Wikis and Podcasts for Training, Communication, and Collaboration
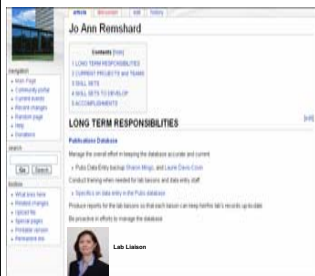
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WIKIS

A wiki is a type of web site that allows anyone to add to and edit its content. The Information Services Division (ISD) at the National Institute of Standards and Technology (NIST) has been using a wiki for staff training, communication and collaboration. Our internal division staff wiki uses MediaWiki software.[1]

STAFF WIKI

We started the ISD wiki to improve communication within our division. We needed an easy and timely way to keep the staff informed of each other's changing areas of responsibility, current projects, and unique skills.

Every staff member has his or her own page on the wiki, which they maintain and update as needed.

Examples of individual staff pages on the wiki.

The wiki has been useful for staff training. As part of our new staff training procedure, new team members use the wiki to learn about their colleagues and ongoing division projects. They also create a wiki page of their own so current staff can learn more about them and their assigned duties.

If a staff member leaves, their wiki page can be consulted to ensure no important responsibilities are overlooked when that person's duties are reassigned.

Our division organizes into teams to take on specific projects. These teams use the wiki to communicate about the project. Any staff member can collaborate with the project team by posting comments, suggestions, or ideas on the project page.

Management can review team pages to track the progress of each project.

We have also found the wiki to be an excellent tool to document and share new work procedures.

Since it is so easy to add content to the wiki, our staff have been using it as a discussion forum.

WIKI LESSONS LEARNED

- It's a convenient training tool. New team members especially found it an easy way to get to know the staff and division projects.

- Wikis will be used in unanticipated ways. The ISD wiki was originally intended to contain only individual and team pages. But our staff found it a useful tool for discussion forums and as a place to document work procedures.

- Be patient. All new technologies take time to be adopted. Try to encourage wiki use by posting important information for the staff on your wiki, and ask them to review and respond to the information via the wiki.

PODCASTS

Background

Podcasts are audio and/or video broadcasts on the Web that can be downloaded to a computer or mobile device. You can subscribe to receive specific podcasts regularly. According to Forrester's *The Future of Digital Audio*[2], 12.3 million households will receive simple audio podcasts such as those broadcast by *Science* or *Nature* by 2010.

At the NIST Library, a few staff members are responsible for monitoring new technologies. When customers told us they'd be open to hearing about our resources in a quick, easy-to-receive format, we explored a number of technologies including podcasting. We bought and practiced with video iPods.[1] (Any other handheld devices with video and audio capability could also have been used.)
We downloaded, watched, and listened to audio and video podcasts by publishers, academic institutions, libraries, and government agencies.
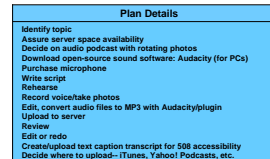

We practiced with video iPods

We used iTunes to locate, download, and sync podcasts to the iPods

After attending some free podcasting lectures at conferences, we bought a podcasting instruction book and took the plunge.

Preparation

Media File Sizes

Audio	15 Mb/hour	.75 Mb/3 minutes
Enhanced (audio with still images)	20 Mb/hour	1 Mb/3 minutes
Video	350 Mb/hour	17.5 Mb/3 minutes

We considered file sizes in selecting the podcast format

Plan Details

Identify topic
Assure server space availability
Decide on audio podcast with rotating photos
Download open-source sound software: Audacity (for PCs)
Purchase microphone
Write script
Record voice/take photos
Edit, convert audio files to MP3 with Audacity/plugin
Upload to server
Review
Edit or redo
Create/upload text caption transcript for 508 accessibility
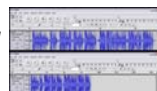Decide where to upload-- iTunes, Yahoo! Podcasts, etc.

RECORDING AND PLAYBACK

Our recording studio was a small classroom

Uncompressed voice file

compressed voice file

We used Audacity to record, edit, and compress sound files

Rotating image

With the help of the NIST A-V department we added photos and converted the file to AAC, the format required by iTunes.

PODCAST LESSONS LEARNED

- Podcasts are useful for virtual tours and library training "on the go."

- At the time we made our enhanced podcast (April '07), it would have been easier to use a Mac (with free software: *GarageBand* to record, *ChapterToolMe* to add slides to the audio file). *GarageBand* also has capability to create license-free lead-in or background music. Our A-V department used a Mac to add music and slides for us and to prepare the file for upload to iTunes.

- Keep up with new products. We subsequently learned of *Wink*, a new, free software application for PCs that can be used to create Flash tutorials; it captures screenshots and mouse movements and combines them with audio voice recordings: http://www.debugmode.com/wink/.

- Use a high-quality microphone.

- Select content with a critical eye to capture customer interest.

[1] The Identification of any commercial product or trade name does not imply endorsement or recommendation by the National Institute of Standards and Technology.

[2] Schadler, T. *The Future Of Digital Audio.* March 21, 2005.
http://www.forrester.com/Research/Document/Excerpt/0,7211,36428,00.html