BUILDING THE 'CONNECTION' BETWEEN THE STUDENT, THEIR PEERS AND THE LECTURER: HOW SOCIAL MEDIA CAN ENHANCE STUDENT ENGAGEMENT AND AFFORD INFORMAL LEARNING OPPORTUNITIES

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Abstract

One of the key objectives of the Pedagogy for Employability strand of the University of South Wales (USW) Student Experience Plan [1], is the creation of 'transformational learning and social bridges' which build 'rounded self-aware students who are continually reflecting upon and refining their personal approach to their own learning within the context of a learning community' [1]. In September 2017, the Centre for Excellence in Learning & Teaching recruited a graduate intern to carry out a study to investigate staff and student digital literacy levels and the use of technology for learning and teaching across the institution.

Staff and student surveys were carried out to understand the attitudes to technology, with follow up focus groups and interviews to gain deeper understanding of the technologies being used. Staff from a range of subject disciplines participated including Business Management, Biology and Primary Studies and students from across the institution took part in the JISC Digital Experience Tracker, a UK wide project designed to benchmark students' use of technology in both Higher Education (HE) and Further Education (FE).

For centuries, formal teaching methods adopted at universities have been based on lectures and individual learning [2] and often characterized by heavily structured teaching approaches [3]. In the traditional HE environment, building a rapport between students and lecturers is essential to learning yet often quite a difficult thing to manage given the large scale of classes. In recent years, however, the use of technology to enhance learning and teaching has become increasingly popular. The widespread availability of new tools, technologies and devices means that learners are now able to interact with and reflect on learning content in new ways [4].

Findings of this study indicate that students are using social media as a tool to reflect and collaborate with both their peers and their lecturers in an informal manner and comment favourably on the opportunity to build relationships and reflect on their learning. Feedback from staff is similarly positive with comments focusing on how social media tools enhance engagement, and facilitate independent learning through experimentation, curiosity and creativity.

The presentation will draw on how students use technology informally to reflect on their own learning, in particular their use of social media. It will be of interest to anyone concerned how technology can enhance student engagement and create informal learning opportunities; it will also be of interest to staff involved in providing staff development and support for how technology can be used as a tool for reflection and dialogue.

Keywords: Informal, Social Media, Reflection, Creativity

1 INTRODUCTION

In recent years, the use of technology in the classroom has become increasingly popular. The widespread availability of new tools, technologies and devices means that learners are now able to interact with and reflect on learning in new ways and teachers are given new opportunities to teach. There has been a huge shift in the way that education is available to learners and technology is changing the shape of formal education [5].

1.1.1 Technology and learning in Higher Education

In Higher Education, the role of technology has evolved from a computer assisted learning model in the 1970s, based on mainframe technologies to today's Internet era where mobile technologies are the

norm [6]. Conversations no longer focus not on **whether**, but **how** technology can enhance the learning experience [7] and the need to improve digital literacy skills [8], while much is made of the opportunities afforded by ubiquitous technologies which facilitate greater opportunities for personalisation and more student-centred approaches to learning [9]. Social-constructivism and connectivism dominate the educational debate thanks to the increasing availability of tools such as mobile phones and tablet devices which facilitate collaborative learning, accompanied by a renewed drive towards a more open educational approach as seen for example, by the advent of Massive Open Online Courses (MOOCs) the open educational resources (OER) movement and the foundation of the Creative Commons License [10].

The shift of focus to the learner has led to greater emphasis on what tools students use and why [8] with many institutions developing policies and guidelines around BYOD (Bring Your Own Device), enabling learners to engage more easily with technology both in the classroom using interactive approaches such as Audience Response Tools and to extend learning beyond the classroom to encourage authentic, real-life learning experiences in more unconventional learning and teaching environments [6]. Indeed, the changing landscape in which UK Higher Education is operating has led to increased investment in both formal and informal learning spaces. These support both innovative approaches where technologies such as interactive surfaces, wireless projection and mirroring and web-conferencing are integrated features and more conventional lecture theatres supported by lecture capture tools which allow students to access recordings within the virtual learning environment (VLE) any time [11].

