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Social Networking in Education - Engaging Students in a Collaborative Learning Experience

ABSTRACT

There are many issues and problems that students in 2nd and 3rd level education may have to overcome if they wish to engage in a learning process, including social, economic, geographical, educational and physical disabilities. More recently students have become engaged with 'Social Networking' sites, like Bebo[1] and Facebook[2]. These virtual environments emphasise the social collaboration between users with the explosion of diverse Web 2.0 applications available to imbed into a users environment. This research study asks the principle question: In what ways could a Web 2.0 social network engage students in collaborative learning experience? This study examines socially excluded underprivileged students from across various economically and socially deprived areas within Dublin who are given the opportunity to realise their full educational potential via the Trinity Access Programme (TAP). The study involved the development of a custom-built VLE (http://tap2008.ning.com), using a social-networking online-platform called Ning[3] to facilitate collaborative learning with various activities/components. Initial evidence from detailed analysis suggests Blended Learning as a successful approach using the Web 2.0 VLE. Furthermore analysis suggests successful interaction between mentors and students. There were some interesting unexpected outcomes with regard to tutor's experience of Web 2.0 technologies, censorship and the issue of copyright of content published within the VLE.

[1] www.Bebo.com

[2] www.Facebook.com

[3] www.Ning.com

1. INTRODUCTION

"These teens were born into a digital world where they expect to be able to create, consume, remix, and share material with each other[1]

The research study began in October 2008 and continued until May 2009 at Trinity College Dublin. The study follows fifty Trinity Access Programme (TAP) students and eight tutors after their introduction to a Web 2.0 themed virtual learning environment, as part of their studies.
At present many students are using I.T to help organize their social life utilising social networking websites like FaceBook[2] and Bebo[3] . Some academics see the potential for collaboration, reflection and knowledge sharing within these domains. Universities are eager to exploit the energy and enthusiasm of students who already form relationships and identities within existing Social Networks. With this in mind educational institutions are trying to harness this new generation of online collaborative participants to deliver and convey their own academic content via Podcasting, Wikis, Blogs, Discussion Forums and Instant Messaging, (Eckstein, 2009).

The more recent phenomenon of 'social networking' has grasped the imagination of the Digital Natives, who now use websites like Bebo, Facebook and MySpace to share information, photos, files and instant messaging with their peers.

A magazine article by (Rich, 2007) discussed social networking, specifically American student's addiction to FaceBook. The article described an online network in which some are willing to share information and almost 'bare their soul' to their peers. The article suggested the reasoning for Facebooks popularity included, (a) it's adult-free, (b) newsfeeds incorporated into profiles release updates on friend's profiles, (c) message walls allow friends to post notes and comments and finally (d) it incorporates multi-media. It must be noted that in fact Facebook was not initially created for students/teens but was in fact originally designed by former Harvard student Mark Zuckerberg back in 2004 as an online university directory. Subsequently users have formed groups within the site to collaborate and share information on a specific subject, from the inane to even school & work related issues. With a recently documented popularity which exceeds 90 million users, Facebook continues to develop as a dominant and popular networking tool for students today.

As Green and Hannon, (2007) suggest that some young people are now spending their free time exploring Social Networking sites, which adults are unfamiliar with and find difficult to administer. The study interestingly discovered a continued obvious gap (divide) as highlighted earlier, in skills between the digital natives and immigrants, both groups have successfully used technology but it must be noted, in different ways.

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[1] Lee Rainie, Director, Pew Internet and American Life Project

[2] www.FaceBook.com

[3] www.Bebo.com

From 'Information gatherers' to 'Digital pioneers' a number of different user 'types' were indentified within the study. In a similar vein, the discussion continues as to how university administrators can use and make sense of this technology (Wandel, 2008).Because of the growing popularity of Facebook, MySpace, and Bebo, the research by Wandel discussed the universities viewpoints, in particular how to use these networks as "valid mechanisms to reach both current and prospective students". The study detailed a report by (Noel-Levitz, 2006) discussing the propensity for prospective college students to use or want specific web-based tools including instant messaging, profiling and blogging to name a few. The report highlighted a very high percentage of students were very interested in the tools mentioned and in particular the opportunity to connect to their fellow students and college administration.

First described by Tim O'Reilly[4] back in 2004, Web 2.0 is defined as "changing trends in the use of World Wide Web technology and web design that aims to enhance creativity, secure information sharing, collaboration and functionality of the web." Web 2.0 also known as 'the social web', is network based and enables and facilitates participation, inherently social and open. Tim Berners-Lee, credited with inventing the World Wide Web, had the original idea of the web as being a 'Read-Write web', where users could read and edit information as in today's Web 2.0 applications. It has also been defined as 'software that supports interaction', 'creating a community of interest', (Shirky, 2003), principles which are in line with a constructivist pedagogy.
In a recent report, describing the affordances of Web 2.0, (McLoughlin and Lee, 2007), defined these as;

- Connectivity and social rapport
- Collaborative information discovery and sharing
- Content creation
- Knowledge and information aggregation and content modification

Web 2.0 has led to the creation of many interesting web based communities and services, including social-networking sites, wikis and blogs. Today many websites will incorporate or 'bolt on' Web 2.0 web services or applications including Google docs, Flickr, Blogs and messaging capabilities into their existing online applications or portals. While enhancing and extending the functionality of websites, these applications also empower users to freely collaborate and share information and resources with their peers.

