

7 things you should know about...

VoiceThread

Scenario

Emma attends her local community college, where she is studying to become an occupational therapist. In her first year, she took a course covering specialized therapeutic equipment that students used under the supervision of a clinical professional. To prepare for labs, students reviewed videos of the devices in operation. The instructor had included a verbal explanation with each video using VoiceThread, an application that lets users add voice or text annotation to visual media, creating a Flash-based animation. Emma could click a thumbnail photo of the instructor to listen to the explanation of the device while watching the actions unfold on her computer screen. There were also photo icons of other students who had used VoiceThread to add their own suggestions, alerts, or cautionary comments, which included audio clips and text balloons. One of the post-lab tasks for this year's students was to leave a comment in VoiceThread that might be useful to future classes.

Emma became increasingly interested in studying human and animal interactions and their impact on human health, so she took a series of online courses to become certified in animal-assisted therapy. These courses culminated in a practicum where students worked on community projects, developed a presentation, and defended their work before an online jury of peers and practicing therapists. Students photographed or took video of the everyday activities of their internships, uploaded this media to VoiceThread, discussed the issues at stake, and talked about the impact of animals on the health of the humans they met. The resulting Flash animation was then embedded on the course site for jury critique.

At first, Emma was uneasy offering verbal critique of other students' work. Listening to previous jury assessments, however, she noticed that input from the instructor and the therapist set a professional tone, and she began to understand what kinds of peer comments would be most helpful. As she watched and heard about prison inmates training dogs as assistance animals, autistic children riding horses, and young adults caring for zoo animals in a program that curbed youth violence, she was surprised at how the voices and images of her peers and fellow jurors supported a strong sense of community—even though she had met very few of the people in person.

What is it?

VoiceThread is a media aggregator that allows people to post media artifacts for community feedback. The application, developed at the University of North Carolina, makes it easy for users to add voice annotation to an artifact, which might be a document, a slide presentation, a video, or a collection of photos. Commentators can add remarks by means of microphone, webcam, keyboard, or telephone. The resulting Flash-based animation contains the original artifact and the commentary on it. In educational settings, students can post visual media, instructors can comment, and peers can offer verbal or text-based assessments. What sets VoiceThread apart from other post-for-comments sites is the ease with which voice commentary can be added. This affords a significantly different critical dimension in that more lengthy and detailed explanations are feasible than would be suitable for text alone, while intonation and voice patterns convey information that can be missed or misconstrued in a text-based markup.

Who is doing it?

VoiceThread has enjoyed wide use among K-12 educators, who have used it in projects such as oral histories and presentations about books the students read. This popularity may be spurred in part by the free instructor accounts that VoiceThread offers to K-12 teachers, but the application is popular in higher education as well. For many educators, initial tool use involves presenting students with an image or video, asking a question related to it, and having them respond in VoiceThread. Several colleges and universities, including the Connecticut Writing Project at the University of Connecticut, encourage use of the application in digital storytelling. In wikis and conference presentations, advocates in higher education discuss using VoiceThread for language learning, digital communications, and instructional design. In one recent evaluation at Sierra College, where VoiceThread was used in distance learning courses in art appreciation and art history, students noted that the tool helped establish a sense of community and reinforced the impression that the instructor was involved in their learning process.

How does it work?

Media creators employ a simple interface to upload media from a location such as Flickr, Facebook, a website, or the user's computer. They add comments by selecting the appropriate source button for microphone, webcam, mobile phone, keyboard, or audio file

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upload. The VoiceThread interface displays a thumbnail image—commonly a photograph—to identify each speaker, presenting a photo gallery of all the commentators around each original artifact. Once the VoiceThread animation is created, authors can share the clip by sending out a link or by embedding it in existing websites. If a VoiceThread includes the option of public comment, community members can not only view the media but also comment on it using the same tools available to the author. A doodling function allows authors or commentators to direct attention to areas under discussion by drawing circles, lines, arrows, or other indicators on the photo or video images.

Why is it significant?

VoiceThread takes prevailing modes of presentation and adds easy-to-use features to allow for richer interactions. By incorporating media from a variety of sources and then allowing the layering of sound and comments from many sources, VoiceThread attempts to leverage users' familiarity with a variety of online tools. In so doing, the application may be supporting completely new types of sharing and presentation.

In setting up a platform for adding audio commentary to visual media, VoiceThread has developed the potential to be a powerful storytelling and collaborative tool. It may offer particular utility for team projects or small classes, where the number of participants will not overwhelm the application's functionality. VoiceThread is well suited for use with visual media, especially those that involve motion. A student submitting a video of a dance performance or an athletic activity could receive a verbal critique backed up by a video clip that shows the same technique performed by a professional. The option that directs the application to call a cell phone for voice annotation not only offers a solution for those who don't have a microphone but also supports the growing trend toward mobile phone use in education.

What are the downsides?

VoiceThread might require a rethinking of traditional approaches to assessment. Because VoiceThread does not allow multiple users to have simultaneous access to the same account, it may be necessary for an entire class to use a single class account login. As a result, students could remove or change comments made by others or inadvertently delete an entire VoiceThread. As with other multimedia-based applications, VoiceThread presents an accessibility problem for some users. The application can be slow or quirky and does not function uniformly across all browsers, raising questions about its robustness. Because VoiceThread produces Flash movies, using the application from a mobile phone can be problematic.

Where is it going?

The VoiceThread application has continued to evolve since its release, adding new features and new marketing structures, such as an option for local branding. One feature said to be in development is the ability to translate voice into text to address accessibility concerns. Awareness has grown among educators, due in part to a public VoiceThread wiki site and a Ning social network devoted to VoiceThread use. As an application that allows us to talk directly through computers, VoiceThread changes the human/computer dynamic. By providing a simple mechanism for adding verbal explanations to visual media, VoiceThread offers new scope to distance learning, particularly for courses that depend heavily on demonstration. The use of VoiceThread in science, engineering, or vocational classes could allow videos of mechanical processes to be annotated with tips, alerts, and cautions attached directly to the media. Students may find it more feasible to learn to speak a new language or to play a musical instrument online when the learning is supported by multimedia demos.

What are the implications for teaching and learning?

VoiceThread is one of a class of applications like Cooliris or SlideShare that make it easy to assemble visual media in a presentation. In providing a simple venue for sharing, creating, and assessing media projects, such applications may promote greater digital literacy and greater enthusiasm for multimedia creation. What sets VoiceThread apart from these other applications is its easy integration of voice and other types of media for commenting on an original artifact. VoiceThread offers a natural online interaction that lends itself to students presenting and defending their work before experts and peers. It seems reasonable that an environment that provides an easy way for students to listen to and add to the work of their peers may encourage more authentic peer assessment. Evaluations that include verbal and visual cues in each student's own voice may be easier for students to interpret. In disciplines where students create a portfolio of their work, VoiceThread provides the opportunity to build annotated presentations that include voice, video, and text explanations of what they have done. Group and personal reflections can also be collected and preserved. By far the greatest potential of VoiceThread lies in the creative opportunity it provides for students to tell their own stories and to contribute to or directly critique the narratives of their peers.