We should be careful about making assumptions however as to students' digital literacy skills [12]. Margaryan, Littlejohn & Vojt [8] suggest that students need help to make the most of tools available to support learning and while many are active users of social media, the social networking skills they develop do not necessarily transfer easily to learning; similarly, opinion is divided in terms of the role of social media in enhancing the learning experience and improving engagement [8].

Research suggests that staff reticence and lack of confidence in using technology still present a challenge both in terms of providing appropriate support and staff development opportunities and maximising the opportunities afforded by emerging technologies. While almost all Higher Education Institutions in the UK have a VLE, they are used primarily as content repositories with students citing a preference for messaging tools to the asynchronous tools provided in the VLE [8].

1.1.2   Informal learning in Higher Education

When we think about learning, we most often think about the classroom context where learners are provided with instruction [13]. The influence of traditional forms of education remain strong in HE and informal learning is often ignored and undervalued [14]. In HE, a 'transmissive' model is most commonly used where knowledge is transferred from a lecturer to a student [2]. Despite this, the authors of this paper aim to present the opportunities that informal learning can provide to learners today, in Higher Education in the UK.

Informal learning most often takes place outside of the classroom with limited direction from others [13]. Technology is a major player when facilitating informal learning and is an 'important cognitive and socialisation agent for contemporary learners' [15].

Schugurensky [16] divides informal learning into three forms; self-directed learning, incidental learning and socialisation. He discusses the nature of these three forms and their relevance to the overarching umbrella of an informal context. He defines incidental learning as the type of learning that occurs when the learner did not have any intention of learning something out of a particular experience.

Willoughby and Wood [13] suggest that these informal and formal contexts can 'provide a forum for rich and comprehensive learning opportunities'. Previous studies have highlighted that there is an increased interest in 'self-directed, curiosity-based learning' and that informal learning can provide these opportunities when blended with formal learning methods and 'create an environment that fosters experimentation, curiosity and creativity' [17].

1.1.3   Reflection, creativity and making connections

The use of technologies in HE is what the authors feel can provide the learner with opportunities for interactive dialogue and reflection, dynamic content creation and creative learning and development. As Carroll et al [18] discussed the very nature of a blog, chat and forum tool can help to instill in students not only the motivation to reflect but also the opportunity to experience the inner mechanics of a subject and to make the relevant connections to further their understanding. In their research, they found that

social media was used by students, 'almost like probing extensions, to deepen their thoughts, feelings and understanding of the subject and their learning' [18]. Indeed, for those connections to happen, the lecturer has to take on board these technologies and has a role to play in nurturing the right interactions and reflective experiences that will afford these connections. In addition, students need to feel comfortable in their learning environment and confident in using the new tools that are available to them and have a certain level of trust in fellow-participants [18]. Learning is about making the right level of connections at the appropriate time; the authors feel that both reflection and creativity are critical components of this. As Kop and Carroll [18] suggest 'there should be an atmosphere that nurtures an inner confidence in the learner to engage in playful activities, to experiment with new and different ways of articulating their thoughts, feelings and ideas, to push boundaries for creative expression and then share these with others'.

'Reflection in the context of learning is a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciations' [19]. It may take place by the individual learner in isolation or in association with others. As Boud et al [20] highlights 'reflection is vital element in any form of learning' however, they claim it is something that we often overlook in formal learning settings. In fact, they believe it is something that is easy to neglect as it is something, which we cannot directly observe and which is unique to each learner [20]. The goal of this research is to explore what technologies are being used by staff and students in H.E and how they are being used. As authors, we are interested in how the technologies can support reflective activities, and the critical engagement with information that would lead to deeper levels of creativity and learning; to nurture 'the deep involvement in and effortless progression of the activity' [21].

What is interesting is that technologies today have the flexibility to support both formal and informal learning connections; the question lies in understanding the strengths of these different technologies and how we tap into these different attributes to afford the attainment of the higher achievements and deeper learning.

2   METHODOLOGY

The purpose of this research was to investigate and explore staff and student use of technology at USW. The focus of this research was to explore which technologies staff and students are using and how the technologies are being used to enhance teaching and learning.

