Using Web 2.0 technology for work experience: student perspectives on Tawasul

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Abstract

This paper discusses the implementation of Web 2.0 technology for work experience (WE) in a tertiary context. The technology, specifically social networking software, was implemented in an attempt to help overcome challenges experienced by students out on WE at the Sharjah Higher Colleges of Technology. Typically faculty visited WE students in the field every few weeks but had little other direct interaction due to time and travel constraints, and many students reported feelings of isolation. A social network tool that we named *Tawasul* was implemented to help overcome this issue by building a virtual community of practice that included both students and faculty. Student feedback revealed strong support for the online application as well as significant differences between male and female students. It is clear from the study that emerging technologies such as social networking tools can help learning during WE, although there are academic and cultural issues that need to be taken into consideration.

Introduction

According to the latest Strategic Plan, the Higher Colleges of Technology (HCT) are a "mass provider of higher education for UAE Nationals to be effectively developed to pursue professional careers relevant to the UAE" (HCT, 2009). HCT is a vocational institution and one of the aspects that makes HCT unique is work experience (WE), or on-the-job training, which is included in most programs of study. The reasons for using WE are widely stated; Herling (2008), for instance, has observed that, "the bulk of an executive's managerial knowledge and skills was being developed outside of the classroom, from on the job assignments". Harmer (2009, p. 41) suggests that, "learning and teaching in business courses such as management, information systems and marketing would better serve the needs of all stakeholders if the students had some experience of the complexities of real organizations". While centered on Business- and IT-related careers, these viewpoints also pertain to other vocational fields such as Education, where teaching practice is an integral part of most teaching training programs, as well as in Health, for instance, where medical students undergo internships in hospitals and clinics. WE is an important, integral part of further education.

From a learning theory point of view, on-the-job training, or WE, is supported by a broad body of knowledge. Writers since the ancient Chinese philosopher Confucius have stressed the relevance of learning by doing rather than passively listening; that is, learning is best experienced in context, as John Dewey also pointed out early last century (1956). More recent sociocultural and social constructivist perspectives emphasize that learning is an active process that best takes place, or is constructed, within authentic contexts with the assistance of others, such as in the case of an apprenticeship (see Brown et al., 1989). Vygotsky's idea of mediation forms a key aspect of why situated, active learning, such as that experienced in on-the-job training is better than traditional classroom based learning (see Moll, 1990). Vygotsky emphasized that it was "human tool-mediated labor activity" that determined mental development (Leont'ev, 1997, p. 21) and formulated the concept of a *zone of proximal development* (ZPD) to explain how learning is often mediated by more capable others, or experts, within a context, such as the working culture of a company whilst on work placement (Vygotsky, 1987). WE contexts can also provide non-human mediators of learning.

Technology, for instance, often mediates learning (see Crook, 1994), a point which is relevant in the context of this study which centers on the introduction of a socially mediated Web 2.0 application into WE at the Sharjah colleges.

Web 2.0 and Social Networking

Sir Tim Berners-Lee, the inventor of the world wide web, said in a podcast recently that,

> *"the idea of the Web as interaction between people is really what the Web is. That was what it was designed to be as a collaborative space where people can interact."* (Laningham, 2006).

Although enumerating something as huge and multifaceted as the web is controversial, the term 'Web 2.0' has grown in popularity since 2004, when Tim O' Reilly of O' Reilly Media got together with John Batelle, one of the founders of Wired magazine, to host the first Web 2.0 Summit. 'Web 2.0' describes the evolution of the web towards Berners-Lee's vision of a platform where users could interact, create and share information: the harnessing of collective intelligence. In the past few years there has been an explosion in the number of Web 2.0 sites that facilitate collaboration: the sharing, re-purposing and consuming of user-generated content through the use of emergent technologies and social software. Web 2.0 includes technologies such as blogs, wikis, podcasts, bookmarking and file-sharing tools. In essence, a social network is a virtual community of practice, where users aggregate to "share work practices and common experiences" (Wenger, 1998).

Many possibilities arise for using Web 2.0 technologies for educational purposes but there are also some pitfalls. The use of interactive and real-time tools offered by Web 2.0 technologies provides students with opportunities to create and publish their own content and then interact with others doing the same, from wherever they are. It enables people to connect and collaborate online in communities, and this would suit a group of students, such as those taking the same course. Social software built on these technologies is designed to "facilitate group processes" (Franklin & Van Harmelen, 2007). They would enable students out on WE, for instance, to connect and collaborate online in virtual communities where social learning occurs and where "content is socially constructed through conversations about that content and through grounded interactions especially with others around problems or actions" (Brown & Adler, 2008, p.18).

Web 2.0 Social Networking applications typically control access by requiring that users create personal profiles or register within what could be termed a digital ecosystem, sharing personal data, initiating and establishing relationships with 'friends' based on shared interests. As Boyd and Ellison (2004, n.p.) explain, these Social Networking Sites (SNS) are, "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system". The level of control over access varies depending upon the audience and system with some, such as Facebook, being open to anyone. As a result, there has a been considerable press coverage in recent years about privacy and control over personal information on social networking sites. Recently, the vice-president of the European Commission, Jacques Barrot, warned that young people "are exposing their everyday life online without being aware of the risks the online activities could entail now and in the future for their own privacy" (see Kanter, 2009).

