Are Humanists Technophobes, or Is This a Myth?

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According to Canadian philosopher Marshall McLuhan, "the medium is the message." Since his death, scholars have been debating what McLuhan meant by this now famous phrase. Although his exact meaning is a bit contentious, it is fair to say that McLuhan was probably talking about the influences technology has over the messages that it carries. It is not my goal here to elaborate on or argue for a particular interpretation of McLuhan's theory. Instead, McLuhan's insights provide a unique starting point for an examination of technology's role in education, especially the college classroom. As Bryan Carter, one of the instructors associated with the Virtual Harlem Project, has noted, "many [instructors] still resist 'high technology' believing it to be a threat to 'traditional' ways of teaching" (1). McLuhan saw this state of affairs long ago. According to Griffen, "McLuhan charged that people living in the midst of innovation often cling to what was, as opposed to what is. He considered the educational establishment a prime example" (349). In other words, there are some educators who are slow to accept new pedagogical methods in the classroom. However, technology's role in the classroom is not as black-and-white as it may first appear.

As Carter has noted, using technology in the classroom (such as email, virtual reality, chat rooms, etc.), can produce a number of benefits, ranging from visualizing what has been read, retaining information because of the interactive/collaborative process, and learning more about the classroom subject and material. While the list of potential benefits goes beyond the few I have mentioned here, it is the latter that has usually captured the foci of many previous studies. However, a number of questions still remain: How does the use of multiple technologies (including video, email, discussion boards, chat rooms, instant messaging, virtual reality, and video teleconferencing) influence the attainment of specific learning goals? Are particular technologies used for specific purposes? How are students' perceptions of technology altered when used over time in distance learning and classroom settings to accomplish these learning goals? And, perhaps most importantly, how does changing the students' attitudes towards technology influence the learning process? This last question is particularly interesting since "students' motivation to learn is influenced by attitudes"

(Havice 51). This comes as no surprise to educators who have had to teach students that are either bored or tired of conventional teaching methods that do not utilize technology in the classroom. Fighting against these existing negative attitudes does not make learning any easier, and in fact it hinders the learning process. Thus, this study attempts to utilize the Virtual Harlem Project as a case study about the effects that attitude and technology have on the learning process. However, before getting into the details of the study, it is first necessary to review the relevant extant literature about using technology in the classroom as well as the literature related to attitude changes and measurement. This will be followed by an explanation of the method this study will use to study Virtual Harlem as well as an explanation of what the project entails.

Studies of Technology and Attitude in the Classroom

Studies that have addressed the efficacy of technology in the classroom are not new phenomena. However, what has only been recently explored is the issue of attitudes toward technology. The general claim made in 1989 by Wolters that "not much literature is devoted to attitudes towards technology as a general concept" seems to hold true today (1). But a few studies have been done recently, two of which address this issue.

Boser, Palmer, and Daugherty conducted one such study. These researchers argue, "It is logical that students who have a positive experience in a technology education program will develop a positive attitude toward technology" (6). If technology is used in the classroom as a learning instrument, it is essential that students develop a positive attitude towards the technology being used. If students do not like to use email or find it intrusive, it is not likely they will learn as much about the topic. Other scholars have also argued this link between attitude towards technology and the topic being studied. Boser, Palmer, and Daugherty claim, "Students who exhibit a positive attitude toward a subject are more likely to actively engage in learning during and after instruction" (6-7). In a similar vein, Havice (paraphrasing the work of Fleming and Levie) has pointed out, "Attitudes help shape subsequent behaviors that determine our actions, such as attention to and acceptance of instructional messages" (51). It should come as no surprise that some types of media may be more useful in changing student attitudes. However, none of the authors attempted to examine the individual technologies that were used. Both studies utilized a simple pre-test/post-test method that totaled attitudes toward technology and were limited in this sense. In addition, none of the authors attempted to understand how attitudes change over the course of a semester in a classroom setting. If technologies are hierarchical in their influence on attitude, with some more influential than others, then not examining individual technologies appears to be an oversight made by these researchers. Havice is at least aware of his study's limitations and concludes, "Further

research is necessary to better understand how media influence attitude and learning" (54).

