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Reference:

Williams Marion Lucille, Saunderson Ian Peter, Dhoest Alexander.- Students' perceptions of the adoption and use of social media in academic libraries : a UTAUT study
Communicatio : Suid-Afrikaanse tydskrif vir kommunikasieteorie en -navorsing: - ISSN 0250-0167 - 47:1(2021), p. 76-94
Full text (Publisher's DOI): <https://doi.org/10.1080/02500167.2021.1876123>
To cite this reference: <https://hdl.handle.net/10067/1762090151162165141>

Students' Perceptions of the Adoption and Use of Social Media in Academic Libraries: A UTAUT Study

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To cite this article: Marion Lucille Williams, Ian Peter Saunderson & Alexander Dhoest (2021): Students' Perceptions of the Adoption and Use of Social Media in Academic Libraries: A UTAUT Study, *Communicatio*, DOI: 10.1080/02500167.2021.1876123

Abstract

This article reports on a study for which the Unified Theory of Acceptance and Use of Technology (UTAUT) served as a theoretical framework. The purpose of the qualitative exploration was to gain an understanding of students' perceptions of the adoption of social media, namely Facebook and Twitter, in an academic library setting. The study applied the constructs as described by the UTAUT, namely, performance expectancy, effort expectancy, social influence and facilitating conditions, to explore students' perceived behavioural intentions to use social media. A sample of 30 students were selected from two universities, one in Belgium (University of Antwerp) and one in South Africa (University of Limpopo), to gain better insight of the students' perceptions regarding the adoption and use of social media, in particular Facebook and Twitter, by the academic libraries at these two universities. The study showed that the adoption of social media is positively influenced by effort expectancy, performance expectancy and social influence. A major challenge reported by most respondents at the University of Limpopo was poor internet access and the non-adoption of Facebook and Twitter, whilst respondents at the University of Antwerp had mixed feelings about the adoption of Facebook and Twitter for scholarly communication.

Keywords: Unified Theory of Acceptance and Use of Technology; academic libraries; Facebook; Twitter; social media

Introduction and Contextualisation of the Two Universities

The use of social media, such as Facebook and Twitter, in an academic library environment indicates a change of attitude and behaviour regarding technology among the student community. With the emergence of the internet, web-based information services have impacted widely upon the provision of library and information services (Balaji and Kumar 2011). Social media have mainly been adopted in academic libraries to promote services and resources. Despite their low adoption rate, Collins and QuanHaase (2014) found social media to be an effective means of reaching students. Chu and Meulemans (2008) combined a survey and focus groups on students' use of social media for academic purposes and identified a hesitancy among students to adopt social media as an academic tool of communication. The students indicated that librarians and professors could create and use social media profiles in order to decrease hesitancy. In the same period, Burhanna, Seeholzer and Salem (2009) explored Web 2.0 technologies in an academic library using focus groups with undergraduate students, and revealed that students set clear boundaries between educational and social spaces on the Web and the library. It can be said that each generation of technology users has its own purpose and expected values from new technologies (Magsamen-Conrad et al. 2015). In terms of terminology used in the current study, Tess (2013) uses terms, such as social media, Facebook and Twitter, interchangeably and addresses their visibility in higher education settings to enhance and promote active learning for students. Similarly, Ezumah (2013) uses the terms social media networks, social media networking sites and social media network sites interchangeably, based on their ubiquity, by researching college students' use of social media.

Focusing on the younger generation, namely students, the guiding research question for the current study was: "How do students perceive the acceptance and use of social media in an academic library setting?" To answer this question, we drew on the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al. 2003). The authors developed and tested their theory using quantitative analysis; however, other researchers have also adopted a qualitative approach to gain an in-depth understanding of the factors that affect user acceptance of technology (see Gruz, Staves and Wild 2012; Ma et al. 2016; Rempel and Mellinger 2015; Saravani 2013).

The current study, used a qualitative approach to gain an in-depth understanding of students' perceptions and insights regarding the acceptance of Facebook and Twitter at two academic libraries. Qualitative research has a smaller sample size and is based on researcher engagement in the phenomenon, gathering data which provides a thorough description of events, situations and interaction between people, things, providing depth and detail (Sachdeva 2008). The aim of the study was to investigate the use of these platforms by students in an academic library environment, using the UTAUT (Venkatesh et al. 2003) constructs to ascertain students' behavioural intentions to use specific technologies.

