

# **DISTANCE STUDENTS' READINESS FOR AND INTEREST IN COLLABORATION AND SOCIAL MEDIA**

## **ABSTRACT**

Social media and social networking tools offer new educational affordances and avenues for students to interact, that may alleviate the drop-out rate problem faced by distance education institutions (Rovai, 2003). However, we know little about distance students' expertise with social media or their interest in using them to learn individually or to collaborate with peers.

To investigate these issues, an online questionnaire was distributed to students from four large Canadian distance education institutions. A systematic sampling procedure led to 3462 completed questionnaires. The results show that students have diverse views and experiences, but they also show strong and significant age and gender differences in a variety of measures, as well as an important institution effect for interest in collaboration. Males and younger students score higher on almost all indicators, including cooperative preferences. In this article we review quantitative results from the survey from earlier work (authors, 2011) and present an analysis of the qualitative data gathered from open-ended questions in the survey. Answers to open-ended questions regarding the expectation and interest in using social software in their courses, show that students have positive expectations about interactions and course quality, but also concerns about technical, time, and efficiency issues. The limits of the study and future developments and research questions are outlined.

## **KEYWORDS**

Survey, distance students, social software, gender, Canada, age

## **1. INTRODUCTION**

As the Web has been moving to a more social environment, the use of social networking and both formal and informal social learning has been exploding. For example Facebook now claims more than 1.01 billion members with most higher educational institutions having either sponsored or 'spontaneous' Facebook groups associated with the institution.

Social software tools or functions include many tools, the most popular being blogs, wikis, profiles, microblogging (e.g. Twitter), profiles, polls, wall posting, social bookmarking, video and photo sharing and tagging, calendaring.. While social software is used mainly for recreational use, it scales well (Dron, 2007) and educational uses are evolving. These tools afford new types of indirect collaboration distinguishing themselves from more traditional teamwork activities associated with threaded discussions and other tools of learning management systems (LMS) (Dron & Anderson, 2009). Recently, the use of web-conferencing software (e.g. Elluminate, Adobe Connect) using real-time, audio-video communication and other enhanced collaboration functions such as polling, backchannel chat and application sharing have also been growing in use and functionality. While not wishing to be technologically driven, these tools afford new opportunities (or open adjacent possibilities (Kauffman, 2000)) for educational use that at least demand critical appraisal if not wholesale adoption in formal educational programming.

## **2. PROBLEM AND CONCEPTUAL GROUNDING**

Distance Education (DE) and online courses are usually associated with higher attrition rates than on campus-based offerings (Bernard *et al.*, 2004). This is particularly true of that subset of distance delivery models based on self-pacing and continuous enrolment (Misko, 2000). Most avenues explored to enhance persistence in DE courses focus on the enhancement of student support systems through individual tutoring, peer collaboration and face-to-face meetings (Gagné *et al.*, 2002), the latter being now realized most easily with Web conferencing systems, but each of these interventions has significant cost implications

Social software and web conferencing offer new forms of interaction and collaboration, as well as novel ways to make distance student at least visible, if not more collaborative with each other.

## **2.1 Social presence**

Social presence was first defined from a communications perspective as “the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships” (Short *et al.*, 1976). Since then, it has generated a lot of research in the educational domain and the term has been defined in a number of different ways. According to richness of media theory, the more a medium is visual and interactive, the richer will be the information transmitted, and the greater the potential of the media to convey a sense of social presence. Skype and webconferencing systems would fare well in this regard. However, research also demonstrates that humans can appropriate and adapt technology because of affordances such as simplicity, ease of use and low cost to develop rich interactions even with technology associated with low social presence such as text chat (Dziuban, Moskal, Brophy, & Shea, 2007).

## **2.2 Transparency**

The concept of transparency or the capacity to view the actions of other students and teachers in a course in distance educational contexts has been elaborated by Dalsgaard and Paulsen (2009). They argue that ‘students’ and teachers’ insight into each other’s activities and resources” is critically important to create conditions under which students will volunteer and can productively cooperate with others in learning activities. Web proponent Clay Shirky (2008) argues that “shared awareness allows otherwise uncoordinated groups to begin to work together more quickly and more effectively (forming networks) (p. 162). Transparency is also key to the wide spread calls and support for more openness observed in government, politics, finance and scholarship.