The last two studies mentioned were primarily concerned with multiple technologies being used in the classroom and measuring total attitudes towards these technologies. There have also been studies that have addressed technology's role in the classroom by examining only one technology being used at a given time. Goyal and Harringer, for example, have studied the effects of using the Internet to create a virtual classroom for collaborative projects. They found that students "were able to easily obtain information, ideas, and input from their geographically dispersed counterparts," "gained valuable experience in CMC [computer mediated communication]," and, "learned how to navigate the Internet" (5). However, they also found some drawbacks. There were pragmatic problems for students who did not know how to use the university's email system. In addition, they found that each group member in the collaborative tasks did not do his or her fair share of work. This last observation seems particularly important given the nature of online collaboration.

In addition to Goyal and Harringer, studies and experiments have been conducted that examine what effects virtual reality has on the classroom environment. A number of these studies address the use of Immersadesks and CAVE technology in the classrooms of elementary school children. While these studies do not address adults, some of their observations and methods are worth noting. I will first address some findings from the Round Earth Project, and then the Narrative-based, Immersive, Constructionist and Collaborative Environment (NICE) project.

The Round Earth Project was an educational mission using a collaborative virtual environment (an asteroid) to help young children learn the concept that the Earth is round. One child was made an explorer while the other was allowed to act as mission control. Virtual reality (VR) helps situate the astronaut on the surface of the asteroid so exploration could be accomplished. In the process of exploring, students were allowed to walk to the "bottom" of the asteroid without falling off. Johnson, Moher, Ohlsson, and Gillingham have reported that a number of children that had trouble understanding the concept of a spherical earth actually had a better understanding after the VR experience. The formal study itself (after three pilot studies) utilized Immersadesks in elementary schools to see how third grade children would react. However, while some students improved in their understanding, the authors were cautious and noted, "it is difficult to draw any meaningful conclusions at this time" (Johnson, et al., 12).

The Round Earth Project is actually an extension of the work that was conducted on the NICE project. The NICE project was focused on collaboration between 6- to 10-year-olds in their attempts to harvest a garden in VR, specifically a CAVE. The CAVE VR environment allowed for persistent conditions including sunlight, plant growth, rainfall, and growth of weeds. If students were not constantly tending to the garden, the world kept growing and

adjusting according to what was or was not completed. Some authors observed that students were found to demonstrate high levels of interest and they cooperated with each other extremely well (Roussos et. al., *The NICE Project* 5-7; Roussos et al., *NICE: Combining* 1-4). What makes this project especially interesting are the narrative texts that were produced. The children were allowed to produce stories that could be accessed via the Internet and had certain words replaced with icons. As Roussos, et al., have noted, "This gives the story a picturebook look which the child can print to take home" (*The NICE Project* 4). In addition, the authors conclude one of their papers by claiming it was "the amount of interactivity and engagement" that "directly influenced the outcomes related to the effectiveness of the learning process" (Roussos, et al., *The NICE Project* 10).

Although the Round Earth and NICE projects were superb in the way they explained the technical aspects of VR research, they still left a number of questions unanswered. In the NICE project, the researchers had access to narratives produced by the students, yet they chose not to engage in any kind of textual analysis. Furthermore, this kind of analysis, if pursued, may have been limited in its results given the template nature of the narration. The Round Earth Project did not pursue textual issues any further than the NICE project. However, the researchers could not realistically examine every variable or nuance of the project in their studies. In fact, they even noted, "Considering the immature nature of the field at this time, it is important to apply multiple measures of learning and performance" (9). Virtual Harlem appears to be the ideal opportunity to not only apply textual analysis to online texts, but also provides a chance to utilize multiple methods to examine attitude changes towards technology.

