Navigating The *SWIG* Spaces

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Abstract

This paper explores faculty and student reflections on their experiences navigating the different learning spaces while participating in the Student Wiki Interdisciplinary Group, a technology-based collaboration project at Queensborough Community College. A survey of the participant's opinions on their technology readiness and preparation, their comfort with different learning spaces, and their movement across the spaces was administered online to gather data. The analysis of the reflections reveals that while most participants felt sufficiently prepared and supported, streamlining and ensuring consistent access to technology platforms would facilitate movement across the different spaces.

Keywords: e-Portfolio; interdisciplinary collaboration; learning spaces; reflection

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1.0 Introduction

Most college students and faculty members who grew up in the digital era are not afraid of technology. They actively use technology for personal and social purposes. To serve the Net Generation students and faculty, many universities and colleges incorporate technology into their pedagogy and learning space designs. They adopt a Course Management System CMS) and an e-Portfolio platform. The application of e-Portfolio—a personal learning space that allows the owner to share with others—has grown because of its potential as an assessment tool and as a way to promote learning and reflections. By incorporating technology into their pedagogy, many faculty expand the learning spaces—each with its unique opportunities and limitations—that they and their students have to navigate. Therefore, faculty members and students must understand the characteristics of and skill sets required in each learning space in order to smoothly navigate across the different spaces.

2.0 Literature Review

A Pew Internet and American Life Project survey found that college students adopt technology early and use the internet heavily Jones, 2002). Lomas & Oblinger 2006) characterized the twenty-first century students as digital, mobile, independent, social, and participatory. To serve these students, educational institutions need to create learning spaces, technology, and services that allow students participation, connection and involvement. Batanieh & Brooks 2003) believed such learning spaces would help educators prepare their students for a technical world that requires self- initiative in learning, precision in process, and the ability to identify and analyze pertinent information. The appropriate technology-enriched learning spaces, then, must enable learning that allows flexibility in the use of time and space, goals, methods, and assessment. The learning spaces should become an environment for authentic dialogues that aim at reaching beyond a pre-ordained conclusion to a new and more sophisticated understanding (Hadjiannou, 2007).

Many learning space designs that incorporate technology have been proposed and implemented in different colleges Lomas & Oblinger, 2006; Wagner & Dobbin, 2009). There has also been a growing interest in enabling college students to become more 'critical reflective thinkers' who will be able to cope with a rapidly changing world Harvey & Knight, 1996) and to write well despite their preoccupation with online communication. Many believe that e-Portfolio could become the space to develop such reflections.

City University of New York CUNY) has been providing wide area network since 1980s. By 2004, it implemented the *Blackboard* course management system throughout its 25 colleges and schools, including Queensborough Community College QCC). At QCC, before a semester begins a *Blackboard* course-shell is created for every course offered with the student data already embedded. Faculty members who teach online or blended courses use the course-shells, while others use them for posting syllabi and course materials, announcements, or grades. *Blackboard* has added the Wiki and Blog features that make the seemingly cold, impersonal learning spaces become more "social, active, contextual, engaging, and student-owned" Carmean & Haefner, 2002, p. 27). In 2008, QCC adopted *Epsilen* for their e-Portfolio initiative. During orientation, students create an *Epsilen* account,

which serves as their personal e-Portfolio space. They are encouraged to develop their e-Portfolio by uploading and reflecting on their class projects. Students can later show their e-Portfolio for employment or transfer purposes. One of the initiatives that focuses on collaboration and reflections using the *Epsilen* platform is the Student Wiki Interdisciplinary Group SWIG) Project.

The SWIG Project is one of QCC high-impact activities where students use the *Epsilen* e-Portfolio platform to archive and reflect on their work over time and its Wiki to collaborate virtually and asynchronously with students from other classes. Two or three different courses create a group, with an English class serving as the anchor course. The students in the English class write an essay and post it on the group Wiki to be read and commented on by students in the other class es). The comments can be textual questions and suggestions) or multimedia graphic, audio, or video) in format. After the collaboration, the English students incorporate relevant gifts in finalizing their essays and creating the digital-stories based on their essays using Microsoft PowerPoint and Camtasia Studio. The Project showed positive results in achieving its purpose of retention and reflection Darcy, Dupre,& Cuomo, 2010).