Additionally, to explore the importance of national, cultural and social contexts, students were selected from two universities in different countries. The University of Antwerp (UA) is situated in an urban context in Belgium, Western Europe. It was founded in 2003 after the

merger between three universities (UA 2020a) and it has approximately 20 812 students, which makes it the third largest university in Flanders (UA 2020b). The University of Limpopo (UL) is based in a more rural context in South Africa. The UL was formed in 2005, by the merger of the University of the North and the Medical University of South Africa (MEDUNSA). The University of the North was established in 1959 under the apartheid regime's policy of separate ethnically-based institutions. In South Africa, the merger of historically disadvantaged institutions was seen as an opportunity to rid the post-1994 academic system of deep-rooted apartheid era distortions and inequalities in the broad education system (Mohuba and Govender 2016). However, the merger between the University of the North and MEDUNSA brought about administrative difficulties which led to the demerger of these institutions in January 2015 (UL 2014).

We realise that the institutions studied are vastly different in many respects, but we do think it is useful to compare them to learn about contrasting perceptions and uses of social media across different contexts. We deliberately chose these institutions for two reasons. The first was that they present interesting differences in their digital services and in particular in their adoption of Facebook and Twitter in the library context. The University of Antwerp Libraries (UAL) offer a vast array of electronic resources and are forerunners of emerging technologies to enhance service delivery. As we will elaborate below, they have adopted Facebook and Twitter as a communication tool in the library context, while the University of Limpopo Libraries (ULL) have not. More generally, the ULL suffer from a poor infrastructure and more limited digital services, so juxtaposing it with the UAL may help to ascertain the potential benefits of introducing social media in the library context. In this way, the use of Facebook and Twitter by the UAL was used as a benchmark, to enhance the current practice at the ULL. As the ULL are focusing on offering equal opportunities to disadvantaged students, adopting Facebook and Twitter may be a way to meet student needs and to offer students in this university in the Global South similar opportunities as students in the Global North. The second reason we chose to study these two institutions was more practical. The UL was a partner university in several Erasmus Mundus Partnerships programmes, including the Europe-South-Africa Partnership for Human Development (EUROSA) programme coordinated by the UA (2017a) and promotes mobility for South African and European students, researchers, academic and administrative staff (UA 2017b). As the first author took part in that programme, and was a student at the UA as well as an employee at the UL, she had first-hand knowledge of both institutions and the opportunity to study their differences from within.

Theoretical Framework

A number of theories have been used to explain and understand the acceptance of new technologies, including: the Theory of Reasoned Action (TRA) (Ajzen 2012); the Theory of Planned Behaviour (TPB) (Ajzen 1991); the Technology Acceptance Model (TAM) (Davis 1986); the Diffusion of Innovations theory (DOI) (Rogers 1995); and the Technology Acceptance Model (TAM) (Venkatesh and Davis 2000). The current study used the UTAUT model to explain the factors that affect user acceptance of social media. The UTAUT model focuses on intention to use technology predicting behavioural intention. Venkatesh et al. (2003)

researched and empirically tested their information technology (IT) acceptance model against eight other competing models, each with different sets of acceptance determinants, assessing the similarities and differences across all eight models. The models reviewed were the TRA, the TAM, the Motivational Model, the TPB, a model combining the TAM and the TPB (C-TAMTPB), the Model of PC Utilisation (MPCU), the DOI, and the Social Cognitive Theory (SCT). The UTAUT was tested and found to outperform the eight other models. We found seven constructs to be significant direct determinants of acceptance and use of technology in one or more of the individual models. The outcome was a unified model, the UTAUT, formulated around the core constructs of intention and usage. Thus, we propose four constructs of technology acceptance (behavioural intention) and use behaviour, namely: performance expectancy, effort expectancy, social influence and facilitating conditions. Venkatesh et al. (2003) define these terms as follows: “performance expectancy” is the extent to which an individual believes that this system will help to improve working performance; “effort expectancy” refers to the ease of use of the system; “social influence” is the extent to which an individual perceives that people who are important to him or her think he or she should use the system; and “facilitating conditions” is the extent to which an individual believes an existing organisation or technical infrastructure will support the use of the system. The theory also suggests that these four constructs are moderated by gender, age, experience and voluntariness of use (see Figure 1).