SNS's are designed to be open for users to write personal reflections and viewpoints freely and then share them. Many social networking sites serve to connect strangers who have a common interest and who may not have an opportunity to form ties and share knowledge elsewhere. An abundance of these 'niche social networking sites' has developed over the years, including sites such as *Classroom 2.0* (http://www.classroom2.0.org), which serves to connect a community of educators using Web 2.0 and Collaborative Technologies and *Linked In* (http://www.linkedin.com), which

focuses on helping members develop their career through professional connections. However, while useful, completely open websites like these are also open to abuse and misinformation. Turkle (1995) describes how many people online simulate reality and make up fictitious versions of themselves. What is written on many of the public social networks could be completely false. The accuracy of information is not guaranteed, which could lull naïve users into a "false sense of security" (Carr, 2009, p.45), with some people using these types of sites to prey on others.

Clearly, there are some pitfalls of social networking technology. While the potential for students on WE using this technology seems great, consideration needs to be given to whether our students would feel comfortable with sharing their personal writing online with a Web 2.0 application and whether this would be appropriate in our particular social- cultural context, that is, with young adult students in the UAE.

Context: Our students and technology

Students at Sharjah Higher Colleges have grown up with technology. They belong to the 'Net Generation', a term that describes students born in the 80s who have grown up with digital technology (Oblinger & Oblinger, 2005). Remote controls, video games, email, internet and text messages are all part of the technological culture that has shaped how these students access information, relate to others, and experience and learn about the world around them. Having been exposed to technology at such a young age, this 'Generation Y' has developed digital literacy skills that influence how they construct and share knowledge. The 'Millenials' as they are often known, have emerged with the skills to use the "toys and tools of the digital age" (Prensky, 2001, p.1) to express themselves through a variety of digital multimedia. They are more digitally literate than previous generations, having had access to a wider variety of IT devices such as mobile phones, mp3 players and digital cameras. Studies have suggested that this generation are 'not happy to just consume information from traditional media sources but want to be active participants in the information and knowledge creation process.' (Kennedy et al., 2007, p. 4). Taking into account that much of this generation have been immersed in technology from a very young age, educators have been challenged with the task of creating learning environments which incorporate these familiar technologies into the curriculum.

Students at our colleges like to learn collaboratively. LaMontagne (2005) in his study of cultural practices, social structures and collaborative learning methods has suggested that Arab students tend to learn collaboratively by socially negotiating meaning through group work with members of their community. However, this is very different than classifying these students as 'digital social learners' that are comfortable posting personal blogs, being emotionally open online, or sharing personal information with strangers on the internet. Indeed UAE cultural norms, particularly for women, would tend to prevent this. During the initial stages of the Tawasul project planning, it was observed when collecting data about how students used technology that the majority of female students were not Facebook users. Of those who had heard of the application, many seemed to have a negative perception towards the site and mentioned fears over security and unsolicited access to their personal data. Male students, on the other hand, seemed more familiar and experienced with online social networking applications and reported wider use of social networking sites such as Facebook, Hi5, myspace and so on.

Security and privacy are important for our students. After all, students' willingness or lack of willingness to participate in technology based solutions can be related back to their cultural beliefs. In the UAE it may not be as acceptable for women, in particular, to contribute to public forums on the Internet although other technology, such as mobile phones, may enable them to communicate more freely because they ensure privacy. According to a recent UN report (UNDP, 2009), there is not the same open exchange of knowledge in the Middle East as there is in other parts of the world, and much censorship, which effects how comfortable some participants would be in contributing to

social networking sites. One statistic cited in the report to demonstrate the level of surveillance of SNS's in the Arab region and the suspicion surrounding them, is the fact that the highest numbers of bloggers are arrested in this area of the world (UNDP, 2009, p.81). However, social networking sites are gaining popularity in the region despite this view of restricted freedom of expression, with some highly respected people in the UAE creating their own communities on Facebook, such as HRH Princess Haya Bint Al Hussein and HH Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President and Prime Minister of UAE, Ruler of Dubai. This has undoubtedly helped in making the idea of social networks more acceptable for Emirati students, although security and privacy of information remains an important concern. A major concern for the Tawasul project, therefore, was how to make effective use of a social networking tool for students out on work experience, while retaining privacy and security of information and making it safe for our students.

Context: Work Experience @ Sharjah Higher Colleges of Technology

At the Sharjah Higher Colleges (SHC), one of the larger campuses of the Higher Colleges of Technology (HCT) system, with nearly 2,500 students, most WE takes place in the final semester of a student's course of study (at Diploma, Foundation, or Bachelor level), and can range from four to sixteen weeks. WE is integrated into most disciplines including Health Sciences, Education, Engineering, Business and Information Technology (IT) at SHC. The context of this study concerns cohorts of Diploma level IT and Business students who went on WE for four weeks in semester two of the 2008-9 academic year as part of a course labeled Work-2470. Table 1 shows the course description and learning outcomes for this course as they were presented to the students at that time:

Table 1: Work Experience Curriculum Guide

Course Description: This course provides workplace experience in a real working environment. It will provide the student the opportunity to develop good work ethics, habits and practices observed in real work situations.
Learning Outcome 1: Display effective work habits, including conforming to the rules of the host organization, and interacting, cooperating and communicating with colleagues and supervisors *Sub -outcome 1:* Attend the workplace regularly. HCT attendance policy remains in force *Sub -outcome 2:* Attend the workplace punctually *Sub -outcome 3:* Show an appropriate level of interest and motivation *Sub -outcome 4:* Cooperate in a friendly and tolerant manner *Sub -outcome 5:* Accept and follow instructions *Sub -outcome 6:* Accept and learn from criticism *Sub -outcome 7:* Adhere to safe practices required at the workplace *Sub -outcome 8 :* Demonstrate an appropriate level of initiative
Learning Outcome 2 : Display effective communication skills, at an appropriate level, during and on completion of Work Experience *Sub -outcome 1:* Maintain a record, e.g. daily log book, of observations and activities performed in the workplace *Sub -outcome 2 :* Report orally on aspects of the Work Experience