Transparency is a unique affordance of educational social networking services that was formerly denied to distance education students. This was largely due of the limitations of the media used to support distance learning. In addition, privacy legislation often forbids institutional sharing of personal information, but of course now individuals have the capacity to make their own decisions about sharing and to with whom they share through tools such as Facebook, Linked In, blogs, institutional social networks and in limited degree through LMS systems.

In summary, synchronous webconferencing systems offer promise to convey rich forms social presence and educational social networking environment has the potential to add transparency, these being theoretically linked to the drop out rates problem (Bernard & Amundsen, 1989; Boston & Ice, 2011; Rovai, 2003).

## **2.3 Collaboration**

While research shows that some students are interested in collaborating with peers in distance education (Anderson, 2005; Caspi & Gorki, 2006), it also shows also that some students are not. Distance education students may be very attached to the individual flexibility that for many, is the main reason they chose distance courses (Poellhuber, 2005). At the Norwegian Knowledge Institute, where Paulsen’s (Paulsen, 1993) theory of cooperative freedom was developed and is now applied, collaboration is voluntary, but encouraged,

through a sophisticated locally developed social networking environment. In these conditions, 55% of self-paced distance education students choose to collaborate with peers at some degree (Shaunessy, 2007). Using a variety of social media, new forms of peer collaboration are emerging that differ from the traditional group production implied in collaborative learning and give rise to networked forms of online teaching and learning (Anderson & Dron, 2011).

### **3. OBJECTIVES**

Webconferencing and educational social networking offer new promise for student learning and support systems, however we know little about the readiness of distance students to make effective use of these new technologies and to collaborate with peers. Researchers from four large Canadian distance education or dual mode institutions conducted a survey aiming to describe the use of and interest in social software and Web 2.0 applications by distance education students and to measure their interest in collaborating with peers, in the intent of introducing these tools into distance courses.

### **4. METHODOLOGY**

We created a 90-item online questionnaire from four scales adapted from previously validated survey instruments, in addition to socio-demographic data and some other variables linked to persistence in distance education. The following scales were integrated into the survey with sometimes small changes due to the context of distance education and language issues. These included cooperative and learning preferences (Owen & Stratton, 1982); Tertiary Student's Readiness for Online Learning (TSROL) (Pillay et al., 2007), social software expertise (inspired from Pillay et al., 2007); Distance study self-efficacy scale (DSSES, Poellhuber, 2007). In order to measure the predispositions of distance students towards collaboration vs individual learning, we adapted the Learning Preferences Scale for students from Owens & Stratton (1980). For each of the eleven social software tools selected, respondents had to answer a question on their perceived degree of expertise with these tools (no experience, beginner, intermediate, advanced, expert). An interest scale asking students how interested they would be in using these tools for learning was constructed along the same dimensions. Two open-ended questions were asked to students, pertaining to their expectations or concerns about the use of social software in their distance courses.

The instrument was piloted with small groups of students (20-30), in both French and English. An email and/or a written invitation to participate in the survey was sent to all students registering for a period of time between 4 to 6 weeks, differing slightly in each institution, from June 2009 to February 2010. At Athabasca and TÉLUQ, two distance education universities, the survey was sent to all undergraduate students. Cegep@distance is a college level postsecondary institution in Quebec. These three institutions offer distance courses in a self-paced format. At Université de Montréal, the survey was sent to all students registering for courses at the distance education division of the Continuing Education Faculty. This probabilist but systematic sampling procedure led to a good representation of students of these four institutions.

#### **4.1 Sample Characteristics**

A total of 12,384 invitations were sent, with a return of 3,462 completed questionnaires for a quite good global return rate of 28%. As table 1 shows, women constituted 75.3% of the sample. Age was categorized in five 8-year spans groups corresponding roughly to the C, Y and X generations : 16-24 (C generation); 25-32 (Y generation); 33-40 (X2 generation); 41-48 (X1 generation); 49 and over (baby boomers).

