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The Impact of Cultural Familiarity on Students' SM Usage in Higher Education

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Abstract

Using social media (SM) in Higher education (HE) becomes unavoidable in the new teaching and learning pedagogy. The current generation of students creates their groups on SM for collaboration. However, SM can be a primary source of learning distraction due to its nature, which does not support structured learning. Hence, derived from the literature, this study proposes three learning customised system features, to be implemented on SM when used in Higher Education HE. Nevertheless, some psychological factors appear to have a stronger impact on students' adoption of SM in learning than the proposed features.

A Quantitative survey was conducted at a university in Uzbekistan to collect 52 undergraduate students' perception of proposed SM learning customised features in Moodle. These features aim to provide localised, personalised, and privacy control self-management environment for collaboration in Moodle. These features could be significant in predicting students' engagement with SM in HE. The data analysis showed a majority of positive feedback towards the proposed learning customised SM. However, the surveyed students' engagement with these features was observed as minimal. The course leader initiated a semi-structured interview to investigate the reason. Although the students confirmed their acceptance of the learning customised features, their preferences to alternate SM, which is Telegram overridden their usage of the proposed learning customized SM, which is Twitter. The students avoided the Moodle integrated Twitter (which provided highly accepted features) and chose to use the Telegram as an external collaboration platform driven by their familiarity and social preferences with the Telegram since it is the popular SM in Uzbekistan. This study is part of an ongoing PhD research which involves deeper frame of learners' cognitive usage of the learning management system. However, this paper exclusively discusses the cultural familiarity impact of student's adoption of SM in HE.

Keywords: social learning, localised, personalized, privacy, SM, familiarization.

1. Social Learning Theory

Social learning theory has been proven intensively as the primary construct of learners cognition (Bandura, A. and Walters, R.H., 1977). One of the fundamental learning key elements is peer social interaction (Vygotsky, L.S., 1980), including the online learning field (Abrami, Philip C. et al., 2011). Furthermore; cognitivist, who are fundamental learning theories specialists, suggest that the human being is an active learner who select, filter and evaluate based on their needs and goals (Collins, a, Greeno, J.G. & Resnick, L.B., 2001). Moreover, social learning overlaps with significant positive learning skills such as learning self-regulation LSR. Learning self-regulation is described as a “learners’ ability to independently and proactively engage in self-motivating and behavioural processes that increase goal achievement” (Zimmerman, 2000). Self-regulated learners have the ability to “initiate meta-cognitive, cognitive, affective, motivational, and behavioural processes in order to take actions, achieve their learning goals and persevere until they succeed”.

Peer collaboration is expected to increase when free and open SM (SM) is available (Veletsianos, 2017). For example; Twitter has been used in previous studies to support learners’ collaboration (Tur and Marín, 2015). Twitter has default features that are advantageous for learning-oriented socialisation. Twitter allows only 140 characters per tweet, which, in this study, is presumed to increase peer collaboration effectiveness by reducing text length. Recent studies have empirically demonstrated that using SM in learning improves learners’ self-regulation, cognition, and meta-cognitive skills (Blaschke, 2014).

2. Learning Collaboration in SM

The learning process in higher education has changed in the SM era (Popescu, 2014). Students are more interactive and present on SM platforms than any other platform (Selwyn, N., 2012). While some researchers question whether SM can be used as a learning platform (Hrastinski, S. & Aghaee, N. M., 2012), others believe it is widely adopted among learners in higher education, as some students view it as a successful LMS, like Facebook (Ouya, S. et al., 2015) . Furthermore, it can potentially cater to several (social) learning theories (Goodyear et al., 2014). For example, it is an effective platform for the inquiry-based approach and is an ideal tool for peer collaboration, and to be an effective platform for resources and peer knowledge sharing (Mazman, S.G., and Y.K. Usluel, 2010).

