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Developing 21st Century Communicators

Jami Cotler
jcolter@siena.edu
Computer Science Department

Robert Yoder
ryoder@siena.edu
Computer Science Department

Eric Breimer
ebreimer@siena.edu
Computer Science Department

Deb DelBelso
ddelbelso@siena.edu
Career Center

Siena College
Loudonville, New York 12211, USA

Abstract

What are the characteristics of an effective communicator in the 21st century business world? How can we equip our students with the skills necessary to successfully navigate the computer-mediated communication landscape during this time of globalization and rapid technology growth? In this paper, we examine these questions and discuss several methods for addressing the increasing demand for the diverse, complex and often non-routine communications skills required of today's business and information systems students. Drawing on practitioners from education and industry, along with our own research and observations, we discuss several teaching approaches that include developing professional collaboration skills using shared workspaces, delivering presentations using web conferencing, becoming comfortable in front of a video camera, using ePortfolios to articulate and reflect on learning, and professionally leveraging a social networking presence. When introducing new methods of communication there will inevitably be lessons learned and improvements that can be made in future iterations. This paper discusses students' perceptions of their experiences using computer-mediated communication and reflections on how we can improve the way we teach these concepts.

Keywords: 21st century communication skills, computer-mediated communication, web conferencing, elevator speech, ePortfolios, wikis, collaborative learning

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1. INTRODUCTION

The economy is fundamentally transforming the way work is organized, managed, and performed. Business students of today are required to have abilities significantly surpassing what was required of other generations (Grantham, 2000; Panis, 2004). Leaders in education are stating that workers of the future need to be effective communicators, innovators, critical thinkers and problem solvers (Huff, 2009). The challenge for every nation will be to "increase the potential value of what its citizens can add to the global economy, by enhancing their skills and capacities and by improving their means of linking their skills and capacities to the world market" (Reich, 1991).

This paper examines concepts specific to teaching skills necessary for 21st century computer-mediated communication (hereinafter CMC) and offers methods to prepare students to succeed in today's business world. Students graduating from business school will increasingly be tasked to use methods other than face-to-face communication to deliver presentations and collaborate on projects (Sadri & Condia, 2012; Helping Students, 2011). Understanding how to effectively communicate and collaborate with colleagues from around the globe will soon become a required skill for many business students (McCleneghan, 2006/2007; Crossman & Sarbari, 2011).

We examine the introduction of CMC tools into a multiple section management information system class, which meets for two hours a week in a computer lab and two hours per week in a lecture environment. We extend what is taught in our business communications class with the use of CMC tools and tie the material to virtual teams and competitive advantage.

2. 21ST CENTURY COLLABORATION AND PRESENTATION SKILLS

In today's global, interdependent business environment with rapid technology advances, businesses are increasingly using virtual teams to collaborate on projects across geography, time zones, gender, organizational structures, and culture (Ebrahim, Ahmed & Taha, 2009). Our CMC lab and supporting lectures are designed to give students a basic understanding of some of the different tools used for collaboration and how to select and use them effectively. Some technologies, such as video, are more "media rich" than others. Some are more synchronous, requiring all participants to be online at the same time. After experimenting with shared Google Docs and WebEx video conferencing tools, students design a collaboration plan that takes into account time zone differences in a dispersed team using a World Clock Meeting Planner (www.timeanddate.com). Students also explore how assistive technologies can be used to include deaf or blind people in the team.

Recent research indicates that communication styles differ between men and women. Awareness of these differences can lead to better outcomes when using CMC for business and social purposes. Women tend to use CMC to maintain relationships and for social networking. Women also tend to be more inclusive of others' opinions, and more often employ a consensus-building decision-making style (Tannen, 1990). Women's language style tends to be rich and complex, using voice tone, facial expressions, eye contact, and gestures that add nuance to communication but can be hampered by text-only media.

Men tend to be more direct in their interactions, often with underlying competitiveness, leading to a task-oriented style that can result in quickly making decisions. Men tend to use fewer non-verbal cues in their communications style, with a directness and clarity that carries over well, even in text-only media (Blocher, 2008).