**Table 1** Gender representation

	Men		Women	
	n	%	n	%
Athabasca	251	26,8%	685	73,2%
C@D	267	27,0%	721	73,0%
TÉLUQ	203	25,4%	595	74,5%
UofM	119	17,7%	553	82,3%

**Table 2** Age representation

Generation	n	%
16-24	1288	37.2 %
25-32	941	27.2 %
33-41	556	16.1 %
41-48	362	10.5 %
45 +	185	5.3 %
	3332	100%

**Table 3.** Mean age by institution

	Mean	Standard dev.
U. of M.	30,25*	9,35
Athabasca	32,92	10,12
Cégep@distance	23,99*	7,38
TÉLUQ	33,26	9,01
Total	29,82	9,77

\*  $p < ,05$

Globally, there are some differences between institutions. TELUQ and Athabasca students are very similar on many demographic variables and represent a ‘traditional distance education population: older students, more full time students and larger proportion of students with some former experience with distance courses. Cégep@distance clientele is much younger than the three other institutions, with the 16-24 group

being more represented, has more full time students (71.6 %), and less students with former experience with distance courses. However, a large proportion of these full time students are registered in another college and are only taking one or two courses at Cegeap@distance. Université de Montréal's distance students are somehow in between these poles. Similarly, at Athabasca, 65.2% of respondent had taken 2 or more distance courses previously, 64.4% at TELUQ, but only 39.0% at Université de Montréal and 19.9% at Cegep@distance had past experience at distance education studies.

## 3.2 Quantitative Procedures

After cleaning and aggregation, 3462 completed questionnaires were retained. Two-way ANOVA tests were used on continuous scales. For the categorical analysis, we used a Gookman-Kruskal Tau statistic and a column proportion post-hoc test to identify sample differences.

## 5. RESULTS

### 4.1 Teamwork experience

Past experience of teamwork was perceived more positively by males and by younger respondents.

2 ways Anova yields a significant age effect ( $F_{(4, 3304)} = 6.42, p < .001$ ), a significant interaction of age by gender effect ( $F_{(4, 3304)} = 2.67, p = .005$ ), and a nearly significant gender effect ( $F_{(1, 3304)} = 2.28, p = .072$ ). The younger male 16-24 subgroup have the most positive teamwork experience but for males, of the older groups, experience is less positive.

### 4.2 Cooperative and individual preferences

Cooperative Preferences follow a pattern very similar to past experience with teamwork, and correlation between cooperative preferences and past experience is strong and significant ( $r = 0.624, p < .001$ ).

Cooperative preferences are higher for males than females ( $F_{(1, 3313)} = 5.86, p < .001$ ), which is somehow surprising, given both stereotypical beliefs and research evidence (Ocker, 2001) claiming that females enjoy collaborative learning opportunities more than males. However more recent evidence is demonstrating that gender differences are diminishing in socially enriched distance education environments (Tu, Yen, & Blocher, 2011) and that the effect of course design in motivating and supporting cooperation is critical (Anthony, 2012). Cooperative presence was also higher for younger respondents than for older ones ( $F_{(4, 3313)} = 1.18, p = .011$ ), the largest differences being for the youngest 16-24 age group. It is only for this group that individual preferences score lower than cooperative preferences.

### 4.3 Interest in collaborating with peers

When grouping interested and very interested respondents, 38.4% of them show interest in collaborating with peers in their distance courses. A 2 way Anova shows significant age ( $F_{(4, 3253)} = 2.80, p = .025$ ) and gender effects ( $F_{(1, 3253)} = 17.37, p < .001$ ), as well as an age by gender interaction effect ( $F_{(4, 3253)} = 0.36, p = .841$ ).