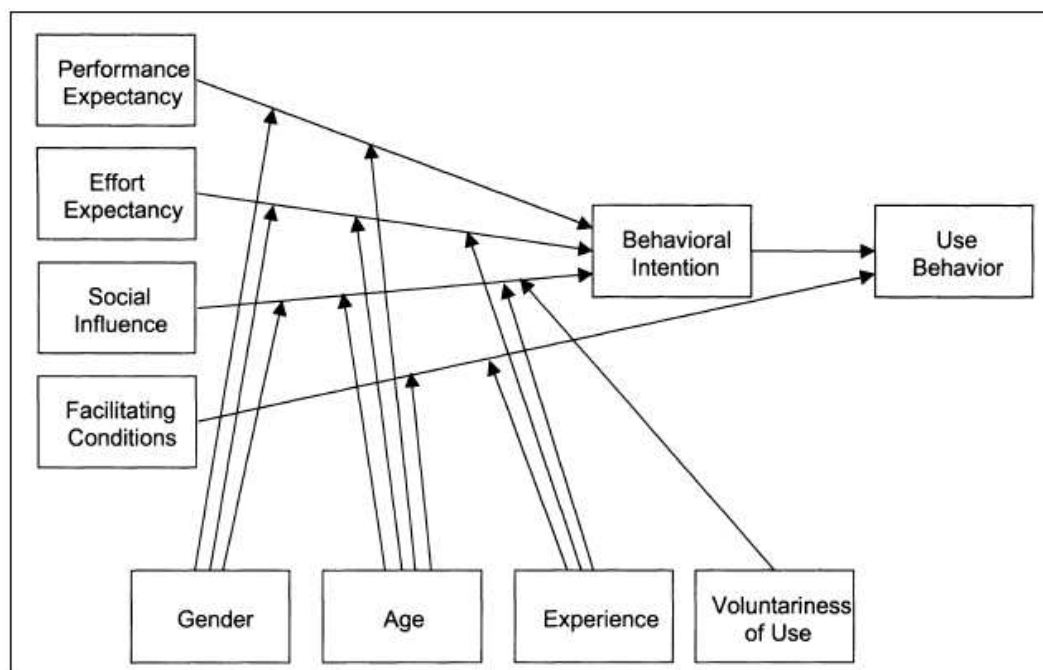


Figure 1: UTAUT model (Venkatesh et al. 2003).

Among other fields, the UTAUT model has also been used to study technology acceptance and use in academic libraries. For instance, Sejane (2017) conducted a survey regarding access to and use of electronic information resources in academic libraries in Lesotho. Based on the UTAUT model, the study adopted a mixed methods approach and reviewed the use of electronic resources in academic libraries for teaching, learning and research purposes, revealing positive behavioural intention to use new technology. Similarly, Kibugi (2013) used

the UTAUT model to explore the relevance and use of social media to disseminate information in eight libraries in Kenya, four of which were academic libraries. The study found that not all academic libraries were in favour of accepting social media, but that many academic libraries were using social media as a communication tool, which was related to ease of use, and also that libraries with good internet connectivity were more motivated to introduce social media services to communicate with their users. Challenges include unstable internet access, power outages, lack of technical knowledge to use social media, and restrictive ICT policies. Similar challenges were noted in a qualitative UTAUT study by Mpoeleng, Totolo and Jibril (2015), who researched perceptions of librarians and management on the usage of Web 2.0 technologies using online questionnaires at the University of Botswana. The respondents perceived social media as non-beneficial to disseminating information, indicating that performance expectancy did not enhance their job performance. Although social media are said to be easy to use, the study reported a lack of relevant skills and experience.

Chaputula and Mutula (2018) reported on a study that they conducted to determine academic and library related uses of mobile phones with internet connectivity by students in universities in Malawi. Their findings show a high percentage of mobile devices owned by students, which were used for searching electronic books, electronic journals and library catalogues. Most of the students in the study indicated ease of accessing services using mobile phones. The students responded positively to the availability of library and information services, using mobile devices to access their email and instant messenger, but were not keen to frequently access social media such as Facebook and Twitter. Similarly, Wong et al. (2015) explored the factors that influence users' behavioural intention to adopt mobile social media in facilitating formal or informal learning. Drawing on the UTAUT model, they found that performance expectancy and effort expectancy had a significant effect on behavioural intention. They also discovered that effort expectancy was influenced by mobility, reachability and convenience.

Although the UTAUT has been used in both quantitative and qualitative research to explore social media acceptance and use in academic libraries, the results are mixed: while the advantages of Facebook and Twitter have been widely reported, a number of challenges have been identified. To further explore the contextual nature of these challenges, we will use UTAUT to compare two specific library settings.

Methodology

Qualitative research includes various methods such as case studies, participatory inquiry, interviewing, observation, visual methods and interpretative analysis (Denzin and Lincoln 2008). For this exploratory study, we used interviews drawing on the UTAUT model to examine factors that affect the acceptance and use of social media in an academic library setting. The second and third part of the interview contained specific questions based on the UTAUT model, but the researchers phrased questions generally without using jargon pertaining to the conceptual model.