The challenges of WE at Sharjah

Assigned workplaces at SHC can include a wide variety of companies, schools, and government organizations in the emirates of Dubai, Ajman, Um Al Quwain and Sharjah, or on the East Coast; students are often in remote locations and are visited by Faculty every few weeks. Many students go through a range of emotions in their first weeks on work placement, experiencing as Schön (1983, p. 68) puts it, 'surprise, puzzlement, or confusion in a situation which he finds uncertain or unique. He reflects on the phenomenon before him, and on the prior understandings which have been implicit in his behavior". Social theories of learning describe how meaning is constructed out of information received through social interaction in contexts such as WE. This social knowledge influences their "judgement, behavior and attitude" (Novak & Wurst, 2004). Over the past nine years that we have been involved in WE, we have noticed that students have often reported in their interviews that they felt socially isolated, missing the communication and support of their peers in an unfamiliar work environment. Due to infrequent face-to-face interactions with their mentors, students have often complained that they are receiving little attention from their supervisors and feel cut off from the college. One of the principles of Siemens' (2004) theory of connectivism is that the fostering and maintenance of connections are essential for learning to occur. Yet many students on WE did not have a ready way of connecting with faculty and peers in previous semesters and so their learning in WE was reduced simply by the inability to share their experiences because of physical isolation.

While on WE, students were required, however, to complete a log book in which they recorded a daily diary of their work activities and reflected on positive and negative experiences. In the past this was completed using a written logbook that was then handed in at the end of WE and discussed during the focus group meetings. This process of writing down reflective thought was intended to assist students and mentors address problems that may occur in the work place. As Smith (1994, p.150) describes it, "As we think and act, questions arise that cannot be answered in the present. The space afforded by recording, supervision and conversation with our peers allows us to approach these". However, while reflection is a powerful tool in the problem solving process, we have noticed in our experience with students that, unless students received quick feedback on their reflections, problems were not adequately addressed. The log books simply did not work adequately: students often felt that they lacked the confidence to take the steps to put their solutions into action and needed the support straight away. Due to infrequent interactions with and feedback from their mentors, and the feelings of being isolated from their peers, recording reflections seemed a futile, meaningless and frustrating task for many students: a chore, and no replacement for the emotional support from peers and mentors that could help them make professional decisions in their new and unfamiliar environments.

Some students in previous semesters, for instance, reported that they were bored and that they had been placed into work environments that did not challenge them. Many of the problems encountered were as a result of students having made poor choices about their WE location and being faced with tasks that did not match or improve their existing skill set. Others stemmed from students being unsure of how personal reflections could assist them in maximizing the learning opportunities in the new learning society. Most simply did not have sufficient work strategies in place to deal with the situation and did not have a suitable way of communicating these issues with others or for seeking support in a timely fashion.

Maintaining English is an additional challenge while students are out on WE. At the end of WE, students are required to return to college and deliver a presentation about their experience, answering questions posed by work experience mentors in English. Many are also required to sit their end-of-year IELTS English language exam. However, many of the students over the WE period found themselves working in Arabic-speaking environments with no interaction with English speakers apart from when their college mentors visited them. English teachers subsequently have reported in previous semesters that this had a negative impact on the preparation for their final

English assessment and undoubtedly an effect on their performance in this exam. In summary, we believed that WE needed to improve in the following areas:

- improve peer-to-peer and peer-to-mentor communication processes by providing another means of reflecting and sharing work placement experiences
- provide students with a greater level of support while in the off-campus environment
- assist students in making informed decisions about their choice of work experience
- provide students with an insight into other career paths
- provide a way of maintaining, improving and practicing language skills.

In seeking a solution to address these issues, we considered technology due to the type of students we have and the advent of Web 2.0 applications. Many technological solutions to meet the challenges of WE listed above were researched and tested. Discussion boards in the college's existing learning management system along with public domain blog sites were considered and trialed as possible keys to the problems encountered by students and mentors. It was felt that Blackboard Vista LMS, for instance, was not flexible enough, did not provide enough scope for creating a community which could grow outside of the formal course work sections and transcend the groups that are defined institutionally. Teachers found it difficult to track and manage student postings on public blog sites due to lack of integration with BANNER and the difficulty in creating personalized communities. The cost of multi-user sites, such as Word Press, was also prohibitive. These solutions were deemed as unsatisfactory platforms for improving the work placement experience. Essentially, we needed a technology that provided the following facilities for our students:

- Privacy, security and ownership of content
- Support for learning and academic activities
- Management of large number of student groups
- Integration with existing student database (BANNER)
- Tracking of data for assessment purposes
- User friendly interface
- Reliable backup of data
- No external charges or constraints such as hosting social ads