Some researchers believe that SM does not necessarily provide learners with cognitive learning, as they use it more for socialising and non-academic activities (Selwyn, N., 2012). Furthermore, other researchers have argued that only a minority of learners, in fact, utilise SM for precise learning purposes (Prescott, J., S. Wilson, and G. Becket, 2013). These arguments have been changing rapidly in the SM learning field, as SM integration into formal (and non-formal) education investigating the integration of SM into LMS has limited empirical studies (Greenhow, C. and Lewin, C., 2016).

According to a recent study, some students show resistance toward using SM in their learning. The qualitative survey reported that students tend to separate their personal life from their learning. Also, they are concerned about their shared content's judgment, and they are not keen on the extra time and information constraints that SM might add (Jones, Norah. et al., 2010) . Also, other research has identified privacy and anonymity as other hindering factors in students' usage of SM in their learning (Smith, 2016).

Authors have argued against the adoption of SM as a peer collaboration platform in formal learning. For example, one study revealed that time spent on Facebook negatively impacted students' achievements (Kirschner, P. A., and A. C. Karpinski , 2010) and assignment completion (Junco, R., and S. R. Cotton, 2013). However, it is worth mentioning that the LMS environment is continually evolving towards more social connection and faster access to contents. For example, a recent LMS is 'Tagging', which allows for personalised and more accessible collaboration among peers (Klašnja-Milićević, A. et al., 2018).

3. Learning Social Engagement Features

Recent researches are investigating the integration of SM into HE (Cooke, 2017). However, the nature of the SM platforms remains a questionable collaboration environment for students in HE. Accordingly, this study proposes three features to be implemented on the integrated SM as they are presumed, based on the literature, to enhance students adoption of SM in HE. The four features are; localized collaboration, content personalised collaboration, and privacy self-management.

Researchers have investigated the potential of SM in formal learning, as it conserves a significant amount of contents (Dabbagh and Kitsantas, 2012). Although SM does not support the pedagogical approach to learning (Liu, Y., 2010), the recent generations of university students are using it as the leading tool for content creation and reflection (Tess, 2013). Although SM has been described as a new form of a decentralised learning platform (Junco, R., and S. R. Cotton, 2013), in HE, using SM could be disadvantageous for the students' learning process as it can easily cause students' attention to drift (Abe, B. P. and Jordan, N. A., 2013).

The volume of shared content and the diversity of learners' backgrounds can negatively influence the learning experience on SM (Chen, X. et al., 2014). The decentralised learning process is another drawback of using SM in HE, as the relocation of students from the LMS to an SM platform can quickly isolate them from structured learning. Also, many students believe that all information should be in one place when it comes to formal learning (Salmon, G. et al., 2015). Accordingly, this study proposes an integration of SM platform (which is Twitter in this case) into an LMS (Moodle) with three learning customised features. These features are discussed next.

3.1. Localised Collaboration LC

An LC is represented by implementing a localized SM collaboration panel in each section of the LMS. It is presumed to improve learners' perceived ease of use. Also, this may support students' LSR skills (such as focus, time management), as they will have fewer tasks to manage themselves (such as moving between the SM platform and the LMS).

3.2. Content Personalised Collaboration

One of the repeatedly reported barriers to learners' use of SM in learning is content overload (Ri, Son and Kyu, 2016). A large amount of SM user-generated content can limit its benefit as a source of information. In this research, SM panel is enabled in each section, as discussed above. Moreover, each section's SM panel personalises the contents generated on it.

3.3. Learners' Privacy Self-Management

Tu (2002) describe privacy as the perception of respect across psychological, mental, cultural, and conditional boundaries and dimensions' (Tu, C.H., 2002). In the literature, user privacy in SM is defined as an individual's autonomy over his or her personal information, including any relevant exchanged content (Shin, 2010). The current research investigates the main reported aspects that have prevented learners from using SM in HE if any. Since SM is a two-communication-channel platform, the present study examines common negative influence factors in each channel (inspired by (Leonardi, 2017)); barrier factors that influence information contribution (post, reply, like), and factors that affect information retrieval (read, search).