One must be careful in making generalities about gender differences, as individual communication styles greatly vary across both sexes. The goal is to avoid miscommunication or alienating other members of an online discussion. Encouraging all participants to voice their opinions and lend their expertise to discussions leads to better decisions and a better working environment.

There's a good chance many of our students will be asked to become part of a multi-cultural team, being co-located together, or as part of a multi-cultural virtual team that uses CMC to solve problems and make decisions. In both cases, cultural literacy is required to avoid

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conflicts, misunderstandings, or hurt feelings leading to rejection of group values or poor team performance.

Careful perception and appreciation of other cultures will go a long way toward understanding different value systems that influence communication styles and attitudes about work and time management. For example, more casual approaches to punctuality may be encountered in Latin American and Mediterranean countries as compared to America and Japan. Building a social relationship before transacting business is common in many countries. Some cultures operate using a consensus approach to decision-making, while others look to a leader with political power to drive decisions.

Gaining cultural literacy is complex, often requiring training, coaching, and exposure to real multi-cultural situations that test an understanding of other cultural traditions, belief systems, and behavioral patterns based on spiritual, intellectual, and emotional factors (Thomas & Inkson, 2003).

Virtual teams using CMC have special issues that require consideration. Due to geographic and time differences, it's difficult to build trust and a group identity among participants. The loss of communication richness as a result of using email, chat, and even video may need to be augmented by careful choice of language and additional activities that encourage social cohesion. It's difficult to manage complex projects using only CMC tools; sometimes face-to-face meetings are justified (Martins, Gilson & Maynard, 2004).

Cultural differences influence speech patterns and non-verbal cues, including hand gestures and facial expressions. Examples include:

- A sideways shake of the head can indicate agreement in Albania.
- The "OK" sign is an insult in Brazil and Germany.
- An American "goodbye" wave can mean "come here," "no," or an insult, depending on which part of the world you are in.

Despite these challenges, multi-cultural teams can be highly productive and innovative due to the varied experiences and perspectives of the group. A positive attitude, flexibility, tolerance, and understanding the limitations of CMC

technology can be the difference in making collaboration a success (Maletzky, 2008).

Communication skills are ranked high among the employers of recent business school graduates (Koc, 2011; Violette & Chene, 2008; DeFelice, 2011). Employers are increasingly interested in the ability of students to be able to communicate using computer-mediated technology (Dobis, 2011; Huck, 2012). While these skills are obviously critical to global employers, this trend now includes local businesses that are starting to utilize CMC to more effectively communicate with their customers and suppliers.

While traditional face-to-face communication skills will always be critical to professional success, being able to effectively collaborate and communicate using information technology will provide students with a competitive advantage that career services professionals argue will soon become a required skill (Rao, 2012; Zielinski, 2012; Lee, 2012). Our students report that collaboration using shared workspaces and presenting their ideas via web conferencing is a novel experience for them. Only 5% of our students have been exposed to this type of collaborative work and presentation approach. One student reported that she was hired for a position not normally offered to recent graduates due to her knowledge and practical experience of using CMC tools.

3. LEARNING COLLABORATION AND NONROUTINE SKILLS WITH WIKIS

In his best-selling textbook, *Using MIS* (Kroenke, 2011), David Kroenke outlines the importance of developing nonroutine skills to attain job security. Inspired by former Secretary of Labor Robert Reich's book *The Work of Nations* (Reich, 1991), Dr. Kroenke elaborates on the importance of abstraction, systems thinking, collaboration, and experimentation, and how graduates with these skills are more valuable in the workplace. The first skill, abstraction, is taught in the greater context of our MIS course. The other three skills are directly covered in the CMC component of the course. A discussion of each skill is presented below.

For instructors, it is a challenging but worthwhile goal to develop course activities that inspire students to practice and apply nonroutine skills. We have found that wikis provide an outstanding technical stage for building such activities. While

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the connection between wikis and collaboration is obvious, wiki-based activities are rife with opportunities for students to apply systems thinking and experimentation in solving problems. The key in leveraging wikis to reinforce nonroutine skills lies in setting up group projects with challenging collaboration constraints.