With these factors in mind, a social network called Tawasul was born. Based on open source code from elgg (http://elgg.org), Tawasul, meaning *'making connections'* in Arabic, is customized to suit the needs of WE, and was installed on a local server giving the college complete control over security and content and fully integrated with the BANNER college database.
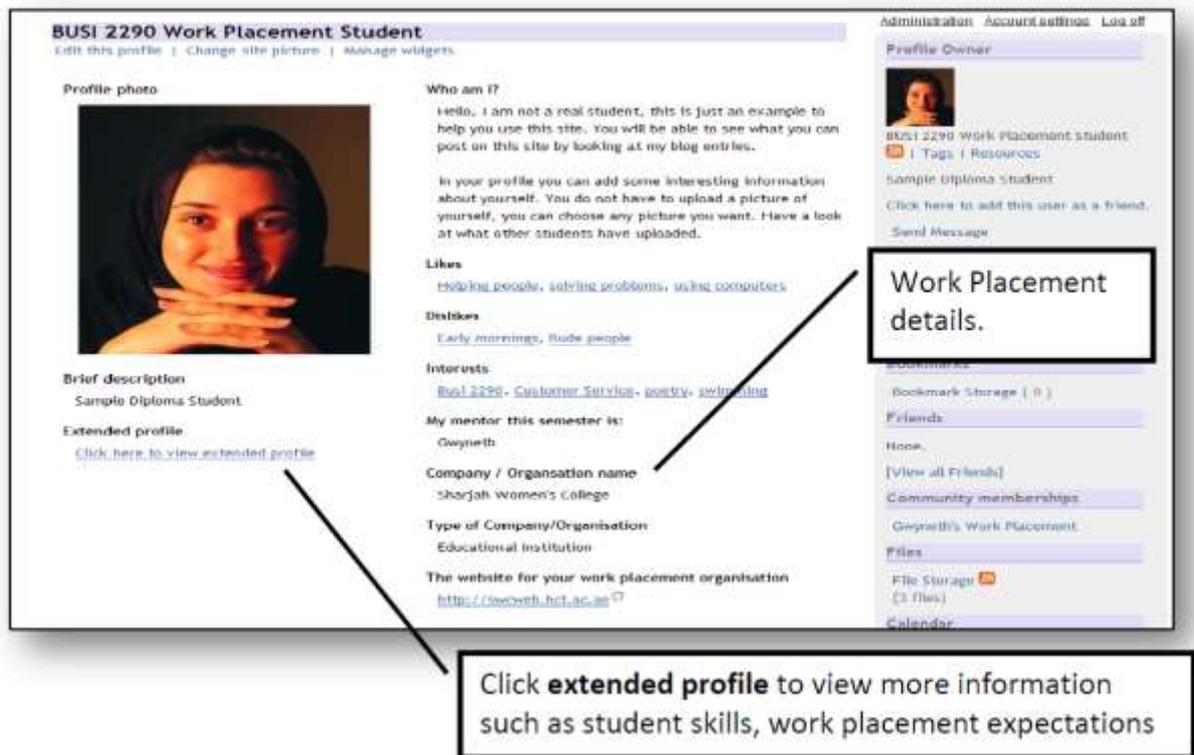
Tawasul

Tawasul was developed to provide a full range of Web 2.0 technologies including blogs, RSS feeds, social bookmarking, tag clouds and wikis to students not just on WE but also for blended learning on courses within the college. Accessing Tawasul through a login screen (see Figure 1), students can securely create their profile electing to share data with students who are pre-existing members of their offline communities.

Two separate male and female installations of Tawasul were set up in the college. Privacy and control of content, as discussed above, were two of the main concerns in selecting an appropriate social network platform to facilitate communication on work placement. It was of utmost importance to ensure that any system would not provide male and female students the opportunity to communicate or to view each other's data. Communication between male and female students is monitored closely in the Sharjah Higher Colleges and in the adopted Learning Management System, Blackboard Vista, it only occurs on Discussion Boards carefully moderated by faculty. Chat tools in the LMS are disabled along with private email or messaging in courses where both genders are enrolled. All students using Tawasul have personal accounts and profiles that can be modified to suit the needs of their studies including the option of joining faculty created communities within which the communications could be monitored and responded to by their mentors as well as restricted to their peers. The screenshot below (Figure 2), for example, indicates that this sample student is a member of Gwyneth's Work Placement community:

Figure 2: Sample student profile (women's version).

Communicating and connecting on Tawasul

Once students have set up their online profile in Tawasul, they can then initiate online communication with others through wall-to-wall postings, personal and community blogs, and comments. The main affordance of this offline-to-online communication in Tawasul is to provide a forum for students to maintain existing ties with their peers and teachers, to cultivate stronger relationships between class members and work-placement mentors and provide an improved support structure. The isolation issues with WE are directly addressed by the use of Tawasul. By using Tawasul students could blog and join threaded discussions with students and faculty and keep up with what their friends and peers were doing. That is, they would be part of a virtual community of practice. This community would also alleviate, we hoped, any feelings of boredom as they would be able to seek support via the online community rather than remain in social isolation. This is because, as Ellison (2008) explains, social network sites provide members with "new ways of connecting with one another over shared interests, problems, or experiences and then to mobilize co-ordinated displays of support or action" (p. 21) and are associated with higher levels of *bonding social capital*: "emotional and tangible support garnered from close friends and family" (p.24). An example of a typical threaded discussion between student and mentor demonstrating this is shown in Figure 3:

Figure 3: Example of mentor comments to blog posting.

While posting regular updates in their blog about their day-to-day activities was required, any other form of participation on Tawasul was completely voluntary. Novak & Wurst (2004, p.236) explain that the evolvement of virtual communities, such as Tawasul, is based on "spontaneous participation and self-motivated choice, common goals such as shared needs and problems and on a common repertoire (experiences, places and practices) resulting in common sense-making and a common language." The number of comments posted to peer blogs and the number of student interest communities that have been created outside the academic WE communities is an indication that the application is providing an informal space for students to explore and connect with others. Tawasul with its non-linear architecture facilitates users with 'hypertext minds' to leap around (Oblinger & Onblinger, 2005, p.15) and to acquire *bridging social capital*, which Ellison (2008, p.22) describes as giving users access to "diverse perspectives and new information". As Tawasul users can freely move and connect with students from other academic sections and programs, they are exposed to diverse work experiences; hopefully this has helped students widen their career horizons and make more informed choices about their WE location.