The population of the study comprised students from two regional settings: Flanders, the strongly urbanised Dutch-speaking region of Belgium, and Limpopo, a more rural region in South Africa. Beside the different countries involved, the main difference between these two regions concerns the lack of digital connectivity, which is much more prominent in Limpopo. Ali (2011) emphasises that physical access is only one aspect of the digital divide, as there are many forms of digital divide such as not having the latest and modern computer or the lack of internet connectivity. As explained in the introduction, we selected one university within two regions, the University of Antwerp and the University of Limpopo, respectively. The UAL have adopted social media platforms, in particular Facebook and Twitter. While Facebook and Twitter were adopted institution-wide at the UL and are managed by the Marketing and Communication Department, the university blocks the use of these platforms during core business hours, as a result, the ULL have not adopted social media platforms. The Website policy states: “Marketing and Communication shall be the only unit to approve any content and or information to the University website including design and development” (UL 2016), which includes social media networks.

We used a nonproportional quota sampling method for the study. Trochim (2001) notes that researchers are not concerned with having numbers that match the proportions in the population; instead, they simply require to have enough to assure that they will be able to talk about small groups in the population. To obtain the sample, first a request to conduct research was submitted to the executive management of each university. After consent was received, invitations were submitted via the student email listserv to all registered students at both institutions. Students who accepted the call for participation were contacted personally and interview sessions were arranged. After confirmation, a semi-structured, in-depth, one-on-one interview process followed. To add focus to the research, we limited the range of social media studied to Facebook and Twitter, but in the context of the interview we used the term “social media” interchangeably, while making sure that the respondents understood we were mostly talking about Facebook and Twitter. The first author conducted face-to-face interviews with respondents residing in Flanders between September and December 2016. While Voice over Internet Protocol (VoIP) interviews were intended to be conducted with respondents residing in South Africa, factors such as low response rate and internet connectivity problems led to the interviews being conducted using both VoIP and face-to-face methods. To accommodate students the snowball technique was implemented and soon the quota of 15 students was reached. Snowball sampling is a qualitative sampling technique where respondents recommend persons who might be willing to participate in the study (Osuagwu 2020). Three students were interviewed using VoIP and 12 were interviewed face-to-face. The interviews were held between December 2016 and November 2017. Thirty students were interviewed, 15 from each institution. Respondents were a mix between undergraduates and post-graduates from different faculties, and ages ranged from 18 to 62 years. Participation was voluntarily and the respondents’ identity was kept strictly confidential.

Ethical clearance was granted by the ethical board of the UA and permission was granted by the UL to conduct the study. To ascertain anonymity, only the researchers had access to the raw data and names of interviewees for communication purposes. We assigned codes according

to each university and a corresponding numeric number. For the UA, first we identified the institution (UA) followed by the abbreviation S for student, and the numerical code (1 to 15). For example: UAS#1. We used the same system for the UL, using the numerical codes ULS#16 to 30.

The interviews lasted between 30 and 45 minutes and were audio-recorded. They were transcribed and the data was organised and coded into pre-identified themes and nodes obtained from the conceptual model. In the first stage, the first author reread the transcripts and made notes of interesting ideas or statements. These were preliminary themes as she was looking for similarities and differences, extracting concise phrases related to the conceptual model (Smith and Osborn 2008). During the second stage, themes were listed looking for connections between them where important themes were clustered and linked to the pre-identified themes as outlined in the UTAUT model. The third stage involved continuing the analysis with other cases by incorporating interview data from different respondents, looking for repeating patterns and new ideas. The final stage was concerned with moving from the final themes to a write-up and final statement outlining the meaning inherent in the respondents' experience (Smith and Osborn 2008).

Results

For the sake of clarity, we will first discuss the findings separately for each institution, distinguishing between the four central UTAUT constructs, namely: performance expectancy, effort expectancy, social influence and facilitating conditions. Subsequently, we will compare both institutions, in order to better understand the contextual factors of influence on the students' perceptions of technology acceptance, behavioural intention and use behaviour.

University of Antwerp

Performance Expectancy

Performance expectancy is understood as the benefits the student will enjoy with new technology in relation to their academic performance. In the interview, the following question was posed: Do you think that the use of social media in academic libraries would improve your academic performance? In their responses, the students viewed the library as a provider of physical space and most were in favour of a one-stop platform to cater for all their needs and queries. A number of respondents perceived social media as having a positive effect on their academic performance: "I do find social media useful. For students it is easy to talk to people and it is easy to look up information and to ask questions. I accomplish tasks quicker when you ask questions on social media." UAS#2, UAS#3 and UAS#5 also found social media useful and effective in supporting scholarly communication. These statements support the construct performance expectancy, as social media were perceived as beneficial to academic library use. These platforms were seen as effective communication tools and information sharing was seen as an important factor by these students.