The characteristics of Web 2.0 include a shift from the initial Web 1.0 presentation of information to today's encouragement of participation within online Social communities. Social networks promote profile and media sharing while at the same time promoting a feeling of 'community', thus allowing people to come together and communicate and collaborate freely. In response to the changing needs of the learner a number of studies have investigated the possible barriers to the use of such software from academic administration, teachers and also digital immigrants. Recent studies by both Future Lab[5] and Knowledge Lab[6] have demonstrated a shift from

[4] http://oreilly.com/
[5] www.futurelab.org.uk/
[6] www.lkl.ac.uk/cms/index.php

information to participation. With the evolving Web 2.0 technology infrastructure of messaging-protocols, server based software and browser plugins Web 2.0 certainly goes further than the traditional Web 1.0 that most users are acquainted to. This new technology delivers and enables communication among groups of users, allows syndication and assists in personalization (Owen, Grant, Sayers and Facer, 2006).

The purpose of this research is to discover 'In what ways could a Web 2.0 social network engage students in collaborative learning experience?' From this the following areas of interest are posed to answer the principal question.

- Was it an interesting and satisfactory collaborative engagement?
- Did reflection occur?
- Did a peer mentoring process happen?
- Did social inclusion occur?
- Did using this system alleviate any skills gap between Digital Immigrants and Natives?
- Did the introduction of this social VLE supplement the students' traditional classroom?

2. DESIGN OF THE LEARNING EXPERIENCE

2.1. INTRODUCTION

With an emphasis on promoting collaboration and knowledge sharing this study seeks to leverage effectively the Web 2.0 tools and culture available to engage students within a social VLE and promote learning. Literature has shown that effective use of these applications and services can encourage a learner centred environment with the opportunity to interact and network with other users and thus encouraging active participation and creativity (Pitts and Kumar, 2008). It is hoped that features provided with the use of Web 2.0 technologies will ultimately allow students to actively participate in a group and express their thoughts with their peers, therefore fostering a collaborative learning experience. Students were given the opportunity to collaborate together within discussion groups, reflect on their learning experiences within Blogs and encouraged to create text, video, picture and audio content to share with their peers. The students had the opportunity within the artefact to use various elements of Web 2.0 technology to become part of an online learning community, generating and sharing content, gaining advice and receiving mentoring when required and constructing knowledge from their experiences. Finally the artefact allowed the student the ability to reflect in the learning process, permitting the students to 'reflect' on their work, thoughts, fears and learning.

2.2. TECHNOLOGY

Ning is a customisable module based online social network creation tool to facilitate social learning, the sharing of user-generated content 'through collaborative, non-formal environments'. It contains unique page layouts and custom CSS[7] formats together with widgets and modular based features and applications including chat, blogging, RSS and video upload services.

[7] Cascading Style Sheet

The technology behind Ning includes APIs, HTML, CSS, and PHP 5. This technology provides all the necessary Web 2.0 applications to share and collaborate and furthermore facilitate the process of social constructivism within an online learning community.

2.3. FUNCTIONALITY

Students are invited to join the TAP life website via an email from the site creator or from an administrator (tutor). After the initial login and password procedure the users view the following home page screen. It is from this screen they are given the options to create and share material and contact other users. The users are actively encouraged to create their own unique 'home page' within the site allowing them to upload pictures, videos, links and create their own unique profile.

Each user is encouraged by their tutor to join a 'group' relative to their course, in total there are eight groups, including Law, Physics and I.T. Each student and tutor can subsequently contact and deliver content to other group members.

The administrator/tutor has the ability to add new features/tools to their specific group and/or website via the 'Manage' panel accessible from the menu screen. The administrative area within Ning allows the moderation of photos, videos, groups, chat, and events before they're posted. Other distinct features of the software include real-time, dynamic activity feed of everything happening across the social network, custom text boxes and widgets, RSS feeds, multi-threaded discussion forums, blogging and events calendar.

The 'Latest Activity' module is a real-time, dynamic activity feed of everything that is happening across the social network, from users updating their profiles to new announcements and discussion threads submitted online. The discussion boards entail single or multi-threaded forums with categories with the ability to add photos and attachments.

Within a users profile page there is the opportunity to integrate Web 2.0 applications and services including Google Docs and Twitter. Services and applications can be added at the users' discretion and user generated content can then be subsequently shared among peers.

3. FINDINGS & DISCUSSION

3.1. CONTENT ANALYSIS

Tim O'Reilly who coined the term 'Web 2.0' describes the services and applications as an 'Architecture of Participation', whereby the continually updated service gets better as more people use it. Bringing the socialisation and communication aspects to a new level and requiring much less technical knowledge than Web 1.0, Web 2.0 empowers the user to create, upload and share such multi-media content, which in turn, encourages an active participatory role for users in the 'conversation of learning and knowledge making', (Rosen, Nelson, 2009). As a Read/Write medium that promotes social interaction and collaboration, previous research describes the three core elements of Web 2.0 as content sharing, socialisation and communication, (Wangpipatwong and Piamsakkamol, 2008).