Methods

To find out what the students' perspectives of Tawasul were, we decided to collect data from Diploma level IT and Business students who went out on WE from both campuses of the Sharjah Higher Colleges of Technology during semester two 2008/2009. The students were asked to use Tawasul as an integral part of their work experience to keep in touch with their college mentors, and were given set tasks to complete. The IT students differed slightly from the Business students in how their online participation was assessed. The Business students were assessed according to how they were assessed in previous semesters, that is 60% based on the employers' end of work experience student assessment form, 20% from a written report that the students had to complete at the end of the WE, and 20% based on an end of WE focus group meeting held with their WE mentors and another faculty member. The IT students received the same weighting from the employer but 20% of their final grade was based solely on their online participation. We introduced this assessment to help motivate the students to participate in Tawasul keeping in mind studies that indicate that, "successful online activities need careful and meticulous design" (Chen et al., 2009, p. 157). The 20% online participation assessment rubric is shown in Table 2:

Week One	• Join your teacher's group on Tawasul as a private user • Write a post on your page with information introducing yourself and your workplace assignment and a brief description of your first tasks and impressions. • Comment on at least two other student's posts and wish them luck.	/5%
Week Two	Write a post with detailed information about your workplace and what you are doing there. Include information about the following: • Background information about the company • The departments you work in • The work/tasks you are doing • The people you work with - your work place supervisor/colleagues	/5%
Week Three	Post an appropriate message about your teacher's visit.	/2%
Week Four	Write a post that reflects on your work placement experience. This could include information about: • How you like the work/tasks you do • Things you like about your job/company • Things you do not like about your job/company • Any problems and how you solved them • How you feel about your work performance • Your skills and skills you feel would have helped you in your work • Recommendations for yourself, the College and the company	/8%

To collect feedback from the students about Tawasul, we included questions in the focus group meetings held at the end of the WE plus we gave out a questionnaire containing questions about Tawasul which contained a number of Likert scale items and some open-ended questions. Comments and observations from Faculty who were mentors of the students were also collected. A total of 132 students across both campuses and from both IT and Business Departments completed questionnaires and interviews.

Findings

The overall results, as the following histograms indicate, were very positive towards Tawasul (where SA= strongly agree, A = agree, N = neutral, D = disagree, SD = strongly disagree).
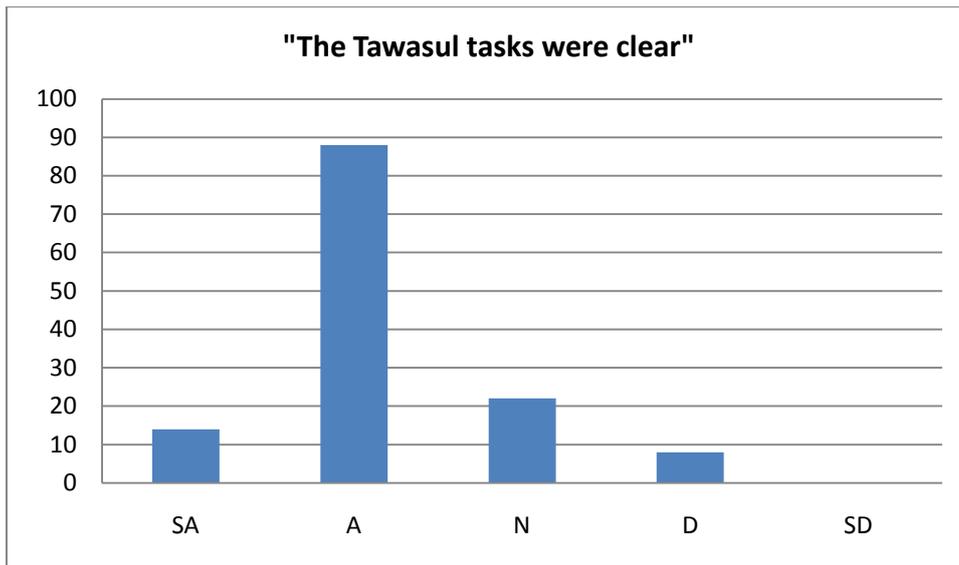
"The Tawasul tasks were clear"

Figure 4: Overall results: Item 1.

Figure 5: Overall results: item 2.

