Privacy Concern and Student Engagement in the Virtual Classroom

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Executive Summary

The use of online technologies in post-secondary education has become commonplace, both as a supplement to on-campus courses and as the sole medium of instruction and interaction in online courses. However, the use of learning management systems such as Moodle, Blackboard, and WebBoard raises questions about the privacy of students and the confidentiality of their information when interacting online. Furthermore, to the extent that student engagement facilitates learning and retention of course content, changes in student engagement and interaction resulting from concerns about privacy may have an effect on student learning.

This report is written for Distance Education Services at the University of Victoria. Distance Education Services provides services for both faculty and students, and supports distance learning at the University of Victoria via the delivery of online courses. This report will assist DES’ understanding of barriers to learning that online students may face while taking courses at the University of Victoria, including those barriers resulting from privacy concerns. Greater knowledge of student engagement and privacy concerns will allow DES to address student perceptions and, where necessary, make changes to further encourage student engagement and learning in the online classroom.

The research objective for this report was to address the following three interrelated questions:

1) What are students’ privacy concerns when learning in an online classroom and being exposed to a variety of learning technologies?
2) How do these concerns impact on their engagement, with course content, with instructors, and with other students?
3) What can the university do to address students’ perceptions and level of comfort, and encourage student engagement online?

Methodology

Research for this report was gathered via a literature review, a review of University of Victoria privacy policies and regulations, and interviews with students from the School of Public Administration. Semi-structured interviews with 20 students who had taken at least 1 online course focused on the following topic areas: the extent and nature of students’ privacy concerns in their online courses; students’ knowledge of privacy policies and the privacy characteristics of the online learning environment; student engagement in online courses; factors affecting online student engagement; and on suggestions that students had for improving their engagement in online courses. A complete list of interview questions is attached as Appendix A.

Literature Review Findings

The findings of the literature review indicate that there are some significant gaps in the literature when it comes to relating online privacy to student engagement and learning in the online classroom. While there are numerous studies on student concern for privacy in the online classroom or on student engagement in the online classroom, these studies are generally very context-specific. Existing
literature does not address the interplay between all three variables - student engagement, concern for privacy, and online learning. Most importantly, the link between students’ concern for privacy and their level of learning has only been made indirectly – because of the relationship between student concern for privacy and engagement, and the relationship between student engagement and learning.

**Interview Findings**

Interview findings indicate that the relationship between privacy concern and student engagement is more nuanced than the literature suggests. Students’ privacy concerns are primarily professional in nature, because students are concerned about the confidentiality of workplace-related information they share throughout their courses. In response to their concerns, students have implemented various coping strategies, as well as benefited from strategies executed by their instructors. Nonetheless, students admitted to engaging differently in the online environment than they would on-campus. Therefore, while interview findings confirm a link between concern for privacy and student engagement, the connection is in reality more intricate than was suggested by the literature review.

**Discussion**

Research findings indicate that the privacy concerns of students in the School of Public Administration at the University of Victoria may be different from student privacy concerns more generally, as indicated by the literature. This would mean that steps to address privacy concerns and student engagement in this particular context may not necessarily be generalisable to the broader University of Victoria context and that unique issues beyond literature findings are significant.

Findings of the Literature Review indicated that, because students may feel less self aware and feel more anonymous in the online learning environment, they may feel more free to interact in their online courses relative to their on-campus courses (Tu, 2002). This was not supported by the findings of the interviews. Instead, students were very conscious of their name and work information being shared with the class, and as a result censored their online engagement to varying degrees. Students exhibited behaviour and opinions that indicated they were in fact more self-aware and significantly more concerned with their privacy online, particularly in relation to work information.

The literature was silent with regards to student views on sharing workplace examples and information, which was a dominant theme of the interview findings. Students were overall very hesitant to fully disclose workplace examples and experiences in their discussion because of the sensitivity of the information to them, and because they were not assured that information they share could not be used outside of the online classroom. Findings indicate that students will continue to hold back on the content and strength of their contributions, as long as contributions are not completely confidential, and as long as students are required to share workplace information.

As was also indicated in the literature, many of the students interviewed were not aware of privacy policies relating to the online learning environment. However, students generally assumed that such policies existed, and that mechanisms were in place to protect their privacy and to remedy any information breaches that might occur. Students therefore chose not to seek out additional information because of their trust in universities generally, and because of their trust in and familiarity with the University of Victoria in particular.
Recommendations

The focus of these recommendations is on removing barriers to student engagement in online courses – barriers that stem from a concern for privacy or from the online medium itself.

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Conclusion

This report is a first step in addressing a gap in the literature on how student privacy concerns relate to student engagement in the virtual classroom. This report has shown that there does seem to be a relationship between student’s privacy concerns and their engagement in online courses. However, the reported privacy concerns were not related to any technical abilities of the learning management systems as was suggested by the literature. Instead, student privacy concerns related primarily to concerns about the confidentiality of the workplace information they are asked to share in their courses. As a result of these concerns, and due to the different nature of the online medium, students engaged differently but not necessarily more or less online than on-campus.

As online learning continues to expand, it will remain important to ensure that student learning is maximized in the online environment. Additional research on the extent of the privacy concerns discussed in this report would benefit this field. Furthermore, a better understanding of the instructor and university perspectives would provide a more rounded view of how student privacy concerns relate to engagement in online classes.
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Chapter 1: Introduction

With the expanding use of online technologies\(^1\) in post-secondary institutions, new opportunities are becoming possible for students to engage with their coursework, their instructors, and each other. The use of online instructional technologies and platforms\(^2\) has become commonplace, whether as a supplement to on-campus courses, or as the sole medium of instruction and interaction in online courses.

The use of these technologies raises questions about the privacy of students and the confidentiality of their information when interacting online.\(^3\) While the online medium allows information to be communicated quickly and affords learners the convenience and flexibility of completing coursework on their own time, it also means electronic information is stored, sometimes indefinitely, with the possibility of being retrieved at a later date. The storage of online information may lead to students perceiving the online environment as less private than the on-campus environment. Furthermore, the more permanent nature of written communication and discussions means students may be more careful about what they write, and limit the level of personal and professional information they include in their discussion postings.

The purpose of this research is to determine how and to what extent any privacy concerns may affect student engagement in an online classroom. This research is relevant insofar as student engagement facilitates learning and retention of course content; changes in student engagement and interaction resulting from concerns about privacy may indirectly have an effect on student learning. The selected university for the research for this report is the University of Victoria, British Columbia.

The research objective for this report is to address the following three interrelated questions:

1) What are students’ privacy concerns when learning in an online classroom and being exposed to a variety of online learning technologies?

2) How do these concerns impact on their engagement, with course content, with instructors, and with other students?

3) What can the University do to address students’ perceptions and level of comfort, and encourage student engagement online?

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\(^1\) Online technologies are technology that is used in conjunction with the internet.

\(^2\) ‘Online course platforms,’ or ‘online learning platforms’ are the programs used to host online courses. They are also referred to as ‘Learning Management Systems’ by the University of Victoria. A variety of online technologies such as document sharing sites, web chat and conferencing functions, and many more may be a part of a students’ online course experience.

\(^3\) Privacy, security, and confidentiality will be defined and discussed in Chapter 4, as a part of the literature review. In brief, there is some overlap in the meaning of the three terms in the online context. While the literature does not provide a concrete definition for online privacy, the literature generally amalgamates all three of the terms under the umbrella of ‘privacy.’ For the purposes of this report, language will refer primarily to online privacy, except where differentiation is necessary.
As implied by the above questions, the focus of this report is on student perspectives of privacy and engagement. University and instructor perspectives on the issues raised in this report warrant separate investigation.

This report establishes a baseline understanding of student concerns relating to privacy and online learning, and of how these concerns might in turn affect student engagement in the online learning environment. Findings from a literature review and interviews with students in the Masters of Public Administration program result in a series of recommendations to Distance Education Services at the University of Victoria on ways to improve students’ learning experiences in the online environment.

The following report will proceed with an overview of the client for this report, Distance Education Services (Chapter 2), a description of the methodology used (Chapter 3), followed by Chapter 4, a review of existing literature on privacy in online learning, student engagement, and how the two are connected to student learning. Chapter 5 provides a brief overview of University of Victoria policies and regulations pertaining to privacy, security and confidentiality. Interview findings are outlined in Chapter 6, a discussion of these findings takes place in Chapter 7, and Chapter 8 presents recommendations and a conclusion.
Chapter 2: Background

This chapter discusses the role of Distance Education Services, the client for this report, and the School of Public Administration, University of Victoria whose students were interviewed.

2.1 Distance Education Services

This report is written for Distance Education Services (DES) at the University of Victoria. DES supports the university's distance learning via the delivery of online courses, and provides services to both faculty and students. As listed on its website, DES is there to support students and instructors with their distance learning experiences, to make these experiences as effective as possible. Such support can include course development and production assistance for faculty, library services for distance learning and teaching, and resources and tutorials for students to develop their independent learning skills, among others (see http://distance.uvic.ca/programs/services.htm).

This report will benefit Distance Education Services (DES) at the University of Victoria by clarifying what privacy-related barriers to learning online students may face while taking courses at the University of Victoria. Due to an increase in demand for online courses and programs, as well as the ongoing expansion in online learning at the University of Victoria, DES would like to increase its understanding of how and why students engage online, how students perceive the privacy of the online learning environment, and how these factors may affect their learning. Greater knowledge of student engagement and privacy concerns will allow DES to address student perceptions and, where necessary, make changes to further encourage student engagement and learning in the online classroom. The recommendations included in Chapter 8 provide guidance on possible changes.

2.2 The School of Public Administration

The focus of this study is the School of Public Administration, which offers both an online and an on-campus program for its Masters in Public Administration degree. Online courses are available to students in the online and on-campus programs, and are also in some cases available to students from other programs as electives. In addition, several instructors at the School of Public Administration teaching on-campus courses choose to supplement their in-classroom teaching with an online forum for document sharing and assignment submission. While in the past WebBoard has been one of the primary learning management systems for the delivery of online courses, Moodle is currently the most commonly used platform within the School of Public Administration. In addition, Elluminate can be used by instructors for holding live discussions or virtual lectures. Elluminate is a third-party hosted service that allows students to participate in real-time written or oral discussions via the internet. A third university-provided learning management system is Blackboard, which provides similar functions to Moodle: places for posting various course-related information and assignment instructions, and fora for asynchronous written discussions. The following chapter discusses the methodology followed for this study.
Chapter 3: Methodology

A multi-method approach was adopted for the methodology for this study. Information for this report was gathered via a literature review, a review of relevant publicly-accessible University of Victoria policies, a review of information on online course delivery platforms provided to the researcher by her client, and interviews with students who are enrolled in or have recently graduated from the Masters of Public Administration program at the University of Victoria. The researcher’s first-hand knowledge – as a student - of how online courses are delivered at the University of Victoria, and with Moodle in particular, was also drawn upon.

3.1 Literature Review

The purpose of the literature review was to understand the research on: student privacy concerns in online courses; the relationship between student engagement and learning; the relationship between privacy and student engagement; and the comfort level of students while engaging in an online learning environment.

The literature review included a review of academic journals and publications as well as think tank studies and reports. A variety of databases and internet search tools were used to obtain relevant literature. To ensure as comprehensive a list of sources as possible, given the minimal previous research on the topic, bibliographies of relevant publications were also used to locate additional relevant research and publications. The results of the literature review are presented in Chapter 4.

3.2 Interviews

To understand how the findings of the literature review applied, if at all, to the University of Victoria setting, 20 interviews were conducted with students at the University of Victoria’s School of Public Administration. The researcher, in consultation with DES, decided that students enrolled in the Masters of Public Administration (MPA) program would serve as the population from which a sample of students was interviewed. This decision was in part influenced by the researcher’s accessibility and familiarity with this group.

3.2.1 Interview Rationale

Due to the limited nature of literature on this subject, it was decided to interview students at the University of Victoria about their online course experiences. A benefit of using interviews is that they allow the researcher to engage in a more in-depth and open-ended discussion of the issues (Babbie & Benaquisto, 2002). Furthermore, the use of an online method such as a survey may have limited the pool of willing participants to those who are perhaps less concerned with online privacy issues; it is conceivable that students with a high level of concern for online privacy may not have been willing to participate in an online survey (Sheehan, 2002). Students with a high concern for privacy would be more likely to share their thoughts via discussion with the researcher, where they are able to develop a
rapport and become comfortable with their interviewer, and where there is no chance that their information is being stored by a third party online.

Interviews were semi-structured and used a flexible, conversational format to allow for open discussions between the researcher and interviewee (Corbetta, 2003). A combination of pre-determined and open-ended questions was asked. This format allowed the researcher to probe further into interesting or unexpected responses, and to further explore responses when necessary (Babbie & Benaquisto, 2002; Sociology Central, n.d.; Zorn, n.d.). The interviews focused on the following areas: the extent and nature of students’ concern with privacy in the context of their online courses; students’ knowledge of privacy policies and the privacy characteristics of the online learning environment; students’ engagement in online courses; factors that affect their online engagement; and on suggestions that students had for improving their engagement in online courses. A complete list of interview questions is attached as Appendix A.

3.2.2 Selection of Participants

The study population included School of Public Administration (SPA) students who have taken at least one online course. Individuals were invited to participate through an email distributed via the SPA student list serve. The goal was to have sufficient representation of students from both the online and on-campus programs, and students with varying experience with online courses. Twenty-seven students responded to this initial email, and of these 20 were interviewed. The twenty students interviewed were those that were still interested after the researcher emailed them additional information about the interview – timing, length, and the requirement of verbally consenting to a Consent Form. As the sample of students that was interviewed was essentially a convenience sample, any findings obtained from this sample can not represent the wider SPA or University of Victoria student population.

3.2.3 Data Collection

Interviewees were not provided with the interview questions beforehand – only with a general idea of the purpose and scope of the research. The reason for this was that the purpose of many of the questions was to generate an understanding of interviewees’ prior knowledge of and concern with privacy issues. Providing questions to interviewees beforehand may have inadvertently made interviewees think ahead of time more about the issue than they might otherwise have. All interviews were conducted via phone or Skype and were audio recorded using a hand-held recorder. Interviewees were asked pre-determined questions, and when necessary were asked clarification questions, or to elaborate on their answers. The complete list of interview questions is included as Appendix A. Interviews ranged in length from 20 to 37 minutes, with the average interview lasting just under 29 minutes.

3.2.4 Analysis of Interview Results

To facilitate analysis, interviews were transcribed and compiled with any handwritten notes. Results were analyzed by the researcher on the basis of common themes. This included themes that were expected and intentionally sought out by the interview questions, as well as unexpected common threads that emerged once the completed interviews were analyzed as a group.
The open-ended nature of many of the questions provided interviewees the opportunity to add personal commentary for any of the questions asked. This made collating the responses challenging, especially in cases where discussion went significantly beyond the scope of expected responses.

3.3 Deliverables

Results of the literature review and interviews are compiled in this report, prepared for Distance Education Services at the University of Victoria. Findings of the literature review and interviews resulted in a series of recommendations for the client on how to further improve student engagement in online courses. In addition, a focus group script has been prepared to aid DES in its future research on the topic. The proposed script has been informed by the literature review, the researcher’s experience with the usefulness of interview questions, and the findings of the interviews. The focus group script was an additional deliverable requested by DES and is attached as Appendix B.

3.4 Weaknesses of the Methodology

Several known weaknesses to this research methodology exist. An important weakness of the semi-structured interview is that the information gained from it is highly dependent on the competence of the researcher as an interviewer (Babbie & Benaquisto, 2002; Sociology Central, n.d.). Researchers with minimal experience conducting interviews may miss out on opportunities to further explore topics, or be unfamiliar with the best way of asking questions to solicit the most comprehensive responses. This would result in the researcher missing out on valuable information. To address this weakness, the researcher consulted a textbook on social research methods.

A further potential limitation of the methodology is that the quality of an interviewee’s responses is dependent on how articulate and thorough he or she is. The researcher attempted to remedy this weakness by planning probe questions that could be used if an interviewee’s response was short and lacked context. The researcher also attempted to stay silent when possible, a valuable method for soliciting further responses or elaboration of a previous response (Zorn, n.d.).