Effort Expectancy

According to Venkatesh et al. (2003), effort expectancy can be described as perceived ease of use. Quite a few respondents (UAS#2, UAS#4, UAS#5, UAS#6 and UAS#11) perceived social media as easy to use. They asserted that anyone with basic knowledge of the internet and computers will find social media easy to use. One student emphasised: “With social media it is easy to talk to people and easy to look up information and ask questions” (UAS#5).

Instead of commenting on UAL posts on Facebook, some students prefer to only “like” a page, indicating their active way of engagement as well as the posts’ suitability. Other respondents agreed:

Students adapt easily and no training is required. (UAS#13)

Yes, for the generation Y it is easily accessible and response time is fast. (UAS#6)

It [Facebook and Twitter] provide an open means of communication and when I don’t want to leave a comment, the “like” button allows me to easily interact with status updates. (UAS#14)

Yes, it is fast and it feels good to “like” posts. It is easy to share something [information]. (UAS#15)

While most respondents at the UA felt that social media were easy to use, and most perceived Facebook and Twitter to be useful for academic purposes, not all were in favour of using Facebook and Twitter in an academic context. One respondent was a non-adopter, two were against the use of social media for academic purposes, and three voiced concerns regarding privacy. Privacy was linked to information being public on open platforms; these respondents considered the use of Facebook in an academic context as unprofessional. One respondent (UAS#1), who is an avid user and adopter of Facebook, expressed strong feelings regarding the level of security. He believed that open platforms such as Facebook posed a privacy risk, adding: “I set my privacy settings so that only certain people can view my posts” (UAS#1).

Social Influence

Venkatesh et al. (2003) conceptualise social influence as the extent to which an individual perceives that important others believe they should use a particular technology. While the students did not refer to fellow students as important others in this context, they did refer to the library itself as an instance expecting and stimulating them to use Facebook and Twitter. Respondents agreed that the UAL’ decision to adopt and use Facebook and Twitter was supportive of student’s needs. Seven respondents noted that the library was supportive, making comments, such as “Students will fall behind if the library does not provide the needed resources” (UAS#6) and “Everything is neatly packaged and you can also send it easily to other people” (UAS#15). The respondents felt stimulated and comfortable enough to react to posts

on the library's platform and they believed that open platforms such as Facebook and Twitter are much needed. The interviews confirmed that students' attitudes and beliefs were influenced by management's decision to adopt Facebook and Twitter and the concomitant expectation of student usage.

Facilitating Conditions

Facilitating conditions were defined by Venkatesh et al. (2003) as the degree to which an individual believes that an organisational and technical infrastructure exists to support use of the system. In the interview, we asked: "Do you have the necessary resources and knowledge to use the system and do you think the library is supportive of social media?" Respondent UAS#15 felt that the library was supportive of his academic needs by adopting social media and creating a positive environment conducive for learning, stating: "Using social media channels to communicate information directly from the university library to students is fast." The UAL created facilitating conditions and provided an enabling environment for students with the required resources such as internet capabilities, Wi-Fi connectivity, strong infrastructure and bandwidth, as well as Facebook and Twitter as mediums of communication. Thus, the availability of technological resources and infrastructure constituted facilitating conditions for the acceptance and use of Facebook and Twitter in the UAL.

University of Limpopo

Performance Expectancy

Using platforms as such as Facebook and Twitter as an information hub students can be kept abreast of new developments at the ULL, such as newly acquired material and electronic resources, which could enhance academic performance. When asked whether they thought the use of social media in academic libraries would improve their academic performance, most UL respondents answered affirmatively. A significant number of them did have smartphones with internet capabilities, more so than laptops, and they believed that smartphones enabled them to improve academic performance. The respondents felt that Facebook and Twitter were accessible on their smartphones where information could be shared on these platforms enabling communication and collaboration between the library and the students. The students' behavioural intention to use social media for professional and academic purposes reveals that they were most likely to accept new technology, as they believed it would enhance communication and their academic performance. To them, the non-adoption of social media by the ULL indicated that environmental matters and infrastructure development of ICTs were not considered important by the university. The majority of UL students interviewed felt that these factors hampered their educational growth and were barriers to quality education and they feel that the library should adopt social media: "I feel social platforms are very useful for communication and spreading of information. The use of social media is a good idea because most students are on social media therefore the library can reach more people" (ULS#18). Even if social media were adopted by the UL, the respondents felt that the benefits could be limited based on the inadequate and poor internet connectivity. Performance expectancy was based on

how social media would help students perform in their academic work and allow them to be more productive. The respondents perceived social media services as convenient, accessible, and a time saver. They considered the sharing of information on suitable platforms to be an essential method to support students' academic work, minimising situations such as queuing for lengthy periods and dealing with employees face-to-face.