"Tawasul let me see what my friends were doing"
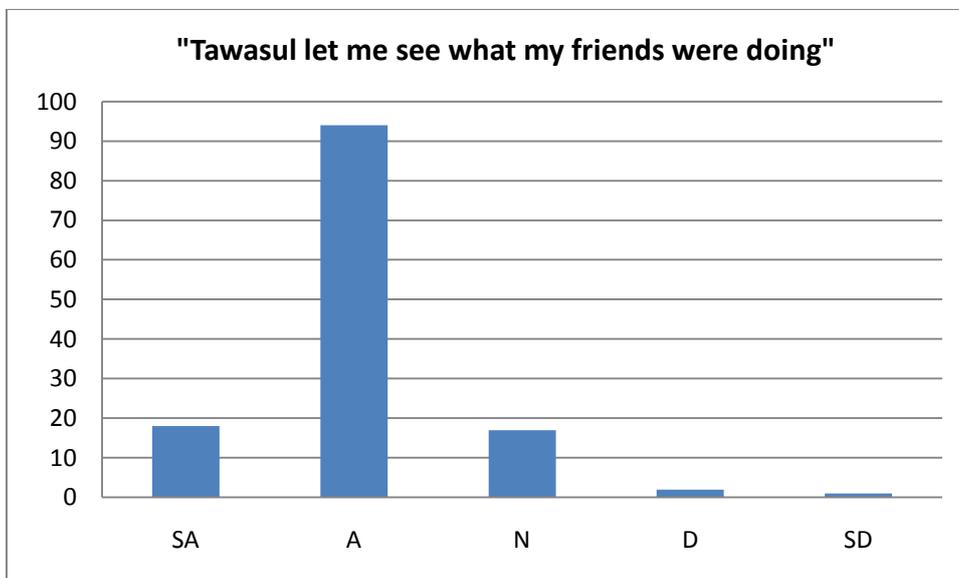
Figure Six: Overall results (total number) Item Three

Raven, J. & O'Donnell, K. (2010). Using Web 2.0 technology for work experience: student perspectives on Tawasul. *Learning and Teaching in Higher Education: Gulf Perspectives*, 7(1).

"My college WE mentor gave good feedback on Tawasul"

[Figure 6: Bar chart showing responses. Y-axis 0 to 80. SA ≈ 23, A ≈ 75, N ≈ 29, D ≈ 3, SD ≈ 2.]
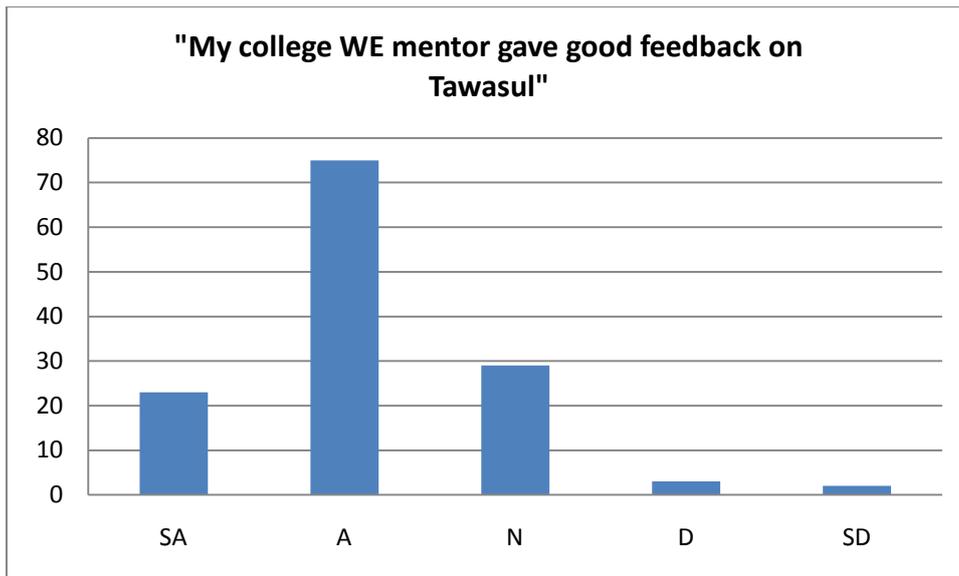
Many of the comments made during the focus group meeting supported these findings. In general the students reported that they enjoyed the social networking aspects of Tawasul the most, that is, being able to see what their friends also on WE were writing about with no complaints received about feeling isolated: a change from previous WE observed. The students found the Tawasul tasks clear, and reported that they enjoyed reading their Mentor's comments. We cross-tabulated the results by department to see if there were any differences due to the way they were assessed, but did not find any significant differences, as the following graphs indicate.

Figure Seven: Results by IT and Business (Bus) concentration (percentage) Item Four