Possible problems associated with self-reporting include: respondents’ inability to provide factual information and/or the unwillingness of respondents to provide what they know to be accurate information; and the ‘halo effect’ (Kuh, 2001b). The halo effect refers to respondents inflating or deflating their answers so they reflect more positively on themselves. This effect may have come into play for this research as well, as respondents may have been hesitant to share how little they knew about privacy beforehand, or be embarrassed to share that they had not previously informed themselves about privacy issues. The researcher was therefore careful to encourage all responses, and to create a relaxed environment in which interviewees would feel comfortable sharing their thoughts, or lack thereof. It was also made clear to interviewees that there was no ‘wrong’ answer.

Lastly, the qualitative nature of the results means that they are subject to the biases and perspective of both the researcher and interviewees themselves. The researcher’s perspectives as a student may have influenced how results were perceived, however the researcher was careful to interpret results purely from the perspectives of the students interviewed. However, interviewees’ responses are only their perspectives, and therefore it is difficult to make generalizations about the results. This stems in part
from the variety of information obtained from the use of open-ended questions (Babbie & Benaquisto, 2002; Sociology Central, n.d.). A potential remedy for this is to avoid making broad generalizations that go beyond the scope of the interviews. For this project, the researcher was careful to focus on results in terms of what was found by interviewing students from the School of Public Administration at the University of Victoria in particular, rather than generalizing to a broad University of Victoria or Canadian universities setting.

### 3.5 Limitation of Findings

The primary limitation to the findings of this research relate to the topic area. While an effort was made to explain terms used in the questions, responses were still dependent on an interviewee’s understanding of terms that were used throughout the interview, such as ‘privacy’ and ‘safe’. Furthermore, the findings are limited to a student perspective of the issues, not the instructor or university perspective. Additional research will be required to better understand instructors’ and the University’s perspective of privacy and engagement in the online classroom. Lastly, the methodology used does not allow for results to be generalized beyond the University of Victoria, School of Public Administration context.

### 3.6 Ethical Approval

The project received ethical approval from the Research Ethics Board at the University of Victoria on February 15, 2010. Interviewees were guaranteed confidentiality, and were informed that their names or identifying information would not appear in the final report. Interviewees were emailed a consent form prior to the interview date, and were asked to verbally agree to this consent form at the outset of their recorded interview.

### 3.7 Conclusion

The research for this report was undertaken via a literature review and interviews with students. Interviews were used to elaborate on literature review findings and to determine how the findings of the literature review applied, if at all, to the University of Victoria setting. The researcher was aware of the weaknesses and limitations of this approach, and took steps to minimize the effect that these weaknesses would have on research findings.
Chapter 4: Literature Review

This chapter discusses the literature on online privacy, student engagement and online learning. Literature review findings indicate that there are some significant gaps in the literature when it comes to relating privacy to student engagement and learning in the online classroom. While there are numerous studies on the link between a student’s concern for privacy and how they engage in the online classroom, these studies are generally very context-specific. For example, these studies may focus on a specific program at a particular university for example. It is clear that further research on the effect of student privacy concerns on student engagement and learning is needed.

The review is comprised of several sections. This chapter begins with an overview of the context, or educational environment, in which this report is written. Next, online learning\(^4\), privacy\(^5\) in the online classroom, and student engagement are defined and discussed independently. Subsequently, the relationship between student engagement and concern for privacy is discussed, as is literature looking at the relationship between student engagement and learning. The final section of this chapter, entitled ‘limitations of existing research’ summarizes the relationship between variables and discusses the lack of a direct link between a student’s privacy concern and learning.

4.1 Research Context

In an online course, all aspects of learning – coursework, class participation, teacher communication, and group work are mediated through an online course platform. There has been an increase in the use of online technologies for on-campus classes as well, where online tools are used to supplement in-class instruction. Online instructional technologies can take many forms and serve many purposes. In the case of online courses, they provide the primary medium for interaction and information sharing and are referred to as ‘online learning management systems,’ or ‘online learning platforms’. Technologies for document sharing, communication and discussion, and group work may however also be used in on-campus courses. Despite this increased use of these technologies in universities, university privacy issues had received little attention at the time of this project, in comparison to private sector privacy issues (Culnan & Carlin, 2009). Furthermore, research is needed to ensure the quality of online education is not affected by the online environment itself (Yang, Tsai, Kim, Cho & Laffey, 2006).

4.1.1 Increased Demand for Online Courses

Recent years have seen an increased use of online technologies in universities, as well as a documented increase in demand for online courses (Conaway, Easton & Schmidt, 2005). This demand has been driven in part by the fact that online courses provide convenience and flexibility to the learner, which has allowed large numbers of mature students to pursue studies while remaining employed (Chen, Gonyea & Kuh, 2008). This increase has also been attributed to demographic changes among students (more students are working while enrolled in graduate courses), rising education costs, and new technology (Frey, Faul & Yankelov, 2003). Lastly, the demand for online courses has been fuelled by the...

\(^4\) Online learning, or an online class, refers to a university course that takes place entirely online.

\(^5\) The contested nature of the term privacy is discussed in Section 4.3.1. For the purposes of this report, the language used will refer primarily to privacy – which will include security and confidentiality.
2008/2009 economic downturn, and the related decrease in available employment (Bell, 2010). The increase in demand for post-secondary education that resulted from the recession has meant also an increase in demand for online courses, in particular among working professionals unable to relocate.

As more students engage in online learning, it becomes important to ensure the quality of learning is not affected by the online environment in which courses are offered. Furthermore, it is important to recognize and address any challenges associated with online learning that do not exist in the traditional classroom, such as a lack of familiarity with the technologies used, the difficulty of communicating only in writing, and the challenge of online group work. Further challenges to online learning are discussed in section ‘4.2 Online Learning’ below.

The increased use of online learning tools in particular requires an understanding of how students perceive privacy issues, if at all, and what effect these perceptions may have on their engagement online. An understanding of factors, such as privacy concern, that may inhibit student engagement is central to ensuring the maximization of learning in the online environment (Kuh, 2001a). With a better understanding of what affects University of Victoria’s online students’ perceptions of and concerns with online privacy in their courses and how these concerns impact their engagement, recommendations can be made to promote engagement and increase learning.

### 4.1.2 Learning in the Online Classroom

The use of applied learning techniques in many classrooms has meant an increase in the types of information students are being asked to share with their classmates and instructors, both on-campus and online. The inclusion of confidential personal and professional information in assignments and in online discussions is seen as a way to promote learning. Often, students are also required to post introductory statements outlining their academic and professional backgrounds, the city they live in, and are encouraged to post pictures as a part of their online class profile. In order to promote student learning, students are encouraged to use personal experiences and reflections to appreciate the application of principles and concepts (Siemens & Althaus, 2009). While personal reflection and the use of real life examples are not new to university courses, sharing workplace information in an online setting in which student contributions are recorded is different than sharing such information informally via oral classroom discussions. The nature of the online medium means that information shared online will be stored verbatim significantly longer than it is retained in the minds of students participating in on-campus course discussions. Furthermore, while many younger students, who have limited workforce experience and are studying full-time may not worry about sharing information on past work experiences, a large portion of students enrolled in online degree programs are in an older age cohort and have already been active in the workforce (Chen et al., 2008). Older online students therefore have more workplace information to share and may view a requirement to share such information differently than younger students with less work history.

The use of applied learning techniques, coupled with a documented increase in the demand and use of online learning technologies, gives rise to a unique set of privacy issues that may impact how students engage and learn in the online classroom. A discussion on how student privacy concerns may affect engagement in the online classroom begins in the following section - an overview of literature on online learning.
4.2 Online Learning

Online learning has been defined as “any class that offers its entire curriculum in the online course delivery mode, thereby allowing students to participate regardless of geographic location, independent of time and place” (Richardson & Swan, 2003, p. 69). In an online course, all aspects of the course take place online – including class discussions and the submission of assignments. The use of computers and the internet is radically changing instructors’ and students’ approaches to learning (Powers & Mitchell, 1997). However, research assessing how this technology is affecting students is just now starting to inform best-practice guidelines for educators (Frey, Faul & Yankelov, 2003). Such research is relevant, however, because the use of computer technologies at universities will continue to increase (Yang et al, 2006; Powers & Mitchell, 1997; Connolly, 1994). As the cost of education rises, more students will choose to take courses online, both for financial reasons and for convenience. This convenience is important to older students who do not wish to move across the country to go to school. New technology has made it possible for these students to take courses, while working and continuing to live at home.

The introduction of information technology to the university setting has generally been well-received (Earp & Payton, 2001). Though online courses have sometimes been perceived as being of lower quality than traditional on-campus courses, in large part due to perceived limitations of student-to-instructor and student-to-student interaction, it has been shown that online learning outcomes are at the very least equal to those of traditional campus-based courses (Arbaugh, 2000; Arbaugh, 2004; Lorenzo & Moore 2002 as quoted in Conaway, Easton & Schmidt 2005; Muilenburg & Berge, 2005; Powers & Mitchell, 1997; Richardson & Swan, 2003).

4.2.1 Web-Assisted Learning

In addition to online courses, learning technologies are also commonly used as supplements to on-campus courses. On-campus courses that make use of such technologies without a decrease in in-class instruction time are referred to as ‘web-assisted,’ or ‘web-enhanced’ learning (Frey, Faul & Yankelov, 2003). Several instructors in the School of Public Administration at the University of Victoria use Moodle as an easily-accessible forum for posting course-related information (course outline, schedule, reading list), as well as give students the opportunity to ‘hand in’ their assignments virtually. The use of online strategies such as posting course information online, and allowing students to submit assignments and receive feedback online improves the efficiency and convenience with which information can be shared between instructor and students. As the same learning management systems are used in both online courses and as a supplement to on-campus courses, privacy concerns related to the platforms themselves would be relevant to web-assisted learning as well.

4.2.2 Online Versus On-Campus Learning

Online learning is different from traditional on-campus learning in several important ways (Blair & Hoy, 2006; Muilenburg & Berge, 2005; Powers & Mitchell, 1997). When compared to the on-campus format, online learning requires learners to take an even more active role in independently pursuing their learning. An online course is presented entirely in an online setting; all information relating to the course is hosted by an online learning platform such as Moodle, Blackboard or WebBoard. This means that students do not interact face-to-face, in many cases never meet each other, and are only able to communicate with the instructor and each other via the class discussion fora or messaging systems.
Students may also interact with each other and their instructors via email or telephone. While this lack of in-person communication can present challenges to students who are not familiar with online learning or to students with only a minimal understanding of associated online technologies, it also presents opportunities to those with busy schedules that prefer to study part-time, at a time of their choosing.

The primary difference between on-campus and online participation is that online class discussions take place asynchronously (Powers & Mitchell, 1997); students can participate at their convenience provided they meet the minimum weekly requirements for participation (number and quality of postings) in the class discussion forum. The asynchronous nature of online learning provides students the opportunity to develop meaningful responses and to think through the content of their contribution (Powers & Mitchell, 1997; Richardson & Swan, 2003). This differs from the on-campus setting where students are forced to participate more immediately, without time to fully consider their responses to discussion topics. Students who are hesitant to engage in the on-campus classroom may participate more online, where they are more anonymous and able to ensure the quality of their contributions (Tu, 2002b; Powers & Mitchell, 1997). For some students, the online learning environment may also facilitate interaction; some students are less self-aware and perceive themselves as more invisible and anonymous online than in a classroom environment. This in turn allows students to express themselves more freely (Tu, 2002b). In particular, students who may be quiet in an on-campus setting and who are hesitant to participate in fast-paced class discussions may benefit from the extra time an asynchronous online environment allows them to put together their discussion contributions.

Live chat, utilized by some instructors for online classes, is one example of synchronous communication in online learning; students are required to log on to a program, such as Elluminate, and participate in written or oral discussions within a set time period. While live chat can be beneficial for sharing large amounts of information relatively quickly, for maintaining discussion momentum, and for simulating an on-campus environment, it may be difficult for those unable to type quickly, who are unfamiliar with online chat functions, and/or who are hesitant to participate in such forums for various reasons. Live chat also does not provide the same time convenience or participant anonymity enjoyed in asynchronous discussions. While the live chat function does simulate the on-campus environment, live chat interactions differ from on-campus interactions in that students are unfamiliar with each other, and may not feel as comfortable engaging with strangers.

4.2.3 Online Student Characteristics

Online learners are on average older than their on-campus counterparts, and are more likely than on-campus learners to be enrolled part-time (Chen et al., 2008). Older learners have been defined both as ‘mature’ and ‘adult’ learners, which studies generally define as starting between the ages of 22 (the age at which a typical undergraduate student graduates) and 30 (the age after which students generally return to university after having spent several years not in school). It has also been suggested that online education appeals to a specific sort of student, one that is more motivated and self-directed (Blair & Hoy, 2006; Chen et al., 2008).

According to Blair and Hoy (2006), a range of interactions and types of communication are required to ensure that the sometimes different needs of both older and younger online learners are met. This is relevant insofar as older learners may communicate differently in the online environment (Muilenburg & Berge, 2005) – an environment with which younger generations may be more familiar and more
comfortable. A further difference between older and younger online students is the way in which they communicate; younger students who are familiar with communicating online via writing may communicate less formally in their online courses, while older students may choose to communicate in a more formal academic manner. These different communication styles could also affect how students of varying ages and different technology-related skill sets interpret fellow students’ postings. In addition to age, other factors that have been shown to significantly affect student online learning include: gender, ethnicity, self-rating of online learning skills, online learning enjoyment, and the number of online courses completed (Muilenburg & Berge, 2005).

4.2.4 Changing Student Perceptions of Online Learning

The literature shows that students perceive online learning more positively as they take more classes online (Arbaugh, 2004; Muilenburg & Berge, 2005). Such changes include an increase in comfort with the online learning medium as more classes are taken, and a reduction in perceived barriers (technical skills, learner motivation, time and support for studies, technical problems, and social interaction) to online learning after completing many courses. The biggest increase in comfort occurs between the first and the second courses taken, with comfort levels continuing to gradually increase as more classes are taken. A novice online learner may be less comfortable with engaging in classes for a variety of reasons – time requirements to shift learning modes, preconceived expectations of online learning, less favourable perceptions of participant interaction than in the campus-based setting, and the development of social presence. Overall, students find that the time required for online courses is high, both for participating and responding to discussions as well as for completing assignments (Powers & Mitchell, 1997).

Arbaugh’s (2004) study found that an increase in the number of online classes taken led to significant positive changes in: students’ satisfaction of the internet as a course delivery medium; in students’ perception of participant interaction; and in the perceived utility and ease of use of the course software. Arbaugh therefore recommends providing focussed attention to first-time online learners, to facilitate their participation in future online courses. Similarly, Muilenburg and Berge (2005) discuss a huge decrease in perceived barriers to online learning after completing just one course. There is also a general trend towards increasing quality of learning as more online classes are taken and students become more comfortable with the medium (Arbaugh, 2004). Regardless of what precisely changes as a result of multiple experiences with online courses, the literature consistently discusses changing student perceptions and comfort levels with more classes taken, inferring that perceptions of the medium are solidified after multiple experiences when students’ focus is no longer on the barriers they faced when first introduced to the online learning environment. The implication is that any research assessing student views of online learning should be conducted with students who have taken at a minimum one online course.

4.2.5 Student Perceptions of Online Course Tools

In general, students find that accessing course information in one central online location is very useful (Frey et al., 2003). Such course information would include the course outline, assignment instructions, reading list, deadlines, etc. Students also view email communication with the instructor and posting

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6 Social presence is defined as a learner’s ability to project oneself into a community of inquiry, both socially and emotionally (Arbaugh, 2004); this is very similar to engagement, and is discussed further in section 4.4.2 ‘Social Presence and Student Engagement.’
grades online as very useful. Students however did not like sharing personal information in their online courses on personalized student ‘homepages.’ Online discussion forums are another component of online learning management systems that were not viewed favourably by students. Students’ dislike of online course discussions is particularly relevant due to the central nature of discussions to online engagement and learning. Live chat discussion forums are also viewed quite negatively by students. This may be associated with the perception that this forum is not private, that the live chat forum is not secure. A study by Tu (2002a) found that approximately one third of respondents did not feel secure or anonymous on bulletin boards or in real-time discussion. It is important to note that students did not view certain course tools favourably for various reasons, including the time commitment required to participate in online course discussions. Students therefore did not necessarily view these functions negatively because they did not serve an educational purpose.

In addition to perceiving the utility of online learning platform components differently, students also perceive some as more private than others. Whereas email is seen as a very private form of communication (Tu, 2002b), real-time discussions and online course bulletin boards are considered less private (Blair & Hoy, 2006; Tu & McIsaac, 2002). Both students dislike of certain course tools and the perceived privacy of these functions are therefore relevant to determining how students approach their use.