In a technology-enhanced learning space, the technology is often expected to do wonders. However, the technology by itself does not generate dramatic changes in how courses are taught. The student and faculty interests and capabilities in using the technology and the technology-specific features impact the outcome, the space configurations—physical, virtual, and hybrid—as well as the users' reactions to the expanding configurations. Despite the pedagogical success of the SWIG Project, some participants expressed concerns and difficulties in determining the boundaries of and navigating the different spaces they created for the Project's activities. These difficulties might have resulted from the participants' different "translations" or "imaginations" of the learning spaces' properties and the reality they experienced Amedeo, Golledge & Stimson, 2009), in addition to the technology problems. This preliminary study was conducted to begin a conversation about how faculty and students perceive their experience in identifying, working in, and navigating the different learning spaces of the Project.

3.0 Methodology

This study explores the faculty members and students' reflections on the different learning spaces in the SWIG Project. Qualitative data were collected through an anonymous open-ended survey administered to faculty and students who participated in the Project in the Spring 2011 semester. The faculty members' survey included questions that focused on their readiness to use technology, the training provided by the institution for their participation, their use of the different spaces, and the benefits and challenges of each space. The students' survey asked questions about their readiness to use and comfort with technology, their experience in the class, and their assessment of each learning space. Eleven faculty and 26 students completed the survey. Each respondent was coded with a letter S for students, and F for faculty) and a number 1 to 26 for students and 1 to 11 for faculty). These codes—S1, S2, F3, F4, etc.—are used when referring to the participant' reflections. The data were tabulated using simple quantitative analysis to enhance the qualitative analysis of the survey

responses.

4.0 Results and Discussions

Amedeo, Golledge, and Stimson 2009) defined space as "an integral part of movement and communication processes in society, whatever their magnitudes or scales" p. 6). In the SWIG Project, there were two main types of spaces: physical and virtual. The physical learning space came in three configurations—regular classrooms, regular classrooms enhanced by smart podiums or smart carts, and computer classrooms. The virtual space was limited to the three technological platforms—Tigermail, *Epsilen*, and *Blackboard*—used singly or in combination as follows: 1) *Epsilen* platform alone; 2) *Epsilen* & Tigermail platforms; or 3) *Epsilen*, Tigermail, & *Blackboard* platforms.

4.1 Technology Readiness

The majority of the students 73.1%) expressed a high level of comfort with technology prior to their participation Table 1). These students share similar habits outlined by Lomas & Oblinger 2006), as can be seen in the following reflections: "I am very comfortable with technology. I've had a computer since I was 11, and I'm 21 now" S2). Another student confidently declared, "I am tech-savvy" S7). The seven students 15.4%) who indicated some discomfort in using technology expressed something along the line of, "I was a little lost but I am getting the idea now" S8). One student still found technology a bit challenging at mid-semester and wrote, "I'm still not [too comfortable]. Everything is all over the place. Sometimes I feel it defeats the purpose" S11). However, most students recalled information about technical support they received during orientation. One student noted that, "If help is needed with anything, I can go to the ACC [Academic Computing Center]" S7). The faculty expressed a similar level of comfort with technology use. Two faculty members 18%) expressed a high level of technology readiness and comfort, while the majority 64%) expressed a medium level of comfort. The remaining two faculty members expressed a low level of comfort, stating, "I am really not confident with all the programs" F4). Most faculty members indicated that they could benefit from more training on the *Epsilen* platform.

Table 1: Student technology readiness and perception on learning spaces

No	Question category	Yes (+)	No (-)	Other
1	Comfort in using computers and technology prior to taking the class	73.1	15.4	11.5
2	Usefulness of each learning space			
	* Regular Space:	84.6	7.7	7.7
	* Computer Space:	69.2	15.4	15.4
	* Virtual Space:	53.8	38.5	7.7
3	Benefit of each technology platform			

	* Campus mail:	69.2	23.1	7.7
	* *Blackboard*:	69.2	15.4	15.4
	* *Epsilen*:	69.2	15.4	15.4
4	Difficulty in moving across the learning spaces	42.3	57.7	0.0

Source: (Byas, 2011)

4.2 Learning Spaces

Education can go on without books, pens, and paper. It can certainly go on without technology, as it did before the introduction of technology. Classrooms that do not have access to computers and the internet, however, are not suitable for the SWIG Project. One faculty member stated that regular classrooms had "inadequate classroom technology to showcase project components" F3). The Project required access to the computer, the internet, and the *Epsilen* platform for the students to do the activities. Student frustrations with technology problems may be reduced if the faculty can demonstrate and walk the students through the process of solving the problems.