The Virtual Harlem Project

The Virtual Harlem Project is an attempt to recreate 1920s Harlem in VR. According to Carter, "currently, students are able to navigate the environment, examine storefronts, individuals, and hear the sounds normally associated with a busy city" (1). Since Carter's observation, an annotation device and moving cars have been added to the programming. The annotation device will allow for the recording of an oral message, nonverbal language of the speaker, and the movements of an avatar (an electronic visual representation of a person in VR). Students that choose to visit Virtual Harlem after a person has left a message will be able to access this message by finding the appropriate "flag" in Harlem.

Today, the Virtual Harlem Project is being used in combination with a variety of other technologies (video, email, discussion boards, chat rooms, instant messaging, virtual reality, and video teleconferencing) to teach students about the Harlem Renaissance. Professor Bryan Carter at Central Missouri State University and Professor Jennifer Brody at the University of Illinois at Chicago are the two instructors that have decided to make the first attempt at

using Virtual Harlem in this fashion. Because part of their pedagogical goal is also to participate in class-to-class collaboration and distance learning, students in one class are free to ask students in the other class, or even the other instructor, questions about Harlem, the literature of the time, or any topic that comes to mind, using any of the previously mentioned technologies.

Methodological Considerations

Obviously, there is tremendous potential for interaction and production of data that can be examined. Thus, this study will employ multiple methods, understanding that no one method is sufficient to get an accurate picture of what is going on in such a complex context. Trenholm has even referred to the shortcomings in one method that are addressed by another as the "qualitative/quantitative tradeoff" (261). Employing more than one method can minimize this tradeoff.

The methods that will be used in this study were chosen in an attempt to provide some sense of balance, each making up for the shortcomings of the others. The first method that employed was a pre-test/post-test design similar to the ones utilized by Havice and Boser, Palmer, and Daugherty. A total of nineteen statements were generated to measure students' responses that ranged from "Strongly Agree" to "Strongly Disagree" on a five-point scale. The nineteen items were designed to capture three constructs that have been demonstrated to have connections to attitude prediction based on the previously reviewed literature (Boser, Palmer, and Daugherty 8-10; Havice 52-53; Wolters 5). These three constructs are concerned with whether or not technology has *practical use*, whether or not technology is *valued*, and whether or not the technology is *interesting* to the user.

Realizing that this method alone is not enough to study the kind of attitude change that may take place in a Humanities classroom utilizing a great deal of technology in its pedagogical approach, an additional method was used to help overcome the "qualitative/quantitative" divide. The next method that will be addressed is the use of textual analysis.

During the semester, professors Brody and Carter provided their students with the opportunity to utilize a number of online tools ranging from discussion boards to chat rooms. This provided an opportunity to study what the students were feeling and thinking during the course and how the attitudes were changing as the course progressed. Utilizing a textual form of qualitative analysis based on grounded theory research, this method attempted to find the deeper insights and richer descriptions of what was happening that the quantitative method could not find. This idea of analyzing the language and text-units used by an author/rhetor/narrator in order to find the attitude behind the language has been utilized in a number of places (Sabourin and Stamp 222; Siegert and Stamp 350; Witmer 332).

Grounded theory has ideas that are extremely useful for this

study. First, grounded theory is built upon the notion that theory can be constructed directly from the texts being analyzed. As Sabourin and Stamp have noted in their work, "A priori assumptions were not applied to determine if responses fit preconceived categories; rather, a classification system was derived directly from the data" (222). This involves an initial examination of the relevant literature and the texts to construct a preliminary skeleton for coding. This is what Sabourin and Stamp have called the "preliminary category labels" (222). The texts are then divided into "text-units" that can be coded into the various categories. These text-units can be utterances, words, sentences, paragraphs, et cetera. For the purposes presented here, a text-unit will be defined at the sentence level. The goal is to analyze the attitudes of students in their general context, not to analyze the specific words chosen to describe those attitudes. This is similar to Propp's ideas involving narrative and context. According to Propp, story elements are defined by their "function" in relation to the other parts in the story. In his 1968 book *Morphology of the Folktale*, Propp examines a number of folktales to "identify function and context—that is *relations* between elements, rather than elements themselves—as the basic units of narration" (Propp 92). Thus, for Propp, narratives are analyzed not so much by what elements are contained in the story itself, but rather how these elements relate to one another. Words then get their meaning based on the context of the sentences that contain them. Thus, the sentence level of analysis seems appropriate.