Effort Expectancy

The UL respondents expected the learning environment to be easy to use and to spend as little as possible time to source information. They related effort expectancy to speed and preferred the swift response that social media offered, positively assessing their ease of use. Fourteen respondents agreed that social media were easy to use but observed that this method of communication was not implemented by the library. Twelve respondents used social media for personal and academic use, and three were linked to private groups on Facebook created by their peers for academic sharing. Eight respondents perceived social media as easy to use and experienced no major challenges as they were familiar with the technology. The challenges they identified were related to the non-adoption of Facebook and Twitter by the library. Their expectations of an academic library were high and they thought the services of an academic library should be vastly different from those of a public or school library. They felt let down by the lack of innovative ideas, which respondent ULS#22 expressed as follows: "I think the library should adopt social media and come up with a programme of action to show [their innovative ideas]". All the respondents were in favour of adopting Facebook and Twitter in the academic library setting, as they perceived this mode of communication as easy to use.

Social Influence

As mentioned above, social influence is the extent to which individuals perceive that people who are important to them think they should use the system (Venkatesh et al. 2003). The study focused on students' responses to social influence as well as their perceptions of the (non-)adoption of these platforms by the ULL. Most of the respondents were avid users of digital technology, especially social media such as Facebook and Twitter. The social influence of the university library was limited in this respect, due to its non-adoption and lack of support for these technologies. However, the interviewees felt that Facebook groups created by themselves were supportive and as such promoted social media use. The respondents started using social media based on referrals by other students. They viewed social media as important for their academic growth, criticising the lack of support by the university library:

I don't think this is the way a library should be, it doesn't meet the requirement of being an academic library. We meet people this way. (ULS#23)

Having no social media is not good because sometimes when you read you need the internet and social media will increase our interests to come to library and read while surfing information. (ULS#26)

The ULL need to be improved especially with social media so that things can be easy for the students to find in the library and easy to communicate. (ULS#21)

The respondents felt that the social media buzz is rife but that they do not receive enough support from senior management which is not doing enough to help promote social media. This question generated negative responses with 12 out of 15 respondents who thought that the library and the university were not supportive of their digital needs. However, three respondents were content with the library not having social media as they prefer not be pressurised to use a specific technology. If mandatory, Gruzdz, Staves and Wild (2012) note that social influence may lead to stress and anxiety and may lead to some students not adopting social media.

Facilitating Conditions

Facilitating conditions refer to the degree to which students expect the university, enabling infrastructure, Wi-Fi and internet capabilities, as well socio-economic conditions to be available to support the adoption and use of Facebook and Twitter. Based on the ban placed on Facebook and Twitter during core business hours, using their own internet capabilities, are students able to access these sites? In the interview, we asked: “Do you have the necessary resources (use of own Wi-Fi or data) and knowledge to use the system and do you think the library is supportive of social media?” The UL interviewees described their frustrations as the lack of resources impacted on their workflow within the academic environment. Some of the respondents felt that the library was not supportive of their academic needs, socio-economic conditions and digital growth. Digital inequality was strongly expressed and apart from the lack of social media platforms, internet connectivity was intermittent. Respondent ULS#28 noted:

I also have a daily limit of data and regularly experienced network problems. I am in favour of Facebook and Twitter adoption and feel the library can share links to e-books and as the law section in the library is for [in-library] use only, e-books and electronic articles can be shared on social media.

Respondent ULS#21 said:

I think that the library, you know, we are modernised so we should be able to integrate technology and education at the same time. So if you are using social media platforms, like Facebook and Twitter, you actually integrating the two as one and attracting more young people into reading, into being interested in actually going to the library.

The respondents felt that the UL was not supportive of ensuring bandwidth and reliable Wi-Fi connectivity and that the ULL were not supportive of Facebook and Twitter. Most telling in this regard is the UL’s rule to close Facebook and Twitter during core business hours.

Clarification of the UTAUT Constructs

Our analysis confirmed the importance of the four main UTAUT constructs to understand the use and adoption of social media in academic library settings. While there were a number of similarities between both settings, there are also clear differences which will be discussed below.