4.3 Privacy in the Virtual Classroom

4.3.1 Defining Online Privacy, Security, and Confidentiality

Research on the safety of personal information and consumers’ willingness to share private information online is widespread (Culnan & Carlin, 2009). However, the field of research pertaining to privacy in the virtual classroom is less established. It is therefore relevant to first look at what online privacy means broadly before referring to the more narrow field of online privacy in the virtual classroom.

Online privacy has been defined in several ways. Central to most online privacy definitions is the notion of individuals being in control of who sees their personal information or work, and when they get to see it (Blazic & Klobucar, 2004; Culnan & Carlin, 2009; Milne & Culnan, 2004; Sheehan, 2002; Tang et al., 2008). In other words, privacy is about the control over access to one’s own information – “the ability to control the acquisition and use of information about one’s self” (Tang et al., 2008, p.154). It is important to note that this definition encompasses both real and perceived conditions, where the latter refers to conditions that people believe to be real even without external validation (Monfils, 2003). The way in which students perceive the privacy of certain situations or course components is what affects their level of concern, not the actual privacy characteristics of the situation or component. The actual privacy is only relevant when it coincides with the perception of privacy – when actions are based on fact rather than on unverified perceptions of privacy.

An important component of privacy is security (OECD, 1980) – which in turn refers to the safe storage of, and ability to limit or prevent access to, information stored online. Security can exist without privacy in situations where securely stored information is used for inappropriate purposes, or for purposes other than those for which it was originally intended (Culnan & Carlin, 2009). For example, when information is shared by those responsible for storing it with parties who are not authorized to access it, the
information would be secure, but not kept private. While there is a clear distinction between these two concepts, they are related and are in many cases used interchangeably.

A third related concept is that of confidentiality, which can be considered an aspect of security (Johns & Lawson, 2005). Confidentiality is part of the language commonly used to discuss privacy. While there is no clear distinction between privacy and confidentiality in the literature, privacy generally refers to a specific situation or technology and confidentiality is primarily used to describe information. As an example of how confidentiality is used in the academic sense, Connolly (1994) recommends that academic institutions “shall treat electronically stored information as confidential. The institution shall treat all personal files as confidential, examining or disclosing the contents only when authorized by the owner of the information, approved by the appropriate institutional official, or required by local, state, or federal law” (p. 41). This usage of the term shows the similarity and overlap of confidentiality, and privacy and security as they were defined above.

As discussed above, the language used in this report will refer primarily to privacy. It was found that for the online situation in particular, use of the term privacy refers to both privacy in the traditional sense (control over information), as well as the security of that information. Because the safety of identities also falls within the realm of what is frequently discussed in the literature on online privacy, traditional notions of confidentiality may also be included in references to online privacy.

Privacy in the online learning environment can be protected by the adoption of an appropriate privacy protection regime by the learning service provider – either the university or the owner of the technology being used by the university – by privacy protection mechanisms such as anonymisation or identity management (Blazic & Klobucar, 2004). It has been suggested that additional privacy risks may result from teachers using non-university based learning platforms where the privacy protection measures of the learning tool are not influenced by any existing university privacy policy (Blazic & Klobucar, 2004). Universities are not able to ensure students’ privacy when using non-university provided course tools such as Google Docs and Utilium.

4.3.2 Privacy in the Physical versus Virtual Classroom

The meaning of privacy in the context of online learning has not been clearly defined (Tu, 2002b). However, the issue of privacy is particularly important in the context of online learning when compared to the on-campus environment (Sheehan, 2002, Tu, 2002b). Not only are discussions in the virtual classroom more permanent due to being written, but discussions could be easily shared outside of the classroom verbatim simply by copying and pasting. In comparison, there is a certain level of assured privacy in an on-campus environment, where course discussions cannot be shared verbatim outside of the class, where students do worry less that what they say will be shared outside of the classroom, and where students can more easily develop a certain level of trust in their classmates through personal interactions. In short, there are more perceived and actual risks to privacy in the online environment, and students are more concerned about losing control over how and with whom information is shared. It is therefore particularly important to have measures in place to ensure the privacy of course-related material in online courses.
### 4.3.3 Demographic Variables Associated with a Concern for Privacy

Past studies have assessed what demographic variables are associated with an individual’s concern for privacy. It has been shown that females and older individuals generally exhibit a greater concern for privacy than males or younger individuals (Milne & Culnan, 2004). However, it has also been shown that those in an older age cohort (over 45 years old) exhibit behaviour on both extremes of the privacy concern spectrum – either they are very concerned or not at all concerned about privacy (Sheehan, 2002). A further demographic factor affecting concern for privacy is education – those with a higher level of education are more concerned about their privacy online than their less educated counterparts (Sheehan, 2002).

Several characteristics seem to affect individuals’ perception of privacy. Generally individuals with greater technological knowledge are more likely to perceive low system privacy than those with less technological knowledge (Tu, 2002b). However, it has also been found that students who had higher self-efficacy beliefs, which include confidence in performing a task, were more willing to share personal information (Yang et al., 2006). A possible explanation for this is that students who feel more confident in the execution of tasks are less worried about their conversation being recorded, or that they may accidentally cause a breach of their own privacy through incorrect use of technology.

In a study conducted on the privacy settings of university-aged students’ Facebook accounts, it was found that a student’s decision to upgrade his or her privacy settings is influenced by concerns about the perceived security of information (Lewis, Kaufman & Christakis, 2008). Individuals are more likely to have more strict privacy settings if their friends did as well, with ‘more strict’ privacy settings being defined for the purposes of that study as any privacy setting that has been altered to be more strict than the default. Females were more likely than men to have private profiles, a finding that supports Milne and Culnan’s (2004) finding that gender affects concern for privacy. Individuals exhibiting a higher level of online activity were also more likely to have private profiles. Of 1,710 respondents surveyed, 33.2% had ‘private’ profiles in the summer of 2007.

### 4.3.4 Awareness of Privacy Issues and Steps to Safeguard Privacy

Another area of interest for this report is the extent to which online students are aware of privacy issues, and whether it is common for students to take steps to safeguard their privacy. Findings in this area vary greatly from study to study; many variables are found to affect an individuals’ desire for, and view of online privacy. There is only minimal literature on students’ knowledge and perceptions of online privacy issues and on their opinions regarding who can collect and retain information and for what purposes (Johns & Lawson, 2005).

Student perceptions that some online technologies are not private or confidential do not necessarily mean that students will approach their use any differently. A study by Tu (2002a) found that the majority of respondents did not feel online privacy was of particular importance to them. A further study by Tu (2002b) found that many students were not familiar with privacy issues in the online environment. While students were aware that such online systems may not be private, many were nonetheless ‘fine’ with the level of privacy (Tu, 2002b). Interestingly, many respondents of this same study were not aware that online discussions could be permanent (Tu, 2002b). Many students were also unaware of the existence of privacy notices (Milne & Culnan, 2004). Lastly, while many students...
felt that online privacy was important to them, they were primarily unconcerned because they felt their messages would not interest anyone (Tu, 2002b).

A study by Sheehan (2002) on the privacy concerns of internet users found that many respondents were unaware of steps they could take to protect their online privacy. She suggests that awareness should be raised about actions online users can take to safeguard their privacy. The study also found that many respondents were not fully aware of the privacy issues associated with their activities online. A study conducted by Johns and Lawson (2005) provides additional insights into the level of students’ knowledge and awareness of privacy issues in the university environment. It was found that students were generally not well-informed about privacy issues or about the legislation and university regulations that might affect these issues (Johns & Lawson, 2005). This finding is supported by Pace (2001), who questions the extent to which users are being informed about privacy policies and whether users are making informed choices about giving up privacy in exchange for features of various online services.

4.3.5 The Role and Purpose of Online Privacy Policies

Literature on online privacy policies focuses primarily on the broader online environment, not specifically on the university setting. With internet users becoming increasingly concerned about online privacy, a common response from organizations with a web-presence is to post a privacy policy outlining the risks associated with visiting a particular website and/or the way in which a user’s information will be used by the organization. The purpose of a privacy policy is to convey to users the privacy practices and principles to which the organization adheres (Proctor, Ali & Vu, 2008; Culnan & Carlin, 2009). While in theory these policies are a useful tool with which to inform web users of the risks associated with their actions online, privacy policies have been criticized for being used as a means of insurance for organizations. The criticism is that these policies are being written from the company perspective rather than to address consumer concerns, and therefore that they are of little use to users (Proctor et al., 2008; Milne & Culnan, 2004). Many users choose not to read, or not to fully read privacy policies because of the time it takes to do so (Proctor et al., 2008). This can be related to the lengthiness and often incomprehensible nature of privacy policies (Milne & Culnan, 2004). The lengthiness can in turn be related back to the goal of such policies mentioned above, to protect the organization by fully disclosing (in great detail) all of their information practices.

It has been found that larger schools are generally more likely than smaller schools to have a home page privacy notice (Culnan & Carlin, 2009). Less than one third of the 236 websites of top schools listed in the US News and World Report had privacy policies accessible from their home page, despite the fact that ‘nearly all’ institutions engaged in online practices that posed risks to privacy. As it becomes easier to share information within and outside of universities, the need for clear and effective privacy policies for educational institutions becomes more pressing (Earp & Payton, 2001).

A recent study examining the usability of web privacy policies made some interesting observations with regard to the comprehension and readability of online privacy policies (Proctor et al., 2008). It was found that policies were written, on average, at a reading level associated with 13 years of education; no one with less than a college level education would therefore have been able to read the policies. While the majority of assessed policies were ‘too long,’ a correlation between length and readability was not found. Nonetheless, longer policies were viewed as providing better assurance of privacy than shorter policies. Interestingly, even college students with more than 13 years of education do not fully comprehend privacy policies. Therefore, a policy’s readability does not necessarily result in it being easy
to comprehend. The results of this study imply that the implementation of web-based privacy policies is far from perfect. The lesson to be drawn from this is that the mere existence of a privacy policy does not result in its usefulness or the protection of users’ privacy (Culnan & Carlin, 2009). It is important that web users are aware of policy contents and adjust their behaviour in light of the risks outlined in the policies.

Johns and Lawson (2005) discuss the question of student responsibility in the area of privacy protection. Specifically, if a privacy policy has been developed, implemented, and disseminated, whether the students have a responsibility to read it. Ultimately, there is an onus on users to inform themselves – as the mere existence of privacy policies does not, on its own, result in the provision of privacy protection. Johns and Lawson recommend better educating students about privacy policies and issues, to allow them to make informed user decisions. The purpose of this recommendation is to ensure that students’ privacy concerns and any actions resulting from these concerns are based on fact and not perception. Pace (2001) agrees that universities are “a little behind the curve when it comes to informing [their] users about privacy” (p. 494). Connolly (1994) also suggests that “institutions have a responsibility to develop, implement, and maintain security procedures to ensure the integrity of individual and institutional files” (p. 41).

4.3.6 Privacy Policies and the Role of Trust

Although universities currently enjoy a high degree of public confidence (Gross & Simmons, 2006), effective privacy notices can help create the trust necessary to maintain this relationship with the public (Culnan & Carlin, 2009). In online purchasing, a key role of privacy policies is to inform consumers about how information will be used. This increases consumer trust in the organization, which in turn increases the amount of information consumers are willing to provide to an organization (Milne & Culnan, 2004). Trust is defined as “the willingness of one party to be subject to the risks brought by another party’s actions” (Tang, Hu & Smith 2008, p. 154).

The study of trust, which can be gained through the protection of online privacy, is primarily focussed on the relationship between online consumers and retailers. In online markets, to facilitate the transfer of sensitive consumer information to online retailers, trust is important (Tang et al., 2008; Milne & Culnan, 2004). Only when consumers are able to trust an organization with their information are they willing to share it online. When an online environment is seen as too risky, the probability that a consumer will purchase online is adversely affected.

Trust can be gained from the effective use of privacy protection measures such as privacy policies (Tang et al., 2008). To apply the notion of trust to the university setting – trust between students as the ‘consumers’ and the university as the ‘retailer’ can facilitate student comfort interacting in an online course, as well as their willingness to share information. This comparison is not without fault however, as the online consumer situation is not comparable to the university setting in one important way: students do not have the luxury of choosing between learning platforms for the online courses they take, and as such there may be less pressure on learning management system administrators to implement strict privacy policies. In the online consumer-retailer relationship on the other hand, the consumer in most cases has a choice between many retailers selling the same product; should the privacy practices of one retailer not satisfy a consumer, there is always the choice to purchase an alternate product or to purchase from an alternate retailer. In the extreme situation, an insecure online learning environment may lead students to stop taking online courses, however the possibility of this is
arguably minimal, due to the lack of alternatives. The implication of this university(retailer)-student(consumer) relationship is that any changes to the privacy settings of these platforms would have to be initiated by the university itself; the effects of supply and demand that may lead to changes in a private company’s online privacy policy do not apply in the university setting.

4.3.7 Real Versus Perceived Privacy

While the actual privacy of the online learning environment is important, what may in fact be more important in determining the effect that privacy has on student online behaviour is perceived privacy (Tu, 2002a; Tu, 2002b). Students’ perceived privacy in an online environment is the most relevant factor in determining whether there is a relationship between privacy concern and student engagement; students’ beliefs and perceptions are what influence how they behave. Ideally, the reality of a given privacy situation aligns with student perceptions, however when this is not the case (see Section 4.3.4 above), the perceived privacy is what matters most. As the perceived privacy of a certain environment may differ from the actual privacy, it is important to consider both how students perceive privacy in their online courses as well as the actual privacy of the learning environment.

The perception of privacy is important because of the inherently contextual nature of privacy. The influence of context makes it difficult to understand an individual’s concerns with privacy (Sheehan, 2002). Privacy is contextual because notions of privacy can change as a result of environmental and personal factors; an individual’s desire for privacy is innately dynamic. Many variables can affect an individual’s desire for, and view of, privacy. For this reason, the privacy of certain environments is also subjective by nature. Not everyone will have the same view. Contextual factors that affect how privacy is perceived can include past online experiences, knowledge of privacy regulations and issues, workplace environment, and behaviours of close acquaintances with regards to privacy. Sheehan discusses five factors that can influence a concern for privacy:

1) **Awareness of Data Collection** - online users have less privacy concerns when they are aware that data is collected

2) **Information Use** - online users are less concerned about privacy when data is used for only a single transaction, than when it is used beyond that transaction

3) **Information Sensitivity** - online users are more concerned about some types of information, such as SIN number, than others, such as one’s name

4) **Familiarity with Entity** - online users have less privacy concerns when they are familiar with the entity than when they are unfamiliar with the entity

5) **Compensation** - privacy concern decreases when information is provided in exchange for something of value to online users

*(Sheehan, 2002)*

Tu (2002b) sums up the importance of perceived privacy very succinctly: “to foster an interactive online learning environment, it is not an issue of maximizing or minimizing the level of privacy. It lies on whether a designed online learning environment is able to accommodate learners’ perceptions of privacy” (p. 315).
4.3.8 A Pragmatic Approach to Privacy

Many people exhibit a ‘pragmatic approach’ to online privacy – when they realize that they must give up a certain degree of privacy to participate in online activities. Pragmatists weigh the benefits of different consumer opportunities and services against the degree of personal information sought (Sheehan, 2002). In other words, a ‘pragmatic approach’ to privacy is when people who are aware of the privacy risks of certain online activities – sharing an email address with third parties for example – participate in these activities despite knowing the risks and thereby engage in ‘risk-taking behaviour’ (Tu, 2002a; Tu 2002b; Tu & McIsaac, 2002). This happens when convenience overrides risk and when students do not think sharing information will negatively affect them. In a study that grouped people into categories based on their level of concern for privacy, ‘pragmatists’ comprised the largest group.

In addition to a pragmatic approach to privacy, the literature also refers to a ‘nonchalant’ attitude towards privacy (Tu, 2002a; Tu, 2002b). A nonchalant attitude is when students think that learning-related communications and class work are not personal, and therefore do not see any privacy threats associated with sharing such information. ‘The Illusion of Privacy,’ is yet another term for such behaviour. The illusion occurs when individuals cannot visualize any negative impacts resulting from their actions, because they may not have thought about what may happen if their information is shared (Tu, 2002a; Tu, 2002b). The illusion therefore is that a particular form of online communication is more private than it really is, which results from a lacking understanding of privacy risks.