Once the text-units have been coded, a second reading is conducted to examine any patterns that were not observed with the first reading. Text-units are then recoded as deemed necessary. What makes this approach particularly powerful is the ability to code text-units at the sentence level into multiple categories. A sentence containing the ideas of hating computers can potentially be coded into categories of "strong emotion" and "technology." These broader and inclusive categories can also be further subdivided (i.e. hate and like or computers and television). The patterns in and connections between various categories and subcategories are then examined to answer the given research question, support the given hypotheses, or generate new questions and/or hypotheses.Grounded theory illustrates the point that attitudes can be addressed through a methodological inspection of language use.

In order to focus this method a bit more, QSR's Non-Numerical Unstructured Data Indexing, Searching, and Theorizing (NUD*IST) software was utilized. This software makes the kind of analysis desired more manageable. As Witmer explains, building from the work of Tesch,

> Only recently available for personal computers, Lyn and Tom Richards of La Trobe University, Australia, designed the NUD*IST software specifically to help researchers manage data and explore emerging theories and concepts. Researcher-defined units of analysis can

> be searched by character strings or patterns and clustered at "nodes," to form an inverted index "tree." As research progresses, the researcher can attach on-line memos and notes to nodes, and tree branches can be moved as the analysis defines and redefines ideas (332).

The software program itself allows for coding of text-units in a way that allows for pattern and cluster recognition. By understanding how students are using text-units when writing about topics related to assignments that involve technology, or the technology itself, one can begin to determine what attitude the class as a whole has towards technology use in the classroom. Furthermore, the data can be explored for patterns that would otherwise remain hidden. By combining the mentioned methods, this research aims to contribute to the picture of what happens to student attitudes in a technologically enhanced humanities classroom.

Artifacts and Points of Data Gathering

The data for analysis in this project was gathered from a variety of sources. However, since the purpose of this article is to explore the way attitude influences and is influenced by the learning process in a technology-enhanced humanities classroom using text-based analysis, the data to be used was narrowed to chat room archives, discussion board postings, answers to open-ended questions on a post-test questionnaire, and it was supplemented with quantitative data from the Courseinfo website and both questionnaires. This data was more than sufficient for analysis since it included responses free of solicitation (discussion board three, parts of the chats, and the Courseinfo statistics), responses required for the class assignments (discussion boards one and two), and solicited responses (the questionnaires). The final data thus consisted of two virtual chat sessions (462 text-units), three discussion boards with 112 total posts (151 text-units for discussion board three), nineteen post-test questionnaire items from eight students (300 text-units) and supplemental statistics data from all subjects involved. It should also be mentioned that the Courseinfo website is the primary website for access to certain communication media used in the class and, in some cases, is the only form of access. Through the website, students can get information about the class (i.e. grades, syllabus, etc.), send email, post messages to discussion boards, enter virtual chatrooms, visit student web pages, and find links to other websites.

Results of the Study

Descriptive Statistics from Courseinfo

The Courseinfo site was extremely helpful in terms of statistics. Naturally, before discussing the results related to attitude, it might help to answer a few preliminary questions. First, where did the students dedicate most of their time when accessing the Courseinfo website? There were a total of 4,567 "hits" on the website over the semester. The Courseinfo statistics for number of hits in the gener-

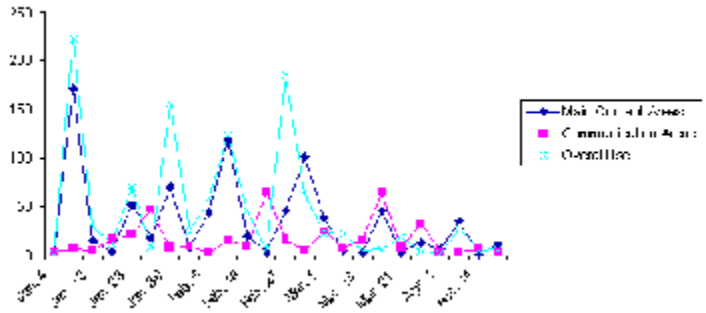

Diagram 1. Chart of Overall Access on Courseinfo Website.

al areas are presented in Diagram 1.