Collaboration

In one activity, students are required to collaboratively investigate a topic to present to the class using a wiki to help organize and share information. Student teams of 4 – 6 students can only meet face-to-face once and must use the wiki and other CMC tools for all subsequent collaboration. While other wiki systems could be used, we require students to use Google Sites because of the system's ability to track revision history and to integrate a wide range of Google Apps and services.
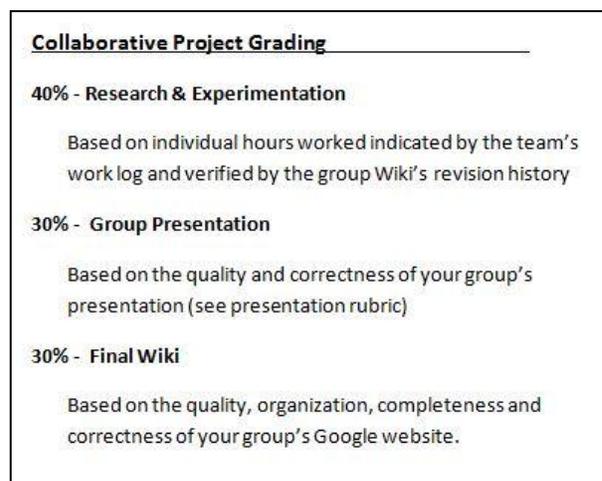

Figure 1: Google Sites revision history

Early in the semester, students are shown how Google Sites can act as an information "sandbox" to post raw material, comment about it, organize it and refine it before integrating it into a formal presentation. Students learn about Google Site's revision tracking feature (Figure 1) and they are told that a portion of their individual grade is based on their contribution indicated by the revision history. Most importantly, students are told that exam questions will be derived from their presentations and that they must share their Google Site with the entire class so their peers can use it as a study reference. After their presentation, students are required to transform their wiki from a sandbox into a more organized informational website that augments their presentation. The goal of this approach is to create a serious audience for each group's Google Site. Students take more ownership of a project if it can later be used to their benefit rather than merely graded and discarded.

Experimentation

Google provides an array of integrated applications and services for experimentation. Since Google's revision history provides a way to measure experimental activities, experimentation skills and interest can be cultivated by using a platform where student effort can be easily seen and measured. Experimentation often involves creating something new and testing it. Students are encouraged to try a new approach or test an idea over and over again with slight variation.

With experimentation, the amount of effort is not always captured in the final deliverable. Students may shy away from experimenting because of a fear they are wasting time on an idea that may never produce results. For example, students may try and fail to implement a survey using Google Spreadsheets and Forms. Or, students may try to integrate a message board or chat tool into their Google Site that does not produce the desired collaboration. This kind of effort can be seen in the revision history including partially working pages that were eventually deleted or changed. If students know that such efforts will be seen and rewarded by the instructor, they are more likely to take risks and truly experiment, especially if revision history is a major part of the grading rubric (Figure 2).

Figure 2: Grading rubric of wiki-based collaborative project

Issues of team-based presentations can be especially noticeable when the teams are larger in size or not allowed to meet face-to-face. In

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traditional research projects a common issue concerns students who do not contribute at the same level as other members. Lack of contribution and experimentation can be observed and is reflected in project grades.

Systems thinking

Google Sites or any wiki can help students to better understand the role of software in larger systems and the role of collaboration in larger systematic processes. When students work in groups on a project, it is tempting to employ a divide and conquer approach to minimize the communication and coordination overhead of collaboration. Some students falsely view collaboration as a necessity in completing a large project that cannot be reasonably tackled by one person. They may fail to view collaboration as a vehicle to synergistically create new or better ideas even for a project that could be tackled by an individual. Working in teams creates an enhanced sense of community and ownership in projects. This approach naturally leads to many iterations and feedback cycles among team members to continually refine and add to the work in progress. Collaboration itself can be viewed as the processing in a larger system aimed at yielding new ideas and improvements.