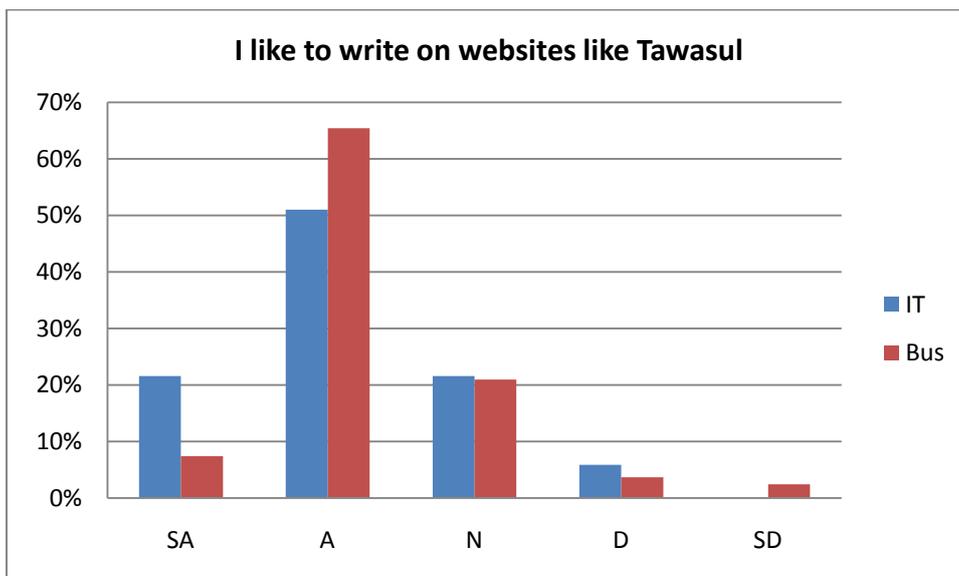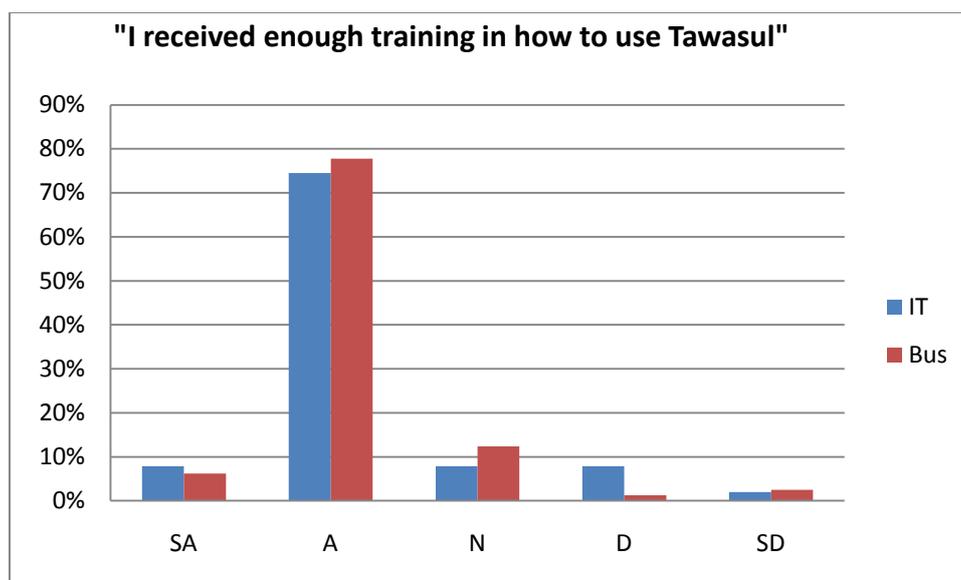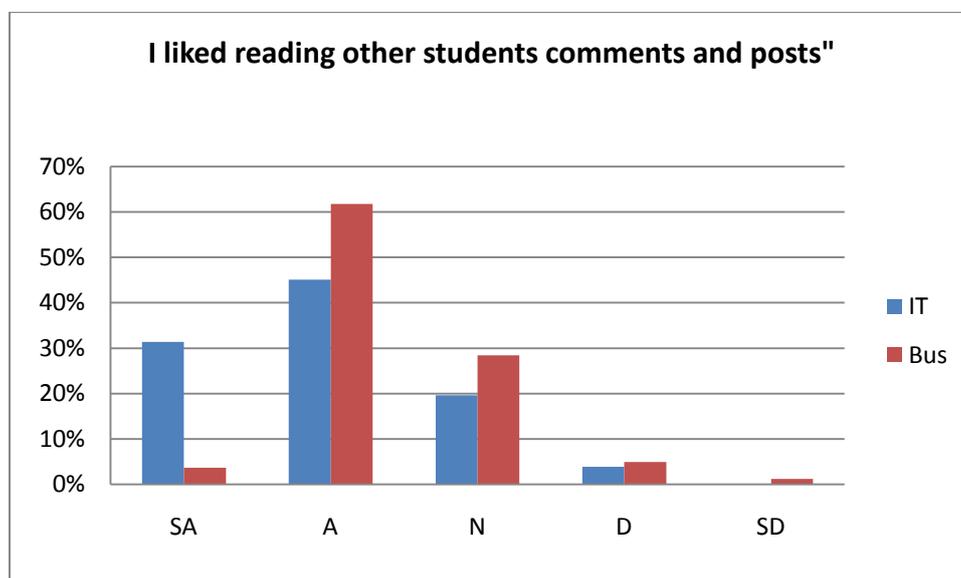**Figure 7: Results by IT and Business (Bus) concentration (percentage) item 4.**

I like to write on websites like Tawasul

[Figure 7: Grouped bar chart comparing IT (blue) and Bus (red). Y-axis 0% to 70%. SA: IT ≈ 21%, Bus ≈ 8%. A: IT ≈ 51%, Bus ≈ 65%. N: IT ≈ 21%, Bus ≈ 21%. D: IT ≈ 6%, Bus ≈ 4%. SD: IT ≈ 0%, Bus ≈ 3%.]

Figure 8: Results by IT and Business (Bus) concentration (percentage) Item 5.

"I received enough training in how to use Tawasul"

Figure 9: Results by IT and Business (Bus) concentration (percentage) item 6.

I liked reading other students comments and posts"

These results reflect strong support for Tawasul equally across both subject areas. The lack of any variances between them was surprising given the difference in the way the students were assessed and indicates that the assessments did not have any large influence on the use of Tawasul for WE. All students liked the social networking aspects of Tawasul, with some, mostly male. listing other social networking sites they used including Facebook, Hi5 and myspace.