Although it appears as though overall student interest in the website has a random pattern of peaks and valleys, this is not the case. Each peak was caused by certain key factors. The first peak present in the month of January can be explained by strong student interest in learning about the course and what is expected from them. It is not surprising then that the main content areas (posted assignments, course information such as the syllabus, etc.) were visited then. It is also worth noting that the major peaks, after the first one, coincide with the dates of major assignments. For example, when the students were expected to post public response papers addressing topics covered in the class, there was a natural jump in terms of access in the month of February.

The communication area that included the ability to email, chat, etc., also had a number of peaks that correlated with communication assignments (i.e. chat rooms, discussion boards). The main content areas developed peaks at times when the communication area did not because there was interest in examining documents rather than posting messages. Thus, the communication areas saw peaks at different times when compared to the main content areas. However, another question immediately jumps out: What forms of communication available on Courseinfo were used the most? This information is presented in Diagram 2.

As the chart clearly indicates, the medium used the most is the discussion board tool. However, this should not be taken as a sign that students were interested in the board more than another medium. It is *not* a sign of attitude. Instead, it is a sign of students doing what they thought was their responsibility to do. This point will be further explored in the next section.

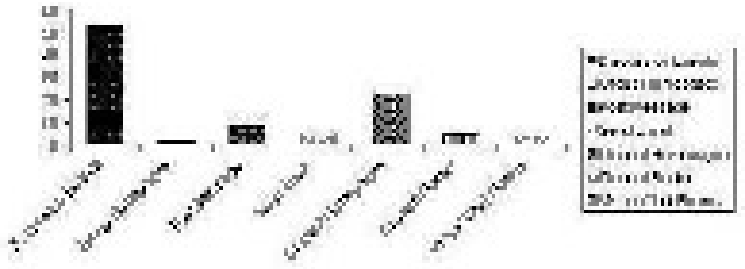

Diagram 2. Chart of Communication Area Usage.

Categorical Analysis of Class Assignments and Discussion Board Use

If the statistics are indicating a high percentage of online hits being dedicated to discussion board postings, then why is this not a sign of students' attitudes towards that particular medium? The answer is quite simple. Students did what they thought was required, but not much more. Of the sixty total responses in discussion board two, forty-three were original postings and seventeen were response postings. Of the seventeen response postings, the author acknowledged none of them, and only five postings were addressed by other students. Discussion board one had a similar pattern.

In discussion board one, of the thirty-nine total responses, twenty-one were original postings and eighteen were response postings. Of the response postings, the author acknowledge none of them and nine postings were addressed by other students. Although discussion board one showed a bit more interaction, there were far fewer posts.

These observations seem to indicate that interest in the discussion boards was not as high it may have first appeared. There was very little interaction in terms of online responses to ideas, but this does not mean information was not exchanged or that face-to-face discussion did not take place. In fact, the postings were read quite often and students did receive the information. However, as Diagram 3 indicates, the number of readings began to decline over time. The discussion boards were used, but not nearly as much as they could have been.

So far, only two of three discussion boards have been discussed. This was intentional. Discussion board three was separated from the first two because it was not set-up in a class assignment format. It was in this discussion area of thirteen posts that students' attitudes were more freely volunteered. This is also an indication of low-level interest. When the sense of having to do the assignment using a discussion board is removed, the total number of postings drops dramatically. These thirteen postings were thus included in

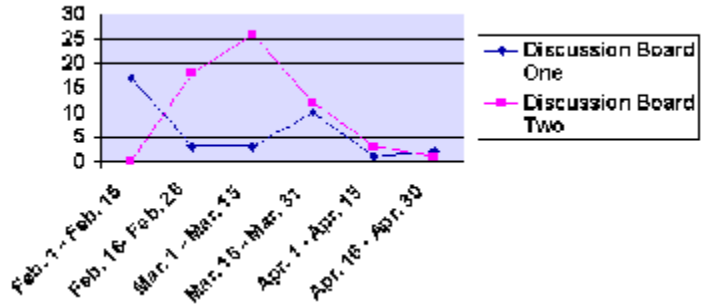

Diagram 3. Average Number of Readers Per Posting Over Time.

the NUD*IST analysis to follow.