There is also sometimes a paradox between the reported privacy concerns of online users and their participation in online activities (Sheehan, 2002; Proctor et al., 2008; Lewis et al., 2008). This paradox refers to the phenomenon of individuals who report a concern for privacy and choose to engage in risky behaviour anyway. It is likely that very few people would say they are completely unconcerned about privacy when asked. It may therefore be more relevant to look at student actions rather than student statements to ascertain their level of concern for privacy.

4.4 Student Engagement

4.4.1 Defining Student Engagement

Student engagement has been defined as an individual student’s mindset and overall approach towards learning (Kuh, 2001a, Kuh 2001b). It is the way in which, through this mindset, students engage with each other, their instructors, and with course content in the classroom. Student engagement is considered a key component of the learning experience, both on-campus and online, and is most commonly discussed in terms of classroom participation and active learning. Engagement is associated with several positive outcomes, including high grades and student satisfaction (Chen, Gonyea & Kuh, 2008). While there is an onus on students themselves to engage and get as much as possible out of a course, it is also the role of the instructor to promote a welcoming atmosphere and to facilitate discussions (Conaway, Easton & Schmidt, 2005). A key way in which they can do this is to lead by example, and engage in discussions themselves (Conaway et al., 2005).

It is possible for students to engage in online courses to the same degree as they are able to engage in on-campus courses, albeit in different ways (Chen et al., 2008). Despite the distance between learners
and the lack of in-person contact in online courses, it is possible for a community of learners to develop in an online learning environment. The relationships and rapport that develops between students may even exceed those that develop in an on-campus classroom environment (Powers & Mitchell, 1997).

Chen et al. (2008) found that online learners scored higher on student engagement than their on-campus counterparts; online learners however scored lower than on-campus learners in the areas of a) working with other students on projects during class, and b) working with classmates outside of class to prepare class assignments. The implication is that, while the online learning environment provides learners the opportunity to engage in interactive learning as individuals (in most classes participation is mandatory), at the same time it is not as conducive to student collaboration and group work. Online instructors may choose to forego group work due to the difficulties students with conflicting schedules and in different time zones face when working together in the online environment. Furthermore, a requirement for significant group work in online classes would, in many cases, decrease the flexibility of online learning, a flexibility for which many students choose to take online classes.

4.4.2 Ease of Technology Use

The online environment presents challenges to student engagement that do not exist on-campus. Students’ ability to use online course technologies as well as the comfort these students have in using these technologies is important (Sheehan, 2002). Technologies that are more user-friendly for all types of online students will promote student engagement; the less time students need to become accustomed to the learning platform or other online course tools, the more time students have to actually be present in the online forum and engage with the material, with the instructor, and with other students. Social ability – the capacity to associate with fellow students and to use the resources and tools of a given social context to achieve something of value – relates to the ease with which students use online learning technologies (Yang et al., 2006). Social ability can therefore affect social presence and student engagement in the online environment insomuch as it affects a student’s ability to communicate and interact online.

4.4.3 Social Presence and Student Engagement

In addition to literature on student engagement and learning, there was significant literature on the related concept of social presence and learning. It therefore became important to understand social presence as well as student engagement. While student engagement and social presence may seem similar, they are in fact mutually exclusive, but related concepts. Social presence has been defined as a learner’s capacity to project him or herself into a community of inquiry, both socially and emotionally (Arbaugh, 2004). Similarly, Tu and McIsaac (2002) define it as “the degree of awareness of another person in an interaction and the consequent appreciation of an interpersonal relationship” (p. 133). As these definitions show, it is more of a feeling than a quantifiable characteristic. Social presence has been positively associated with student engagement – a high level of interaction is related to strong social presence (Tu & McIsaac, 2002; Tu, 2002b). Social presence is a factor related to instructional effectiveness, which in turn makes it an important component of online education.

Social presence is subjective; it exists in the perceptions of learners themselves (Tu, 2002b), and is based on the medium through which communication takes place (online discussion board, email, etc.). There are three dimensions of social presence that affect the development of a sense of community among online learners: social context; online communication; and interactivity (Tu & McIsaac, 2002; Tu, 2002b).
Because social presence encourages student engagement, social presence is also relevant for discussions of student engagement in the online classroom.

Intimacy and immediacy are key components of social presence. Intimacy and immediacy can exist in the online environment, albeit in less traditional forms than in the on-campus classroom where students have the benefit of engaging with each other in person (Conaway et al., 2005). Intimacy is a function of eye contact and physical proximity (Tu, 2002b). Immediacy on the other hand is the psychological closeness that exists between communicators and the objects with which they are communicating (Conaway et al., 2005; Tu, 2002b). The two are often discussed in tandem, as they are both related to the existence of social presence.

Immediacy has been associated with increased student motivation and satisfaction (Conaway et al., 2005). In the on-campus classroom immediacy can be created via common interactive behaviours such as gesturing while talking, facial cues, and eye contact. In the online classroom these behaviours are not possible. Instead, students must rely on such behaviours as using a friendly tone in their written postings, using first names in postings, and sharing personal stories and examples to create a connection with other online learners. Together, such behaviours create a safe psychological environment that allows students to engage effectively (Richardson & Swan, 2003).

Because of its role in creating an effective online learning community, social presence has been related to student classroom interaction and learning (Conaway et al., 2005). It is important to note that social presence is not the same as student engagement, rather it is a factor that contributes to engagement via its role in the creation of a conducive learning environment. This linkage between social presence and student engagement is summarized in Figure 4.1 below.

**Figure 4.1 – Relationship between Social Presence and Student Engagement**

By establishing a conducive learning environment, social presence facilitates student engagement with other students, instructors, and course material.

In summary, both social presence and student engagement are beneficial to a student’s online learning environment. The following section explores the linkages between student engagement and learning.

### 4.5 Student Engagement and Learning

A high level of student engagement and interaction in courses has been positively associated with a high level of perceived and actual learning (Arbaugh, 2000; Carini, Kuh & Klein, 2006; Conaway et al., 2005;
Graham & Scarborough, 2001; Kuh, 2001a; Kuh 2001b; Muilenburg & Berge, 2005; Yang et al., 2006). The level of student learning is correlated with a student’s interaction with course material, fellow students, and the instructor. Engaged learning is promoted via three types of classroom interactions, interactions that aid in the development of collaborative learning experiences. These three interactions are: learner to instructor, learner to content, and learner to learner (Conaway et al., 2005).

In a study intended to dispel beliefs that internet-based courses have a lower learning value than on-campus courses, Arbaugh (2000) found only those variables associated with classroom interaction are significantly related to online learning. The implication for instructors is therefore to give special attention to the facilitation of interactive learning styles, which may be the best pedagogical approach to online courses. In short, this study found that pedagogical rather than technological factors were more strongly associated with positive student learning in the online environment. While there has been criticism of the quality of online learning relative to on-campus learning, online learning is now viewed more positively and has been accepted as equal in quality and in opportunities for engagement as on-campus learning (Arbaugh, 2000; Arbaugh, 2004; Lorenzo & Moore, 2002 as quoted in Conaway et al., 2005; Muilenburg & Berge, 2005; Powers & Mitchell, 1997; Richardson & Swan, 2003).

The National Survey on Student Engagement (NSSE) annually assesses the extent to which students at post-secondary institutions across the United States participate in those educational practices strongly associated with high levels of learning (Kuh, 2001b). Past research has helped the makers of this survey understand what factors contribute to high gains in learning; many of the factors relate to student engagement. The very existence of this annual survey and its focus on the relationship between a student’s engagement in the classroom, as well as in university life more generally, is further testament to the widely accepted existence of a relationship between a student’s engagement and his or her level of learning.

### 4.5.1 Student Engagement and Perceived Learning

Student engagement is not only important because of its contribution to learning, it is also important to students’ perceptions of learning (Yang et al., 2006). In a study conducted by Yang et al. (2006) on students’ academic motivation and social ability in online learning environments, graduate students who posted more comments to the online discussion board reported higher levels of perceived learning. Similarly, there is a strong relationship between the effectiveness of online learning and social interaction in courses (Muilenburg & Berge, 2005). A relationship between student engagement and learning is also supported by Carini et al. (2006), whose study suggests that those students with the lowest prior abilities were able to benefit more from engagement than their peers.

### 4.5.2 Social Presence and Learning

In addition to there being a relationship between student engagement and learning, there is also a relationship between social presence and learning, to the extent that social presence leads to student engagement (see Figure 4.1 above). Richardson and Swan (2003) found that students who perceived high levels of social presence also perceived high levels of learning; similarly, those who perceived strong social presence in the context of group projects and written assignments also perceived a high level of learning. Students that perceived high levels of learning and strong social presence also were more satisfied with the instructor. The recommendation stemming from this study is that those who
Teach or design online courses need to consider the ways in which social presence is conveyed in this environment, and integrate those aspects into courses.

In summary, student engagement in online courses – with other students, the instructor, and with course content – all contribute to that student’s perceived and actual learning. Similarly, social presence is positively associated with learning. With the link between student engagement and learning established, the following section looks at the other important relationship of this report – the relationship between privacy concern and student engagement.

### 4.6 Privacy Concern and Student Engagement

The idea that privacy considerations may impact students’ actions in online courses is not new (Yang et al., 2006). Privacy is an important factor contributing to students’ comfort online, and also affects online students’ social presence (Tu & McIsaac, 2002; Tu, 2002b). Both actual and perceived privacy contribute to social presence, with lower privacy settings resulting in a decreased perception of social presence by users. Furthermore, when students perceive a given online learning environment as being less private or unable to guarantee privacy, they are less interactive or engaged in the learning process (Tu, 2002b). There is therefore a negative relationship between student engagement and concern for privacy – the greater a student’s concern about privacy, the less engaged he or she is in the online classroom, and the less likely a student is to express him or herself openly.

### 4.7 Limitations of Existing Research

The literature on privacy concern and student engagement is limited. There are two key authors who have addressed the relationship between these variables – and their work has focussed primarily on social presence rather than student engagement. While social presence and student engagement are related, studies of social presence cannot be substituted for the much less complex notion of student engagement. While there is more literature on the relationship between student engagement and learning, only a small amount of this literature has focused on the online environment in particular.

Existing research has not addressed the interplay between student engagement, concern for privacy, and online learning. Instead, the relationship between these variables must be inferred from studies that address only two of the variables at a time. As outlined in section 4.6, a student’s concern for privacy may affect how he or she engages in the online classroom. As outlined in section 4.5, student engagement is important because of its positive relationship with student learning. While these two established relationships indicate a connection between privacy concern and learning, this link has not been made directly. The relationship between the three variables, as established by the literature review, is summarized below.
4.8 Conclusion

The preceding literature review has discussed the state of literature that pertains to the three variables of this report – privacy concern, online learning, and student online engagement. The relationship between student engagement and level of learning has been well-documented, and the link between privacy concern and student engagement is clear. The remainder of this report will focus on the relationship between the first two variables in the diagram above – privacy concern and student engagement. The following chapter builds on this literature review by laying out the University of Victoria regulatory and policy context with regards to privacy and online courses.
Chapter 5: University of Victoria
Privacy Context

This section provides an overview of the policy and regulatory context of online course privacy at the University of Victoria. The privacy provisions of University of Victoria’s learning management systems are outlined.

The University of Victoria offers a variety of degree programs and courses online. These courses are open to both on-campus students who choose to take online classes to fulfill degree requirements, and online students who complete their entire degree online. Courses and programs cater to both recent undergraduates and adult learners, which can include students in Continuing Studies programs. All University of Victoria websites are subject to university-wide policies and guidelines, but are maintained by individual departments and units who have complete control over site contents (University of Victoria, n.d.b).

5.1 Applicable University Policies

The University of Victoria does not have one specific policy governing the privacy, confidentiality, and security of online courses. Instead, these courses and the learning management systems whereby they are administered are governed by a variety of University of Victoria policies and procedures, which are in turn informed by the Freedom of Information and Protection of Privacy Act (University of Victoria Records Management Policy, 2010). These policies and procedures include:

Table 5.1 Applicable University of Victoria Policies

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<th>Policies</th>
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<tbody>
<tr>
<td>• Protection of Privacy Policy (GV0235)</td>
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<tr>
<td>• Responsible Use of Information Technology Services (IM7200/6030)</td>
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<tr>
<td>• Records Management Policy (IM7700)</td>
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<tr>
<td>Associated Procedures:</td>
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<tr>
<td>• Procedures for the Management of University Records</td>
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<tr>
<td>• Procedures for the Access to and Correction of Information</td>
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<tr>
<td>• Information Security Policy (IM7800)</td>
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<tr>
<td>Associated Procedures:</td>
</tr>
<tr>
<td>• University Information Security Classification Procedures (under development)</td>
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<tr>
<td>• Policy Regarding Access to Student Records (4400)</td>
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<tr>
<td>• Archives: Freedom of Information Guidelines (University of Victoria)</td>
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Collectively, these documents regulate the way in which student information is protected at the University of Victoria. They outline the level of protection required, and discuss responsibilities for
implementation. Specific measures of protection relevant to online students are outlined in the paragraphs below.

While the policies that apply to the online learning environment and the information shared therein are university-wide policies, it is up to individual Administrative Authorities or 'Units,' which include departments, faculties, divisions and schools, to ensure that policies are applied within their area of responsibility. For example, the Information Security Policy states that Administrative Authorities must “ensure that reasonable security arrangements are implemented for the Information Resources for which they are responsible” (p. 5). Similarly, the Procedures for the Management of University Records specify that Units are responsible for the storage of their own Semi-Active records. In addition, there is also an onus on users⁷ to make a ‘reasonable effort’ to familiarize themselves with a policy and the associated procedures, standards, and guidelines. The implication is that the existence of privacy protection measures is most effective when students are knowledgeable about the level of protection they can expect. Furthermore, there is a limit to the level of effort that the University can reasonably be expected to make to inform students about privacy policies, without the students themselves making a ‘reasonable effort’ to inform themselves.

The University’s Records Management Policy ensures that records created by the university are used, disposed of and maintained in a systematic manner that complies with relevant legislation. It also specifies that any records that are permanently kept by the university will be subject to the University Archivist’s decisions on access. The Records Management Policy is supplemented by the Procedures for the Management of University Records, which do specifically address electronic records. Records are managed according to their classification as either active, inactive, or semi-active records, and as either transitory or vital records. The Records Management Policy specifies that transitory records⁸ should be deleted from files when they are no longer needed. It is unclear whether archived course information that is held after the period for disputing grades has expired, should be classified as transitory records. If yes, then the Units responsible for the storage of such information should be undertaking the necessary steps for the destruction of such records (University of Victoria Records Management Policy, 2010). However, the Procedures for the Secure Destruction of University Information are still in development (University of Victoria Records Management Policy, 2010).

Further relevant policies include the University’s Identity Management Policy, which ensures that the system for managing personal identity information is “secure, auditable and efficient.” This policy specifies that Units shall ensure that identity information is managed and maintained in a manner that is consistent with applicable university policies, standards and guidelines, as well as with applicable legislation.

The Information Security Policy, which also applies specifically to electronically-stored information, provides that reasonable security arrangements for information are necessary to achieve the University’s commitment to the protection of privacy as well as the University’s compliance with relevant legislation such as the Freedom of Information and Protection of Privacy Act. It is also relevant

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⁷ any individual or unit that uses a given information resource
⁸ Transitory Records “are records of temporary usefulness, required only for a limited period of time for the completion of a routine action or the preparation of an ongoing record. Transitory Records do not include those Records required to meet statutory obligations, or to sustain administrative or operational functions. Transitory Records may include drafts, notes, calculations, and superseded documents. (Records management Policy, p. 6)
to mention that this policy outlines the relationship between privacy and security, as interrelated and supportive concepts, similarly to how the two terms are defined for this report in Chapter 3.

The University’s Freedom of Information Guidelines, available via the library website, contain a subsection on ‘Internet-Based Distance Education and Student Information.’ It is specified that employees of the university and faculty members are only allowed to access student academic records in pursuit of their duties. Other relevant guidelines for online students include:

- **Assignments**: A student’s written work is considered their own personal information. An instructor must ask the student’s permission to use his or her work to assist with the delivery of a course.
- **Class Lists**: It is not appropriate for staff to collect and share students’ personal information for use in a class list without having first received the students’ consent.
- **Marks**: Grades are also considered to be student’s personal information, as are student numbers. Instructors planning on posting student numbers and grades online should inform students of this plan prior to its implementation so those with privacy concerns have the opportunity to opt out.