Performance Expectancy

In relation to the perceived usefulness of social media for academic performance, students across both settings emphasised the benefits of social media, in particular Facebook and Twitter, for communication, dissemination of information, and promoting library activities. The respondents viewed the adoption of these platforms as a critical component of contemporary academic libraries. However, for the UL respondents this expectation was higher, as this service was not available to them yet and they clearly yearned for it. These students in particular perceived Facebook and Twitter as a crucial means of communication and sharing information, which would be beneficial to their academic performance. They considered the non-adoption of Facebook and Twitter by the ULL as a big challenge, as they saw it as an accessible tool to quickly communicate and share information, thus to improve academic work and productivity.

Effort Expectancy

Across both settings, the respondents considered Facebook and Twitter as easy to use. Most interviewees were familiar with the technology, and most had smartphones which allowed easy access to these platforms. A major difference, again, is the actual access to Facebook and Twitter, which is limited at the UL, due to the university's rule to close Facebook and Twitter during core business hours in conjunction with the lack of access to resources. Here, the introduction of Facebook and Twitter would need to be supported by additional training, in order to optimise use in an academic setting. In Antwerp, where students did have access to Facebook and Twitter in the academic library setting, some students preferred not to use Facebook and Twitter in this context, in part because of privacy concerns.

Social Influence

Social influence, in the UTAUT context, refers to the extent to which an individual perceives that important others believe they should use a particular technology. Here, we see a clear difference between both settings. At the UA, students felt stimulated by the institution to use Facebook and Twitter in a library setting. By actively using these platforms as communication tools, the university library created a supportive environment and built relationships with its users, thus influencing the adoption and use by students. At the UL, on the contrary, the respondents felt they were not supported by senior management to use Facebook and Twitter for academic purposes in the library environment. As a consequence, these students felt that they were lagging and lacking the required tools and skills to enhance their academic

performance. However, some students started using social media based on referrals by other students and joined self-created Facebook groups, clearly indicating the important social influence of peers.

Facilitating Conditions

At this level, the differences between both institutions are the greatest. At the UA, internet infrastructure and Facebook and Twitter platforms were widely available, thus creating all the necessary conditions to facilitate the use of Facebook and Twitter in the library setting. At the UL, internet access was limited and Facebook and Twitter were not supported in the library setting, actively discouraging students from using them. The respondents felt that the academic library was not doing enough to assist with the implementation of Facebook and Twitter tools, which resulted in poor communication. They believed that technology, resources and infrastructure support management's provision of the use of Facebook and Twitter.

Discussion

The main research question guiding the study was: "How do students perceive the acceptance and use of social media in an academic library setting?" The findings from the in-depth interviews provide an understanding why students use and prefer Facebook and Twitter platforms over other forms of communication. These findings contribute to existing literature and can also help academic libraries to adopt and use the technology to promote, share and disseminate information. At the UAL, the adoption and use of Facebook and Twitter has been a continuing process with differing levels of support. At the UAL, high levels of support have been achieved and Facebook and Twitter were easy to access. At the ULL, financial implications and aging infrastructure were viewed as major challenges and determining factors for non-adoption.

The UTAUT model helps us to better understand the use and adoption of Facebook and Twitter by students. While students, in both institutions, do think Facebook and Twitter are important communication tools in an academic library setting (performance expectancy), which is easy to use (effort expectancy), at the UAL the necessary facilitating conditions and social support are present, while these are mostly absent at the ULL. Within this overarching picture, however, it is important to point out that not all students were interested to use Facebook and Twitter in a university library setting. Some of the UA respondents raised concerns about privacy, while some of the UL respondents felt the use of Facebook and Twitter should not be obligatory. Across both settings, there was a shared concern that Facebook and Twitter should be available and accessible, but that students should not be forced to use them, which connects to voluntariness of use as a moderating variable in the UTAUT model.

In order to successfully introduce Facebook and Twitter in an academic library setting, it is crucial to both provide institutional support and to create adequate facilitating conditions. At the UAL, these conditions were met and although the UAL provided appropriate infrastructure to facilitate the use of Facebook and Twitter technologies, some respondents indicated

disinterest to use these platforms as they were content with their current methods of communication. These students did not use Facebook and Twitter as frequently for academic purposes due to the diversity of other media and platforms available to them as part of their educational experience. This echoes the findings of Collins and Quan-Haase (2014) and Burhanna, Seeholzer and Salem (2009), who each discussed the boundaries set by students between educational and social spaces as some of them preferred professional mediums of communication such as email. At the ULL, facilitating conditions were not conducive to support the adoption and use of Facebook and Twitter which sparked unhappiness and dissatisfaction among respondents. These students perceived that the adoption of Facebook and Twitter would assist them to frequent the library's digital platform regularly and to share information on real-time online platforms. Facilitating conditions depend on library management to provide suitable environments, technical support, required training and resources to facilitate communication activities and participation with academic libraries.

