

The Role of Technology in Communication Outside of the Classroom

Margaret Nowicki

This paper was completed and submitted in partial fulfillment of the Master Teacher Program, a 2-year faculty professional development program conducted by the Center for Teaching Excellence, United States Military Academy, West Point, NY, 2010.

Overview

The use of technology in and out of the classroom is a controversial topic currently receiving a great deal of attention. Of particular interest is the debate over the effectiveness of technology as a communication tool outside of the classroom. Various forms of communication are investigated, paying particular attention to the usefulness of outlets similar to the modern social networking capabilities to which the current population is accustomed. Numerous resources are available debating the pros and cons of various methods of post class communication.

Network communication after class provides the students with another means of contact if they are not able to visit the instructor in their office or reach the instructor via telephone. Benefits and challenges exist for both individual communication methods, as well as group communication forums. It is important to have an understanding of the different techniques, as well as their benefits and challenges, before effectively integrating one in your course. The U.S. Department of Education recognizes in its executive summary of the National Educational Technology Plan 2010 Draft that “technology is at the core of virtually every aspect of our lives and work” and as such “we must leverage it to provide engaging, powerful learning experiences.” American leadership foresees an academic infrastructure that is “always on” and always available for outreach between instructors and/or students. Regardless of location or time of day students can be linked to one another and to faculty members if needed. The more integrated a system such as this becomes the more benefit it could have for the learner and for the instructor as well.

Advantages and Disadvantages of Various Methods of After Class Communication

Social Networking sites such as Facebook and MySpace have grown monumentally in the last half decade and are a way of life amongst today's youth. Klopfer (2009) sums up their effectiveness by stating "[these] sites allow the user to do it all: post a profile, photos, videos, chat, blog, and connect with their peers through individual bulletin boards, private groups, and forums." He goes on to discuss a 2006 survey by Albanese documenting "46 million users" of "MySpace alone" as of June 2006. Though these networking sites attract all ages, genders, demographics, etc. it is widely assumed that the vast majority of operators, at the time of this survey, were members of the "tween and teen" age range. The survey was taken just after the inception and broad acceptance of these social networking sites; MySpace was created in 2003 and Facebook in 2004. Klopfer (2009) also documents that a 2007 School Board Association published report found that 96% of youths ranging from nine to seventeen years of age participate in social networking. Of that group, 60% use it to talk about education topics and 50% use it to talk about specific schoolwork. This same group is now aging up to university level. In 2006, while attending graduate school, numerous students were already engaged in social networking, and, according to the 2006 survey, they did not represent the largest group currently linked in. Four years later, as this largest group moves up to universities and colleges nation-wide, this becomes a more effective tool for outreach. However, it is difficult to integrate the instructor appropriately, permissions can be complicated when trying to restrict to specific groups, etc. No documentation was found of instructors/professors attempting to connect to their students using social networking for purposes of education outside of the classroom. Several university websites, specifically one representing UC Berkeley, had guidance for faculty on refraining from "friending" students, but instead creating working groups using Facebook or MySpace. This avoids the potential viewing of personal information, on both sides, that may cloud perceptions of the instructor or of the student. It is certainly an area that warrants further investigation, especially due to its popularity among students at all ages and grade levels.

Email is an effective tool for transferring information between the student and instructor. Most universities furnish both students and faculty with email accounts making communication via this method very easy, as no one has to register for an outside program they may not be comfortable with. Email also can be an effective method in teaching the student how to properly phrase questions, using appropriate and applicable terminology, to convey some sort of

confusion or lack of understanding. In Operation Iraqi Freedom the Corps of Engineers used a tool known as “tele-engineering” to answer engineering questions from the theater of operation. This program was based out of the US Army Maneuver Support Center and manned by Engineers round the clock to answer questions from soldier’s reference bridging, vertical or horizontal construction, safety, power plants, etc. Terminology played a huge role in conveying problems and overall understanding. Those on site had to know the proper terminology to convey their issue to those manning the receiving end to give them an effective picture and the best shot at responding properly, in a helpful manner. By allowing our students to email us with question, we are teaching them the importance of terminology, especially in the fields of science, engineering and technology. There are negatives as well. Email is not immediate. Someone must be monitoring the receiving end, and certainly if there is only one instructor for a given course they cannot be expected to monitor their email 24 hours a day seven days a week. There must be an understanding of appropriate timing for questions and reasonable expectations for responses. You can always ask a question, but do not expect an immediate response. This challenge is echoed in Allitt (2005) where he states “[last] year I turned on the computer...to discover that at 1 a.m. a student had emailed me a question. At 5 a.m. he had sent another email message, indignant about my slowness to respond when he was in urgent need of an answer.” Certainly that can happen, but again, with appropriate guidelines for etiquette and mutual understanding between students and instructors, it should not be an insidious problem.