Based on the literature, one of the main (information contribution) barriers for learners to use SM in learning is privacy concerns (Blaschke, 2014) . The behaviour of using SM is significantly influenced by the individual's perspectives of the SM community (Taddicken, 2014). This inhibits and restricts user activity and interaction over the platform and might limit or divert their actual behaviour (Vitak, 2012). Few studies like (Prinsloo, P. and Slade, S., 2015) have investigated learners' privacy self-management methods to overcome their identity disclosure concerns in using SM. Hence, the present research examines learners' perception of privacy self-management in SM as a predictor of their acceptance of using SM in HE.

4. Methodology

4.1 Questionnaire's aim and objective

The aim of this questionnaire is to measure the students' proposective feedback toward the research proposed method. The method is an integration of SM in formal learning learning management system. In addition, three features are proposed to be implemented on the integrated SM to support learners' engagement. In order to achieve the questionnaire aim, each feature were represented on the questionnaire to enable the students' view. In addition, the students were required to respond to a standard technology acceptance model questionnaire items which were extracted from the literature. These items empirically proved to measure high accuracy acceptance level of the sample.

4.2. Population

The population is the entire group of individuals, events, or elements of focus that the researcher intends to evaluate. A sufficient sample is selected from the wider population to investigate it (Trochim, 2002). Current research population comprises the undergraduate students (male and female) at the International University of Westminster in Tashkent (WIUT). The WIUT is a partnership branch of the University of Westminster in UK, and it is based in Tashkent, Uzbekistan. The participants of this questionnaire have a similar age group of (17-22 years old) since they are enrolled to the same undergraduate course. All of the students have previous experience with IT and Moodle as they have used it in previous years for their learning.

4.3. Sampling

Sampling is “the process of selecting a sufficient number of elements from the population” (Sekaran, U., 2003). Sampling is important when it is surveying the entire research population is not achievable due to its vast size, time frame limitation, or regional boundaries (Saunders, M. et al., 2009).

The targeted sample of this research is concerned within a case study of undergraduate students at WIUT from Business Information system department. The sample is undertaking two computer science courses. And they access their learning contents on Moodle. There will be two cohorts to undergo the case study of the current research; prior experiment and post-experiment on the same Moodle. The total number of student for the prior experiment, which is cohort 2019, is 457 students.

4.4. Data Collection

A quantitative questionnaire was used in this study in the form of an online survey which has the advantage of approaching a more extensive range of the population. Also, it is time and effort valid. However, it also eliminates the presence of the researcher on the site where the survey is being conducted, which might negatively affect participants' completion rate. Also, it eliminates the potential direct communication between the researcher and the participants (such as providing clarification on specific questions), which may disadvantage the quality of the survey responses (Cooper, C.J. et al., 2006). Furthermore, quantitative questionnaires are practical for large populations. Finally, recently developed online survey tools provide enough support to collect a sufficient quantitative data from a large sample.

Statisticians have discussed five criteria of a sufficient questionnaire; these concern respondents' attributes, respondents' impact, false respondents, sample size, sample type, and how many items are in the questionnaire. A technique that makes a questionnaire successful is to conduct a pilot survey to obtain feedback on the design and the comprehension of the survey questions (Robin Flowerdew, 2013).

By implementing the criteria above for a sufficient questionnaire, an online self-reporting Likert-scale questionnaire was used since this study is conducted remotely from London. Also, an online survey

has been chosen because of the large sample size as well as the number of survey items is relatively high.

4.5. Questionnaire development

4.5.1. Validity and Reliability

Questionnaire design is vital to the data collection phase as it can impact data response scale, data validity, and data reliability (Heale and Twycross, 2015). Questionnaire validity is concerned with the accurate presentation of the data to be measured, which is the researcher responsibility.