This research project used a mixed method approach. Focus groups, surveys, desktop research and semi-structured interviews were used so that data could be triangulated to provide a more in depth and clear study of the digital technologies being used at USW.

A project group was devised with colleagues across the University including academic, support and administrative staff. Regular meetings were held to agree on data collection methods and the initial findings of the project.

Questionnaires were used for both staff and students to gauge initial responses, as they are a common form of data collection that users are familiar with and did not require any additional expense as part of the project. Students at the institution took part in a national benchmarking exercise provided by JISC. The Student Digital Experience Tracker was a short survey that aimed to gather student experiences of technologies at USW and later benchmarked across other HE institutions in the UK. At USW the tracker was opened to first and second year students and was released in January 2017 with a target of 200 respondents.

As part of an introductory study that took place at the institution in Spring/Summer 2016 a staff questionnaire had been drafted with recommendations for changes, this was changed and released to staff in January 2017 with a target of 50 respondents. Following survey respondent participation, staff were invited to a semi-structured interview and students were invited to a focus group to get a deeper insight into peoples' thoughts and views on their digital experiences, expectations and use of technology for teaching and learning. Semi-structured interviews suited best for this purpose because this type of interview collects detailed information in a conversational style [22]. Focus groups were offered to students to allow for a better interaction between participants and highlight their views and share their experiences in an informal way [23].

3 RESULTS

A total of 545 USW students participated in the JISC Digital Experience Tracker while, over 200 staff members participated in the internal survey. All respondents were invited to attend either a semi-structured interview or focus group on responding to the initial survey. The findings of this project demonstrate a wide variety of technologies that are being used to support teaching and learning at USW and yield some particularly interesting findings around the use of social media. The project findings have informed recommendations at the institution which are currently being used to help develop policy and practices around technology enhanced learning.

3.1 Staff

The staff survey was designed by the project group. Staff were asked to describe their engagement with technology in their role at the university, discuss how they were using tools available and what they are using certain tools for. The survey was completed by 214 respondents including; 158 academic, 40 support and 16 administrative staff from across the institution.

3.1.1 Staff engagement with technology

Staff were asked to describe their engagement with a variety of technologies throughout the project to harness a clearer idea about what technologies are being used to support teaching at USW. The staff questionnaire provided respondents with the opportunity to answer with the following options to each of the technologies listed; I contribute (read and write), I use it (mainly read), I know it exists but don't use it and I don't use it.
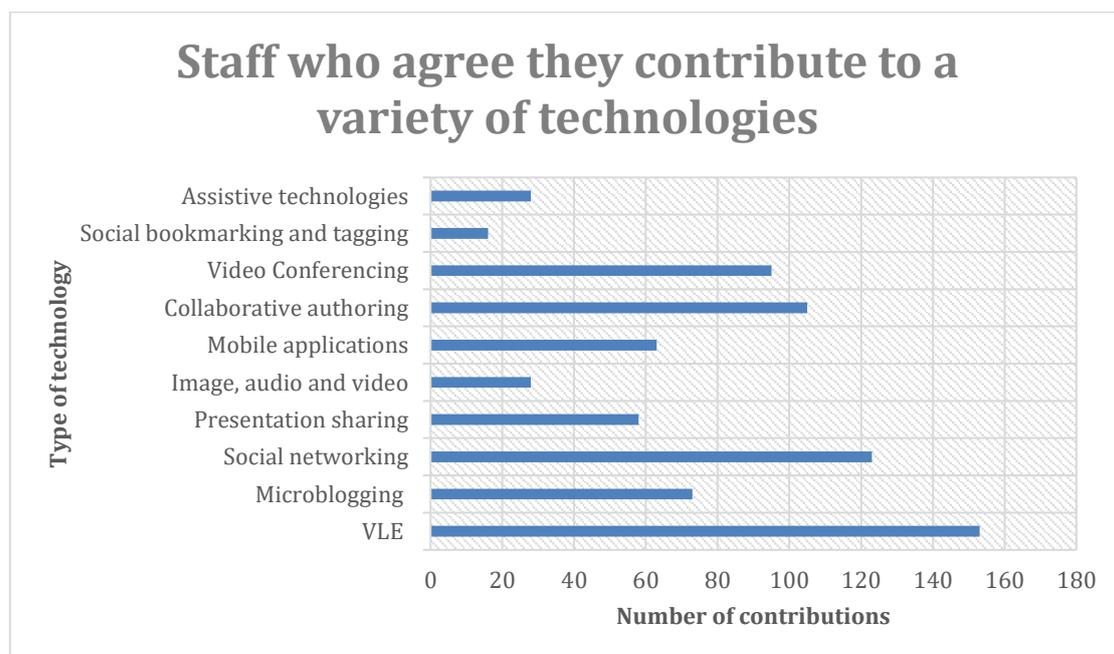