When working on a research paper using Microsoft Word, students rarely think of the word processing software as being part of a collaboration system. But, a good wiki can act as both a word processor and collaboration tool. Students may write to-do lists within a working document. They may leave footnotes for each other to help clarify what they have added. The output of the software is more than just a finished document. The wiki provides a way to create lists, tasks, messages, and feedback artifacts that help group members stay on track.

In a professional setting, a manager is obviously responsible for ensuring the quality of collaborative deliverables, but they must also manage the actual collaboration as it unfolds. With a wiki, collaboration can be documented and managers can better understand the process. In explaining and analyzing the role of a wiki, students can better view collaboration as a systematic process in a larger improvement system that includes the wiki (software) and the participants themselves (people).

Abstraction

Abstraction can be defined as creating models and using symbols to understand, share and communicate complex ideas. To create abstractions of information systems, students need exposure to sufficiently complex systems where modeling and symbols can help improve students' understanding.

There are many ways that abstraction can be taught in a management information system course. Students can learn how an IPOF (Input, Processing, Output, and Feedback) diagram can be used to analyze a complex information system. We use this technique as part of a case study involving electronic medical records, but other information systems such as Apple's iTunes or the campus registration system can be analyzed. Students may learn how Entity-Relationship diagrams are crucial in developing a database design. Portions of the Unified Modeling Language (UML) can be taught as a way to model structure and processes as part of the systems development process. Attributes of information, such as accuracy, timeliness, etc. are also taught in many MIS courses; we use the information attribute analysis technique in a case study to analyze how geographic information systems were deployed in response to the 9/11 World Trade Center disaster.

4. PRESENTATION WITH WEB CONFERENCING

There is a major focus on face-to-face presentation skills throughout our students' collegiate careers. Observing the increase of online webinars and the increased use of web conferencing in business (Huck, 2012), we want to provide our students with not only a unique experience but a professional competitive advantage and ask them to deliver their research via web conferencing.

Bill Huck, Senior Project Management Leader at GE Transportation leads a virtual team location in the United States and Brazil. He spends a significant amount of his day using WebEx to communicate with his team as well as other international corporate leaders. Bill states that he wishes he learned more about using CMC and found that he learns by making mistakes. He said exposure to CMC is critical for any professional but explained that both new employees and existing employees he works with do not have these skills when they start,

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causing delays in workflow and other issues resulting in loss of productivity.
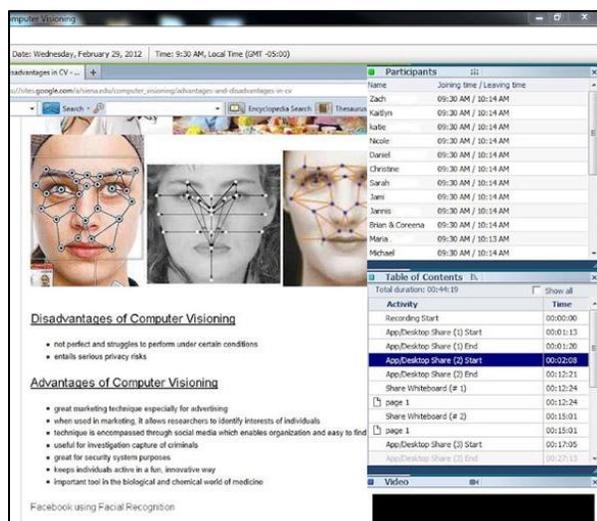

Figure 3: WebEx student-delivered conference displaying their wiki

We selected WebEx (shown in Figure 3) as our web conferencing program due to its popularity in the business world (Dobis, 2011; Huck, 2012; Best of eLearning!, 2011) as well as its robust interactivity features and reliability (Adobe Connect and Cisco WebEx, 2011). Students use WebEx to deliver their collaboratively developed wiki. For most students this introduces two new methods of presentation: a wiki and web conferencing.

Students are challenged to develop a presentation that captures the interest of their cohorts who view the presentation remotely. Preparatory lecture discussions focus on the differences between face-to-face and CMC presentation techniques. Realizing that they have to compete with more distractions than would normally occur during a face-to-face classroom presentation, students are asked to think creatively about how they can best engage and maintain the interest of the audience.