4.3 Variety

Most faculty respondents 55%) taught in regular classrooms with varying access to computers. Some scheduled sessions in the multimedia classroom at the Academic Computer Center ACC), which has 24 student stations and one instructor console that can run both Windows and Mac. The ACC multimedia classroom is always in high demand, thus, as one faculty suggested, "Register for [computer classrooms] early" F2) to ensure access to technology. Three faculty respondents 27%) taught only in regular classrooms and one of them indicated having "scandalously low access!" to computer classrooms F11). Only two of the eleven faculty respondents had full-time access to computer classrooms. They probably were members of the English Department, which has two computer classrooms outfitted with at least one laser printer, 24 student PCs, an instructor PC, which controls the students PCs and is connected to a large screen TV, a set of speakers, and a DVD player. Other English faculty respondents might teach in any of the smart-podium rooms—furnished with a fixed smart console a PC, a DVD player, an LCD projector, and a speaker set) and a screen. Smart rooms allow some functionality of technology by the teachers, but not by the students. The Department also has two smart-carts—each was equipped with a PC, an LCD projector, speakers and a LAN cable for internet access—that can be wheeled to any rooms in the building.

Faculty members used the different learning spaces in different ways, and they had different views on the benefits and challenges of each space. In a regular classroom, faculty members conducted activities such as giving lectures, presentations, or testing. Many also did group work and assigned in-class writing or revision. When necessary, some faculty members would use a smart cart in their regular classroom to demonstrate activities that required computer or internet access. Faculty members with some access to computer classrooms would help students set up their accounts; demonstrate how to download, upload and edit work; and demonstrate the collaboration process. The two faculty members who had full-time access

to the computer classrooms used the technology for the Wiki collaboration and digital story development, in addition to the composition-related activities such as drafting, peer-review, revising, editing, proofreading, and conducting research. Most faculty respondents, including those with full-time access to computer classrooms, extended the Wiki collaboration into the virtual space, where students had to complete the assignments independently without the presence of the faculty.

4.4 Preferences

Although most college students grew up in the digital environment, they do not expect greater use of technology in their classes. Assessing 4374 college students on their technology preferences, Kvavik 2005) found that the students expressed "a moderate preference for technology" p.7.17). Similarly, most students in this study ranked regular classrooms (84.4%) above computer 69.2%) or virtual (53.8%) classrooms as their preferred learning space. A student aptly asserted, "I like [the] regular classroom because [it] gives us a chance to use [our own] mind … a chance to brainstorm more old-fashion[ed] way" S14). Students also indicated that they liked the activities that allowed them the opportunity to ask questions (S4, S7) and to work together and discuss in small groups or as a class (S3, S5), activities commonly associated with the regular classrooms. These responses confirm the idea that, "Classrooms are not just primary places for learning, but rather are arenas where individuals engage in knowledge constructions Hunkins, para 5).

Students asserted that they developed the skills necessary to use the various technological platforms in the class and that the knowledge they used and developed in the class extended beyond the content of the course. The activities in the different spaces required students to produce write, format, peer-review, revise, proofread); manage download, upload, edit Wiki), and use peer review, gift giving) knowledge that might be in the form of a written piece or new information, such as how to use a particular function in a technology platform. In addition, one student declared that a computer classroom provided "enough space to work on both computer and notes, and close enough for us to look at the adjacent computer for help" (S9), implying that the computer classrooms provided students enough privacy to work on their own projects while also allowing collaboration to take place when necessary.

