

ASYNCHRONOUS MEDIA-BASED DISCUSSION TO PROMOTE SCHOLARLY ENGAGEMENT

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E-learning has been widely adopted in higher education, where both undergraduate and graduate courses are routinely offered in fully online or hybrid online formats; however, it is challenging to foster a high level of scholarly interaction and engagement in asynchronous online courses. This is a particular concern in graduate education, where knowledge transfer alone does not support development of important critical thinking and scholarly communication skills, or the consideration of student experience and perspective necessary for engaged pedagogy. (Gunzenhauser & Gerstl-Pepin, 2006) This is sometimes difficult to achieve using asynchronous, text-based online discussions. In this paper we describe our experience of implementing media-based discussion in an online course to promote scholarly engagement, and to demonstrate the use of VoiceThread (2014), proprietary software for implementing media-based discussion.

Developments in e-learning technology now support media-based discussion. Using this technology, asynchronous online discussion can now be tied directly to images, documents, or video generating a more naturally engaging multimedia experience. Students and faculty can engage in discussion tied to these pieces of media using video, audio, or text. Voicethread includes annotation tools that allow mark up of documents, images, or video with comments and responses. In effect, the approach more closely mimics face-to-face interaction than text-based approaches, but in an asynchronous online format. The interaction pattern closely resembles the interaction pattern found in social media. Use of this technology in higher education is emerging; however, information about advantages, disadvantages, best practices, and strategies for effective use is limited.

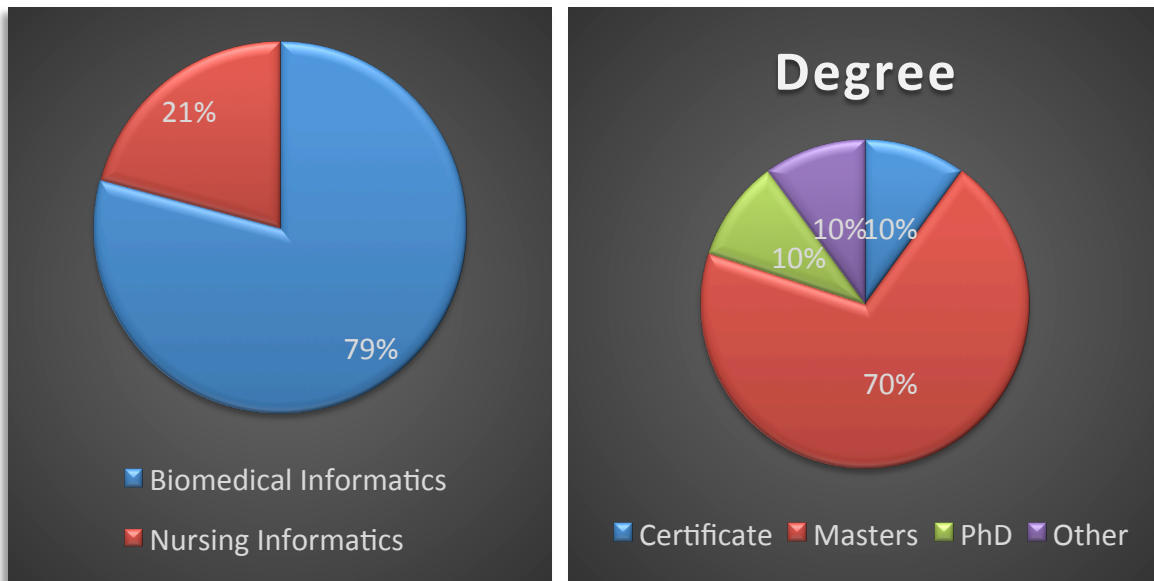


Figure 1: Distribution of student program affiliations and degrees being sought

In 2014, we piloted the use of threaded video discussion in an interdisciplinary graduate-level informatics course in order to strengthen scholarly engagement. The class consisted of twenty-four graduate students with prior degrees in diverse fields, two teaching assistants and two faculty instructors. In this hybrid online course, over 80% of the content is delivered online. Students were required to participate in Voicethread discussions in each of seven course modules and present a final group project also using Voicethread. Both instructors and students initiated postings and content. All student participation on Voicethread was peer-graded. We developed a survey and administered it to the students at the end of the semester.