Early in the semester students are exposed to a lecture delivered via WebEx by their professor. The professor demonstrates a variety of methods of audience engagement. Students experience, often for the first time, what it is like to be part of the audience in this type of delivery. Each team will meet and practice using WebEx to gain familiarity with the program before they use it to present to the class. Figure 4 shows some of the tools used for presentation.

Figure 4: WebEx interactivity tools used during presentations

When it is time to present to the class, students use the wiki as a springboard for their presentation. Students will use a variety of interactivity methods such as virtual whiteboards, surveys, polls, and chat sessions to elicit audience responses throughout their presentation. Students are graded not only on the quality of their collaboration, wiki and presentation but also on how well they leverage the tools available to engage the audience. Students are evaluated on how well they engage their classmates by asking questions and using a variety of interactive tools. The wiki presentation evaluation is shown in the appendix (Figure 6).

Each speaker starts with a brief on-camera introduction of themselves as well as their topic. This is done to establish rapport and common ground with the audience, similar to how the news media introduces a segment. Once the introduction is over, the camera is turned off and the student switches to the wiki to start their discussion. During the introduction students are made aware of the importance of maintaining eye contact with the camera and maintaining a natural speed of speech. After their introduction, they can use notes but are cautioned not to write scripts, as it can adversely affect their speech making it sound less natural.

As an essential carry-over from face-to-face presentations, students are required to introduce the next speaker and topic. Since the students have only met once face-to-face for the project, groups need to compose a strategy for working together. One of the goals of this assignment is to encourage students to experiment with establishing rapport with their teammates. The success of this goal is assessed when they present. Students are evaluated on the fluidity of their presentation as well as the cohesiveness of their final work.

Presenting without seeing non-verbal cues is reported as the issue that presents the most

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difficulty for students. Without seeing the rest of the class nod, smile or otherwise acknowledge them, many find it disconcerting at first to present using web conferencing. After they present, students will often report that the next time presenting using web conferencing they would engage the audience more with chat, polls or virtual whiteboard questions.

Throughout the semester we discuss business etiquette as it relates to the CMC space. One of the most important items we discuss is to ensure that all webcams and mics are off and/or muted. Even with these discussions and hands-on practice, inevitably at least one student during the semester forgets to turn off their mic and/or camera. This often proves to be an embarrassing but nonetheless critical learning opportunity for everyone involved.

5. REFLECTING ON LEARNING WITH EPORTFOLIOS AND ELEVATOR SPEECHES

ePortfolios (example shown in Figure 5) are commonly used to collect student work or artifacts allowing students to reflect on their learning as well as providing a powerful assessment tool. (Lorenzo, Ittelson, 2005) ePortfolios are used throughout the semester to elicit deep reflections on learning, offering qualitative feedback to the faculty. With this information, faculty can assess the extent to which main concepts are being absorbed by their students. For students this offers a way to practice communicating and critical thinking.
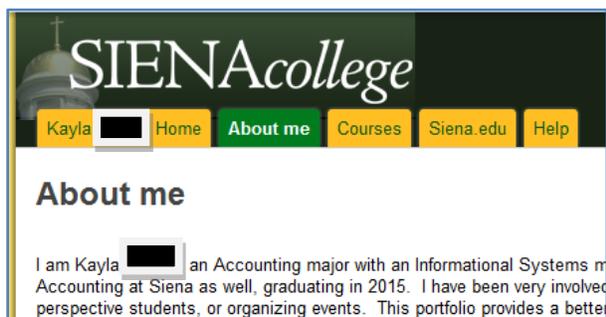

Figure 5: ePortfolio example

After each presentation, students reflect thoughtfully on what held their interest and what aspects of the presentations provided them with the most effective learning. This experience often yields a greater learning value as students start to discern the traits of an excellent web-based presentation. Participating as an audience

member offers a unique perspective in evaluating what an interesting wiki and presentation is like and also allows students to participate as an audience member in a professional setting.

