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Making Learning Accessible for All

Making learning accessible for all students is a big part of Online Learning's mission. And they rise to the occasion in a variety of ways—whether by forming a team to look at accessibility issues, building a tool that makes it easier to caption streaming video or contributing to a book to educate others about the benefits of blended learning on accessibility.

Accessibility team

Distance learning isn't about delivering lectures on tape anymore—students and teachers expect to be able to chat and collaborate in real time and asynchronously. Online Learning often finds itself in the position of making recommendations to faculty about the best tools to make it happen, says Jeremiah Parry-Hill, Information Technology Manager.

"But every time we adopt a new technology to facilitate this, there are very real roadblocks to overcome in order to ensure that every student has equal access to the class experience," he says.

Enter the accessibility team—a five-person team within Online Learning. The team meets at least once per month, more frequently as needed, and is actively seeking faculty partners. The majority of their work deals with finding the best way to accommodate deaf and hard of hearing students, but Online Learning also monitors accommodations for the blind and others. It's not just about captioning, either. The team is investigating the feasibility of providing video of interpreters for real-time conferencing systems, Parry-Hill says.

As they determine the most effective way to support all learners, the team will publish their findings and best practices. They currently have a wiki to compare notes among themselves (<http://olwiki.rit.edu/index.php/Accessibility>) with plans to host a formal set of guidelines on the Online Learning website in the future.

Flash captioning tool

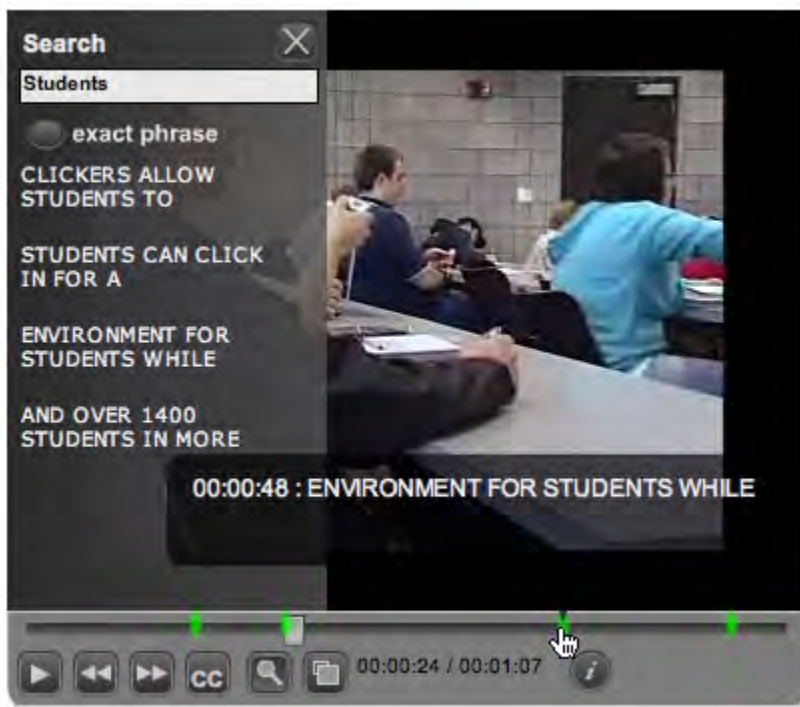
One of RIT's major accessibility needs is captioning video for streaming on websites and CDs.

In the past, a variety of tools were used to perform the captioning task for Windows Media Player and Quicktime. Often student co-ops would write the code, each time a little differently. But continually rebuilding the wheel wasn't the most efficient way to do it.

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The RIT Media Player solves that problem. It's a Flash-based component that aids in adding captions to presentations that use Flash video and other Flash-based content with audio (e.g. Captivate). It takes a lot of the programming out of it, says Ian Webber, Interactive Media Developer, allowing RIT production staff to create captioned material with minimal backend Flash development. This cuts down on production time and costs.

Another useful feature of the technology is that transcripts are searchable to find a specific spot in the video playback.



Example of how the search feature works in the RIT Media Player's Flash captioning tool.

The Flash component uses an XML file to load the media and another XML file to synchronize caption display. Someone with basic knowledge of Flash and XML can create captioned streaming video—a plus for RIT and also for the educational community at large.

To make the technology available for other institutions, Online Learning is working with Autosync Technologies—a company offering transcribing and captioning services—and has discussed accessibility issues with Adobe, Flash's parent company.

Like much of the technology at Online Learning, the RIT Media Player is in continual development. Currently in its second version, the next release is in user testing and should be available by March 2007.

Here are some examples of how the player is used at RIT:

- Online Learning website: <http://online.rit.edu/faculty/>
- ETC Video Portfolio: <http://www.rit.edu/~613www/video.php3>
- Learning Communities: <http://www.rit.edu/~learning/>

Blended learning book chapter

At the nexus of education and technology, blended learning is growing rapidly. It enhances student interaction—especially among deaf and hard-of-hearing students.

The Alfred P. Sloan Foundation—a philanthropic non-profit institution—has published a major book, *Blended Learning: Research Perspectives*, which includes a chapter by Michael Starenko and Joeann Humbert from Online Learning. The chapter, “Enhancing Student Interaction and Sustaining Faculty Instructional Innovations through Blended Learning,” reports and analyzes findings from Online Learning’s successful [2003-2005 Blended Learning Pilot Project](#).

“The findings show that blended learning is a highly successful method of increasing both the quantity and quality of student-to-student interaction for all students, but especially for deaf and hard-of-hearing students,” says Starenko, lead author of the book chapter and coordinator of the pilot.

Interaction increases because the online component of a blended course involves text-based communication in large- or small-group discussions. “In a blended course, mixed groups of hearing and deaf students can communicate and collaborate online without the need for American Sign Language interpreters,” says Humbert, Director of Online Learning.

Blended Learning: Research Perspectives is edited by Anthony G. Picciano of the City University of New York and Charles Dziuban of the University of Central Florida. For more information about the book, visit: <http://www.blendedteaching.org/blendedbook>.



Alfred P. Sloan Foundation's Blended Learning: Research Perspectives book cover.

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