Figure 1. Staff contribution to listed technologies

Figure 1 presents a general overview of staff engagement with a variety of different technologies presented in the questionnaire. The technologies listed were generic and semi-structured interviews were used to probe staff about the types of software's and specific tools they were using as part of their teaching practice.

Whilst staff interviews revealed a general consensus that staff felt it was important for students to be developing key digital skills, not all staff were supporting the development of these skills. Interestingly, only 28% of staff agreed they felt 'very capable' in using digital tools and technologies available for teaching learning, therefore it could be argued that a lack of capability creates a barrier for staff using technology as opposed to ignorance of the technologies available. However, staff commented favourably on the benefits and opportunities that technology can bring to teaching and learning.

"I would like to use more digital tools as part of my teaching as I can see how it has benefited others but I am not sure what is available" (Staff 06, anonymous)

Over 40% of staff agreed they don't contribute to the use of social networking in their current role, in comparison with students' favourable comments on the use of social media. Staff interviews highlighted a general view that "Most staff tend to stick with what they know and go for the safe option" (Staff 01, anonymous). Whilst social networking tools weren't the most popular tools among staff, figure 1 reveals that social media tools are second most used by staff after the VLE.

The study revealed more about staff attitudes towards using technology to enhance learning and teaching and discovered that whilst many staff are positively adopting the use of new tools and technologies to support their teaching, others are falling behind student expectations in relation to the technologies used. However, 88% of staff agreed that they see the benefit of developing student's digital skills in a professional context and staff interviews revealed that different levels of competencies may well be the reason why staff are reluctant to engage with digital tools.

Staff interviews delved deeper to gain a clearer understanding of reasons why staff use specific tools and technologies, or don't. The majority of staff remained positive throughout the study about the use of digital tools and the benefits they can bring. Moreover, staff agreed that they find students to be more engaged with learning materials and content when digital technologies are used. Comments below give an insight into what pedagogic reasoning underpins their use of technology to support teaching and learning.

"I am driven to use digital technologies which I can see are effective" (Staff 02, anonymous)

"Students have the most powerful tools in iPhones, iPads and other mobile devices so I try and get them to use these more to keep them engaged" (Staff 03, anonymous)

"I believe social media activities to support learning should be led by students to create more of a social concept and allow them to discuss freely" (Staff 04 anonymous)

"I encourage my students to use social media tools to engage in professional conversations outside of the classroom and investigate learning content further" (Staff 05, anonymous)

Staff findings suggest there is a positive attitude towards using digital technologies to support teaching and learning and the somewhat 'gap' between staff and student capabilities is drawing in, some staff are more engaged and interested than others and for some, digital competency creates a barrier to embracing the use of technologies.

3.2 Students

A total of 545 USW students responded to the JISC Digital Experience Tracker. Students were invited to attend a focus group once completing the survey to gain a better understanding of how they are using technology to support their learning at the institution. A total of four focus groups were conducted as a result of convenience sampling. The findings provide great insight into how students are using technology to support their own learning and development during their studies.