As an assessment tool, faculty can read the short reflections for each of the presentations. The reflections offer insights into the learning that takes place during this project. This also "closes the loop" for students, allowing them to see their progress as they synthesize and combine ideas in new ways during the semester.

The ePortfolios contain other artifacts created throughout the semester along with the reflections associated with those artifacts. Students are encouraged to be creative and make the ePortfolios their own. We use Google Sites, the same wiki program that is used for the group research project, enabling students to become very familiar with this format. Students include pictures and a recording of their elevator speech in their ePortfolio.

A well written, concise, and practiced elevator speech or introduction of themselves can dramatically improve a student's chances for an interview, networking opportunities or even a professional position. The importance of having an elevator speech is well documented (Cox & Marris, 2011; ALSC Managing Children's Services, 2008). Our students write and then practice presenting their elevator speeches to their classmates. After they have practiced and are more comfortable with their speech, they record their speeches in our campus TV studio. In the studio they are introduced to a teleprompter, which enables them to practice maintaining eye contact with the camera in a more natural way. During the semester, students are given their recorded elevator speech and asked to include it with their ePortfolio. This experience provides students with an opportunity to compose their elevator speech and also become familiar with communicating in front of a camera. With more interviews being conducted over the web, communicating in front of a camera is becoming more important (Monaghan, 2012; Stempinski, 2012).

Recording the elevator speeches at the TV studio has been a unique experience for all participating students. Students are often nervous and somewhat anxious about this experience. Practicing in class face-to-face often

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helps. Students are also encouraged to practice their speech in front of their roommates, friends, or even in front of a mirror. They are also reminded that the only people who will see the video will be the instructor and the TV studio manager. It is up to them if they want to share their video with anyone else. After recording the video, many students state that "it wasn't too bad," and will reassure the students who are waiting to record. To date we haven't had any students resist this exercise and almost all report it as a very positive and memorable experience.

6. MAKING GOOD IMPRESSIONS WITH SOCIAL MEDIA

Communicating using social media has become commonplace for today's students (Ottalini, 2010). Students often see social networks such as Facebook as a space that is private and shared only with their friends; often forgetting that this form of communication is frequently viewed by prospective employers, and is becoming the way they communicate their "presence" (Cotler, J., DelBelso, D., Paul, M., Smith-Hunter, A., & Tanski, M., 2012) to the world. Recognizing this burgeoning method of communication, we address and identify opportunities to leverage social media to provide students with an advantage rather than professional detriment.

Employers use Google followed by Facebook and then LinkedIn to research prospective employees. (Cotler, et al. 2012) Areas having a high significance to positive hiring decisions were professional or family oriented photos and text, well written comments, demonstration of good communication skills and truthfulness behind posts (Cotler et al., 2012).

With over 85% of 21st Century employers performing an Internet background check before considering a job applicant (Seale, 2009), we wanted to inform our students of this opportunity to highlight their polished communication skills.

We address the impact of well written communication in unexpected places such as Facebook during the CMC lab session. Students learn how to leverage this communication medium, the importance of having a positive Internet presence and how to best communicate a positive image. As an assignment students are asked to log into Facebook and honestly evaluate what they communicate about themselves to the world.

With LinkedIn being the third place employers look when evaluating a prospective employee, we observed 58 MIS students online presence to determine if they had a searchable LinkedIn account. Only 17% of the students had accounts. Understanding the importance of positively leveraging their Internet presence, students were asked to create a LinkedIn account. The goal of this assignment was to increase awareness in maximizing the networking potential of social networks while bringing attention to privacy issues.

As they set up their LinkedIn account they were asked to consider privacy settings, email addresses used, professionalism of their picture, quality of their writing and any identifiable information they shared. After setting up the account they reflected on why they selected their individual preferences.