Data in this research was collected from website analysis, online surveys, student reflections, observation and interviews. Survey results from students revealed their thoughts on using the social network website and its implication to their studies throughout the year. Results from the tutors' survey revealed the effectiveness of the social network website as a collaborative and social tool and its success in augmenting the traditional classroom. Observational notes by the author describe how the students engaged with the social network website during the class, while the interview with a tutor provides an in-depth analysis of the effectiveness and implications of introducing such a system to students within a third level educational environment.

3.2. DATA

The study took place between October 2008 and April 2009, the social network website was visited over the six month period on average 88 times per day between December 2008 and April 2009. In total the website had 70 members within 8 class groups, consisting of 55 students, 15 tutors and TAP administrative staff. 164 photos were posted and shared within the 'Photos' section. 20 videos were posted and shared within the 'Videos' section. 65 music tracks were posted and shared between the users individual profile pages. See Figure. [1.] below. In total 23 discussion forums were created and 50 blogs were posted.

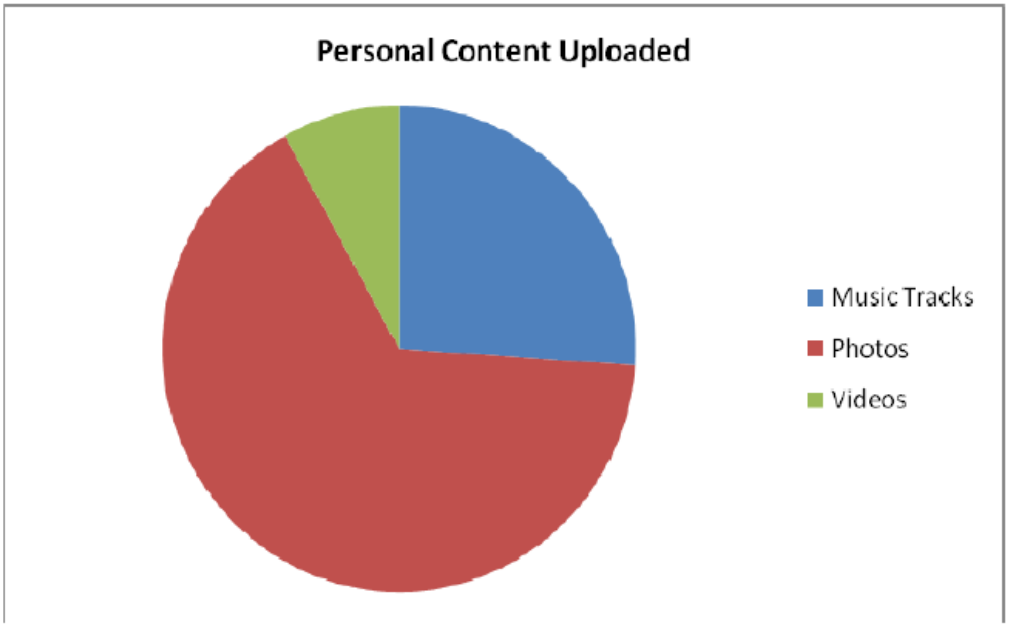

Figure 1: Personal multi-media content posted

In Figure 2 below it can be seen that the course related content, videos and photos were posted most frequently. Music content was only embedded within user profiles.

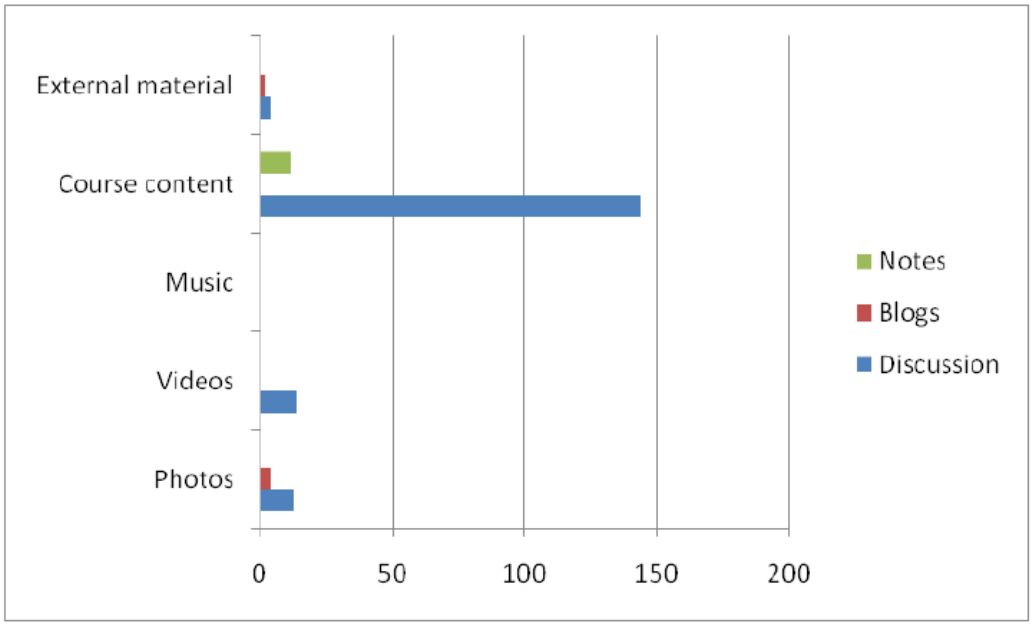

Figure 2: Content posted by area within the social network website

The role of the website was to supplement existing classroom lectures while engaging students in new technologies. As such the activity after this date reflects continued engagement until April 2009, with on average 88 page hits per day between December 2008 and April 2009.