TABLE 1
STUDENT ATTITUDES TOWARDS PARTICULAR COMMUNICATION MEDIA

Medium	Interest		Use			Value		Total
	Yes	No	Easy	Difficult	Improve	Good	Bad	
Chat	0	0	3	9	6	5	0	23
Computers	0	0	0	8	1	2	1	12
Discussion Boards	1	3	0	1	2	4	0	11
Email	0	0	0	1	3	0	0	4
Passive Wall	4	4	2	1	0	2	0	13
Technology (General)	7	2	6	6	11	24	4	60
Video Conferencing	5	0	0	1	1	2	0	9
Virtual Reality (VR)	33	9	7	20	37	28	2	139
Websites	2	1	1	9	1	2	0	16

The NUD*IST Analysis

The results of the NUD*IST analysis are reported in Table 1. As one can see, there are a few dominant media that jump out right away. The two most frequently mentioned are Virtual Reality and chat rooms. There is also a category dedicated to technology in general. This category was used when the particular medium was not clearly identified.

With VR and chat rooms in mind, a detailed reading of the coded text-units was performed to examine any additional patterns that may have surfaced. The particular media will be addressed in turn.

Virtual Reality and Student Attitudes

As Table 1 hints, students felt that VR was an interesting tool, but one that still had a long way to go before it would live up to its full potential to benefit an educational setting. Statements of interest were found in a number of places and were generally rooted in a sense of novelty, a feeling of belonging, or instances of interaction. The fact that many students had not yet encountered something like the CAVE made it interesting for them in and of itself. One student writes in a questionnaire, "I haven't used virtual technology before, so it was interesting." Another declares that the passive wall and the CAVE were "both new experiences to me." Other students were interested because they felt as though their interaction in the virtual space and the writing of annotations helped them belong to something. As one student put it in a questionnaire, "now I feel like I was a part of the space that is virtual Harlem." However, a minority of students does exist that did not find VR interesting at all.

The students that did not find the CAVE interesting as much as they could have were, not surprisingly, the students that quickly grew bored of Harlem. They simply lost the feeling of novelty and, in some cases, in the second visit! As one student answered on a questionnaire, "going back to Virtual Harlem a second time was a little boring. I felt like I was just seeing the same things as before." Another student reinforces this claim by writing, "Many people did not like the CAVE. I heard them say they have played video games that were better than the CAVE."

On the whole, VR was of interest to students. However, a second attitude surfaced in the form of limitations imposed on the students from the technology itself. These limitations caused students difficulties in interpreting what their annotation consisted of and what they could or could not do. The dimension of interest of students' attitudes was primarily found in the answers to the questionnaires. The difficulties encountered and needed for improvement were mostly found in areas outside of the questionnaires. One student writes in a chat session, "Originally, I wanted to try to post their work, but according to Kyoung [a participant-observer and researcher], the VR only records voices and simple gestures." Students were asked to complete an annotation assignment without fully understanding what their limitations were. Another student drives home this point by stating in the same chat session, "I think if I had seen it I'd know the limits which would curb my imagination." The point is clear. Students needed clearer guidelines and explicit statements of what they could and could not realistically accomplish with the annotation device. As one student observed, "We are limited in just about every way; time, space, capability of the program being used, etc."

Most students also felt that the VR equipment still needed a variety of technical improvements. The overwhelming improvements that students thought Virtual Harlem needed came in the form of sound and graphics. As one student claimed, "Harlem doesn't have a

sound yet." Another student wanted to see improvements to the graphics. The student states,

> I still wish you could actually go into one of the buildings and just explore. For example, for the Dark Tower, it would have been interesting if you could have gone into the home and inside where people were sitting there. We could have given a kind of tour of the home saying things like, 'Oh, there's A'lelia Walker right there! Hi honey!