7. CONCLUSIONS AND LESSONS LEARNED

To understand our students' perceptions and fuel future research, we surveyed one section of 28 students and asked for their anonymous feedback regarding the use of CMC tools used throughout the semester. On a 10 point Likert scale, students found the tools and assignments to be worthwhile (8.5, 1 is not useful and 10 is extremely useful) in preparing them to become effective communicators in the 21st century business world. Students had favorable but slightly lower opinions of the value of the ePortfolio (7.3 on a 10 point Likert scale, 1 was not useful and 10 was extremely useful). On a scale of 1(not recommended) to 10(definitely recommended) students averaged 9.05 when asked if they would recommend writing and recording the elevator speech in future semesters. In open ended questions students reported the assignments were worthwhile in preparing them to become effective communicators in the 21st century business world.

When introducing any type of new method of communication there will inevitably be mistakes made and lessons learned. One of the most salient mistake is that of leaving a microphone on during a presentation. Most often the class can hear background noise or something trivial such as a doorbell ringing. In extreme cases the microphone captures negative comments about

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the presenters or profanity, which is upsetting to all involved. Students are acutely aware that in a professional setting, mishaps such as these could have a devastating impact. Students become aware of the importance of muting their microphones and consistently being mindful of what they say. Sometimes the best lessons are ones they learn firsthand.

Like many educators we struggled with the normal issues of team-based student work. This was very noticeable when students took their work exclusively online. Rapport wasn't always developed as it would be in traditional face-to-face team projects. We are considering implementing Team-Based Learning (Michaelsen, 2004) into our classes to quickly foster rapport within the teams making the introduction of new communication technologies easier to implement.

Even with a script and teleprompter, students need a significant amount of time to practice their elevator speech so it sounds polished, natural and they look relaxed. Most students have never been in a TV studio, making just the visit there intimidating. A visit or pictures of the TV studio for future classes could alleviate some of the nervousness.

Students commented they used the CMC skills in other classes and internships. Providing students with skills that translate into a competitive advantage in today's market place is something that we strive to do as educators. The skills outlined in this paper prepare students to be able to offer a unique skill set to future employers.

8. REFERENCES

Adobe Connect and Cisco WebEx Ranked as Champions in Web Conferencing Vendor Landscape. (12/7/2011). Retrieved 5 July 2012 from: http://www.sfgate.com/business/article/Adobe-Connect-and-Cisco-WebEx-Ranked-as-Champions-2358007.php, SFGate, San Francisco Chronicle.

ALSC Managing Children's Services Committee (2008). Elevator Speeches: What's so Important About Them? Children and Libraries, Summer/Fall 2008, Vol. 6, no2, pp. 52-54

Cotler, J., DelBelso, D., Paul, M., Smith-Hunter, A., & Tanski, M. (2012). Beyond the Suit and Résumé: Leveraging Social Media to Build an Online Reputation for 21st Century Professional Success. VISTAS Online International Journal.

Best of eLearning! Award-Winners Named. (12/1/2011) Retrieved 5 July 2012 from eLearning, http://www.2elearning.com/lead-news/article/best-of-elearning-2011-award-winners-named.html

Blocher, J. M. (2008). Computer-Mediated Communication: Enhancing Online Group Communications, in Handbook of Research on Global Information Technology Management in the Digital Economy, (M. Raisinghani, ed.) IGI Global, Hershey, PA

Crossman, J. , & Sarbari, B. (2011). Friendship and relationships in virtual and intercultural learning: Internationalising the business curriculum, Australian Journal of Adult Learning 51. 2: 329-354.

Cox, A., & Marris, L. (2011). Introducing Elevator Speeches Into the Curriculum. Journal of Education for Library and Information Science, Vol. 52, No. 2 – (Spring) pp. 133-141.

DeFelice, A. (2011). What Does it Take to Lead?:CPA's Share Personal Stories, Tips With Emerging Professionals. Journal of Accountancy, pp. 34-36

Dobis, Krista. (2011). IT Leader, GE Global Research. Personal communication and tour of conferencing facilities.

Ebrahim, N., Ahmed, S., & Taha, Z. (2009). Virtual Teams: A Literature Review, Australian Journal of Basic and Applied Sciences 3(3).

Grantham, C. (2000). The Future of Work. The promise of the new digital work society. New York: McGraw-Hill.