3.2.1 DISCUSSION BOARDS AND COMMENT WALLS

Discussions took place within each of the core class groups. These included groups on 'Beckett, Yeats, Joyce and Critical Theory', 'Politics', 'I.T', 'History', 'Economics', 'Law', 'Physics' and 'Psychology'. Discussions were initiated by open ended questions posted by tutors. Each of the group pages within the social network website had its own 'Group Comment Wall' where both tutor and student alike could post details on class events, general comments, links, multi-media content and relevant file attachments. It was within the area of discussion boards that Web 2.0 principles of 'user generated content', sharing and collaboration were most evident. One of the tutors describing the effectiveness of the discussion boards within the social network website is quoted as saying;

> "The whole group could engage in discussions about the subject material which had a positive impact on the learning process of all students (of various skill levels) in the class."
>
> **(Excerpt from tutor online survey)**

It can be seen in Figure 3 below that the course related content, videos and photos were the most frequently posted items with the discussion forums and comment walls, whereas music content was only added to users individual profile pages.

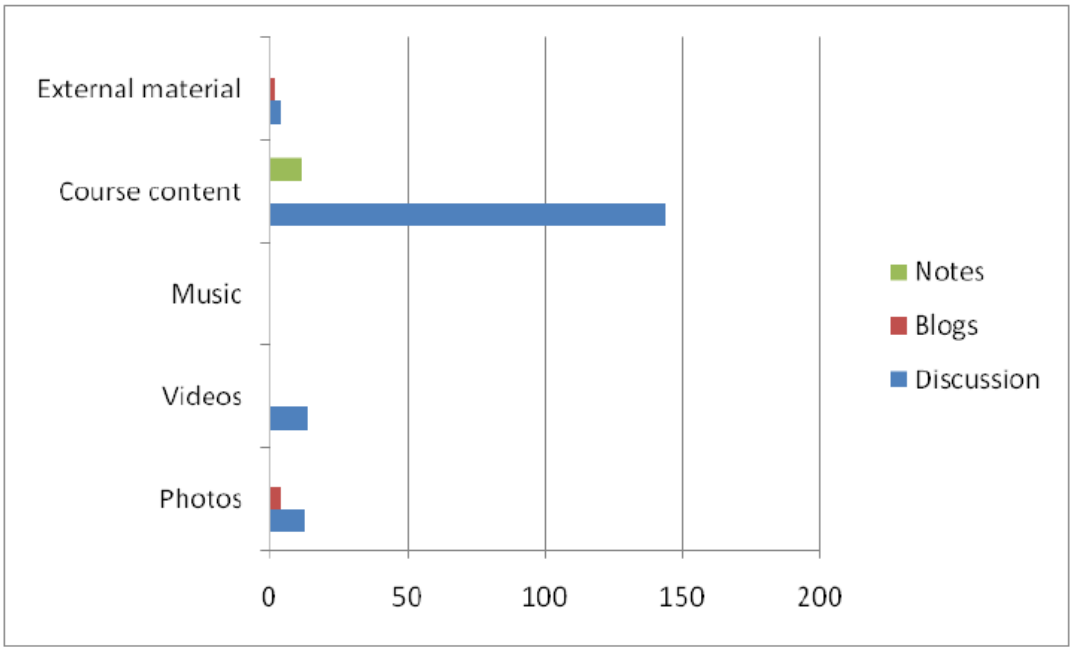

Figure 3: Content postings

Statistical analysis of usage within the social network website revealed that 23 forum discussions, in total, were created and there were a total of 182 postings of text and embedded multi-media content by users. Consistent with previous studies by Gilly Salmon users began to construct their knowledge in group discussions and interaction lead to further collaboration. When asked how often they would collaborate on projects and discussions within the social network website with their peers, 47% confirmed they did so, on a monthly basis. This is an indication that the users are actively involved in a learning process, with this level of collaboration users began to benefit from the support of their peers and from each other's shared knowledge. Comments from tutors within the online survey describe "discussion of tutorial problems and lecture material throughout the week", (within discussions) as having a considerable benefit to users.

Evidence of Web 2.0 User Generated Content

On a monthly basis 52% of students reported creating content for the social network, which included adding pictures and videos to share with their peers. This form of user generated content was particularly evident in the English, Psychology and History discussion boards shown in Figure 4 below. From this graph it is evident that most of the groups used the social network website to distribute course notes, with both the I.T and English groups being most popular for posting video content. The History, Psychology and English tutors discovered that the posting of course related photos was quite popular among students.