But the age effect is in the opposite direction as the one observed for the last measures, older students being more interested in collaborating with peers, even though their previous experience with teamwork is less

positive and their learning preferences less cooperative. For interest in collaboration, there is also a significant and important institution effect, even when controlling for age and gender effects. 53.6 % of Athabasca's students report greater interest collaborating, compared to a mean of 38.4 % for all institutions ( $Tau_T = .041$ ,  $p < .05$ ).

#### 4.4 Social software proficiency

Table 4 presents the percentage of experienced users with social media, grouping together intermediate, advanced and expert levels. The social media for which distance education students have the most expertise are social networking, video sharing, photo sharing and blogs. The ones in which students have the less expertise are social bookmarking, 3D virtual worlds, electronic portfolios, Twitter and Webconferencing.

**Table 4.** Social software proficiency (from authors, 2011)

Proportion of Intermediate, Advanced and Expert users	n	%
Social Bookmarking	212	6.1%
3D Virtual Worlds	224	6.5%
Electronic Portfolios	415	12.2%
Twitter	438	12.7%
Webconferencing	473	13.8%
Podcast	511	14.8%
Wikis	625	18.3%
Blogs	875	25.4%
Photo Sharing	1150	33.7%
Video Sharing	1811	52.9%
Social Networking	2380	69.5%

#### 5.4 Interest in using social software for learning purposes

Table 5 presents the proportion of respondents who are interested or very interested in integrating social software into their formal learning experiences. This table reveals the same tendencies as the previous one demonstrating higher interest for using social software that is most familiar to respondents, with a noteworthy exception concerning Webconferencing. Almost half (42.6%) of respondents are interested in using it for learning purposes, whereas only 13.8% of them are experienced users. There are significant age and gender differences for experience with almost all social software. Add another table showing this?

**Table 5.** Interest in using social software for learning purposes (from authors, 2011)

Proportion of Interested or Very Interested users	n	%
Social Bookmarking	616	18.1%
Twitter	627	18.5%
3D Virtual Worlds	473	19.4%
Electronic Portfolios	965	28.5%

Wikis	1066	31.3%
Podcast	1143	33.7%
Photo Sharing	1237	36.4%
Blogs	1368	40.2%
Webconferencing	1449	42.6%
Social Networking	1797	52.8%
Video Sharing	1976	58.2%

Table 4 shows a significant age effect in interest to use social software for learning. Younger students are more interested in using video sharing sites and social networking for learning purposes, while for other social software, including webconferencing, podcasts, blogs, social bookmarking and 3D worlds, older students are more interested: . Interest levels are also higher for men than women for all social media except social networking and 3D worlds.

**Table 6.** Interest in using social software for learning purposes

	16-24	25-32	33-40	41-48	49+	tau	p
Social bookmarking	13.3 % <sup>a</sup>	20.6 % <sup>b</sup>	21.1 % <sup>b</sup>	17.4 % <sup>a,b</sup>	25.0 % <sup>b</sup>	.01	<.001
3D Worlds	15.1 % <sup>a</sup>	21.7 % <sup>b</sup>	25.5 % <sup>b</sup>	18.8 % <sup>a,b</sup>	26.9 % <sup>b</sup>	.01	<.001
Podcasts	28.3 % <sup>a</sup>	37.1 % <sup>b</sup>	37.2 % <sup>b</sup>	35.0 % <sup>a,b</sup>	31.7 % <sup>a,b</sup>	.00	<.001
Blogs	36.8 % <sup>a</sup>	42.6 % <sup>a</sup>	43.8 % <sup>a</sup>	36.1 % <sup>a</sup>	44.4 % <sup>a</sup>	.01	<.001
Webconferencing	34.0 % <sup>a</sup>	45.2 % <sup>b</sup>	50.4 % <sup>b</sup>	49.2 % <sup>b</sup>	50.3 % <sup>b</sup>	.01	<.001
Social networking	61.2 % <sup>a</sup>	55.2 % <sup>b</sup>	44.4 % <sup>c</sup>	37.0 % <sup>c</sup>	41.4 % <sup>c</sup>	.03	<.001
Video sharing	64.0 % <sup>a</sup>	57.2 % <sup>b</sup>	56.0 % <sup>b,c</sup>	48.2 % <sup>c</sup>	48.9 % <sup>b,c</sup>	.01	<.001

\* p < .05 (column proportion test)

## 5.5 Qualitative Results

We received responses referring to positive expectations or concerns about the use of social software in distance courses and classified them into emerging themes. A total of 3093 respondents expressed either positive expectations, concerns or both. Out of 3642 respondents, 2038 (56.0 %) expressed positive expectations, very slightly over the proportion of those whom expressed concerns about the use of social software in their distance courses 1797 (49.1 %).