3.2.1 Student use of technology for learning

The study revealed more about students' digital skills and how they were using technology to support their learning at USW. Students were asked about the types of activities that involve technology they participated in as part of their course. Table 1 demonstrates the types of digital activities students participate in as part of their course on a weekly basis. These activities are those provided as part of the course, therefore by the lecturer. It is evident that the mass of activity involves finding information online with 93.7% of students agree they do weekly. Other digital activities involving educational simulation and audience response are much less used on a frequent basis as part of a course.

Table 1. Participation in digital activities on the course

	Find information online	Work online with others	Use an educational game or simulation for learning	Use a polling device or online quiz in class

Weekly	93.7%	36.9%	15.1%	12.6%
Monthly or less	5.2%	40.3%	27.2%	29.9%
Never	1.1%	22.7%	57.7%	57.4%

Interestingly, 52% of students agreed that they understand subject content more when technology is used on their course. Judging by this data, it is evident that students want to be involved in digital activities as part of their course to enhance their understanding of the content. Further questions asked students how often they use certain tools or applications to support their learning in their own time, outside of class.

Survey results discovered an understanding of the types of devices being used to support learning i.e. to access learning materials, to develop resources and to make notes etc. Interestingly, 79% of students revealed that they used their own smartphones to support their learning. The effective use of mobile devices today has become a significant parameter of 'digital literacy' and they have the potential to be used as learning tools and develop educational interventions [24].

Making choices about learning and processes, reflecting on learning processes and being aware of achievements and discovering new needs are essential parts of learner autonomy [25]. The student survey reveals students are using a number of different digital tools and devices in their own time to support their learning. Tools most often used by students are to enable access to lecture notes or recorded lectures, to search for additional resources not recommended by lecturers and to discuss their learning informally using social media tools. The use of social media as an informal learning tool was a prominent theme that emerged from student focus groups.

3.2.2 *Students using social media tools autonomously to reflect on their learning*

The JISC digital experience tracker revealed that just over 65% of students at USW were using social media monthly to support their learning. Students were prompted to give an example of a digital tool or application that they find useful for learning, most responses included university applications or the VLE. Student responses revealed that they use a variety of tools to support their own learning, areas have been sub-divided during data analysis. Figure 2 demonstrates the types of tools being used by students to support their own learning. Interestingly, 22% of responses to this question included social media tools such as; Facebook, WhatsApp, Facebook messenger and YouTube. Students also admit to using a variety of other independent applications to support their learning, some of these included but were not limited to; Google Drive, Drop Box and reference management software. Figure 2 highlights that students are using social media tools to support their learning over tools provided by the university such as the VLE. This was an area of interest that was probed further during focus groups to find out exactly how students were using these tools and how it was benefiting their learning.
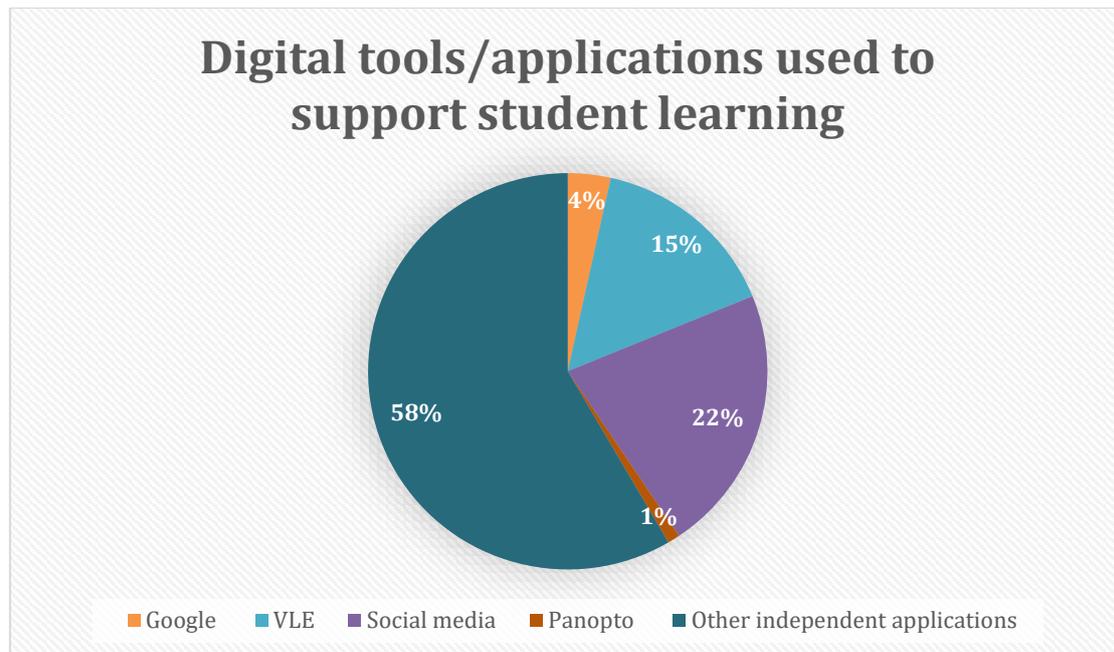
Figure 2. Digital tools/applications used to support student learning