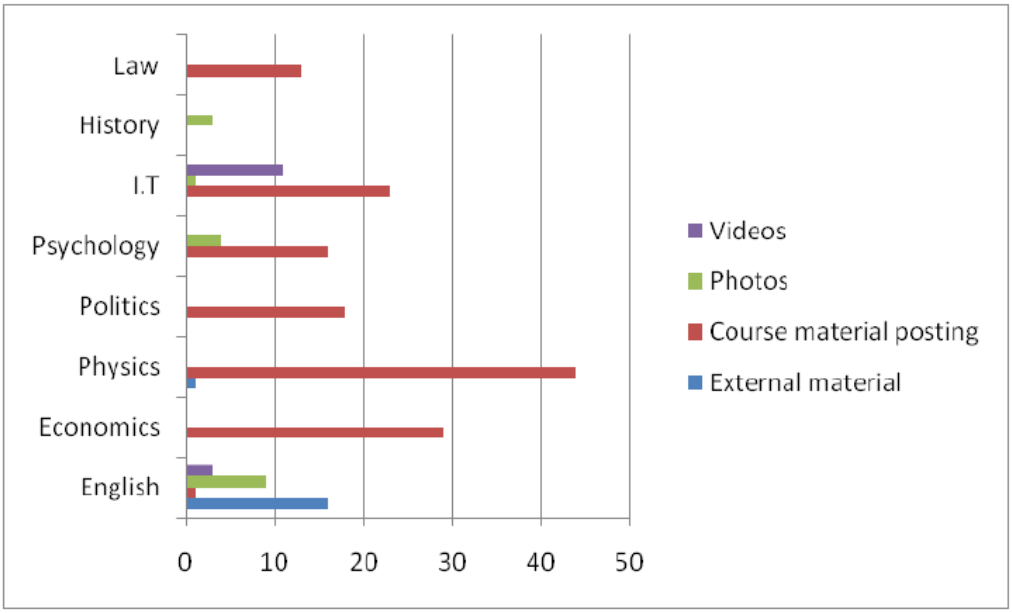

Figure 4: Course related postings

The author observed that tutors did not post multi-media content within the social network website, probably due to lack of experience with Web 2.0 applications and services. All of the tutors confirmed having no experience with Web 2.0 in the online survey. Arguably this could have been partially overcome by giving the tutors some preliminary training in Web 2.0. From both the online survey and interviews it became quite clear that this form of collaboration, posting and sharing of multi-media content, was indeed of great benefit to the users, as 42% stated it supported their learning. Describing the posting of user generated content and discussion boards, participants were to comment;

> "Definitely it was very interesting, found it of great benefit to me personally"
>
> **(Excerpt from interview with Student D)**
>
> "They do need a forum for debate and intellectual discussion."
>
> **(Extract from tutor interview)**

The use of discussion boards and comment walls lead to a significant element of engagement with the social network website in general with 97% of students creating and regularly updating profiles. There was an average of 88 visits per day and with 85% of students describing the social network website as supplementing their classroom lectures. The level of course related postings as depicted in Figure 4 demonstrate that this was dependent upon the course topic or tutor. Students went on to cement this analysis in their comments, 'The English teacher embraced it, she was encouraging a lot of use with it, which I thought was good', 'I think the English department used it more as an educational tool than others I think.', 'I know they used it in English a lot to upload stuff but not in the courses I'm in'.

Data analysis demonstrates that both tutors and students agree upon the positive impact of user generated content within this social setting. As one tutor commented, 'Yes, the website encouraged students to engage with the subject, in an enjoyable but also worthwhile manner.' The feedback and data suggests a high level of competence by students using Web 2.0 applications. Unfortunately to some extent the tutor's lack of experience and training limited their involvement. hile discussing the tutors involvement and knowledge of the social network website, a student was to comment;

> "I think if everybody knew it better and were more comfortable with it you would probably find a lot more useage of it"
>
> **(Excerpt from interview with Student C)**

3.2.2 MESSAGING

The primary focus on implementing the Instant messaging service was to engage digital immigrants within a mentoring process with digital natives and tutors. Two methods existed for users to connect with their peers via messaging, including the Instant 'Chat' Messaging system. While Instant Messaging was initially a lifeline for digital immigrants in October and November of 2008, the users soon began to use the more traditional method of email messaging over the course term.

From analytical evidence and feedback from the online survey and interviews an indication of the messaging activity and the subsequent impact among users can be found. The feedback suggests that some peer mentoring did occur within both avenues of communication. Furthermore the digital immigrants describe using the instant messaging service initially for support and were grateful for its availability and effectiveness in connecting with other students. Analysis from the student survey suggests 33% continued to use messaging with their peers on a weekly basis.