*(University of Victoria Freedom of Information Guidelines)*

A further section of the guidelines, one that does not specifically refer to online classes, goes on to state that a student’s personal views and opinions are their own personal information. It is therefore implied that, student views and opinions should be treated by the university with the same respect for privacy and security of information as are other more obvious forms of student personal information.

In summary, while sufficient measures of protection for online students’ privacy do exist, they are scattered across numerous policies and procedures, none of which directly applies to the online context. There is no one policy regulating the provision of privacy in online courses.

**5.2 University-Provided Course Platforms**

Privacy and confidentiality statements outlining the privacy considerations for learning management systems used by the University are included on the Distance Education website and tend to indicate that issues of privacy and confidentiality should be treated as they are in the classroom (see for example http://distance.uvic.ca/onlinehelp/tutorials/moodle/privacy.htm). This approach towards privacy and confidentiality does not appear to take into account the complexities and extra dimensions created by the online learning environment. For example, whereas classroom discussions are not documented, online courses are archived on a University of Victoria server after completion (E. Price-Edney, personal communication, November 9, 2010). Currently, courses are archived for one year from the end of a course. This archive contains student data and can still be accessed by the instructor upon request. After the end of this one year period, all student data is stripped out and the course is backed up. Instructors therefore have access to some past course information, should they wish to reuse content in the future. These archives are stored on a University of Victoria server and are only accessible by the Systems Administrators.

Moodle and other learning management systems used by the University are subject to the above University privacy policies and regulations. Moodle is an online site, accessible from any computer,
where students enrolled in a particular course can find everything they need for that course (Distance Education Services, n.d.c). While a specific privacy policy for the online learning environment does not exist, there do exist web pages outlining the privacy considerations of Moodle, Blackboard, and Elluminate individually. These are accessible via Distance Education Services' Startup Kits for these respective platforms.9

These Startup Kits outline essentially the same considerations for all three platforms. These considerations include: that university staff other than students and instructors participating in the course have access to the site; that all University of Victoria online courses are automatically archived on a University of Victoria server; that students must respect the confidentiality of others in the course; and that course discussions should be kept confidential. Furthermore, it is specified that the views and names of other students that one learns about as a part of course interactions are not to be shared outside of the course context (Privacy Considerations in Moodle website, accessible via Moodle Startup Kit). Similar university-wide guidelines for the on-campus classroom do not exist. It is left to the discretion of the instructor whether or not students are asked to keep on-campus course discussions confidential.

As the DES web pages outlining the privacy considerations of Moodle, Blackboard, and Elluminate are accessible via the DES website, not via the actual course platforms themselves, many students may not be aware of their presence and the valuable information that exists for them there. The implication is that students' knowledge of the privacy they can expect or the risks they face when learning online is related to their own motivation to actively seek out such information. The statements outlining Moodle’s privacy considerations are particularly relevant for students because UVic’s FAQs on Moodle currently do not address issues of privacy and confidentiality. Furthermore, DES statements on privacy considerations are likely more useful for students hoping to access a quick overview of privacy considerations than the University’s lengthier and more detailed privacy policies and regulations. The statements provided by DES are directed towards users, the students. As such, these statements provide the most relevant information to students in a brief and more comprehensible manner than the entire list of relevant university policies and regulations outlined above.

Currently, University of Victoria instructors are not required to include statements on privacy and confidentiality in their course outlines or otherwise as a part of their courses. However, some instructors do provide such statements or 'Privacy Notices,' which can contain information more useful to students than entire privacy policies. An example of such a Privacy Notice posted by an instructor to the online course platform is included below:

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9 See http://distance.uvic.ca/onlinehelp/startup.htm
Another more succinct example provides a very brief statement to make students aware that there are privacy issues to consider while participating in an online course:

**Please be aware:** while the course Blackboard site is password-protected, administrative staff and other UVic faculty have access to this site. You should not post anything on this site you are not comfortable sharing with others or having archived as a permanent record. All UVic Blackboard courses are automatically archived on a UVic server before the courses are offered again.

As these examples show, such statements can be a very efficient way of providing students with relevant information quickly, and most importantly, of making them aware that there are privacy issues to consider. Such statements may encourage students to further explore university policies related to their participation in online courses and the information they share there.

### 5.3 Summary

The University of Victoria has many policies and procedures that address the confidentiality and security of information, and the protection of students’ privacy. However, these policies generally do not directly address the online learning environment, and therefore their meaning in terms of providing privacy, security, and confidentiality to online students is inferred rather than stated explicitly. Nonetheless, measures to ensure the safe storage of students’ private and course-related information do exist. Currently, courses are archived for one year from the end of the course. However, existing policies are silent on what information must be provided to students enrolled in online classes, and many students may not know that courses are archived after completion. As existing privacy policies are written from the perspective of the university, there is also no mention of the confidentiality that students can expect from their fellow students, which would fall outside the scope of such policies.
Therefore, while a complex network of policies and regulations does exist to ensure the privacy, security and confidentiality of student information, there is no University of Victoria mandate to communicate these measures of protection to students, in particular in the context of the risks to privacy they may face when learning in an online environment. As discussed previously in Chapter 4, with incomplete knowledge of the actual privacy risks that exist in the online learning environment, students’ privacy concerns are instead based on perceptions and/or assumptions that may be incorrect. The following Chapter discusses what University of Victoria students themselves had to say about online course privacy.
Chapter 6: Interview Findings

6.1 Introduction to Findings

Students from both the online and on-campus Masters in Public Administration programs at the University of Victoria were interviewed. These students ranged in age from 24 to 60, with the average age being 34. The sample included 11 students from the online program and 9 students from the on-campus program. Students with extensive online course experience as well as students who had only taken one or two online classes were interviewed. The students that were in the online program were all enrolled as part-time students, and were on average older than the on-campus students. The characteristics outlined in Table 6.1 provide evidence of the range and variety of students that were interviewed. For the purposes of analysis, students were put into a ‘younger’ (<30 years old) and an ‘older’ (>30 years old) group. This division was chosen as a result of literature review findings and the definitions of ‘older’ or ‘adult’ used there. Each group includes 10 participants.

<table>
<thead>
<tr>
<th></th>
<th>All Students</th>
<th>Online Students</th>
<th>On-Campus Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students Interviewed</td>
<td>20</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Courses Taken (average)</td>
<td>5.5</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Courses Taken (range)</td>
<td>(1-16)</td>
<td>(3-16)</td>
<td>(1-3)</td>
</tr>
<tr>
<td>Age (average)</td>
<td>34.1</td>
<td>37.8</td>
<td>34.1</td>
</tr>
<tr>
<td>Age (range)</td>
<td>(24-60)</td>
<td>(27-52)</td>
<td>(24-60)</td>
</tr>
</tbody>
</table>

Discussions with students focussed on gaining a better understanding of how they perceive privacy in the online learning environment, how they engage in an online learning environment, and what affects their engagement online. The purpose of these discussions was to determine whether there is a link between any concerns that students may have about their privacy in online courses and their level of engagement – in short, whether a concern for privacy may be associated with lower engagement as the literature suggests. To do this, it was important to determine why students engaged or didn’t engage in their online classes, and what privacy concerns students have within an online classroom.

An analysis of interview transcripts resulted in several findings which are outlined in this chapter. Interview findings indicate that the relationship between privacy concern and student engagement is more nuanced than the literature suggested (See figure 4.2 for the conceptual framework derived from the literature review). This chapter will first look at students’ reported privacy concerns and what privacy means to students. Subsequently, strategies that make students feel more safe in the online learning environment, will be outlined. This leads into a discussion of the sense of safety that can result from these strategies when they are implemented. The final section of this chapter will look at student engagement in the online classroom. While the interview results were analyzed with regards to various demographic characteristics, the key characteristic that was found to relate to clearly different results between groups of students was the on-campus or online status of students. It was found that responses often varied between online students who were taking all of their courses online, and
students who chose to take one or two online courses as a part of their on-campus degree. Interview findings were inconclusive with regards to differences between age groups and gender.

6.2 Privacy Concerns

Interview findings show that students have a clear concern for privacy when taking online classes. Students’ concerns were strongly associated with a worry about the safety of the workplace information they shared throughout their courses; students were less concerned about the perceived privacy capabilities of the course learning platform or the presence or content of any University of Victoria privacy policies. In addition to these professional privacy concerns, some students were also concerned with their personal privacy. Personal privacy concerns were much less prevalent than students’ professional concerns.

6.2.1 Professional Privacy Concerns

Students’ privacy concerns were largely related to a worry that workplace-related information they share with the class may at some point in the future become available or be shared outside the class by fellow students. In other words, students’ concerns were primarily professional in nature. All students interviewed discussed the central nature of workplace-related information to their online courses. Students generally did not mind sharing their job title and description with their classmates, as they enjoyed knowing each others’ backgrounds, experiences, and areas of expertise. However, with respect to sharing job information beyond title and employer, students were much more hesitant. Students were generally hesitant to share more information than absolutely necessary for course purposes with fellow students whom they had never met, and whom they essentially considered strangers. This hesitancy stemmed from the lack of rapport that existed among students in online classes compared to on-campus classes, as well as the fact that information in online courses is shared in writing as opposed to orally. Students are aware that the written nature of online course interactions makes their participation much more permanent than in an on-campus class, where what is said can be more easily forgotten.

In addition to sharing descriptive information about their job and employer as a part of class introductions at the outset of courses, students are often required to give examples of past work experiences that apply to course concepts. Students’ overall response to such applied learning was hesitant. While some students were less hesitant, this was because they had chosen to limit or alter the information they share in such a way that made them more comfortable sharing it - for example by omitting identifying details. In particular for those students who had active careers (all in the public sector), there was a widespread hesitancy to share such information to the extent required for courses. Students’ hesitancy was related to several factors: a fear that a critical analysis of workplace issues in relation to their specific workplace would get back to their employer, who would not view such criticism favourably; that they were not permitted to share private workplace information outside of the workplace; that they don’t know the other students in the course; that their own opinions may incorrectly be interpreted by others as the opinion of their employer; and that their opinions may be
interpreted as partisan, a characteristic not desirable in a public servant. These reasons speak both to the lack of privacy that students expect from their online courses as well as to the importance of privacy to public servants.

The smallness of the world of public administration was also discussed. A few students pointed to examples where they had met former online classmates in a workplace situation, they knew who classmates were due to their respective workplaces, and one student even mentioned being in a class with someone whose job it was to make sure that he/she did not have a job. Even for students who had not had such experiences, the possibility was very clear and affected their willingness to engage in discussions about their workplace.

As alluded to above, the fact that such workplace information was being shared in a more permanent way, relative to on-campus discussions, was also important. Students were conscious of the fact that the written nature of their discussions made copying and pasting, and thus sharing them, much more possible in an online course than in an on-campus course. Several students also held the belief that, once anything is put online, course-related or otherwise, it 'will always be somewhere forever.' The perceived permanency of course discussions therefore also played a role in the level of concern students had with sharing workplace information and workplace-related information in particular.

Students showed a much greater concern with workplace-related information that was shared with the class becoming available than that general class discussions would be shared. For the most part, the information contained in general class discussions was not seen as posing a risk, with some students even joking that they had no reason to be concerned about their intellectual property. Many could not conceive of a reason why anyone outside of the course would be interested in accessing course discussions, and therefore perceived little risk with respect to more general discussions and opinions being shared.

6.2.2 Personal Privacy Concerns

In addition to the professional concerns that students had with regards to privacy in online courses, students also had a few specific concerns with the privacy of personal information. Firstly, students were asked to discuss their comfort with sharing email addresses as a part of their interaction in online courses. A variety of responses were given, however comfort with sharing email addresses did not vary significantly by age, gender, the on-campus or online status of students, or by number of courses taken. While some students did not mind sharing their email addresses at all, and stated that they could very easily just change their email address, or choose not to respond to an unwanted email, others were much more hesitant to give out their personal email address to fellow students. One student referenced the ‘anonymised’ email addresses used by Craigslist\(^\text{10}\) as a possible alternative to actually showing students’ email addresses.

\(^{10}\) When an individual chooses to post something on Craigslist, a free online classified forum where anyone can post, they have the option of ‘anonymizing’ their email address. This means that anyone responding to the posting has an anonymous email address for strangers to respond to (for example #######@craigslist.org), which...
within the course learning forum, but still allowing students to email each other. Overall, students felt it was important to keep their personal email addresses private, and were hesitant to share them with classmates.

Another course-related activity discussed with students was putting up a picture as part of one’s student profile. This was the item that received the highest number of ‘not at all comfortable’ responses from students – approximately half of the students interviewed. These students did not come from any one demographic grouping, were from the on-campus as well as online programs. Many did not think it was necessary to share a picture, and felt it crossed the line into being too personal. The primary hesitancy seemed to relate to the fact that these pictures are not necessary for any course-related purposes, that it was simply an effort on behalf of the instructor to make the online environment as similar to the on-campus environment as possible. Furthermore, when sharing a picture online, it can easily be copied and pasted and shared outside of the classroom context. In short, most students could not see an academic purpose to sharing a picture of themselves with their classmates. Students did concede however, that posting a picture had never been mandatory, that it had only ever been ‘strongly encouraged’ by their instructors. Although students for the most part preferred not to post profile pictures in their online classes, many students were aware that if someone really wanted to find a picture of them online they could, regardless of whether one had been posted as a part of their online course profile. Several students simply did not post personal pictures. While the large majority of students did not see an academic purpose to sharing a picture, some students were more opposed to it than others. These responses did not vary by age, gender, or number of courses taken. The responses of on-campus and online students were also very similar.

6.2.3 Limited Knowledge of Privacy

Despite students’ professional and personal privacy concerns, their knowledge of privacy was limited. Students did have a general understanding of what privacy means, however their knowledge of specific University of Victoria privacy policies was non-existent. While privacy was important to all students interviewed, none had gone out of their way to inform themselves about university or course privacy policies or practices. Few students had thought about privacy in the context of their online classes or in the context of what happens with their information. The majority of students interviewed explained their interpretation of privacy in terms of information sharing and security, not in terms of any technical capabilities or characteristics of the online learning platforms. The security (safe storage) and privacy of information was a common theme. Other commonly discussed meanings of privacy included that student work and ideas are not shared beyond what people think it will be shared for (i.e. for course discussions with fellow students, or for evaluation by an instructor), and that students have a right to not share personal and private information if they choose not to. A few students had not considered privacy in the context of their online classes before being interviewed. While they had thought about it in the more general online context, it had not occurred to them either that their privacy was anything less than assured within a university environment or, that the information they shared online was anything that needed to be kept private.

No student interviewed had read a University of Victoria privacy policy, and many would not have read a policy if it had been presented to them. Most students could not clearly remember whether they had been made aware of any privacy policy at the start of their past online courses. Most students also

Craigslist will then relay automatically to that individual’s real email address. This allows individuals to post an email address by which they can be contacted, without sharing their personal email.
stated that they were unlikely to actually read such a policy if it had been provided to them; at the most they would skim and click ‘accept’ if necessary. Reasons given for not reading privacy policies included their length and readability as well as their lack of direct relevance for students. Some students also mentioned a trust in the university as a reason for not needing to read a privacy policy in detail. This finding is important as it shows that students’ senses of privacy or concern for privacy is not influenced by actual knowledge of the privacy of a given situation. Instead, students’ sense of privacy is related to their perception of privacy, which may or may not be in line with the actual privacy of a given situation.

In terms of privacy within a course, there was little consistency in student perceptions of what is or should be private. Most students were of the view that, theoretically at least, class discussions and student information should be confidential to the course. Others however viewed the class discussion forum as a public space, and didn't expect privacy. This meant that, while some students were of the view that information they share is confidential to the course and won't be shared beyond it by other students, others disagreed. Students generally understood that it would be very easy for another student to share course discussions outside of the course simply by copying and pasting. The difference in opinion about whether information would be shared outside of the course therefore resulted primarily from a faith in fellow students, or a lack thereof.

Perceptions of what should be private seemed to be informed by students’ workplaces, and the importance of privacy there. In the University of Victoria environment, students’ awareness and understanding of privacy policies is a direct reflection of their initiative to seek out such information. In the workplace environment however, many students had to be very aware of privacy policies and regulations pertaining to their position. Some had participated in mandatory privacy training, and were very aware of what types of information they were permitted to share in that environment.