### Positive expectations

When asked, most students expressed a range of positive expectations with respect to the introduction of social software in their distance courses. Student expectations include higher levels of social interaction including peer to peer, peer to tutor, and peer to content interactions. In addition to higher levels of social interaction, students also expressed, to a lesser degree, expectation of improved course quality and time management.

### Interactions

The main category emerging is positive expectations about interactions, these pertaining about equally to interactions with tutors and interactions with peers. Almost one third (31,7%) of those expressing positive expectations expect better interactions.

Expectations of peer to peer interaction were most common with 14.5% of respondents expressing improved peer to peer interaction:

*Talking with other students can help set complicated concepts straight in my mind.*

*I have never done an online course. They have all been live classroom settings, so having more networking would improve the contact between myself and teachers or other students.*

*I expect it would enhance group discussion and connecting with other peers in the course.*

*I would like to be able to utilize a blog or some such forum to be able to post and see other students' thoughts about assignments, preparing for tests, etc.*

Generally, students envision social software to be a means of reducing isolation, promoting the exchange of ideas, and benefitting from scaffolding learning and support among peers. A significant proportion of students anticipate improved peer to peer interaction using social software, a phenomenon almost impossible in current models of self-paced distance courses.

Students also expressed positive expectations specific to improved students/ tutor interactions with 13.5% of respondents indicating social software could be a means to improve student/ tutor communications and feedback.

*If using these technologies can encourage students and tutors to work together more to make learning a positive, productive experience, then that would be a good thing.*

*I would like to have more interaction with my tutor, even if it was a live broadcast or video at the beginning of the course to introduce us to our tutor as well as the course overview. I find when you get the package there is a lot of information and it would be nice having some guidance to sift through it.*

*it would bring more of a 'classroom' feel. if there was some live chat with a TA or prof, students would get replies much quicker.*

*I think it would be great to be able to connect live on line with others, to ask questions of a tutor and hear others questions answered as well.*

In addition, students conveyed other positive expectations such as general positive expectations in improving information flow, feedback, modeling, scaffolding, and general knowledge management. The analysis of student expectations indicates students perceive social software to offer a complex set of interrelated affordances which indicates possibility and opportunity to improve social presence and provide important scaffolding interventions to improve student learning and reduce dropout.

### **Course quality**

Generally, students also expressed positive expectations of social software improving course quality and the learning experience, making learning more efficient, and, perhaps, more effective by facilitating a deeper understanding of course content. 25.1 % of students answering the open-ended questions believed social software could positively affect course quality:

*I also like the efficiency and speed of doing test and submitting assignments electronically I believe networked technologies will add to the learning experience and aid in understanding the materials at a higher level.*

Specifically, student expressed positive expectations regarding the potential for social software to improve course quality by improving access and sharing of information and to improve course content as learners share in the accumulation and the co-construction of knowledge. Moreover, students expressed positive expectation that social software could be used to create collaborative learning designs for learning, anticipating a general improvement in course delivery and a more satisfying collective learning experience.

*I believe that it'll give you more tools to complete your course(s) successfully. It'll assist you in giving more research tools, meeting potential study partners, etc.*

*Historical bookmarking, blogging, rating, commenting, etc, that build on the already existing forums will be invaluable because posts will be more relevant to the future students working on the course. An analogy, as I see it, would be receiving a used textbook with notes in the margins and highlighted passages that would provide additional guidance to the new owner except that instead of just one previous owner/contributor, there are many and the dialog is bidirectional not unidirectional*

In addition to anticipating improvement to knowledge management and designs for learning, students also indicated positive expectations for social software to improve time management and, generally, improve efficiency.