On the other hand, a questionnaire is reliable if it requests the same specific type of data using the same approach and standardised format through different periods and across the various environment, and if it collects the responses to the questionnaire using one unified method of data collection (Richardson, J.T., 1990). Finally, a questionnaire is reliable and valid when the items are understood and perceived by the respondent precisely as intended by the researcher. Conversely, the collected data should be perceived by the researcher precisely as intended by the respondent (Mark S. Litwin, 1995).

4.5.2. Survey Items

In the current study, the questionnaire evolved through several phases to establish its validity and reliability. Fifty-two items were developed to cover all model variables. Although the questionnaire items were driven from the literature, they have been through several phases of editing and re-wording to remain within this research context.

4.5.3. Survey Scale Type

The second phase of the questionnaire development was to determine the survey scale type. Likert scale requires individuals to respond to a direct statement with a range of agreeing to disagree answers; the scale can be on five or seven points. In this study, a five-point Likert scale was adopted, with strongly disagree as to the lowest score and strongly agree as to the highest one. Furthermore, each question is formed as a statement with which the students must indicate whether they strongly agree or strongly disagree using five scale points.

4.5.4. Survey Design and Tools

The third phase focused on the design of the questionnaire layout. Questionnaire attributes such as question layout, general presentation, and short and simple question formation (considering simplicity and specificity) have a significant impact on completion rate and on minimising error (Lietz, 2010). The questionnaire in this study was developed as an online survey using the Qualtrics online survey tool. Moreover, Rada (2005) highlights the effects of a well explained cover letter on survey response rate (Rada, 2005). In corispondance to that, the invitation email of this study described the aim of the research and the intention of the survey, the voluntary contribution, and the personal privacy code of the collected data.

4.5.5. Questionnaire Pre-Testing Phase

The last phase of the questionnaire development involved pre-testing for validity, reliability, errors, and mistakes (Presser, S. et al., 2004). The questionnaire went through the following pre-testing phases. The preliminary version of the questionnaire was examined by the supervisory team of this study. Feedback was suggested concerning the questionnaire design, layout, and the use of more straightforward language. Based on the received recommendations, the questionnaire was revised.

The next pre-test method was a pilot study. A pilot study is an essential practice as it mimics the data collection process to detect potential pitfalls in order to improve and prepare the survey for the actual data collection phase (Van Teijlingen et al., 2001). In this study, the pilot study was operated by recruiting postgraduate psychology students from the University of Westminster, UK. A total of 16 responses were collected, of which seven did not include missing data. The sample size suggested in the literature for a pilot study ranges from 100 to 200 responses; however, this size was not satisfied, which is one of the limitations of this study.

The final approach to examine the questionnaire was performed by the PhD researcher, PhD supervisory team, and the involved instructors of the Moodle signed up a course. The researcher reduced the survey size while maintaining the same number of items by using the matrix answer format in the survey. This approach decreases the amount of text and images. The survey design, matrix response format, and the included consent cover letter were reviewed and confirmed as ready for the actual data collection phase of the study.

5. Data analysis

This section provides the students' perspectives on the proposed features. It starts with the students' perception of the localized SM on each section on the Moodle; then it discusses the topic of the personalized collaboration feature of the integrated SM. The third presented data analysis is the students' perception of SM privacy self-management. The last discussion in this section tackles the students preferred SM platform for learning which explains why the integrated Twitter was not utilised by the students even when it is integrated on their Moodle.

5.1. Students perception of Localized Twitter and Topic personalised collaboration

Similarly, the students' perception of the localised integrated SM panel on each section on the Moodle was highly positive. The acceptance range of 52 students was between 82%-95%. However, this feedback is not aligned with the students' actual interaction with the localised Twitter panel on Moodle of this study. As discussed earlier, the students are not familiar with Twitter, this was the main reasons for not interacting with it even when it provided a learning customized features. Based on the students' feedback, the learning customized features have been perceived by the same

students to support their learning positively. Below is data visualisation of the students' responses on the questionnaire followed by a summary table of their acceptance answers on the theorised relations.