Like the students, the faculty liked the control, fewer distractions, and opportunities to build social relations among the class members that regular classrooms offer. Many also hailed regular classrooms for allowing them and their students to concentrate on the issues in the students' writing rather than deal with the technology. Other faculty members, however, stated that computer classrooms allowed them instant access to materials and the ability to demonstrate live drafting, online research, and the Wiki collaboration process. Many faculty members expressed concerns about the increased possibility to plagiarize when students draft their essays in a computer classroom. They liked a new feature on the *Blackboard* platform—the *SafeAssign*—which helps make the concept of plagiarism visible to students, leading to a more productive discussion about ways to avoid plagiarism.When teaching in a computer classroom, faculty members often combined 'typical' classroom activities, such as mini-lectures, group discussions, and paper-pencil writing, with activities that are

enhanced by the available technology. Using the *Net2p* program installed in the instructor's console, faculty members were able to set up group work without the students having to leave their stations. Surprisingly, students still preferred the face-to-face group discussions. Teaching in the computer classroom, however, required faculty members to prepare the materials ahead of time.

Despite their limited mastery of the technology, faculty members found that they could rely on students helping each other. One faculty said, "I will have students who are great with technology in the class and I rely on them to help other students" F3). Others indicated that the computer classroom "allows students to help each other with technology" F9). Al-Bataineh & Brooks 2003) argued that the new learning spaces make learning more student-directed. Many faculty members asserted that computer and virtual) classrooms allowed for "more independent work" F9) and noted that some students who stay quiet in a regular classroom setting often show "strong presence" F4) or increased "engagement with online research and communication resources" F10) in the computer or virtual space.

As much as computer classrooms helped and were required in the SWIG Project, they also posed challenges. One faculty stated that a computer classroom "… can be trouble with the computer as a distraction. Many students cannot resist their Facebook accounts and emails" F9). Warger & Dobbin 2009) forewarned us that such 'chaos' would be common in learning environments that incorporate technology. Thus, it was important, as one faculty member indicated, to "Be very clear with computer classroom activities so that students stay focused on the task at hand" F8). In addition, technology use required more work for the teacher and the students. Most of the work for a technology-enriched setting must be done in advance, thus limiting opportunities to make last-minute changes. One faculty member who used smart carts found that they "are too slow to set up and take down" F11). The problems in setting up smart carts might not occur in the computer classroom; however, any technology-enhanced classrooms share one problem: the technology does not always work.

4.5 Navigating the Physical and Virtual Spaces

Most students 57%) indicated they did not have difficulties navigating the different learning spaces. A few of them expressed fascination. As one student stated, "I like that they open up in different tabs automatically so that way I can access and navigate more than one window with ease" S9). The faculty member offered similar responses and added, "[Students] enjoy using the two spaces" F8). The faculty noticed that the students were confused at the beginning when asked to move across the different spaces; however, with practice they got more comfortable. Some faculty members observed that students actually, "enjoy the 'break' that moving from classroom to classroom provides; however, they often forgot when/ where we were supposed to do that switching!" F3). One faculty member mentioned that the movement "adds texture and layers of learning" F6) which brought positive results to the students. Most students agreed with this faculty member's observation: one student expressed in, "[M]oving to different learning spaces makes me stay interested in my class" S14). Other students, however, did not find the added textures and layers interesting; instead, they found the movement rather "overwhelming, because for everything there are [so] many options and features" S11). Another student confessed that, "Computer

space is a bit difficult, but I manage." S5). The faculty members generally believed that the students managed and were "comfortable with the movement, if the technology works for them" F8). The process of learning about the technology and learning to make it work, one faculty member reflected, "is a slow learning curve. When I began there was a lot of frustration. Now [the students] are ahead of the teachers" F4).

4.6 Technology Platforms

The majority of the students 69.2%) found the three platforms— *Blackboard*, *Epsilen*, and Tigermail—useful for different reasons. One student aptly expressed, "I think each space has its own purpose" S23). Navigating the different platforms, however, was challenging. Some students articulated that the difficulties they experienced when navigating the computer and virtual learning spaces resulted from having to access and function on multiple platforms. They had to create and remember three different username-password combinations for the three separate platforms. Students viewed the multiple log-in procedures as border-patrols requiring them to carry three different 'passports' in order gain entry to the platforms. They found it overwhelming "to remember what files to put in [where] and sometimes when you get into one link you might mess up and something else pops up" S24).