Helping Students Understand the Nuances of Video Interviewing, (2011). *Spotlight Online for Career Service Professionals.*

Huck, Bill. (2012). IT Leader, GE Transportation. Personal communication.

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Huff, K. (2009). President NERA, The College Board. Northeastern Educational Research Association Conference Keynote address. Rocky Hill, CT.

Koc, E. (2011). Getting Noticed, Getting Hired: Candidate Attributes That Recruiters Seek, NACE Journal.

Kroenke, D. M. (2011). Using MIS, 4th Edition, Upper Saddle River, New Jersey: Prentice Hall

Lee, S. (2012). Downright Revolutionary: But Is Today's Technology Enhancing Client Interactions? Journal of Financial Planning. pp.22-26.

Lorenzo, G., & Ittelson, J. (2005) An Overview of E-Portfolios. *Educause Learning Initiative*

Maletzky, M. (2008). Cultural Collaboration in the ICT Sector, in Handbook of Research on Global Information Technology Management in the Digital Economy, (M. Raisinghani, ed.) IGI Global, Hershey, PA

Martins, L., Gilson, L., & Maynard, M. (2004). Virtual Teams: What Do We Know and Where Do We Go From Here?, Journal of Management 30(6).

McCleneghan, J. (2006/2007). PR Executives Rank 11 Communication Skills, Public Relations Quarterly, 51, no.4, pp. 42-46

Michaelsen, L., Baumen Knight, A., & Fink, L. (2004). Team-Based Learning: A Transformative use of small groups in college teaching. *Stylus Publishing.*

Monaghan, G. (2012). Video CVs viewed as chance to shine; Forget the written resumé - putting yourself on film could land you that job. The Sunday Times (London) April 15, 2012, p.14.

Ottalini, D. (2010). Students Addicted to Social Media – New UM Study. Retrieved 10 July 2012 from http://www.newsdesk.umd.edu /sociss/release.cfm?ArticleID=2144.

Panis, L. K. (2004). The 21st Century at Work. Forces Shaping the Future Workforce. RAND Corporation.

Rao, M.S. (2012). Myths and Truths About Soft Skills, T+D

Reich, R. B. (1991). The Work of Nations. New York City: Random House

Sadri, G., & Condia, J. (2012). Managing the Virtual World, Industrial Management.

Seale, D. (2009). Using Social Networking Sites in the Hiring Process: Smart Move or Human Rights Trap? Part One. Retrieved from http://donnaseale.ca/using-social-networking-sites-in-the-hiring-process-smart-move-or-human-rights-trap-part-two/.

Stempinski, M. (2012). Look Sharp on Camera. Tampa Bay Times, Monday, April 23, 2012. pg. 1F

Tannen, D. (1990). You Just Don't Understand: Women and Men in Conversation. New York: Ballantine Books.

Thomas, D., & Inkson, K. (2003). Cultural Intelligence: People Skills for Global Business, San Francisco, CA: Berrett-Koehler Publishers, Inc.

Violette, G. & Chene, D. (2008). Campus Recruiting: What Local and Regional Accounting Firms Look for in New Hires, The CPA Journal

Zielinski, D. (2012). Group Learning, Use Social Media to Engage Employees in Knowledge Sharing. HR Magazine.

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Appendix

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Team Wiki Presentation	The reflection was well articulated, developed and you clearly demonstrated an understanding of computer-mediated supported communications.	The reflection was mostly well articulated, developed and you demonstrated an understanding of computer-mediated supported communications.	The reflection demonstrated somewhat of an understanding of computer-mediated supported communications.	The reflection didn't demonstrate a very good understanding of computer-mediated supported communications.
Wiki Presentation (as an audience member)	The reflection was well written, developed and it was clear you understood the main points of the presentation and gave an objective assessment of the presentation and the amount of engagement the team fostered.	The reflection was mostly well written, developed and you demonstrated an understanding of the main points of the presentation and an objective assessment.	The reflection demonstrated somewhat of an understanding of main points of the presentation and an objective assessment.	The reflection didn't demonstrate a very good understanding of presentation and did not contain a good assessment of the presentation.

Figure 6: Wiki presentation rubric

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