Instant Messaging and text messaging are essentially the same technique; one method is over the computer and the other is over the cell phone. As such text messaging is more immediate, but also more restrictive. You are being charged after a certain character limit and as such it is imperative to word the question/problem with as few words as possible. In doing this, a lot can be lost in the translation. Though instant messenger is certainly less immediate, if the instructor is not sitting at the machine at that moment, it can be more precise with longer dialog free of charge. Less is lost in the translation with instant messenger, and any point of confusion can be cleared up by follow-on messages without incurring additional charges. Again, the benefit of immediate instructor attention you get with the text is, of course, gone. A third method of communication, the telephone, could come in to effect at this point, since both parties obviously have a phone, which could clear up any confusion caused by the limiting text message. The

greatest challenge in all of these methods, similar to that of email, lies more in social etiquette than information delivery. Appropriate timing for conversation/contact must be established at the beginning of the semester with appropriate repercussions for blatant disregard of established standards, such as formal counseling. In all of the above techniques goal setting, or expectation setting, is imperative. Ritz (2009) sets forth the following goal: “[to] explore and develop human potentials related to responsible work, leisure, and citizenship roles in a technological society.” This statement has undertones of professionalism in general, and certainly professionalism in your use of technology to communicate with some form of superior, whether it is an instructor, boss, higher ranking officer, etc. Setting this goal as an indirect course goal, not associated with the material at hand but rather a life goal to learn proper and appropriate interactions for timely and effective communication, certainly has benefits. If you implement such a standard then all of the above techniques become professional, viable alternatives for communication outside of the classroom.

Face to face contact is an older standby, not technologically driven, that certainly always has value. It forces interaction and really allows the instructor to formally assess the students understanding, without the ambiguity of written communication for times when terminology may not be fully mastered. Certainly face to face interaction is a very effective method; however, the instructor cannot always be available when the student is available which really limits the ease of contact. Face to face also assumes the student has ample time between the timing of the point of confusion and timing for final submission or comprehension prior to a large graded event. Certainly the aforementioned methods afford students more flexibility in timing, especially for assignments or studying being conducted the day before the assignment is due or the exam is administered. This method of communication remains an important delivery technique and is very necessary in many situations in spite of all the associated challenges with coordination.

Barone (2003) states that this generation of learner “expect[s] to try things rather than hear about them. They tend to learn visually and socially. They are accustomed to using technology to organize and integrate knowledge.” All of the above techniques support this statement to some effect. The student can work through problems at their own time and pace and have immediate connection to other students or to faculty with every method but the face to face instructor

meeting. Even this final method has benefit where the visual learner may need to see the instructor work through the problem on the blackboard or on a piece of paper, rather than just talk them through it via the other contact methods. To be able to really reach every student you must have a variety of communication tools that you embrace and feel comfortable with using. It is essential to have some form of out of office outreach, as well as “office hours.” Rugarcia (2000) states “[t]he teamwork necessary to confront the technological and social challenges facing tomorrow’s engineers will require communication skills that cross disciplines, cultures, and languages. Engineers will have to communicate clearly and persuasively in both speaking and writing with other engineers and scientists...and with the general public.” All of the aforementioned techniques for communication outside of the classroom are effective tools for teaching and testing students on verbal and written communication. If you use the encounter, whatever the method, as an extension of the students learning experience then you gain a significant opportunity to broaden their overall understanding of the subject they are studying and its link to society. If properly harnessed, any method of integration can serve as an extension of the student’s education, reinforcing the important of terminology and accuracy of language in delivering a message across many different forms of communication media.