The intent of the pilot was to increase scholarly engagement and a sense of connectedness among students. We encountered some challenges in using VoiceThread software for media-based discussion in this class, including rights management over posted material, lack of availability on android mobile devices, and the need to upload all media to the VoiceThread server (and corresponding inability to link to media hosted in other locations).

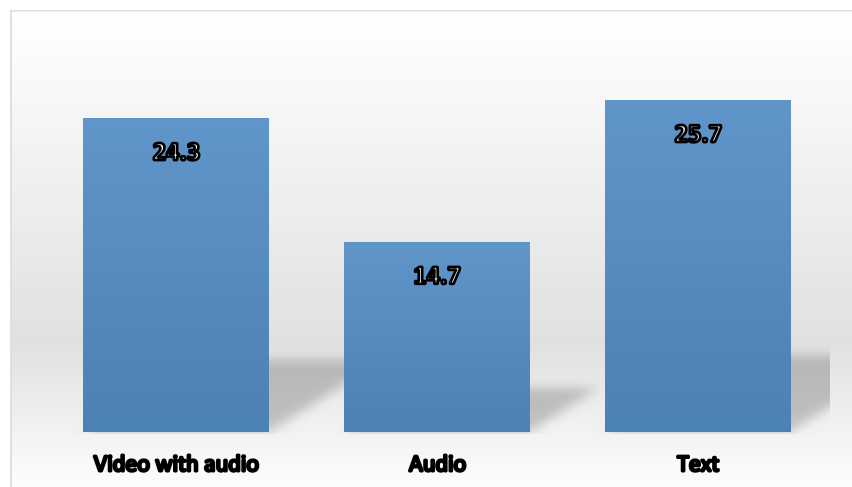


Figure 2: Mean percent distribution of media format utilized by participants in a given module

In this pilot project, media-based discussion was an effective tool for democratizing the classroom. Discussions were exceptionally rich. Students appeared to take more time preparing their contributions and often included references and related material; however, both faculty and students noted the high time commitment required. Student participation tended to increase in volume but decrease in quality during the few days before each discussion deadline, similar to the pattern we've noted with text-based discussion. The use of video for discussion was uncomfortable for some students and members of the teaching team. In general, student feedback included comments that reflected ease of their participation and increased contributions in the course; taking time to gather and organize thoughts, and perform background research for contributing to the class discussion; and feeling a sense of community, being more engaged and learning a great deal.

Felt almost like face to face discussion

Easy assignment to do that makes you actually read a paper (at least in theory).

I liked the ability to get to know my fellow students. With text only boards, you don't get that same feeling. It felt like we were a real team. Other on-line content courses with online discussion boards I felt less connected to my fellow students.

I did like having the articles as posts on which you could post comments. I liked being able to physically draw (i.e. circle relevant places) on the articles when leaving a post.

With class only meeting about once per month, voice thread did allow me to recognize other students faces and get to know their background.

Sometimes had technical glitches.

At first I hated seeing my shining face on video but you get used to that.

I disliked posting video comments in particular.

It is difficult to find comments that are relevant to my interests. Some posts are too long. If I learn something useful from a voice or video post, it requires me to write something down - if it was all text, it would be easier to copy from. Video/Voice doesn't allow skimming for relevant content or quick review if I want to reply to someone's comment.

The amount of required readings and actually placing a discussion/comment on voicethread was time consuming.

I was unable to use my Samsung Galaxy to access voice thread. I'm not sure how much I would have used it, but it would have been nice to use my phone if that was most convenient.

Figure 3: Sample student comments reflecting what they liked (above) and disliked (below) regarding the use of Voicethread.

Overall, media-based discussion appeared to be effective in promoting scholarly engagement and connectedness in this graduate level interdisciplinary online course. However, there are important considerations for its effective use. In informatics, individuals with diverse expertise work together and with technology to improve patient health, and informatics is often more about people than

technology. (Friedman, 2009) This e-learning approach helps integrate these socio-technical aspects of informatics into the classroom.

References

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