Throughout focus groups students commented favourably on the opportunities that social media tools can provide them to support their learning. Focus groups revealed that students are actively using social media to discuss their learning and share resources with others on the course. One group of students in particular talked about the use of a WhatsApp group, this group had set up two WhatsApp groups – one for social, and one of learning. Students expressed that the learning group was used to discuss lectures, clarify terms and misunderstandings, organise group work and share educational resources. This was not something that had been facilitated by the lecturer but something that students set up autonomously. One student made the following comment about the use of the learning group;

> "I find it so much easier to share and clarify my thoughts using WhatsApp, I don't have to worry about my spelling, or the structure of my sentences. I can use text speech and don't feel like I am going to be judged" (Student 01, anonymous).

Over 65% of student respondents agreed that they use social media monthly to support their learning, with 44% agreeing they discuss their learning informally using social media channels on a weekly basis. Focus groups revealed that students enjoyed using social media tools to form their own conversations about content that had already been delivered. One student agreed that;

> "It's a more informal way of sharing information with others, we can ask our peers questions about assignments or to clarify things and I find this an important part of the learning process" (Student 02, anonymous).

Findings demonstrate that students are autonomously setting up social media groups with their peers to interact, reflect and clarify course content.

4   CONCLUSION

Interestingly, research shows that students struggle switching from a personal to a curricular sphere when using technologies [26]. However, as findings demonstrate, students at USW are often using social media as part of their own independent learning. Figures suggest that over 65% of students are using social media monthly to support their learning. This suggests that students are differentiating between personal and curricular activities with a clear understanding of their uses and benefits, some of which were highlighted in focus group findings.

In 2015, experts acknowledged that blending formal and informal methods of learning can create an environment that fosters experimentation, curiosity and creativity [27]. As this study shows, however, there is still a lack of understanding and acceptance from lecturers on the true benefits of these informal

learning methods. Moreover, in 2017, experts highlighted that recognising the power and prevalence of these online informal learning opportunities is becoming vital to keeping formal education relevant [28].

The findings of the study have highlighted that students are already capitalising on the strengths of these tools to afford a range of benefits for their learning. Similarly, lecturers seem to recognise the potential benefits that technology can afford but have more difficulty in understanding how they might align these tools with their teaching practices and learning objectives. It is clear that they are using the VLE to upload their teaching material but there is a lack in vision, support and hands-on implementation when it comes to the use of social media amongst lecturers to promote the sharing, experience and reflection of the subject being taught. The findings of this study demonstrate that the research of Margaryan et al [8] is still relevant and indeed, a lack of confidence in technology both in terms of providing support and staff development opportunities still presents a challenge to maximizing the opportunities that new technologies can bring to teaching and learning.

Advancing this research further, the authors foresee the importance of working towards a set of proposed recommendations to enable and support lecturers to embed digital technologies into their practice. Without a doubt, the students seem to be more in tune with how these tools can probe and deepen their thoughts, feelings and understanding of the subject and their learning. The challenge still lies with the lecturer. Indeed, students notably see the benefits and purpose of what these technologies bring; lecturers need more support to embrace the benefits that these technologies can afford.

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