A further finding related to a limited understanding of privacy in the online course context is that students made certain assumptions about privacy in their online courses, and about what happens with information after the completion of a course. With regards to what happens after a course is over, some students believe that “information implodes”, while others believe that it is stored on a server, somewhere, forever. Some of these assumptions were not based on anything concrete, merely on a general view of how privacy is treated in the broader online environment. It was clear that, although students had given thought to privacy in the online environment, and were for the most part aware of the risks they faced there, these same students had not spent much time considering privacy in the context of their online courses or the University more generally.

Another common discussion topic relating to course privacy was that privacy is situational - that the importance of privacy depends on the information being shared, with whom it is being shared, in what forum, and the likelihood that harm will result in any given situation. As discussed above, students were more concerned with the privacy of their workplace information than with the privacy of their contributions to general theoretical discussions. In terms of with whom information is being shared, students were more comfortable sharing with students with whom they were more familiar, and with whom they had developed a certain level of trust (see 6.4.1 Trust in Fellow Students). Lastly, students were more concerned with privacy in the online forum due to the written nature of discussions, than
they were in an on-campus environment. For these reasons, students viewed privacy as situational, dependent on the context in which information was being shared.

Many students also had a very reactive approach to privacy. This means that, for those students who have not had any negative experiences with privacy or confidentiality, they have not had much cause to think about their views on the subject. These students may therefore have an artificial sense of privacy and safety in the online environment, if they have not had a reason to seek out information, and lacked the initiative to do so independently.

In summary, students’ primary privacy concerns relate to the workplace-related information they share as a part of their online courses. In addition to these professional privacy concerns, students are also concerned about the privacy of personal items such as their email address, profile pictures, and information about where they live. These concerns however are not informed by any concrete knowledge of University of Victoria privacy policies. Students’ knowledge about the privacy of their online courses as well as university privacy policies is very limited. This limited knowledge is directly related to their unwillingness to read information such as privacy policies, even when it is presented to them. Therefore, student privacy concerns are informed primarily by the way in which each individual student perceives the privacy of a given situation. Figure 6.1 summarizes the findings that pertain to students’ privacy concerns.

![Privacy Concern](image)

**Figure 6.1 – Privacy Concern**

### 6.3 Strategies

Throughout the interviews, it became clear that students had adopted various strategies to cope with their privacy concerns. Students also discussed how instructors in past online courses had dealt with student privacy concerns, or how instructors’ actions had in some cases amplified their privacy concerns. Lastly, it was found that existing University of Victoria strategies – institutional strategies – were not leading to an increase in students’ sense of privacy in their courses. These three categories of strategies are discussed below.

#### 6.3.1 Student Strategies

As dropping out of a course due to privacy concerns is rarely an option for students, students instead developed strategies to increase their comfort and sense of privacy when participating in online courses. These strategies are the ways in which students adapt

> “In consideration of issues like risk, safety, privacy, I think that ultimately it is each person’s responsibility to manage their own affairs in those areas.”
to the perceived privacy of a given situation, and enabled students to continue with their online courses despite any privacy concerns. Many students felt that they had a responsibility themselves to behave in such a way as to avoid risks to their privacy where possible, and that they had a certain degree of control over their privacy by limiting the information they shared.

Many students were not overly concerned with privacy in the context of their online classes at the outset of the interview. One reason for this was that they did not share private information. The implication is that these students were not worried about privacy because they chose not to share the type of information that would induce worry or a concern about privacy. Similarly, in discussions with students about providing workplace examples, some students were comfortable doing so because they habitually altered or combined workplace examples, and thereby maintained their anonymity and decreased the risk to privacy they might otherwise feel. The above examples are only two ways in which students implied that their comfort was higher because of their own actions or inactions.

Another strategy students discussed was having multiple email addresses for different purposes. The large majority of students differentiated between email addresses in terms of their comfort with sharing them. Fourteen of twenty students interviewed mentioned that they had multiple email addresses. Twelve of these students differentiated between these addresses in terms of willingness to share them with fellow students. Generally, students were more comfortable sharing their less private University of Victoria email address than their personal Hotmail or Gmail email address. Similarly, some students discussed ‘peripheral,’ less important email addresses, which they were more likely to share with others. These peripheral email addresses are addresses not used by the students as their main email; they did not have a great attachment to them and would not mind if they had to close them. Students with multiple email addresses were more likely to be comfortable sharing their email address with fellow students in an online course.

A further student strategy emerged from discussions about posting profile pictures – specifically, why some students were more comfortable than others posting profile pictures. These students explained that they were comfortable posting profile pictures for their courses because the pictures they posted were professional, or they were unrecognizable. For example, one student had posted a picture of herself in a winter parka and toque taken from a distance. Again, the implication is that if they were to post an unprofessional or recognizable picture, they would feel less comfortable, and that they had chosen the option that enhanced their sense of privacy.

An additional strategy that students alluded to resulted from their concerns about sharing background information in introductory statements. Students are often asked to share information on their work background and experience, and the city in which they live as a part of course introductions. The majority of students interviewed were comfortable with, if perhaps cautious, about sharing such background information. However, many students pointed out that there are ways of keeping information general, while still meeting instructor requirements for introductory statements. For example, a student could include their employer as a government department in general, rather than a particular unit within that department. Students could also discuss the nature of their work.

"You always had the option of writing what you want to write."

"There’s kind of a fine line between professional information and personal information. I think that I should only be providing the minimal amount of information to facilitate my use of the platform in the course."

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work generally rather than including their exact job title. Most students were careful with sharing their personal descriptive information and in some way limited what exactly they included about their workplace in introductory statements. This strategy was however not used by all students. Several students were aware that even if they chose not to share their work information, their name and position could easily be found via a government directory, if they worked in the public sector.

A few respondents commented that one of the benefits of the online learning forum is the relative anonymity that can be associated with it if students are careful about what they share; other students will only know as much about them as they are willing to share.

As mentioned in section 6.2.1, students are generally very concerned that what they write may get back to their employer, and therefore approach discussion postings in such a way as to minimize the risk of fall out if what they said did end up getting back to their employer. Student participation online therefore is not as candid as it can be on-campus, when students interact in-person, when they have the benefits of non-verbal communication, and when their participation is not recorded in any way. This relates to the final and most common student strategy of minimizing privacy concerns.

The last strategy relates to how students adapt in course discussions to decrease their concern for privacy. The purpose of this strategy was to ensure that discussion postings are interpreted correctly by those reading them. This strategy relates to how students share their opinions in online courses, which includes sharing thoughts on course topics and readings, in class discussions or in assignments. The majority of students held back on content in their discussion postings because they were not sure how a given opinion may be received by their class. Content held back by students included workplace information as well as opinions. While the word ‘censor’ was used in the interview question, student responses indicated a variety of understandings of the term. In most cases, students referred to an extreme edit of content and attention to wording before posting something for the class to see. Such edits were a way of ensuring that postings were written professionally, without grammar or spelling mistakes, as well as to make sure that the tone and strength of the opinion were appropriate and had a low likelihood of being misinterpreted. With reference to their caution and re-editing, students again pointed to the fact that in the online environment you don’t have the critical components of non-verbal communication that you do on-campus, for example body language and eye contact. Tone and sarcasm can come across very differently when communicating via writing in an online course. Overall, students’ self-declared censorship was due to either or both of two factors: the challenges of written communication, and their discomfort with sharing the type of workplace-related information they were asked to discuss in their courses. As a result of students’ self-
censorship in online courses, controversial issues, and the learning associated with discussing controversial issues, may be avoided.

In summary, students exhibited a pattern of adapting to the level of privacy they perceived in the online learning environment through the implementation of various strategies. By their own actions, students therefore decreased the privacy concerns they might otherwise have had.

6.3.2 Instructor Strategies

In addition to student strategies for minimizing privacy concerns, students discussed two ways in which instructors in past online courses had decreased their concerns. The first instructor strategy viewed positively by students related to the level of information that students receive from instructors about the privacy of their online courses. It was found that students generally desire more information on the privacy they can expect in their online courses, such as what happens with their information when courses are over. As mentioned in section 6.2.3 however, students do not seek out such information themselves, and do not read privacy policies because they are too long and are not directly relevant to them. None of the students interviewed had sought out information on the University of Victoria’s privacy policies, or on anything related to privacy or confidentiality in their online courses. Most of the students had, however, read or skimmed privacy policies related to other online situations (banking, purchasing, anything involving a credit card); this shows the different way in which universities are viewed, compared to private organizations with an online presence. Students were much more likely to have sought out information on non-university online privacy policies than for anything related to an online course’s privacy.

This first instructor strategy was therefore when instructors posted brief statements for students that outlined the privacy considerations of their online class. Statements included a reminder that course discussions be kept confidential, and a brief summary of the primary issues relevant to students. Such statements address student perceptions of privacy, and encourage engagement where incorrect student perceptions may otherwise hinder it. This strategy was viewed positively by students who had been in classes where instructors posted such information, and it was also a suggestion from students who had not experienced it. For those students who had not had instructors post notices to make them aware of privacy issues, the large majority would have preferred to receive information through their online course directly, rather than having to seek it out from the general university website. These students suggested that instructors post succinct and relevant information for students at the start of each course.

In terms of specific information posted by instructors at the start of a class, some students found it particularly helpful when instructors discussed a ‘code of conduct’ for course participants. Essentially, such a ‘code of conduct’ refers to the way in which students treat each other’s contributions – that what is said in the classroom stays in the classroom. One student even perceived this code of conduct as an academic version of the Chatham House Rule. Only a few students mentioned that a past instructor had mentioned such a code of conduct. Many students believed that in theory at least, online classes should abide by this code of conduct. A few were more sceptical and didn’t give such a statement much

11The official Chatham House Rule read as follows: "When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed." (www.chathamhouse.org.uk/about/chathamhouserule)
Several students were realistic in their view that an instructor’s guidelines on confidentiality for a course could not be enforced, and therefore such a statement held little value to them in terms of providing assurance or actually ensuring privacy. While it was agreed that theoretically, information is not to be shared outside the course, some students were realistic in their view that they cannot assume their information couldn’t be shared outside of the class.

The other strategy is related to how instructors interact in the online environment – students were comforted when instructors shared personal and background information about themselves. This was seen as ‘leading by example,’ and made students feel more comfortable sharing their own personal and background information. This strategy, together with the above strategy of providing succinct privacy information to students at the outset of courses, are two ways in which students’ senses of privacy can be augmented by instructors.

### 6.3.3 Institutional Strategies

The above two categories of strategies discussed by students were the ways in which their senses of privacy could be positively affected. With regards to this last category however, it was found that University of Victoria privacy provisions and policies had little to no effect on students’ sense of privacy in their online courses. The way in which privacy-related information is currently being made available to students - via general University websites not accessible through the course learning platforms and via a plethora of privacy policies – is not resulting in students reading this information. As mentioned in the above discussion of students’ limited knowledge of privacy in the university environment, no student had read a University of Victoria privacy policy. The reason for which existing information is not being consumed by students relates to the large amount of it, students’ perception that it is not really intended for them as an audience, as well as students’ trust in the University of Victoria as an institution that has the best interests of its students at heart. This last factor will be further discussed in section 6.4.3 ‘Trust in the Institution,’ below.

In summary, it was found that students’ lacking sense of privacy affected the likelihood that they would implement various strategies throughout their participation in online courses. It was found that existing University of Victoria methods of sharing privacy information with students are not working, as students are not accessing the information that is available to them. The relationship between students’ privacy concerns and the strategies discussed in this section is summarized below. The next section discusses how the implementation of these strategies affects students’ sense of safety in the online classroom.

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"I put more stock in the written policy than someone saying it is private." 

"For me to assume that [my postings are] assured to be private would be I think a naive assumption."
6.4 Feeling of Safety

All students were asked at the very outset of their interviews how safe they felt learning in an online environment. The responses were unanimously positive. All students interviewed felt at least ‘safe,’ if not ‘really,’ ‘very,’ or ‘totally safe’ learning in an online environment, regardless of age and number of courses taken, or whether they were enrolled in the on-campus or online program. As stated in the interview question, a feeling of safety referred to the level of risk of any kind that students are exposed to by learning online. Similarly, students seemed to interpret safety as their level of overall comfort participating in an online course. It became clear further into each interview that students’ feeling of safety had resulted from the student and instructor strategies outlined above. A feeling of safety was seen as something that could be influenced by the student themselves, by how they interact and the content of their postings. This feeling of safety could also be influenced by instructors.

A related interview finding is that trust plays an important role in students’ senses of privacy and safety in the online learning environment. Students discussed three types of trust: a trust in fellow students; a trust in the competency and good intentions of their instructors; and trust in the University of Victoria. The trust that students felt in these three areas was found to influence the level of information they felt comfortable sharing in their online courses. The findings related to trust are outlined in the three sections below.

6.4.1 Trust in Fellow Students

Students’ sense of safety in their online classes was influenced by the confidence they had in other students that they will treat course information as confidential. While some students had an expectation that others will treat course information as confidential because they themselves would, other students had less faith in their fellow classmates.

Many students stated that their hesitancy with sharing personal or workplace information was related to their lack of familiarity with and trust in fellow students – that other students in their classes were essentially strangers to them. Therefore, because in the large majority of cases students did not know the other students in their classes, willingness to share information was less than it may have been in an on-campus setting where relationships are more easily developed among classmates. For students enrolled in the online program, it was difficult to develop relationships with their fellow students online because ‘cohorts’ did not remain the same throughout their time in the program. Students did develop an increased comfort and trust with students with whom they had been in more than one of their online classes, with students with whom they had worked in groups online, and with students whom they otherwise knew outside of the course context (such as from an on-campus course). Students also found that it was easier to develop a relationship with other students in smaller groups – either via a class being divided into smaller discussion groups, via group work, or via small classes more generally. Many students spoke to the idea that trust is developed, not assumed. For example, some were more comfortable sharing the type of information required in introductory statements further into a course than sharing it right at the outset, before having developed a rapport with classmates and instructors. A trust in fellow students therefore was not only an important factor influencing students’ sense of safety online, it was also something that students felt could be developed throughout the duration of a course. The majority of students did not have trust in fellow students. The inability to enforce confidentiality was the primary barrier to trust in fellow students.
6.4.2 Trust in Instructors

Another factor that affected students’ sense of safety was their trust in instructors. Overall, instructors were spoken of positively with respect to their willingness to protect student privacy. The fact that some instructors notified students at the start of classes about the confidential nature of student information gave students additional comfort and increased the trust they had in their instructors. While some students did not perceive such a notification as sufficient to actually ensuring the confidentiality of their discussions, it did show a willingness and awareness on behalf of the instructor to guard student privacy. A further factor related to students’ trust in their instructor was the perceived competence of the instructor, especially with regards to their ability to use the course learning platform. Several students pointed to examples of past instructors lacking competence with using course platforms, and the negative effects both in terms of the overall delivery of the course, and students’ trust in instructors’ knowledge of how to safeguard student information. A particularly shocking example is that one student had an assignment returned, with instructor comments, via a public posting on Moodle for all to see. A trust in their instructors’ competency to not accidentally share information, as well as a confidence in instructors’ awareness of privacy issues therefore constitute the second type of trust that was found to contribute to students’ sense of safety in the online environment. The majority of students exhibited a trust in their instructors.

6.4.3 Trust in the University

In addition to the above two types of trust, students’ sense of safety was influenced by a trust in the University of Victoria. Students perceived universities in general and the University of Victoria in particular as respectable and reputable institutions with an interest in assuring the privacy of students. Furthermore, students believed that the University has mechanisms in place to protect them from breaches of information if they should occur. Students trusted that the University has their best interests at heart, and that it has undertaken the necessary privacy precautions required of it as a public institution that is subject to various laws and regulations. Websites run by private organizations on the other hand were viewed as having less clear motives in terms of their reasons for collecting information. In particular, students worried that private organizations may be more likely to sell their information to third parties. For these reasons, students were generally much less sceptical of sharing information with the University than with private organizations.

In summary, students discussed three types of trust that affected their sense of safety in online classes. A lack of any of the three types of trust seemed to decrease student comfort with sharing information and opinions in their courses. The relationship between students’ sense of safety, the strategies that can affect their sense of safety, and students’ privacy concerns is summarized below.
6.5 Student Online Engagement

The next finding follows from the above discussion of trust. Students’ sense of safety, and the trust they had in their fellow students, their instructors, and the University influenced the way in which they engaged in their online courses. In particular, a higher sense of safety can positively affect the level of student engagement, and that deficiencies in students’ sense of safety were the primary barrier to students’ online engagement.