Although there are two general categories that emerged, there was no one single graphical improvement or type of sound being argued for.

Students also saw VR as having a great deal of potential and value. Students commented that they enjoyed the annotations and that they had a chance to apply what was learned in the classroom. Although the students felt improvements needed to be made and that the technology itself was interesting, they also thought the visualization helped them learn. As one student noted on a questionnaire, "It helped to give me three dimensional reference to what it was we were studying." Another claimed, "I had never been to Harlem and there is no substitute for actually walking down a street there." Students developed an appreciation for the three-dimensional and visual aspects of the medium.

Chat Rooms and Student Attitudes

The next medium that was mentioned quite frequently is the chat room. Although students did not find this medium as interesting as VR, they did comment on the need for improvements to overcome the difficulties encountered. There were both technical and timing difficulties.

When asked about their experiences, one student wrote on the questionnaire, "drawbacks were when we had technical difficulties during the virtual classroom sessions." There were instances during the chat sessions that participants were "kicked off" by their computer or Courseinfo. Although one would expect student interest in the technology to dwindle, students actually wanted more time to work in chat rooms. This leads to the second attitude found related to chat rooms. Students want more interaction with their peers through chats, as well as more time to interact.

There were two chat sessions that were completed during the semester. Regarding these sessions, student comments were definitely pointed towards the need for more time. On the questionnaire, one student from UIC wrote, "I would have liked to have had more times scheduled to talk in the chat room with the CMSU students." Other students claimed that they wanted "more online chats, more music, more interaction between classes with email" and that "more time should have spent on it and some more chat sessions." Clearly, the chat sessions were of limited use because

students felt as though they didn't get enough time to actually do anything via chat.

General Comments on Technology and Student Attitudes

During the analysis, it became clear that there were text-units being coded into the "other" category that were clearly reflecting opinions and attitudes relating to technology. However, these statements did not address a particular technology. This is primarily due to certain open-ended questions on the post-test. In certain key questions, students were asked their opinions about technology in general rather than a specific medium. It is for this reason that a second recoding was conducted. The general technology category found in Table 1 is the result of this recoding. A quick glance back to Table 1 clearly indicates a dimension of attitude that did not come up as particularly noteworthy with chat rooms or VR, which is the value of technology itself.

For most postings in this category that reflected positive value assessments, most students concluded that "technology was very helpful" or that "it was extremely beneficial to communicate." When students went beyond these very vague statements, two general claims surfaced. On the one hand, students appreciated being given the ability to see what it was they were learning. This visualization does not apply to VR alone. One student commented, "Through technology we were able to read other student's responses, instead of just hearing them." On the other hand, students also felt that communication with another class in a different state somehow made what they were studying more important and salient. As one student claimed, "It [the communication through technology] made me feel like the subject we were disgusing [sic] was more important because it was being exmainen [sic] by these other people too." The students in these classes felt that technology in general was a good thing and something of value.

Conclusion

In the end, attitudes were manifested in many different ways. Students felt that certain forms of technology still needed improvements even though they are quite interesting and new. Other forms of communication needed technical improvements although they are no longer new. There were numerous times during the semester of this course that some students were frustrated more than they were afraid of the technology they were using. Humanities instructors should also be quick to note that technology is not a means of replacing traditional teaching methods. As the analysis has demonstrated, there is a benefit to having technology supplement traditional methods of learning. Increased visualization, the sharing of information, and the feeling that work is important because others are studying it as well are just some of the benefits found here. But scholars must also be cautious about becoming too optimistic. After all, in most humanities classrooms the imagination is

looked upon as something treasured. Students in this study expressed concerns of being limited to performing certain tasks in particular ways due to the limitations of the technology being used. This is all the more reason to search for the balance between traditional teaching methods and more technological methods. The humanities classroom is not the final stronghold of Luddites, nor is it the testing ground for the mechanical. Instead, it is a place that should openly embrace attempts to improve the state of contemporary pedagogy.

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