#### **Time management:**

Students expressed positive expectations of social software affecting time management, perhaps affording students greater flexibility and autonomy. 12.6 % of respondents expressed expectation that social software would improve the student learning experience in the area of time management. With respect to flexibility students indicated positive expectations specifically being able to participate in the course anytime/anyplace. The ubiquitous nature of social software allows students to better manage and integrate their learning experience around existing, and perhaps inflexible, work and life demands:

*I think that if a networked technology is able to be accessed at a time that is convenient to the student that the technology could be of great benefit.*

*In addition to improved flexibility, students also expressed positive expectations with respect to autonomy, suggesting that students perceived a potential for social software to allow increased freedom to learn when and where they wanted, and, also, at their own pace:*

*I like to be able to work at my own pace, depending on my work schedule and activities going on in my life.*

*The individualized study courses allow me to set my own learning schedule to enable me to manage my work and academic life.*

To a lesser degree, but, nevertheless significant, some students expect social software will afford a broadened perspective of collective learning which is often associated with a “classroom feel”, and that this vantage point may contribute to an overall sense of belonging to a community of learners, and to increased sense of progress relative to other students--a condition some students suggested may lead to a greater commitment to their studies and a greater sense of duty to perform well relative to others:

*While studying through distance ed. this gives me the benefits of being in the classroom right here at home.*

*Although I enjoy working alone, I would be more motivated in working alongside others using these networked technologies. Others I can pace myself against and work with on the more difficult concepts.*

*Networking technology I think would help me to be more motivated and stick to the schedule.*

Overall, most students recognize the potential to exploit the affordances of social software, and take advantage of ubiquitous, synchronous, and asynchronous properties to improve access to instruction and content, to coordinate learning activities with tutors and peers, and, perhaps, to participate in a community learning environment which provides a sense of pacing relative to others and, in turn, stimulates a sense of internal motivation and persistence.

## **Concerns with Social Software**

However, students expressed a range of concerns with regards to using social software including an assortment of issues which include technical, workload, course quality, interaction, and privacy concerns . Moreover, the scope of student concerns was broadly based and not limited to social software technologies but expanded to more general issues such as connectivity, technical experience and expertise.

### **Technical concerns**

The most common, and perhaps the most complex, is a set of concerns expressed by students which centre on technical and ease of use concerns associated with network access, desire (and capacity) to learn to use social software, and whether or not their lack technical expertise would impede learning. Of the total number of concerns expressed by students 56.1% of students expressing technical concerns had concerns of a technical nature but that were not limited to learning social software. Some student concerns related to simply not having access to computers or sufficient bandwidth or simply the extra financial resource necessary to afford upgrades in hardware or internet service:

*Due to the location I live (very rural), I have to use a data stick for internet, therefore, I pay by the gig for any information downloaded*

In addition to placing some learners at a technical disadvantage relative to students for whom the technological concerns were less imposing, some students expressed concerns regarding the design and management of information flows and other possible distractions that social software might bring which may not be directly related to (or even confound) the learning objectives of the course:

*When you get more into complicated technologies, it starts to make the whole process harder.*

*Not everyone knows how to use different technologies and for some have no desire to use them such a Facebook and Twitter.*

*Expectations to contribute, using networked technologies may be detrimental to many student's abilities to fulfill course requirements.*

Another set of technical concerns, associated specifically with social software, in general, and site design and architecture, specifically, indicated student anticipated difficulties managing and time wasted multiple communication channels within the social software itself—an issue affecting not only students, but tutors and instructors as well:

*People won't concentrate on studying when on Facebook/Twitter, they'll be socializing with*

*friends while they are supposed to be working with other students.*

*Sometimes when there are too many options for communication, it is difficult to decide which is most effective. It is possible to spend more time asking questions to different people through different mediums than getting the necessary answers.*

*My only concern about the site is that I find that there are a lot of "branches" to the site. It seems like different things for one course are found in different areas, It would be nice if all course info could be found in one area.*

A wide array of technical concerns indicates that student preferences to use or not use certain social software, and not possessing sufficient technological ability could affect student learning outcomes, and that the range of technical concerns are far ranging including simply not being able to connect to conflicting social software preferences.