Survey Items	Localised panel on Moodle' section Total agree	Twitter on each section Total agree	Topic personalized collaboration Total agree
It makes my learning more effective	86%		98%
I can block out most other distractions when I use it	82%		92%
It is easy to access	90%		94%
It is useful for my learning. Therefore I use it	91%		94%
I utilise it as I find it is easy to use	93%		90%
I use it because I can block out most other distractions when I interact with it	93%		94%
I find it useful for my study skills as it helps me to plan for my learning tasks	95%		93%
It helps me to remain focused which improved my learning regulating skills such as study time management and study tasks planning	94%		92%
It helps me with setting my learning goals and to remain motivated toward learning	90%		94%

5.2. Students' perception of Privacy self-management

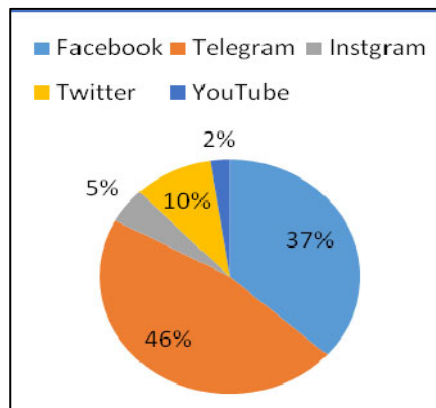
The students' perception of the SM privacy self-management feature was a little bit lower than the previously discussed SM features. However, it remains high perception as the affirmative acceptance ranged between 79%-89%. The following summary table provides further insight into this feature.

SM ID privacy management survey items	Percentage of Total agree
I feel less anxious when I can control my twitter ID privacy on Moodle	79%
I feel free to contribute on the Moodle-Twitter when I can control my twitter ID	81%
I use the integrated Twitter as I feel less anxious when I can control the privacy of my Twitter ID on Moodle	89%
I use the integrated Twitter as I feel free when I can control the privacy of my Twitter ID on Moodle	79%

5.3. SM for learning based on cultural preferences

In the literature, the cultural impact on users' adoption of SM has been explored from different aspects; such as political, economic, and the fundamental rules of internet usage of the country (Bolton, R.N., 2013). Accordingly, it is clear to identify a preferred SM in each country. For example; Facebook and Twitter are used by the majority of people in the USA, while in China, the majority of people use Weibo and RenRen (Forbush, E. and Foucault-Welles, B., 2016).

The last question on the survey explored the preferred SM by the WIUT students. The students provided positive perspectives on the proposed features of the embodied Twitter on Moodle. However, their actual usage was significantly limited. As discussed earlier, the student's qualitative feedback revealed that they are not familiar with Twitter. This was confirmed in the survey as they voted for Telegram, followed by Facebook as their preferred SM platform for learning. Furthermore, the course leader reported that the students created their own Telegram groups as they are familiar with it for collaborative learning.



6. Conclusion and future work

The result of this study warrants further investigation as it touches a significant factor of learners' acceptance of SM in formal learning. This factor is Cultural familiarity of SM acceptance in formal learning which seems to override a positively accepted customized learning environment in unfamiliar SM. The WIUT students chose to collaborate on external SM platform even when they had an integrated (learning customised) Twitter on their Moodle. Moreover, regardless of their positive perspectives of the Twitter features, their familiarity with Telegram derived them to use it instead.

A wider sample population, and more case studies are required to be covered in order to formalize a conclusion on how much cultural traits influence SM acceptance in formal learning. The question this study raises is which feature that can be technically manipulated to significantly influence learners' acceptance of new SM environment for collaborative learning? Future studies require further investigation on the personal and cultural traits that can significantly influence learners' acceptance of SM in formal learning.

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