6.5.1 Level of Information Sharing Influenced by Trust

It was found that students’ sense of trust was related to their willingness to share information in their online courses. There were several ways in which trust influenced information sharing. Firstly, it was important to students that they could trust in fellow students’ intentions, that other students will keep course information confidential to the course and not share it outside of the learning forum without permission. As discussed above, the majority of students did not trust their fellow students. Secondly, information sharing was influenced by students’ trust in instructors’ competence and intentions. The majority of students did trust in their instructors’ intentions to keep course and student information private, as well as their ability to do so. Nonetheless, a few dire examples were mentioned where instructor inability had affected students’ privacy. Lastly, students exhibited a strong trust in the University of Victoria. This trust resulted in almost a blind faith in the privacy capacity of the learning management systems themselves — that these systems are capable of securely storing course and student information. Furthermore, it was found that this trust related back to students’ lack of initiative in seeking out course-related privacy information from the university. These three types of trust therefore had conflicting influences on students’ willingness to share information — while a lack of trust in fellow students decreased student willingness to share information, a trust in instructors and the University affected their willingness to share information more positively.

6.5.2 Students Engage Differently Online

The last finding relating to student online engagement was a common theme throughout the interviews. This finding is that students engage differently in their online classes than they would in an on-campus setting. This difference in student engagement refers to how students participate in their course and the way in which they interact with each other, the course material, and with the instructor. Differences in engagement can largely be attributed to characteristics of the online medium, rather than the
perceived privacy of the course learning platform. Furthermore, the difference in many cases is simply what would be an expected difference between oral and written communication. Online engagement is not more or less than on-campus engagement, simply qualitatively different. In other words, there is no discernible difference in the level of student engagement.

Characteristics of the online medium that render online engagement different from on-campus engagement are firstly that class participation takes the form of written postings. Because participation is written, students feel they must put in much more time and effort to ensure content is coherent, well-written and edited, and where necessary includes citations of relevant literature. Some students also attributed this difference in time and effort required to participate online to the more permanent nature of course discussions – that discussions remained posted within a course for the entire length of the course and are therefore more open to critique.

As discussed previously, the online environment also makes communication, and therefore student engagement with each other more difficult in that there is a heightened possibility that written postings are misinterpreted by other students, and that the tone of a posting does not come across the way in which it was intended.

Students had mixed views on the asynchronous nature of online course participation, which is a key difference between on-campus and online class participation. While some students benefited from the asynchronous nature of online courses, and the extra time this allowed them to put into their discussion postings, others viewed this extra time more negatively. Some students found the extra time to put together thoughts and participate in online discussions as a burden; they believed that having extra time, relative to their on-campus courses, meant that there was a higher expectation for the quality and length of their discussion postings. Some students were annoyed that they felt the need to essentially write ‘mini essays,’ complete with references.

Students did not find that they participated significantly more or less online than in the classroom. While they may have been much more hesitant to share certain types of information online, the compulsory nature of participation ensured that they posted at the very least the minimum required number of postings per week. This was a common finding for all students interviewed. Especially for students who did not participate much in on-campus courses, there was a big difference in their perceived levels of participation in on-campus and online courses, with a higher level of participation online. Therefore, while students had the motivation to participate frequently due to course requirements for postings, the depth, controversial nature, and tone of postings were often less candid than they would have been had the discussions not taken place in an online, written format. In short, students engage in their in online courses qualitatively but not quantitatively differently.
There was no single factor that explained students’ engagement in their online courses. Students attributed their engagement to many factors, factors that influence both whether they engage in an online course, and to what level. As mentioned earlier, several students mentioned that they had had instructors who did not seem to understand how to use the course learning platform. Instructor competence not only affected the level of information that students shared in their online courses, but also their level of engagement. Students spoke to a lack of organization of course information, inappropriate use of public tools for private tasks (public feedback for an individual assignment, class messaging for a personal message), and instructor confusion relating to online courses that were being instructed at the same time as he or she was conducting the same course on-campus. Students also mentioned that they really benefited from ‘good’ discussion facilitation, which included both meaningful discussion questions and thoughtful follow-up responses by the instructor. In addition, students did enjoy engaging in some topics more than others, in particular where the relevance of what they were learning was clear to them. This focus on relevance was particularly true for students in the online MPA program, perhaps because of their more established position in the workforce.

Another common factor affecting student engagement was one completely unrelated to the course itself, namely students’ lives outside of their academic pursuits. Online students discussed their non-academic commitments as negatively influencing their participation in online courses much more frequently than on-campus students. Many online students had families and careers, and participation in their online courses was not a priority. As mentioned at the start of this chapter, online students were on average older than their on-campus counterparts. All of the students in the online program had worked full-time while taking courses, which was not the case for the younger on-campus students that were interviewed. While several of the online students mentioned family, none of the on-campus students mentioned family as a factor that affected their engagement. Only a few students from either group stated that they enjoyed engaging in course discussions. The large majority of students, regardless of whether they were enrolled in the on-campus or online program, simply participated to the extent that their other obligations allowed them to participate. However, due to minimum requirements for participation in online courses, this difference in participation seemed to manifest itself in the quality and length of postings, not the frequency of participation.

In addition to engaging in written discussions, some online classes include live chats in which students are required to participate. The few students that had experienced live chat or live lecture in their online courses did not speak of the experience fondly. Technical glitches, a lack of connection with fellow students, a disadvantage relative to on-campus students, a lack of stimulation, and bad timing for those in Eastern time zones were cited as reasons for not liking this aspect of online learning. Those students who had participated in live course activities in the past spoke quite negatively of their experiences in terms of both engagement and the utility they gained from participating in them. However, students did not mention any privacy issues associated with the live chat function; their discussion of this function was limited primarily to their lack of motivation to engage with it.

The various factors that were found to affect student engagement in their online courses are summarized in Table 6.1 below.
Table 6.2 Summary Table of Factors Affecting Student Engagement Online

<table>
<thead>
<tr>
<th>More Common (mentioned by at least 3 students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Instructor competence</td>
</tr>
<tr>
<td>• Nature of workplace</td>
</tr>
<tr>
<td>• Importance of privacy in the workplace</td>
</tr>
<tr>
<td>• Interest in course and discussion topics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Less Common (mentioned by 1 or 2 students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Relevance of material being learned</td>
</tr>
<tr>
<td>• Students’ personal life</td>
</tr>
<tr>
<td>• Technical glitches in course delivery</td>
</tr>
</tbody>
</table>

In summary, the primary difference between factors affecting online and on-campus student engagement is the lack of trust that students have in each other in the online environment. Other than this lack of trust, the factors that influence the level of students’ engagement online were significantly different from what influenced students’ engagement on-campus. Nonetheless, some factors have more of an effect on engagement, for online students in particular due to non-academic factors such as work and family commitments. The relationship between the key research variables, as determined by the interview findings, is summarized below in Figure 6.4.

6.6 Conclusion to Findings

In conclusion, students’ privacy concerns are primarily professional in nature, as students are concerned about the confidentiality of workplace-related information they share throughout their courses. In response to their concerns, students have implemented various strategies, as well as benefited from strategies executed by their instructors. Nonetheless, students admitted to engaging differently in the online environment than they would on-campus. Therefore, while interview findings confirm a link between concern for privacy and student engagement, the connection is in reality more intricate than was suggested by the literature review. The differences and similarities of these findings and the literature review findings will be discussed in greater detail in the following chapter.
Chapter 7: Discussion

The following discussion considers the themes and trends of the interview findings in relation to the literature review findings. Findings indicate that privacy concerns of students in the School of Public Administration at the University of Victoria may be different from student privacy concerns more generally, as indicated by the literature. This would mean that steps to address privacy concerns and student engagement in this particular context may not necessarily be generalisable to the broader University of Victoria context. The discussion is limited to those themes that are relevant to the objective of this research, which was to address the following three questions:

1) What are students’ privacy concerns when learning in an online classroom and being exposed to a variety of learning technologies?
2) How do these concerns impact on their engagement, with course content, with instructors, and with other students?
3) What can the university do to address students’ perceptions and level of comfort, and encourage student engagement online?

This chapter begins with a general discussion, followed by a discussion of students’ privacy concerns pertaining to the online learning environment (Question 1 of the Research Objective). Next, the impact of privacy concerns on student engagement is explored (Question 2). This will be followed by a discussion of ways in which students’ say their concerns can be addressed, and a conclusion to the discussion. Detailed recommendations for ways in which student engagement can be heightened (Question 3) will comprise the following and final chapter of this report.

7.1 General Discussion

Interviews with 20 students from the School of Public Administration at the University of Victoria resulted in a general understanding of what these students’ privacy concerns are, and how these concerns may affect how they engage with their online courses.

7.1.1 Online Learning

Literature suggested that the asynchronous nature of online learning has the benefit of allowing students the opportunity to come up with meaningful responses and to think through the content of their contributions (Powers & Mitchell, 1997; Richardson & Swan, 2003). Many of the students interviewed felt the same way, in particular if they would not normally be the first to contribute in on-campus class discussions. This finding is also in line with Tu’s (2002b) suggestion that the asynchronous nature of online learning allows students who are less engaged in the on-campus classroom to participate more online, where they can take the time to ensure the quality of their contributions (Tu, 2002b). Both of these findings were supported by students interviewed, however some of them did not see this extra time to refine discussion postings as a good thing. In particular, many students thought there were higher expectations for class discussion postings online because students had the time to re-write and edit their contributions. Many students mentioned the significant amount of time required to
meet minimum course requirements for participation as a negative aspect of online course work. In addition, for some students the asynchronous nature of online course participation meant that they felt the need to post formally, rather than informally as would be the case in an on-campus classroom. Therefore, while the asynchronous nature of online learning held benefits for many students, several did not enjoy the resulting level of work required for the participation component of their online courses.

Findings of the Literature Review indicated that the online learning environment can also facilitate interaction in ways that the on-campus environment cannot. As stated by Tu (2002), users generally have less self-awareness and perceive themselves as more invisible and anonymous online than in a classroom. This was not supported by the findings of the interviews. Instead, students were very conscious of their name and work information being shared with the class, and as a result censored their online engagement to varying degrees. Students exhibited behaviour and opinions that indicated they were in fact more self-aware and less anonymous online. Students worried that what they said in a class may at some point be taken outside of the course context, that their opinions may be interpreted by others as the opinion of their employer, and that any criticism of their workplace may get back to their employer and affect their employment status. The smallness of the world of public administration was a common theme, as students believed there was a realistic likelihood that they may at some point meet former classmates in the work environment. For three students of the twenty interviewed, that had already happened. In short, the online environment heightened student concerns about anonymity and their personal descriptive information (name, position, employer, city) being kept private.

7.1.2 Comfort with Online Course Functions and Tasks

As suggested in the literature, there is a drop in perceived barriers to online learning after completing just one online course (Muilenburg & Berge, 2005). This was supported by the interview findings; students did seem more comfortable with certain online learning activities (handing in assignments online, sharing email addresses) as they became more familiar with them through increased exposure, and as they implemented strategies to accommodate any privacy concerns they had with these functions. However, while students became more comfortable with the technical aspects of the course learning platforms, they did not become more comfortable sharing workplace information without altering it in some way.

7.2 Student Privacy Concerns

Students’ understanding of what privacy means in the context of their online courses – that course information is not shared outside of the context for which it was originally shared – was in line with definitions of privacy found in the literature. Literature focussed on the notion of an individual being in control of who gets to see personal information about them or information they have produced (Sheehan, 2002; Blazic & Klobucar, 2004; Culnan & Carlin, 2009; Tang, Hu & Smith, 2008; Milne & Culnan, 2004).

Students’ reported privacy concerns cover issues related to online privacy, as well as the security and confidentiality of their information, as these terms were defined in the literature (Johns & Lawson, 2005; Culnan & Carlin, 2009; Blazic & Klobucar, 2004). As suggested in the literature, the three terms are related, and were often used interchangeably by the students interviewed. Students primarily discussed privacy, although their comments also indicated a concern for the safe storage (security) of online information, as well as the confidentiality of their comments and identities.
As outlined in the literature review, Sheehan (2002) discusses five key factors that influence a concern for privacy: awareness of data collection; information use; information sensitivity; familiarity with entity; and compensation. The latter is not relevant in this context, however all of the other four factors did surface throughout the interviews. Students were generally not aware of any data being intentionally collected. When asked about their thoughts on the storage of online course discussions after a course is over, students responded that it would be important to know the purpose of storing it. The implication is that students would have varying levels of concern for privacy depending on the purpose, a finding that is supported by Sheehan. In terms of information sensitivity, students were primarily concerned with the privacy of their workplace information. They were much less concerned, and in many cases decidedly unconcerned about the risk of general course discussions being shared outside of the course context. This finding was also supported by Tu (2002b). Familiarity with the entity is another factor found by Sheehan to affect a concern for privacy. This was supported by the interviews, as students had a much higher level of trust with the University of Victoria than other private institutions with which they interact online. In summary, there are four key factors that both the literature and interview findings show to be related to a student’s concern for privacy. These are outlined in Table 7.1

| 1) Awareness of Data Collection  |
| 2) Information Use               |
| 3) Information Sensitivity       |
| 4) Familiarity with University Entity |

It is important to note, however, that the literature was silent with regards to student views on sharing workplace examples and information, which was a dominant theme of the interview findings. Students were very hesitant to fully disclose workplace examples and experiences in their discussion because of the sensitivity of the information to them, and because they were not assured that any such information they share could not be used outside of the online classroom. The privacy of workplace information may have been particularly important to the sample used for this research, because all students interviewed were graduate students with work experience.

Both the literature and interview findings suggest that online course discussion boards are considered the least private aspect of online courses (Tu & McIsaac, 2002; Blair & Hoy, 2006). The implication is that, in this forum, students’ concern for privacy in relation to sharing workplace information is heightened. Sharing workplace information in private assignments seen only by the instructor was less of a cause of concern for students.

7.2.1 Awareness of Privacy Issues in the Online Learning Environment

As was also indicated in the literature, many students were not aware of privacy policies relating to their online learning or the more general online university environment. However, students generally

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12 Literature consulted for this report included research on both the undergraduate and graduate online learning experiences.
assumed that such policies existed, and that mechanisms were in place to protect their privacy and to remedy any information breaches that might occur. A study by Johns and Lawson (2005) found that students were generally not well-informed about privacy issues or about the legislation and university regulations that might affect those issues. While this was also the case for the large majority of students interviewed, there was one caveat – that students generally chose not to seek out additional information because of their trust in and familiarity with the entity, the University of Victoria. This finding went beyond what the literature discussed.

7.3 Impact of Privacy Concerns on Engagement

As discussed above, the privacy concerns that affected student engagement in online courses were somewhat different than what the literature suggested. Students’ reported privacy concerns related predominantly back to their workplace and the discomfort they felt with having to share information related to their employer. The perceived public nature of online course discussions added to student concerns with sharing workplace information.

However, while the literature suggested that when students perceive an online learning environment as less private or as unable to guarantee privacy, they are less engaged in the learning process (Tu, 2002b), the interview findings differed. It was found that students engaged differently, not necessarily more or less online than on-campus. The ability of students to engage to the same degree online as they are able to in on-campus courses, albeit in different ways regardless of a concern for privacy is supported by the literature (Chen et al., 2008). Students’ relatively consistent level of engagement online and on-campus was primarily due to the compulsory nature of course participation in the online environment, most often in terms of a required number of discussion postings a week. It is conceivable that, if participation did not affect student marks, there would be significantly less student engagement in online courses. While student engagement was no less online than on-campus, students did admit to censoring their contributions in terms of both content and the strength of their opinions. Students did not feel that the online environment allowed them to be candid in their participation, and were generally very cautious with any written work that was available for the class to see. Therefore, while the level of engagement (length and frequency of discussion postings) may be the same online, most students adjust the tone and limit content (in particular discussion of workplace-related issues) when participating online.