> "It was great that you went on and said 'look I'm having difficulty with this' and you would get three or four people coming back saying 'oh try this'…and that was good. You maybe were working late at night and frustrated with something and you could go on it and someone was there, you could bounce ideas of it."
>
> **(Excerpt from interview with Student C a digital immigrant)**

> "questions could be asked that time did not permit during the lecture. Also clarification of items and additional information and reading suggestions were given. Could also vent my frustration from time to time if something was particularly difficult for me. Also invaluable for help from other students and different points of views and suggestions."
>
> **(Excerpt from online survey)**

In describing messaging their tutors directly, a student was to comment; 'you could email the tutor directly, that was brilliant.' From a tutor's perspective, they found the messaging system an ideal and cost effective way of connecting with their students.

> "it was good to be able to at least be able to keep in contact with the students and in the absence of funding for texts to be able to refer them to links posted on the site."
>
> **(Excerpt from tutor interview)**

3.2.3 BLOGGING

Blogging allows students to publish, reflect on their learning and create artefacts of knowledge, (Bartlett-Bragg, 2003) while facilitating and contributing to their learning, (Churchill, 2009). Within the social network website two group examples of reflection exist. In the first the I.T students were asked to describe their experiences within the I.T class. In the second group, all of the young adult students within the Trinity Access Programme were asked for their 'end of year' reflective comments on the TAP experience. The author must note that no formal format of reflection was introduced as defined by Gilly Salmon (2004), but was included on an ad-hoc basis. This was an oversight by he author, as no formal instruction was given to tutors or students regarding the reflective process. In total 50 blogs were created within the social network website, 18 of which were 'end of year' reflections. Within the I.T group a total of 32 reflections were posted regarding on-going I.T projects and assignments. As depicted in Figure 16 there was an initial burst of activity within the blogs between October and November, however low usage dominated throughout most of the year until the 'end of year' reflection process was introduced in late March of 2009.

As part of the student's reflection on their continued learning experience, some were quoted as saying;

> 'The tap2008 ning web site was of great benefit for all modules. Thank you'.
>
> "The ning site has been an excellent way to keep in touch. It was also a very useful way to access: work, links, and general info from tutors."
>
> **(Excerpts from online reflections)**

The number of reflections published by students within the social network website was minimal; however all of the young adults (approx 50% of the total course students) did publish an end of year reflection on their experiences during the course year. Unfortunately it became apparent during student interviews that analysis of this data would be tainted as students had become involved, to an extent, in a process of self-censorship of such postings. It appeared that they may have been afraid to possibly alienate themselves with administrators and class tutors. Obviously as these reflections were accessible to everyone within the social network website there was a certain anxiety by students with regard to posting a negative reflection to course content or performance of tutors.

> "You can't have a real conversation and know it's being observed, you can't. How can you speak when you know that those in whose hands your future lies are watching what you say. I believe the students do not use the blog for free debate of the kind Newman speaks of in "The Idea of a University" because they are censoring themselves."
>
> **(Excerpt from tutor interview)**
>
> "Oh yeah a lot of them were censoring themselves, they were afraid, they would look at my comments and say..Wow..You know what I mean? They would say 'ooh the reply you got to that', I was messing, they were terrified of saying something that they (tutors) would pick up on, I wasn't at all (giggling)."
>
> **(Excerpt from interview with Student D)**

3.2.4 MEDIA SHARING

Web 2.0 allows users to produce and publish various forms of content. One such example is video, via hyperlink or embedded as a YouTube video clip. The social network website contained a 'Videos' section and in total 20 videos were embedded, 10 of which were course related and uploaded by the I.T tutor. As a Web 2.0 themed VLE, the social network website facilitated the

production and sharing of video content and allowed users to create rich learning resources to share with their peers within discussions and blogs. It must be noted that all content published by a tutor or student within the social network website was publically available to all members. Describing the posting of video content within a discussion, one student was to comment;

> "Yes, very interesting, someone actually uploaded a YouTube video of Joyce actually talking and that kind of gave you an insight into what the man sounded like and you know yourself you get a bit more depth. You may not have had the time to trawl through the net and found it."
>
> **(Excerpt from interview with Student C)**

One such way of adding value is the ability to upload and share photographic content with fellow students. The social network website facilitated this process and contained a photos section allowing the users to upload any relevant photos they deemed interesting to share with their peers. An example of socialisatation within the website includes the posting of 164 photographs within this photos section. Only 10 of these photographs were relevant to course work, while the remaining 154 were defined as personal images of family and friends and fellow students. Within the social network website students embedded course work relevant pictures within their postings, in numerous discussions, blogs and comment walls. In the same manner as videos users could alternatively post hyperlinks to photos available from external websites. Feedback from the student online survey suggests that 53% were involved in the creation, publishing and sharing of content online, both personal and course related. Discussing the advantage of viewing course related photographs published within the social network website, a student (digital immigrant) commented;

> "Yes, others had posted Psychology images that were very interesting"
>
> **(Excerpt from interview with Student A)**

3.2.5 ONLINE SURVEY - STUDENTS

The online survey for students received a popular response, as thirty two students from a total of forty replied. The survey consisted of sixteen questions designed to answer the research questions and discover the students' thoughts on the introduction of a Web 2.0 VLE as part of their studies. Students surveyed in April 2009 were asked to describe their level of I.T skills. The breakdown of the group was 28% I.T beginners, 56% intermediate and 15% advanced users.