### **Time**

To reiterate, students expressed concerns regarding the time investment required to learn how to use them effectively, but this is only one of a number of time related concerns. In total, 27.2 % of concerned students had concerns pertaining to time. Often, student's raised concerns with regards to coordinating student schedules for cooperative learning activities and being overwhelmed by off-task or distracting online discussion. Students expressed time management concerns included coordinating online participation with personal life and work commitments and anticipated problems synchronizing communications with other students with conflicting schedules or who reside in different time zones:

*I am concerned that it would take up too much time if I was required to participate in blogs, web conferencing, etc. I work full time and do school part time, I don't want to be required to participate in more activities*

*My concerns include how it would work with everyone being in different time zones.*

In addition to scheduling issues, students also expressed a number of other time related concerns including wasting time sorting through volumes of off-task peer to peer communications posted online discussion forums or combing through bookmarks and links to irrelevant or questionable academic sites or resources:

*There is already an over abundance of material and resources which makes picking through the important stuff very time consuming.*

### **Course quality, interaction, and privacy concerns**

To a lesser degree, students expressed concerns with a set of issues relating to course quality, interaction, and privacy. Course quality concerns centered on such things as access to tutors, direct and meaningful feedback, learning management design, and time-wasting and distracting affordances:

*I think that "chatting" technologies may contribute to more chatting and conversation but not necessarily productive learning.*

*Everyone would be able to see my questions/comments/concerns, I'd feel a little bit concerned with asking, to what others might be, 'stupid' questions*

*In my experience with group discussion, etc there are always people who love to dominate conversations and take it way off topic. It can be very frustrating*

Generally, student concerns can be divided into three common themes: technical, time, and efficiency issues, indicating a general concern that benefits to using social software can be out-weighted by the disruptive effects it has on the student time management commitments and the learning environment.

## 6. DISCUSSION

Men claimed to be more experienced than women do in regards to all social software except for social networking software. This confirms a tendency of research to report higher levels of technology proficiency for men than women, however it must be noted that this difference is based on a self-perception that may or may not be related to actual competency differences..

Surprisingly, men report more positive cooperative preferences scores, as well as more positive experiences with teamwork than women however, these ratings get lower with age for men. It can be hypothesized that younger students have had more common and positive experience in an academic environment more focused on teamwork than that experienced by older students in the past. Men of all ages are more interested in cooperating with peers in their distance courses than women. However, we can question whether this mean they are more interested in collaborative teamwork. Web 2.0 and social software permits different and lighter forms of collaboration, indirect, based on traces, recommendations, artifacts, tagging and commenting (Helou, Li, & Gillet, 2010). These correspond to the more popular social software applications (social networking, video sharing, photo sharing) in our study.

Although the correlation between experience in teamwork and cooperative preferences is strong ( $r=.614$ ), it does not translate automatically into an interest in collaborating with peers in a distance courses, the correlation being much weaker ( $r=.372$ ). . It can be argued that the learning preferences scale measures preferences for classroom learning situations and that in distance courses, these preferences may change towards more individual preferences, because distance students are very attached to flexibility (Poellhuber, 2005). Older students are more interested than younger students in collaborating with peers. Perhaps their interest in collaboration can be partially explained by the fact that these older students, typically registered in distance institutions programs (as opposed to visiting students only enrolling in one or two courses) have more desire for interaction than their younger peers, who often have many on-campus opportunities for peer interactions.

There is a strong and significant institutional effect of interest in collaborating with peers, Athabasca's students being more interested than others. There may be an important cultural, institutional or linguistic effect the present results. As Athabasca closely resembles TÉLUQ on a number of variables, some support for the cultural or linguistic effect is there. However, each distance education institution has its own culture and this culture may also influence interest in collaborating with peers.