The UL respondents strongly voiced their intention to use Facebook and Twitter but felt that the university environment impacted negatively on their growth and that the university did not make sufficient resources available. Students were using mobile devices to connect to Facebook and Twitter, despite the institutional ban during core business hours. This illustrates the continued presence of a strong digital rift, particularly in a developing country where poor socio-economic conditions are evident. In this way, the current research echoes the findings of Kibugi (2013), who also reported the challenges identified by respondents, naming unstable internet access, unstable power, lack of technical knowledge on the use of Facebook and Twitter and restrictive ICT policies as the major factors linked to non-adoption of Facebook and Twitter. In contrast, Chaputula and Mutula (2018) reported that the usage of mobile technologies was received negatively for accessing library resources, services and social media, indicating that the small size of the screen and internet speed and cost were factors influencing against access to library services. This corresponds to some respondents from the UA who preferred to use laptop and desktop computers over mobile devices for many academic and library related activities, including Facebook and Twitter.

To increase the use of Facebook and Twitter, the ULL should strive for a user-centric approach to promote the library's services. While the ULL do not have Facebook and Twitter accounts, the UAL have been offering two types of social media, Facebook and Twitter, to keep abreast with developments in the field. The findings show that most of the UL respondents were in favour of Facebook and Twitter as it exposes them to national and global collaboration with peers in their field of study, but they feel that they do not have enough support from senior management within the library to adopt Facebook and Twitter. This is in line with Mpoeleng, Totolo and Jibril (2015), who found that the institution was not doing enough to help with the implementation of social media tools. These authors also perceive digital literacy as a factor facilitating social media usage and Kibugi (2013) concurs, also encouraging academic libraries to support and develop information literacy skills among students. Wong et al. (2015) found that updated infrastructure, access to technology and training opportunities acted as facilitating conditions motivating students to use technology for academic purposes.

Conclusion

There are clear disparities between the two academic libraries in terms of good infrastructure and support from the university's management. Based on these findings, it is suggested that the ULL should benchmark service delivery to continuously improve their facilities and to keep abreast of students' needs. They should update communication channels using innovative methods, to improve the dissemination of information and to create an easier and faster method of communication that is widely acceptable by students. Facebook can be used as a forum for research-related discussions and for the sharing of academic content, in order to increase collaboration, creating interactive dialogue. Facebook and Twitter offer flexibility to communicate in a virtual space without direct contact and allow 24/7 access to information posted by the ULL. Keeping a balance between virtual and face-to-face interactions, facilitating conditions should be improved to support students' willingness to use Facebook and Twitter. According the responses from students at the UL, library management should take a leading role to develop and enable academic library services to students using Facebook and Twitter. Furthermore, Facebook and Twitter have become favoured alternatives as communication tools between the UAL and the majority of the respondents in the study, so too proposed by the UL respondents. The study established that Facebook and Twitter are not foreign to student respondents at a rural university and revealed their need to use these platforms for information sharing and to accommodate them on platforms that are accepted by them. This being an innovative means of communication offer opportunities for the ULL to deliver virtual services to students.

While building upon existing literature using the UTAUT model, our qualitative approach allowed to better understand the lived experiences of students and their perception of the various factors influencing their acceptance and use of Facebook and Twitter. Moreover, the study identified opportunities for improvement and we were able to clearly see the importance of contextual factors. By benchmarking a rural university library, the ULL in the Global South, against an urban university library, the UAL in the Global North, the study could identify the lack of digital connectivity, which most clearly manifested in the facilitating conditions for the usage of social media at the ULL. However, we are aware that some of the study findings may be related to the specificities of the institutions studied, so further research on other academic libraries is warranted. Moreover, as is the study was based purely on students' perceptions, further research is necessary to better understand the importance of financial and infrastructural restrictions on the adoption of Facebook and Twitter in academic libraries, also including the views of librarians and administrators. Finally, quantitative research using larger and representative samples would be necessary to ascertain the relative importance of the UTAUT constructs, which were only provisionally observed based on the small study sample. This would also allow researchers to explore the role of the moderating variables age, gender, experience and voluntariness of use, of which some indications were found but no conclusions could be drawn.

Acknowledgement

The study was funded by the Europe-South-Africa Partnership for Human Development (EUROSA).

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