Upon the introduction of the social network website 96.9% of students used the system while the remaining 3% preferred face to face classroom instruction. From the survey it was revealed that 84% of students believed the social network website was useful in completing their course assignments and a further 58% believing the system improved their overall technical skills.

In total 94% of the students were able to connect from home to and become involved socially within the social network website outside of the university. With regard to the question if the social network website supplemented added value to the traditional classroom, 84% gave a resounding 'Yes'. Specific themes mentioned in additional comments as reasons were the 'posting of lecture notes', 'tutor support', 'ability to ask questions outside of the classroom', and 'interaction and comments with other students and tutors'. As to whether help was available to students from their peers and or/tutors, 88% believed that the support and mentoring from other students was available to them while using the social network website.

As to the creation, publishing and sharing of content online a total of 42% published their reflections, essays and comments online, 53% uploaded an equal amount of both social and course relevant pictures and videos while 57% shared content with their peers. During their time using the social network website 91% used messaging, while interestingly only 31% used the live chat feature and 58% of students posted questions and/or comments onto the discussion boards. It was within the area of discussion boards that most collaboration was evident, with 65% regularly involved in discussing projects online with their peers.

3.2.6 ONLINE SURVEY - TUTORS

The emphasis of the online survey for the tutors was to discover their personal thoughts on using the social network website, while confirming the comments and claims by students. Out of a total of eight tutors using the social network website, five completed the survey. One of the most remarkable results from this survey was that none of tutors had ever used a social network prior to this study, compared to 78% of students who had. Confirming the question of the social network website supplementing the traditional classroom, all of the tutors agreed, specifically mentioning 'dissemination of course material', 'continued engagement of topics after class', 'follow up to posted questions online' and 'external interaction and communication' with students as the main factors to adding value to the classroom.

The tutors believed that 'development of specific course groups', 'discussion of tutorial problems and lecture material throughout the week' and 'availability of handouts and announcements' as the main benefits to students. Meanwhile as a benefit to lecturers they believed the social network website achieved a 'fostering of a sense of community' among users, also described as benefits were 'email and group messaging', 'forums and discussions' and uploading up documents to distribute among students. Asked if they witnessed or encouraged collaboration and reflection two said 'Yes', noting as examples the use of blogs and discussions by students. In total four of tutors agreed that the social network website had helped students improve their skill levels especially in the areas of I.T and social skills. When asked if as tutors they would use such a social network website in the future as part of a course syllabus, all gave a resounding 'Yes'.

3.2.7 INTERVIEWS

The interview was conducted with a tutor to gain a detailed insight into how academics perceived the impact of introducing the social network website to the students. The student interviews were conducted to gain an insight into the specific usage, familiarisation and personal thoughts from four students with regard to their use of the social network website. The semi-structured interviews primary aim was to focus on obtaining an expanded overview of the acceptance by both tutors and students alike to the social network website and the effects

thereafter. The open ended questions within the student interviews gave the author an insight into the use of technology within the social network website to facilitate learning. Three of the four students interviewed confirmed embedding both social and relevant course material into the social network website. This included the uploading of course related and social content, including embedded YouTube videos, photos, music, hyperlinks and documents. Interestingly the content shared among their peers was more educational than social. This relevance to course material subsequently triggered both online and offline classroom discussion. It was during one such discussion that various pictures and embedded video clips were shared among the group by students. With the uploading of one such video clip a student remarked that it was the first time they had heard James Joyce talking, giving them a unique insight into the man and furthermore inflaming more debate.

3.3. OBSERVATIONS

Web 2.0 is synonymous with enhancing 'user generated content', 'sharing' and 'communication'; the social network website exposed both tutors and students alike to this Web 2.0 culture and diversity. In order to answer the principle research the author triangulated both qualitative and quantitative data to gain a focused insight to answer the specific research questions. The research questions asked;

- **Was it an interesting and satisfactory collaborative engagement?**
  Comments previously described from interviews have shown how easy it was for students to embed such material and how much they regarded the importance of sharing this research with their peers. The website has promoted collaborative learning, as it afforded the users an opportunity to create dynamic content, share ideas, discuss and instantly connect with their peers. Certainly from the responses of students and tutors alike the social network website has made an impact on the delivery and pre-conceived ideas of what learning is. From a student's point of view they had 'fun' using the social network website and its embedded Web 2.0 technologies. They were in control of the learning experience and the ability to communicate and collaborate with peers and tutors which led subsequently over time to them becoming part of a 'learning community'. The scale of the level of collaboration is debateable; however the feedback from students and tutors in the subsequent surveys and interviews discussed is favourable.

- **Did reflection occur?**
  Depending on the subject area reflection did occur, as was seen by the student's postings online, however not to the extent anticipated by the author. The use of reflection via Blogs depended solely on the discretion of the subject tutors, therefore reflection as a process was not emphasised as a requirement by students from all course tutors. As entioned earlier a reflective process was not implemented within the artefact but was rather encouraged online on a subject basis by specific tutors. Unfortunately as clearly stated within the interviews it became apparent that self-censorship by students was quite evident within the reflections. Students therefore preferred to project themselves in 'good light' to their peers and tutors rather than upsetting the 'apple-cart'.