As discussed in the literature, a concern for privacy implies a lack of trust, trust that is required for students to feel comfortable sharing information (Milne & Culnan, 2004). Discussions of trust in the literature have focussed primarily on the relationship between consumers and retailers (Tang et al., 2008; Milne & Culnan, 2004). However, trust was a common theme of the interview findings as well; students did not trust that the personal and workplace information they are asked to provide as a part of their online courses would be kept confidential to the course. The role of trust seems to be different in the online learning environment than in the online consumer environment. For the students interviewed, this lack in trust was primarily directed towards other students in their online classes, and in some cases towards specific functions of the online learning platform. There was no evidence of a lack of trust in the University of Victoria, as the ‘retailer.’ In fact, the university environment added an extra layer of comfort for students that they did not feel with other private institutions online. The literature was silent on the role of trust specifically in the context of the relationship between universities and students.
7.4 How to Address Student Privacy Concerns

The literature and interview findings both suggest that providing students with more information would bring their perceptions of privacy in line with the actual privacy of the online classroom (Proctor et al., 2008; Culnan & Carlin, 2009). As discussed in the previous chapter, students overwhelmingly stated a desire for more information on the privacy considerations associated with their online classes, although they also stated that they would not read a privacy policy if it were provided to them. The key finding here is that students are not responding to the way in which privacy-related information is being made available to them – via lengthy and wordy privacy policies.

As students tended to not seek out privacy information themselves, in large part due to their trust in the University as a reputable institution, their knowledge of the privacy and confidentiality they can expect in an online classroom was based on limited knowledge and assumptions. One particular incorrect assumption held by several students was that course information is stored somewhere indefinitely even after a course has been completed. However, as outlined in Chapter 5, University of Victoria courses are archived on a University server for one year after the completion of a course. Subsequently, all student information is stripped out and the course continues to be stored for potential future use by the instructor. It is therefore conceivable that student privacy concerns could be somewhat decreased by informing students of the length of time for which information is stored, and the measures that the University takes in terms of securing stored data. Furthermore, to ensure such information is accessed by students it would have to be succinct and written for students specifically. As students had not read any University privacy policies, it was not possible to assess these policies in terms of their readability and comprehension.

As discussed in the literature, the role of information such as that contained in a privacy policy is to convey to users the privacy practices and principles to which an organization adheres (Proctor et al., 2008; Culnan & Carlin, 2009). Generally, privacy policies are written more from the perspective of the organization than to address directly any concern the users (in this case students at the University of Victoria) may have. The interview finding that many students choose not to read policies even when they are presented to them is supported by the literature (Proctor et al., 2008). Similarly, student explanations for choosing not to read policies, which included that they are too long and seem to be there to protect the organization rather than to inform them, was also expected (Milne & Culnan, 2004). However, as students who are more informed may be less concerned with privacy, especially in cases where incorrect assumptions are leading to a heightened concern for privacy, it is important to ensure that students are aware of the risks they face or do not face by learning online. The connection between better informed students and a decrease in concern about privacy issues is supported by the literature (Johns & Lawson, 2005; Pace, 2001). Increasing student knowledge of existing measures in place to protect their online privacy would help to create the trust necessary for them to feel comfortable sharing information (Culnan & Carlin, 2009; Milne & Culnan, 2004).

A common suggestion made by students was that they receive more information about online course privacy at the start of their courses, such as in the form of an informal privacy notice provided by instructors to students for each course. The literature on privacy policies focused primarily on more general university-wide policies and their availability via university homepages. The potential and impact of informing students about privacy associated with their course platforms was not addressed by the literature. This may relate back to the relatively novel nature of research into students’ online learning experiences and their ability to interact and learn online (Yang et al., 2006).
As found in both the literature and interview findings, the mere existence of a privacy policy does not mean that students perceive a given learning environment to be private (Culnan & Carlin, 2009). Students must also be informed about the measures of privacy protection that apply to them. In lieu of knowledge, student perceptions of online privacy concerns are influenced by any number of factors. For example, past experiences, assumptions, the context of a given situation, and/or an individual’s overall approach to risk may influence how privacy is perceived.

In summary, students generally do not seek out information on the privacy, security, and confidentiality associated with their online courses. In so far as incorrect assumptions and perceptions of privacy may negatively affect student engagement and information sharing online, providing students with correct information that decreases perceived risks can positively affect student engagement in online courses. It is important to provide students with brief, relevant information on the risks they do and do not face. In particular, it is important that students at the University of Victoria are aware that their personal and course information is not stored indefinitely on a server, but rather is only stored for a one-year period.

### 7.5 Conclusion

As found in the literature review, student engagement in online classes can benefit from the facilitation of interactive learning styles (Arbaugh, 2000). However, interview findings indicate that interactive learning and interesting discussions may not be enough to maximize student engagement, as student privacy concerns will continue to impact the way in which they engage online. Findings imply that students will continue to hold back on the content and strength of their contributions, as long as contributions are required to include workplace information.

As the main issue discussed by students related to a lack of trust in fellow students, and the inability of any privacy policy or course privacy notice to ensure that information will be held confidential, it is unlikely that additional information on course privacy and confidentiality will significantly alter student engagement. Instead, the focus may need to be on increasing the options for the type of information students are required to include, and in increasing the anonymity of the students themselves, simultaneously to better informing students about the privacy, security, and confidentiality of their online courses. These recommendations and others are further explored in the final Chapter, Recommendations and Conclusion.
Chapter 8: Recommendations and Conclusion

A primary purpose of this report was to develop recommendations on ways in which student engagement in online classes can be maximized for Distance Education Services. These recommendations may in turn be implemented by instructors and Program Managers under the guidance of DES. As indicated by the interview findings and research on the University of Victoria context, the content of university privacy policies may not need to be changed. Instead, students would benefit from more succinct and relevant information on the privacy associated with their online learning activities. In addition, there are several straightforward changes to how online courses are facilitated that can improve student comfort with participating in online course discussions with their classmates.

The focus of these recommendations is on removing barriers to student engagement in online courses – barriers that stem from a concern for privacy, as well as from the online medium itself. The focus is therefore not on altering any University of Victoria policies, but on sharing relevant information with students in a way that is palatable to them. This will provide them with the knowledge they need to feel safe and comfortable when interacting in an online learning environment. However, it must be noted that the findings and therefore recommendations resulting from this research—the literature review and interviews—are limited to the University of Victoria, School of Public Administration environment. It is for this reason that the last recommendation is to conduct further research on student privacy concerns.

Recommendation 1 – Encourage the Use of Course Privacy Notices

One way in which students suggested they receive more information is in the form of a privacy notice directed at them and provided by instructors to the participants in each course. These privacy notices would contain only the information that students need to know, not entire privacy policies, which they would most likely not read anyway. Unfortunately, the way in which information is currently being provided to students is not resulting in them reading it.

The benefit of providing students with information on the privacy, security, and confidentiality they can expect in their online classes has been discussed extensively in this report. In short, ensuring that students are correctly informed about the privacy risks they do and do not face will mean that student privacy concerns are based on reality rather than assumptions. The recommended Course Privacy Notices would include succinctly-presented information on the privacy of students’ course interactions, on the privacy capacity of the online learning platform (Moodle, Elluminate, or Blackboard), and information on what happens with students’ information after a course is over. Furthermore, such a statement would include a reminder to students that they have a responsibility to inform themselves about the privacy risks they face while learning online, and to know what actions they can take to minimize these risks. The proposed Course Privacy Notice would also include suggested additional

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13 ‘Relevant information’ is only the information that students need to know and directly applies to them, i.e. not entire privacy policies.
resources for students to consult, which would enable them to take on this responsibility. In summary, the information in the recommended Course Privacy Notices would include, at minimum:

- The privacy risks associated with students’ online course interactions
- The privacy capacity of the online learning platform itself
- Information on what happens with students’ course information after course completion
- A reminder to students that they have a responsibility to inform themselves about the risks they face while learning online
- Links to additional resources – for example, those currently available via the DES web site

While Course Privacy Notices themselves could not guarantee the confidentiality of course discussions and student postings to the online course fora, they however would ensure that students are aware of the measures that the University of Victoria has taken to guard the privacy and security of students’ course information. With this knowledge, students’ comfort interacting in their online courses will likely be positively affected; an increased trust in the learning management system could to a certain degree counteract the lack of trust students have in each other. An additional outcome of having instructors post Course Privacy Notices in their courses is that instructors would become more aware of their own responsibilities with regards to the privacy of students, and with regards to what university policies permit them to do with course and student information.

**Recommendation 2 – Ensure that Instructors Provide Students with Detailed Course Expectations**

The second recommendation also affects student engagement in online courses. In addition to providing students with information on course privacy, instructors could provide students with a set of clear expectations for participation in online courses. Instructors could draw from a generic set of expectations, and if desired adapt them to particular courses. Items related to course participation that could be clarified include the level of formality required in course postings, and the level of detail required of workplace examples. The provision of detailed course expectations would ensure students are aware that sharing workplace information and examples in classes is not compulsory, and that it is acceptable to alter or combine workplace examples to make them more anonymous.\(^\text{14}\)

Clarification of the level of formality required in online discussion postings would benefit those students who incorrectly perceive a requirement for formality. By knowing exactly what is required of them when participating in online courses, students can focus on the content of their contributions rather than worrying about the formality of what they write. Course expectations would also clarify the many ways in which workplace information can be shared in courses. By providing alternatives and informing students of ways in which relevant examples can be shared with the class while at the same time

\(^{14}\) Suggested Guidelines for Program Managers and instructors on changes to course design and delivery that can improve student engagement are listed in Appendix C. These suggestions are derived from Recommendations 1, 2, 3, and 4.
respecting the employer’s and student’s privacy, students’ comfort and engagement in online classes could be positively affected.

**Recommendation 3 – Provide More Training to Online Instructors**

An additional way in which student comfort and engagement can be encouraged is by ensuring online instructors have the tools and knowledge they need to maximize student engagement. More specifically, DES could compile a Best Practices Tool Kit from student recommendations and evaluations of past online courses. Instructors who are new to the online teaching environment should be especially encouraged to make use of resources available for them through DES (“Your Students,” “Your Online Presence,” and “Teaching Technologies” are examples of web pages accessible to instructors via the DES homepage).

Information included in such a tool kit would include information on how to facilitate an online course, the differences between on-campus and online teaching, as well as the differences between on-campus and online engagement. This tool would also provide new online instructors with suggestions for the optimal organization of course information. It would of course also include information on the privacy considerations of the environment, in particular where these differ from what may have been the norm in an on-campus setting. By guaranteeing instructor competence in these areas, student comfort participating in online classes can be heightened.

**Recommendation 4 – Increase the Anonymity of Students**

As the primary privacy concern students had in their online courses related to the risks they felt they faced when sharing workplace information in an online environment, one way in which DES can address privacy concerns is to provide Program Administrators and instructors with methods they can use to increase their students’ perceived anonymity. In this way, any workplace information students share could not be related directly back to them. While it would be difficult to decrease an emphasis on sharing workplace information in their classes, there are some simple steps that could be taken to increase the anonymity students feel in the online environment, and therefore make them feel more comfortable sharing workplace information. Three simple ways in which students’ anonymity could be increased in the online learning environment are:

1) Identify online students via their first names only in Moodle, Blackboard, or Elluminate
2) Inform students that posting profile pictures of themselves is optional, that they can post a picture of anything they wish as a part of their online profile, something that in some way represents them
3) Increase the flexibility of information required for the introductory statement, inform students that the name of their employer and position is not required, that the nature of their work and their areas of interest would suffice
The most straightforward way of increasing students’ anonymity is to identify them only via their first names in online courses. As most students that are employed in the public sector can easily be found via the appropriate government directory, the use of only first names would significantly affect the anonymity that students feel in the online learning environment. Furthermore, while it is not generally mandatory to post profile pictures or provide detailed background information in introductory statements, when students are unclear of what is required they tended to err on the side of caution and share more than they would prefer. Therefore, informing students of the flexibility they have in the type of picture they post to their profile and the ways in which background information can be presented in their introductory statements would give them additional comfort in their online course participation. These three measures to increase student anonymity would positively affect student engagement in online courses.

Recommendation 5 – Conduct Further Research

This last recommendation addresses the preliminary nature of the research conducted for this report, and the inability to generalize the present findings to a broader University online learning context. Distance Education Services may like to undertake further research beyond the scope of the School of Public Administration to determine the relevance of the present research findings to the broader University of Victoria community. In particular, is students’ concern with sharing workplace information particular only to the School of Public Administration? Is it particular to students in professional programs, or to students who work in the public sector? Furthermore, what information about privacy do students really want to know?

The recommended strategy for future research on students’ privacy concerns and engagement would be to conduct inter-disciplinary focus groups with students from different online programs, together with program administrators and instructors. Focus groups that build on the present findings would generate a more in-depth understanding of student perceptions of privacy and engagement. They would also result in an understanding of the instructor perspective of privacy issues. For example, how aware are instructors of their responsibilities with regard to ensuring the privacy of students in their online classes? How knowledgeable are they about the functions of the various learning management systems? How do instructors perceive privacy in the online classroom, and what recommendations do they have for encouraging student engagement and learning? Answers to these questions would facilitate a more rounded view of the issues that have been discussed primarily from the student perspective in this report. A suggested focus group script is included as Appendix B.

Conclusion

The university environment is different than the online consumer environment in one important way – students do not have the luxury of choosing between different courses based on their privacy characteristics. It is therefore important to ensure that students are provided with an online learning environment that makes them feel safe and comfortable interacting online. As student engagement is associated positively with student learning, student engagement will remain a clear goal of online courses.
Privacy concerns related to sharing workplace information were a dominant theme of the interview findings, and affected the way in which students engage online. Concerns stemmed primarily from the knowledge that it was possible to share such information outside of the class, and that there was no way of ensuring the confidentiality of such information. Importantly, instructor statements on the confidentiality of course discussions did not provide all students with sufficient assurances about the way in which their information will be treated by fellow students. A series of recommendations have therefore been made to address these and other student privacy concerns and to encourage student engagement. In future research, it would be interesting to determine whether this concern with sharing workplace information is also prevalent in other online professional programs.

This report is a first step in addressing a gap in the literature on how student privacy concerns relate to student engagement in online learning. This report has shown that there does seem to be a relationship between students’ privacy concerns and their engagement in online courses. However, the reported privacy concerns were not related to any technical abilities of the learning management systems as was suggested by the literature. Instead, student privacy concerns related primarily to concerns about the confidentiality of the workplace information they are asked to share in their courses. As a result of these concerns, students implemented various strategies to increase their sense of safety. Despite these strategies, students engaged differently online than on-campus.

As online learning continues to expand, it will remain important to ensure that student learning is maximized in the online environment. Determining and addressing student privacy concerns in online learning is one area that would benefit from receiving more attention in the future.
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Appendix A – Interview Questions

Interview Questions
Privacy, Security and Student Engagement in the Online Learning Environment

Charlotte Stange
April 19, 2010

For details on the interview questions, please contact the Manager, Distance Education Services.
Appendix B – Suggested Focus Group Questions

For more information on suggested focus group questions, please contact the Manager, Distance Education Services.
# Appendix C - Guidelines for Online Course Design and Delivery

## Guidelines for Program Managers

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<th>Associated Strategies</th>
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| Ensure that instructors are trained and capable of facilitating an online course | • Ensure that instructors are aware of their responsibilities with regards to the privacy of student information and coursework, and what actions they are permitted to take with this course information after the completion of courses.  
  • Provide mandatory training to first-time online instructors on the learning management system they will be using.  
  • Provide mandatory training to online instructors on the different ways in which student engagement can be encouraged in the online learning environment |
| Mandate the use of Course Privacy Notices for online courses                   | • Provide instructors with a generic course privacy notice that includes only privacy information that is relevant to students. Instructors can then adapt these for each course before posting it visibly to the learning management system throughout the duration of the course. |
| Increase the anonymity of online students                                     | • Allow students to participate in courses using only their first name  
  • Ensure that instructors are aware that they cannot mandate students to post profile pictures, however that they can encourage students to post any picture as a representation of themselves |
## Guidelines for Instructors

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<td><strong>Provide students with detailed expectations for their participation</strong></td>
<td>• Clarify the <strong>level of formality</strong> required in course discussion postings (are postings meant to be written academically, with citations, or is it acceptable to write in a conversational format similar to a tone that would be used in-person on-campus)</td>
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<td><strong>Increase the flexibility of information required for introductory statements</strong></td>
<td>• Inform students that detailed job titles and names of employers are not necessary, that it is sufficient to discuss the general nature of his or her past work and academic experiences.</td>
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<td><strong>Provide alternatives to workplace examples</strong></td>
<td>• Ensure that students are aware that sharing workplace information and examples in classes is not compulsory</td>
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<td></td>
<td>• Inform students that it is acceptable to alter or combine workplace examples to make them more anonymous</td>
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<td>• Provide students with acceptable alternatives to workplace examples – for example case studies</td>
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