Both students and faculty members did not indicate any serious problems with the *Blackboard* platform, but they expressed concerns about Tigermail and the *Epsilen* platforms. About one fourth of the students 23.1%) neither liked nor used the campus email as a means of communication. With the availability of free emails with virtually limitless storage capacity like *Yahoo*! and *gmail*, it is common to hear students say, "I don't really use campus mail" S21) or "Who checked their Tigermail anyway?" S24). These responses are disheartening, since the other platforms—*Blackboard* and *Epsilen*—were connected to and only accepted the campus emails as part of their default communication medium. When a faculty member wrote a message in these platforms, by default it would be sent to the students' Tigermail account. Therefore, it was no surprise that the students who did not use their campus emails regularly lagged behind in class assignments.

Many faculty members and students admitted having more problems with *Epsilen* but not with *Blackboard*. On its website *Epsilen* boasts being "a full-featured learning management system that allows faculty to deliver traditional, online, and hybrid courses" 2011). However, at the time of this study the course management function was still under development. As a result, many faculty members still had to use *Blackboard* as their course management platform and *Epsilen* only for the collaboration. The fact that the College has used *Blackboard* for more than 10 years and *Epsilen* for only three years might be a factor when the faculty expressed that they still "need some help with e-Portfolio" F11). Faculty can use the *Blackboard* course-shell by recycling content from a previous semester or by creating new content. To use *Epsilen*, the faculty member has to create a group, add content to the group site, and then manually invite their students to become members of the group. It was no surprise that many faculty members experienced more difficulties with *Epsilen*. The faculty members' unfamiliarity with the platform may affect the students' perception of support available for them, which in turn relate to their satisfaction of the

course and the learning outcomes Lee *et al.,* 2011). A frustrated student deemed *Epsilen* as "Complete, utter pointless, useless garbage … [that] should be removed from the platform options" S25). Negative comments like this might sound harsh, but they are understandable when the students feel that their grades depend on their success in navigating the platforms. It is important to remember that, "The technology doesn't always work … the students get frustrated and prefer a regular classroom, one where they don't have to rely on technology to get 'credit'" F8). It is imperative that faculty have back-up plans for the time that the technology fails.

4.7 The Future of the Project

To further develop the Project a few things need to be considered. To help faculty members navigate the spaces more easily, more training on the boundaries and use of the platforms is necessary. With familiarity, the faculty can assist students by designing smooth transitions across the different spaces. Having additional workshops or meetings where faculty members can discuss or showcase how they use various platforms or "just exchange ideas around these areas" F3) will be useful.

Students expected the college to provide more computer access so that faculty members could offer more help to the students. Since it is currently impossible for the college to meet this demand, one faculty member recommended utilizing the technology that the students are using as the 'primary space' for their participation F4). Adding storage capacity to and making the Tigermail interface more user-friendly may encourage students to use it more regularly and frequently. As far as the multiplicity of platforms used in the Project, faculty members and students suggested streamlining them. Combining or making the *Blackboard* and *Epsilen* platforms work with each other might assist the participants in navigating the different spaces. Streamlining the number of platforms will help those who have a low level of comfort with technology.

5.0 Conclusion

Although students and faculty members may acquire the skills necessary to use technology in their personal lives, the skills do not always transfer to thetechnology-enhanced learning spaces in higher education, especially when the platforms are different. Navigating the different learning spaces in the SWIG Project proved challenging for both faculty and students. In addition to the energy, enthusiasm, and patience of the faculty members, innovation such as the SWIG Project required clear guidelines and instructions to encourage student participation in the activities, reliable platforms and technical support, and good back-up plans for when the technology fails. To ensure more success in the future, participants in the project might want to, "Understand that it will be a slow learning curve but the students love mastering the tools associated with accomplishing an active learning task that is visible. Give teachers a lot of training but understand that technology is always glitchy. It is the nature of the game. If you are seeking perfection, this is not the project for you" F3)

In addition to exploring the pedagogical impact of the SWIG Project, it is also important to explore other aspects of the Project, including the issue of space and behaviors in the space.

Since the current study is limited in scope and reach, it is necessary to conduct further studies to understand the spatial and environmental influences of the SWIG Project on the participants' or the larger community's experiences. With a growing number of blended and fully online courses, it is also important to investigate the spaces or environments created and how the participants interact in those spaces.

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