- **Did social inclusion occur?**
  In total 93.8% of the students were able to connect with the artefact outside of normal hours from their homes. When connected to the site students described the 'social' aspect to the artefact as being important. It was described as follows 'The interaction and comments with other students and tutors was a very helpful and engaging way of keeping up with college life'.

- **Did a peer mentoring process happen?**
  From feedback obtained from both students and tutors it was agreed that indeed some forms of peer mentoring did occur, from basic Q&A type scenarios to inclusive instant messaging among students and published queries within discussion boards. Analysis has revealed that 33% of students regularly used messaging in this capacity on a weekly basis with their peers.

- **Did the introduction of this social VLE supplement the students' traditional classroom?**
  Described by one student as the following, 'It was a refreshing median of lecture support, the tutors often posted lecture notes on various group pages.' Certainly from students' reactions and comments they agree that the artefact was a significant supplement to their classroom lectures. As for tutors, they are quoted as saying, 'It allowed for the continued engagement with the topic, even after class finished' and 'The students posted issues they had with specific tutorial problems during the week and I was able to give hints at solutions. This was very useful as our interactionwas not limited to just a 2 hour lecture per week.' Therefore both student and tutor are in agreement, the artefact did successfully supplement the students' traditional classroom.

- **Did using this system alleviate any skills gap between Digital Immigrants and Natives?**
  The analysis has shown that Web 2.0 technology has given the digital immigrants an opportunity to gain a skill-set equal to their digital native colleagues, by creating course related content and gaining the ability to share and discuss their research among peers within a social setting. A total of 57% of the students surveyed believed the social network website 'improved their technical skills'.

> "As the year progressed, students became much more adept in the working of the website."
>
> **(Excerpt from tutor online survey)**

The students were keen to make the social network website 'their own', in doing so they decided as to where personal and course related content would be posted. Personal content was primarily created on individual profile pages and the 'Videos' and Photos' sections. All multi-media course related material was posted within discussions, blogs and comment walls. The tutors involved had no experience of using this type of social network website as part of a students learning process, however their sheer enthusiasm must be noted. For the tutors the social network website became an excellent vehicle to disseminate course material, 'connect with students' outside of the classroom and engage the students in discussion and reflection using blogs.

"It allowed for the continued engagement with the topic, even after class finished."

"if difficulties were encountered, these were often discussed on TAP Life."

(Excerpts from tutor survey)

One unexpected outcome was extracted from the tutor interview. The subject of ownership and 'copyright' became highlighted; this issue had not arisen until now. This research study has highlighted how investigation into the area of collaborative learning using Web 2.0 can achieve quite remarkable results within such a short time-span. The author anticipates the implementation of the social network website as a significant part of the Trinity Access Programme syllabus. A tutor's perspective on the impact of the social network website upon the TAP student's engagement with learning, comments;

"And that you can have specific groups and invite individuals to participate, you need that type of framework. I also like the community it creates for TAP, the sense of community spirit within this program is excellent, because I think it bonded the students together and I think they needed that. The fact that it is interactive was also good. I note that they used the blog at the beginning for student presentations and I felt that was fantastic because it gave them a broader audience. I think that was excellent for them; they are very bright students, what they need is confidence and a sense of being part of a community of scholars. They do need a forum for debate and intellectual discussion"

(Excerpt from tutor interview)

4. CONCLUSION

The research study began in October 2008 until April 2009. At the start of term a total of fifty students and eight tutors began using the artefact as part of the Trinity Access Programme syllabus. After an initial introduction were the author instilled the five-step scaffolding process inspired by Gilly Salmon (2000), students immediately began to create profiles, join specific course groups, communicate with their peers and tutors and familiarise themselves with the environment. In the weeks and months to follow tutors would use the artefact to publish class timetables, course content, publish open ended questions on discussion groups to students, and communicate on a one-to-one basis with students requiring additional course help. The students began to socialise online, add photos and videos, share content and begin to collaborate with their peers on class assignments and discussions and when required reflect on course assignments.

A number of the students had left the TAP course by April 2009 when a survey was conducted to gauge their views on using the artefact. The survey also inquired whether collaboration occurred and did the artefact facilitate learning in the previous six month period. Approximately 92% of the students took part in the survey and unanimously declared a very positive response to the introduction of a Web 2.0 VLE. A similar survey was conducted with the TAP tutors, of the eight using the artefact five tutors responded with a similar positive feeling with regard to using the VLE. There is evidence to suggest that further study over a full academic year would certainly benefit both students and tutors alike leading to a significant array of data to analyse. As this research is just a preliminary study, there is scope to incorporate the artefact with the TAP syllabus in the near future.

The aim of the artefact was to facilitate learning using a Web 2.0 themed VLE, by creating a collaborative learning community, encouraging the creation and sharing of student generated content and finally enabling extended learning to supplement the traditional classroom. From the research data collected the following themes are reflected by both tutors and students alike, including simplicity, community, social, educational, relevant and engagement. From the collective research data accrued the author can conclude that the introduction of this Web 2.0 themed artefact was successful in facilitating learning to the students involved.

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