Conclusions and Recommendations

Communication outside of the classroom is essential to ensure maximum understanding of the material, as well as, provide students with acceptable, effective methods of communication between professionals participating in a formal discussion. Numerous articles touch on the importance of integrating communication and the technological prowess of the current college attendee. Some articles stress the important of connectivity and reach back for societal problems and the need to effectively communicate in a language that is understood without voice/tonal recognition. Being able to formally communicate in writing, as well as verbally, with other members of your field is essential. Varying lines of communication between an instructor and a student can develop this important skill. It can allow the student to really see the importance of terminology in accurately conveying a concept to another member of their field. The US Department of Education also recognizes the tech movement and the ability to have what you

want, when you want it or need it. Nationally there is a push for “seamless integration of in- and out-of-school learning.” All of the aforementioned methods are being implemented and encouraged at all levels of education. This translates directly into the workforce with corporations operating on intranets with internal social networking capabilities. A huge example at West Point and in the Army is the current implementation and integration of SharePoint for professional sharing and collaboration. Students graduating and entering the professional world will no doubt know how to communicate via technology, it is our responsibility as faculty to participate and educate them on how to be professional in their communications.

Annotated Bibliography

Allitt, Patrick (2005), “Professors, stop Your Microchips,” *The Chronicle of Higher Education*, Vol. 51, Issue 42, Page B38.

This article provides an opposing view to technology in education. The author is clearly opposed to the integration of technology and considers it an overall distraction in the classroom. Outside of the classroom he feels it discourages face to face contact between students and instructors and gives students a false sense of required immediate instructor response, regardless of time of day, for questioning.

Barone, Carole A. (2003), “Technology and the Changing Teaching and Learning Landscape,” *AAHEBulletin.com*, May 2003.

This article provides a view of the changing landscape of learners as a result of technology. It argues that today’s students learn differently as result of technology. Though I do not wholeheartedly agree with this, I feel there are valid statements of learning types that may or may not have any tie to technology. Regardless it provides another perspective of how today’s students rely on technology in their lives.

Duncan, Arne (2010), “Transforming American Education: Learning Powered by Technology,” *Draft National Educational Technology Plan 2010 Executive Summary*, March 5, 2010.

In this work the Office of Educational Technology within the U.S. Department of Education outlines their vision for public education in the future. It contains the views of President Obama on integrating technology and education. It outlines goals for integrating technology effectively and provides administrators and educators with a place to start. It discusses an “always on” aspect of education through networking. At all levels, not just university, the student has access to other students and instructors both in and outside of the classroom through the integration of technology.

Klopfer, Eric (2009), “Using The Technology of Today, In The Classroom Today: The Instructional Power of Digital Games Social networking Simulations and How Teachers Can Leverage Them,” *The Education Arcade: Massachusetts Institute of Technology*, 2009.

This article provides current statistics on social networking in society and how it can and should be integrated into the teaching environment. It also discusses the use of gaming by various organizations (U.S. Army, Medical Professional Organizations, etc) to educate and train. It suggests that the agencies using such technology are respected in society in general and promote professionalism of members and, as such, gaming is an effective method of education, where applicable. It also stresses the importance of using technology as an augmentation in education, not a sole source.

Ritz, John M. (2009), “A New Generation of Goals for Technology Education,” *Journal of Technology Education*, Vol. 20, No.2, Spring 2009.

This article sets forth goals for implementing technology in education. It also suggests setting proper etiquette of technology usage as a separate goal within education in addition to other goals already established for subjects/courses. The basis is determining how to develop meaningful programs for technology education as well as appropriate and meaningful integration.

Rugracia, Armando (2000), “The Future of Engineering Education I. A Vision for a New Century,” *Chem. Engr. Education*, 34(1), 16-25, 2000.

This article speaks to the important of terminology and communication for scientists, engineers, analysts, and such. It outlines the importance of verbal and written language and communication

in sharing ideas and concepts across different media delivery forms. It mentions that these skills are critical and invaluable and must be integrated somehow into current curricula. It mentions that traditional instruction methods will not be adequate in the future for educating and training engineers. Technology must be integrated and implemented in addition to traditional techniques, again not as sole source for education but an accompanying asset.