The Evolution of Video in Teaching and Learning
Presenters: Ryan Kelsey, Jessica Rowe, Michael Preston,
John Frankfurt, John Zimmerman

The Columbia Center for New Media Teaching and Learning (CCNMTL) gave an interactive seminar on Video Interactions for Teaching and Learning (VITAL), an application which is now being used by different schools throughout Columbia University. VITAL is a Web-based learning environment that features tools enabling students to edit, annotate, and store clips selected from a course's video library to compose multimedia essays related to their coursework. CCNMTL associate director for education and research, assistant dean and associate professor at the School of Dental and Oral Surgery, and three CCNMTL educational technologists explained the various ways in which VITAL is being utilized and explored new potential for the software.

Ryan Kelsey, associate director for education and research, began the seminar by explaining the origin of VITAL. He explained that CCNMTL had initially developed an application called Third Space for instructors at the Graduate School of Social Work to fulfill a gap between classroom work and fieldwork. Third Space was an application that allowed students to view videos and insert comments onto a discussion board. While Third Space was an innovative tool, other professors were looking for a more robust application. One such professor was Professor Herb Ginsburg at Teachers College, who wanted to build an application that enabled his graduate students to better understand the challenges of teaching mathematics to young children. Eventually, this became the catalyst for developing a new learning environment that extended the core functionality of Third Space. Kelsey concluded by noting that VITAL continues to evolve.

Next, John Frankfurt, an educational technologist and assistant professor at Columbia University's School of Arts, discussed VITAL and its application in the arts. He described his course in which students are required to analyze the relationship between film and other art forms. Using the VITAL environment, Frankfurt demonstrates film concepts through video clips. His students then delve deeper into the films reviewed in class and deconstruct them within a given framework. Students also use the VITAL video clips to complete assigned digital essays. Frankfurt asserted that these video clips in his students' digital essays are analogous to quotations from books and journals that are used in traditional written essays.

When asked how he evaluates students' work, Frankfurt explained that he prints all of the essays and then grades them by hand. However, he can also give digital feedback, using the new comments feature in VITAL. Another audience member was interested in how students became acclimated to the VITAL environment. Frankfurt explained that he provides his students with a non-graded, sample assignment at the beginning of the course. In addition, they have access to a sample digital essay that he creates as a guide in helping them to construct their own essays in VITAL.

The next speaker was Dr. John Zimmerman, assistant dean and associate professor at the School of Dental and Oral Surgery, whose course teaches dental students to critically read scientific literature. He explained that one of the most important goals of the course is for his students to cultivate an understanding of cultural competence. Dr. Zimmerman discussed how his students work in the VITAL environment to complete an assignment on cultural competence. Students view videos from the popular television show *ER* and answer questions in essay format while Dr. Zimmerman provides them with a heuristic to analyze the patient interactions in the selected videos. Dr. Zimmerman noted that his students often write about themselves in a way that is not required within the science framework and believes that the results are extremely constructive.

Dr. Zimmerman continued, stating that one of the biggest challenges was assessing the effectiveness of the program. When asked about whether there are clips representing both "good" and "bad" cultural competency, he responded that there is a mix of both. He said that the randomness of the videos and lack of context is a good thing because there is no right answer, but that it does force students to think and distinguish between what they perceive is good and bad cultural competency.

One audience member challenged the notion that digital essays forced students to think critically and questioned whether they were really effective in teaching and learning. Dr. Zimmerman countered that students were not just viewing videos and summarizing them, but also using links and video clips as a way to support their arguments. Professor Moretti added that each digital annotation that a student creates could be considered a multimedia note card that holds a specific significance, allowing students to recount salient points or issues that they identify in their learning.

Next, Jessica Rowe, educational technologist at CCNMTL, discussed how VITAL is utilized at the Graduate School of Social Work, where VITAL is used to teach professional skills and demonstrate good relationships between doctors and patients. In particular, VITAL is used in an introductory course that focuses on evidence-based reasoning. The students in this course are primarily tasked with either identification (ID) or analysis assignments. ID assignments require students to view videos in the VITAL library and extract instances that they feel demonstrate exemplary clinical practices. On the other hand, analysis assignments require students to view videos from the library and construct digital essays that include clips to support their arguments in favor of social theories that students feel are being demonstrated in the video.

Rowe concluded this segment by listing some improvements that could be made to better assist social work students. She noted one potential feature, which would enable students to respond to short answer questions since the current forum is used only for full essay assignments. In addition, she felt that improving the quality of video clips in the VITAL library was critical to students' learning.

The final presenter, Michael Preston, is also an educational technologist. He explored VITAL in the teacher-training realm. Preston explained that VITAL provides a good intersection of teacher preparation and research on teaching and learning. He discussed

Professor Ginsburg's course on the psychology of mathematics education to demonstrate VITAL's impact on teacher-training. The VITAL environment in math education allows teaching-students to learn methodologies on how to interact with children. VITAL also enables students to view videos that demonstrate exemplary teaching techniques. He stated that VITAL continues to be an effective teaching tool, especially because the videos in the digital repository are genuine interactions between teachers (occasionally graduate students) and children.

Preston concluded by recounting some unique applications of VITAL in education. For instance, graduate students in Professor Ginsburg's course are expected to record personal interviews with children. The students develop a methodology and discuss their results, which they support with clips from their own videos. Once these videos are uploaded to VITAL, they are available for all students in the course to view. This increases emphasis on assessment in the teaching field and is, therefore, a powerful mechanism that allows students to be better prepared to teach in schools.

During the general discussion that followed, the presenters took questions from the audience. A number of audience members asked if VITAL had been used to educate teachers and professors. Members of the CCNMTL staff explained that VITAL has historically been used as a tool for teachers or professionals in training. An audience member countered that it would be very useful for established educators to be able to understand how students consume information and perhaps, more importantly, indicate when students fail to understand them or where they stop consuming information in the classroom. This was noted as a potential future application for VITAL.

Another audience member questioned whether teaching with VITAL changes the vision and expectations of a course. One presenter responded that teaching with VITAL is more challenging because there is a significant amount of discovery before students even enter the classroom, which could cause students to be more jaded. If the student group is very engaged, it forces the teachers to be prepared to answer a broader range of questions. The CCNMTL staff agreed that VITAL prompts teachers to expand their horizons and think creatively on how they can continually captivate their students beyond the media they have at their disposal.

A topic that lingered throughout the discussion was the efficacy of technology in teaching. One member of the audience asked whether students are getting better at the game of technology, or if they are actually building a capacity to do things in the world. A CCNMTL staff member asserted that the question of whether students are cognitively using technology in their learning is one that has not yet been answered. While there currently is not extensive knowledge on the assessment of technology's impact on teaching and learning, all of the CCNMTL presenters agreed that the application of VITAL into their classroom has been beneficial for students and their own teaching. However, the question of efficacy remains open and is part of a larger debate about the interactions between education and technology.