The differences in expertise with technology are significantly different when crossed with age, the 16-24 year old group distinguishing itself. This gives some support to the "hypothesis" about the Net Generation or the C Generation, which is somewhat controversial in the distance education literature (Bullen et al., 2009). However, this does not mean that the 16-24 year old group is homogenous, and our data shows supports the notion of students being very heterogeneous in regards to technology exposure and perception of technical efficacy.

Social networking, video sharing sites, photo sharing sites and blogs are the ones with the most experienced users. Social media that users are most interested in using as learning tools are almost identical in order of preference, but webconferencing stands alone with a privileged position in this list. Although very few respondents are experienced with webconferencing (13.8%), almost half of them are interested to use it to learn. This is congruent with the hypothesis that webconferencing software may be particularly fit to support development of social presence.

Interest in use of social media in the learning experience, shows the effect of age is significant in almost every social media - a result that does not follow from previously noted tendencies. As younger students report more experience with social software, older students are the ones that are more interested to use it for learning purposes. It may be young people use social media for social and entertainment purposes only and many wish that this remains so. This is particularly true for social networking, that a fairly large number of experienced users are not interested in exploiting these tools for learning in formal education. On the other hand, the same argument might be made than earlier, e.g. that older students have more interest in collaboration and interaction with peers than visiting younger students.

On a qualitative side, students have a range of positive expectations, mainly towards interactions and course quality, but also a range of technical, time or efficiency concerns. The perceived potential benefits of social software in distance courses are numerous, but need to be placed in the perspective of concerns eventually impeding on students outcomes.

## 7. CONCLUSION

Our findings shows that while some students are interested in collaborating with peers, even more students are not, except at Athabasca. This interest in peer collaboration varies with age, gender and institution. Men and younger respondents report higher cooperative preferences and more positive past teamwork experience. However, interest in collaborating with peers grows with age, a phenomenon also present for the interest in the use of social software for learning purposes. Strong and significant differences are observed on a variety of social software proficiency, a result which supports partly the Net Generation hypothesis.

Social software in which we find the largest proportion of experienced users require light forms of participation : video sharing sites, photo sharing sites and social networking. These might be the easiest social software tools to implement in distance education. Webconferencing is a noteworthy exception. While it remained (at the time of this survey) rather unknown, it is one of those technologies that students are the most interested in using to learn and they have increasing experience with, given predominate use of Skype and Google Hangout video and voice conferencing for both single and multi-point conversation. This positive reception is a promising indicator encouraging distance education institutions to increase use and study of web conferencing to support distance learning.

The responses to these open-ended questions open avenues to those who consider the integration of social software or Web 2.0 tools in distance courses. While envisioned as a mean of promoting peer to peer interaction, students also see the potential of social software to facilitate students-tutors interaction, and to some extent students-content interaction. Positive expectations of students are tempered by technical concerns, as well as concerns pertaining to time constraints and other impediments to individual pacing. Thus, introduction of social software in distance courses should be guided by ease of use or utilisability considerations, and accompanied with sufficient technical support or training. Sufficient attention should also be placed in course design so that the suggested uses of social software are in direct line with learning objectives (lessening their potnetial for distraction) and that the communication channels within the course remain clear and simple.

An important institutional effect has been observed regarding interest in collaborating with peers, but it is not clear whether this effect is due to an institutional cultural effect or to a difference between anglophone and francophone cultures.

The limits of the survey linked to its methodology are: a) a self-selection due to exclusion of students with low or no Internet access; b) a history effect linked to the restrained time frame questionnaire distribution (with an overrepresentation of summer students at Cegep@distance; c) a possible social desirability effect linked to the fact that most scales used in the questionnaire measure perceptions rather than actual measurement of performance or skill.

Future research could focus on understanding the determinants of the interest towards collaboration and or using social software as learning tools. We also need further elaboration of models and development of interventions that allow and help interested students to collaborate directly or indirectly with peers or tutors, while preserving their individual preferences.

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