebook in this manner with undergraduate students where it is not in the context of being in the wake of a crisis event has more in common with post graduate students that are not in the wake of a crisis event (Chan, 2018) than with undergraduate students are in the wake of a crisis event (Nesbit & Martin, 2012). This relationship is shown in Table 4.

The responses of the students are positive enough to suggest that (a) the use of Facebook for interaction should be something that takes place between students (and not staff) and (b) that participation should not be compulsory.

| | In the wake of a crisis event | NOT in the wake of a crisis event |
|-------------------------------------|---|---|
| Under-graduate Students | An overriding positive response (Nesbit & Martin, 2012) | Should only be used for student interaction and not made compulsory |
| Professional Masters Student | | Students should have the option to support their own learning through the use of Facebook with its use in group work being highly beneficial (Chan, 2018) |

Table 4 - Relationship of the Earlier Studies to the Current Study

The impact of a crisis event is similar to the research by Ramadan (2017) during the Syrian War crisis where Facebook serves as a 'click and mortar' platform for the university students.

7. DISCUSSION AND CONCLUSIONS

From the analysis of the responses to the open ended question in the survey of undergraduate students it appears that when there is not the context of a crisis event undergraduate and postgraduate student perceptions appear to have similar perceptions about the use of Facebook as means of interaction between students and staff. This area of commonality surrounds the concept that the use of Facebook in this context is best to be between students and not staff, and that it should not be something that is made compulsory.

The difference between this and the findings in a post crisis event context is of interest as in the Nesbit & Martin (2012) study there was little in the way of negative responses, with many of the positive responses alluding to the contact with staff.

Many of the comments made in the survey of which a selection are shown in Table 3 relate to privacy concerns that did not seem to be as prevalent in the post crisis event study. It is possible that the difference in the findings may be to the different personal needs that people have during a crisis that may not be present when the context does not include a crisis event.

This could be explained by looking at these scenarios through a lens based on Maslow's hierarchy of needs (Maslow, 1943). In Maslow's model (see Figure 1) the lower levels of physiological and safety needs are more under threat in a post crisis event context than normal and as such people may be less concerned about privacy issues relating to social media usage.

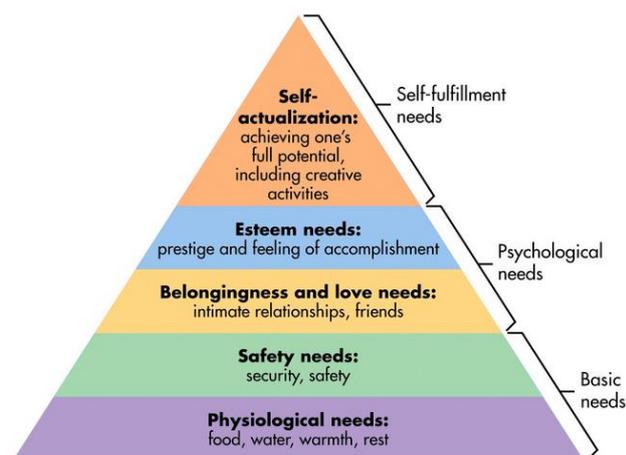


Figure 1 – Maslow's Hierarchy of Needs (Maslow, 1943)

However where there is not a post crisis event context, studying in higher education is more likely to be related to higher levels on Maslow's model of psychological and self-fulfillment needs.

8. LIMITATIONS AND AREA FOR FURTHER RESEARCH

The responses to the survey that were analysed were the open ended response to one question to a survey that was developed for other purposes. As a result there were some assumptions that were made in the analysis of some of the responses. It is suggested that a further survey be conducted of undergraduate students to explore the issues in this study more explicitly.

An exploration of the issues surrounding Maslow's model and the desire or need for privacy surrounding the use of social

media is also a significant area that could be the subject for further research.

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