We also studied differences between the male and female IT students, due to comments made during the focus group meetings that suggested variances. Cross tabulation revealed the following:

"Tawasul did not help me with my work experience"

It was difficult to know where to post messages in Tawasul
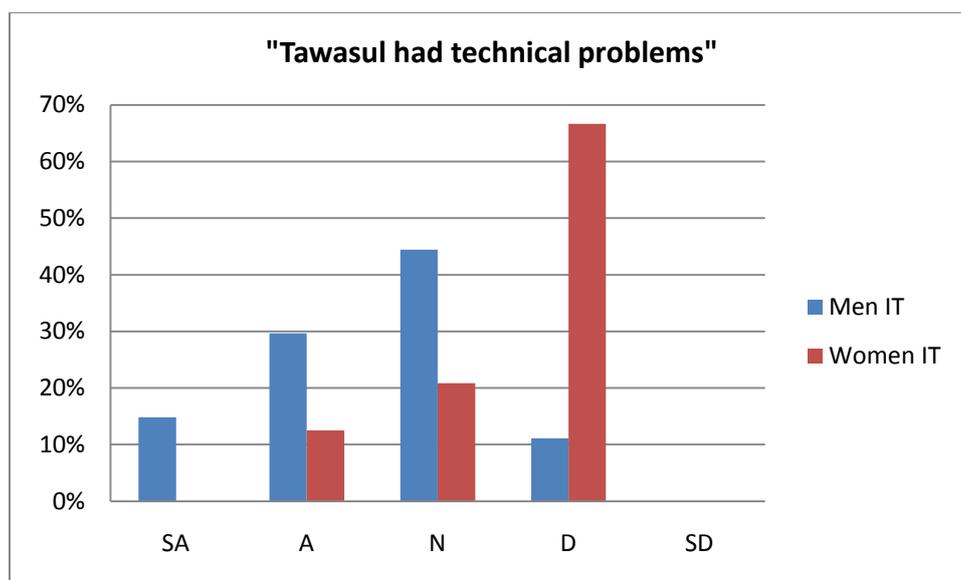
These three differences were all statistically significant (Pearson Chi Square test – asymptotic significance <0.1). The men did not think that Tawasul helped them with WE as much as the women; and more men than women indicated that Tawasul was difficult to use and also that it had technical problems. That is, the men were more critical of Tawasul than the women on these aspects. This was also reflected in some of the verbal comments made during the focus group meetings by male students. For example:

> "I had no time to do it. It's unnecessary"

> "I'd prefer to use mobile phones to keep in touch"

> "why use it if we have Facebook?"

> "it's a waste of time".

This contrasts with the type of comments by female students, who typically spoke variations on the result shown in Figure 5 that they liked to see what their (female) friends on WE were doing. In conversations with the men during the focus group meetings, it appeared that they were more experienced with online social networking sites like Tawasul and had greater access. They were therefore in a better position to compare Tawasul with other social networking tools such as Facebook, and Figure 11 and Figure 12 above reflect their greater concern over technical issues and those regarding the interface. Many male students mentioned that they would have liked to have opened up their Tawasul to outsiders such as students from the women's college, which highlights a number of differences in perspective that relate to cultural and/or gender issues with the body of students involved and attitudes towards privacy. The college decided to restrict access to the Tawasul site in the development stage of the application. Many of the male students voiced opposition to this but few women did.

Also apparent in Figure 10 is the more critical perspective by the men towards the relevance of using Tawasul for WE, although the wording of the question could have been clearer. Comments in the focus group interviews by some of the men reflect this result, however, with some suggesting that it was not necessary and an extra burden on WE they did not need. Many suggested that they prefer to keep in touch by mobile phoning and texting and some said that they were just not interested. Few of the female students mentioned these points of view, however, instead strongly supporting the social networking aspects of the application.

Conclusions

Ellison (2008) makes a clear distinction between social networking sites and social networks. The former provides a portal for members to reach out to an unknown community and make connections with those with common interests. A social network however supports connections between people who share some sort of offline connection, are part of a pre-existing network and participate in the community to maintain and improve existing relationships. As such, Tawasul is a social network, as opposed to a social networking site, which aims to supplement but not replace face-to-face communication between members of the pre-existing community. Tawasul supported a mode of use in which, "online interactions do not necessarily remove people from their offline world but may indeed be used to support relationships and keep people in contact, even when life changes move them away from each other" (Ellison et al., 2007, n.p.). Tawasul, as in the original use of Facebook, serves a geographically-bound college community, the Sharjah Higher Colleges campus. While membership to the college online communities is restricted to students and faculty of that campus, it aims to increase the channels of communication crossing the physical campus boundaries into a virtual world.

We believe that using Tawasul with the students for WE experience at Sharjah was largely a success and we will continue to develop it further for the college. The results of the questionnaire reflect much of the literature concerning the positive aspects of using Web 2.0 technology, and it will continue to be used along with traditional methods of communication for WE including face-to-face meetings and focus groups. The Tawasul online application appeared to have removed the sense of isolation that many students had complained about previously, and they clearly enjoyed the social aspects of the tool which, in this case, was seeing what their peers and friends were doing. Linking the use of the application directly to grades using the assessment listed in Table 2 seemed to make little difference in the students' impressions of Tawasul and both IT and Business students reported that they found the Tawasul tasks clear to follow. We believe that the students became more spontaneous in their use of the application, in Novak & Wurst's (2004) sense of the term as discussed earlier, and not driven just by academic motives. There were some issues with the interface reported more by the men than the women that we will continue to resolve as we develop and fine tune the application.

What is particularly interesting, we believe, is the gender difference picked up by some of the questions in the survey and also by comments made during the focus group meetings that were probably more open as a forum for discussing Tawasul. The men did not seem as concerned as the women with issues related to security of information and privacy, were more experienced with using social networking sites and wanted to open Tawasul up to a wider community like the more public social networking sites. This is why, we believe, the men were critical of the interface and the closed system imposed by Tawasul as a result. The women by comparison, we think, were happy to have a secure environment in which they could keep in contact with their friends and peers. This difference in perspective may reflect social and cultural norms and, we believe, requires further investigation in subsequent implementations of Tawasul.

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