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PEN-INTERNATIONAL

"PROVIDING ACCESS IN WEB CONFERENCING SYSTEMS"

PRESENTED BY: JEREMIAH PARRY-HILL

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- >> Jeremiah Parry-Hill: Good morning. I am not used to being amplified. I should hand it over to John.
- >> Good morning. I am John Albertini, faculty member at NTID/RIT. I have the opportunity to present this session. On my left is Donna O'Brien, and working with her today is Jennifer.

Our presenter, Jeremiah Parry-Hill is the assistant director of I.T. in our online learning. He has held that position since 2000. He also holds a patent in recognition to close captioning. And I think that without further adieu, it's yours.

>> Jeremiah Parry-Hill: The title of this presentation is providing access in web conferencing systems. It's possible that's too general. Specifically, I will be talking about our experiences bringing the outcome of C-Print into Adobe's web conferencing software which is called Connect.

A couple of warnings to get out of the way. in online learning, we don't actually necessary recommend that people always deliver their primary course content using Connect. Oftentimes for reasons as varied as accessibility, as different

learning styles, asynchronous, text-based discussion may actually be a better way to deliver and reflect on primary course content. That's understood.

I also need to tell you that we didn't select Adobe Connect based on any particular provisions for accessibility. In fact, it has certain shortcomings for accessibility that will become clear over the course of this presentation.

I should also note in deference to our representatives from Adobe who may be here, they're getting better.

So Adobe Connect. I'll be talking about pods. Pods are really just Windows for holding contents such as PowerPoints, captioning, photos, videos, video conferencing. We recommend that instructors use Connect to provide commentary over what we call light media. In other words, media --

- >> Excuse me, a little bit slower? It's very difficult to translate.
- >> Jeremiah Parry-Hill: Thank you. I apologize. So light pieces of media. That is to say, media that does not require a great deal of bandwidth to download.

The style of Connect favor as mode of communication where only one person is speaking at given time.

It's possible in Connect not to use video at all. It's possible not to use audio at all. You could conduct an entire meeting delivering your principal context in text chat. For instructors, this is generally not their preference.

So the burden fell to our department to make Connect accessible. In 2006, we ran our first experiments using an interpreter. I'll show you what that looked like.

I'll skip ahead a little bit.

(Adobe Connect)

- >> I know that most of you are experienced online instructors, but some of you may have just migrated from first class to my courses. I just wanted to give an overview of a basic online discussion.
- >> Jeremiah Parry-Hill: After checking in with experts, this was rated as acceptable, but only as acceptable. There are certain things that we lose in this method of delivery. When we provide captions and text, clearly they can be indexed, they can be searched. Providing English text may be better for students for whom English is not their primary language, or really for anyone who has difficulty understanding the instructor.

(Adobe Connect)

- >> It will usually have a general discussion board where everyone can ask questions about procedure.
- >> Jeremiah Parry-Hill: So we began to experiment with outside CART providers. And I will show you what that looks like.

These captions are provided by the Media Access Group at WGBH. You'll notice a few things here. The width of the pod has been limited. That is to say, the line length is limited to 32 characters. This is a function of using a caption providers who workflow is geared toward the television broadcast industry.

This pod in the lower right is also WGBH, or NCAM. As it's delivered, it doesn't provide facilities for scrolling back or for changing the color, or for changing the style of the text.

- >> (Adobe Connect) after the introduction you will see an area for the screen talking about system check.
- >> Jeremiah Parry-Hill: It's also relatively inexpensive. Captioning can run on the order of \$150 to \$300 per hour. There are also difficulties with using a remote caption provider. If something goes wrong during the session, you have to call the control room. There's a layer of communication involved which makes it difficult to respond to issues in realtime.

So we looked to C-Print. Specifically we looked to Pam Francis. The idea was in using C-Print we would address two pain points here, the high cost of CART-style captioning, and potentially improved communication with the captionist during a live event.

Unfortunately out of the box C-Print does not communicate with Media Access Group's standard captioning pod in Adobe Connect. So we would have to invest a certain amount of effort in developing a specific pod for connecting C-Print to Adobe Connect.

While we had the hood opened up, as it were, we decided to add a few features. We decided to add support for scrolling back through the text for the purposes of review. And we gave users the ability to change the style of the font, the size of the font, around the foreground and background colors.

At the time there were some discussion in regard to whether black on white was better than white on black given this setup by broadcast television.

Additionally, we made a conscious decision to format our captions in XML via extensible markup language. The idea being for purposes of reuse this would not and proprietary format.

There are, of course, limitations in Adobe Connect. Users cannot change the size of the pod or the position of the pod. It's up to the instructor to define where the pod sits in relation to the principal content of the course.

Additionally, C-Print as it is deployed in the classroom is delivered as a large text box. This can't really take place in Adobe Connect where we compete for screen real estate with a PowerPoint or with other principal course content.

The compromise we struck was to deliver captions in a streaming CART-like style.

And I'll show what you that looks like.

(Adobe Connect)

- >> It will give you that little bit of an edge.
- >> Jeremiah Parry-Hill: Because I skipped ahead, the text had to scrub through what it had done before. We can change the style of the font to a Arial style. We can make it larger. Or smaller. And we added the ability to scroll back through the text in order to reveal.

You'll notice that the text lines are not being built a line at a time as is customary with traditional broadcast captions, these are being built one word at a time. Whether this is better or worse is debatable.

We also had an interesting opportunity last spring to allow this tool to be put in front of a group of useability students out of our human computer interaction class in information technology.

The students not only polled a group of representative users, but they also interviewed the C-Print captionist themselves in order to determine whether the sits stem was usable both for the providers and the consumer of information.

There were nine participants. Four self-identified as hard-of-hearing, five as Deaf. The two variables that they were examining were the line length of the -- not the captions, but the width of the caption pod itself, and the positioning, whether above or below the primary content would be better.

The same presentation was delivered in four styles. This is the style long pod on top of content, which is different than what you would normally see in broadcast.

The overall preference was long line-length captions below the primary content, which may be predictable.

So today given information from user interviews, given information from useability studies, we're continuing development of the pod.

The captionists have requested more of a buffer before each burst of text is sent. The C-Print captionists are used to being able to go back and correct the entire body of text at the time of delivery. This CART-based style captioning cannot preferable for the provider, so the compromise that we have struck is to build a three-word chunk before displaying it to the user.

The captionists have also requested a set of back-channel communication flags. The idea is that they will be able to press a button to say "speed up," "slow down," "please repeat." Because our data is in XML, we could say this is actual display data, and this is back-channel data to be displayed only to the presenter.

Some of the challenges for the future include the evolving nature of Adobe Connect as a product. This was originally training-ware primarily for the corporate market. It was developed as an implementation of the Flash communication server in order to basically deliver voice over PowerPoint.

Now that Adobe has purchased Macromedia, they're extending Connect into a fully-fledged group-ware product for knowledge workers. So this product is being integrated into the Acrobat product line with the overall goal being that this is a tool for groups to collaborate.

This presents challenges. Now we have not one room, but the ability to separate your class or your group or your team into breakout rooms. How do we caption those? These are challenges for the future.

And at this point I'd like to open up the floor to questions if anybody has any.

- >> Would you please come to the microphone?
- >> Audience member: My name is Barbara Keefe, and I am from Maine. I had the pleasure of attending the Penn State Webinar where Adobe Connect was presented. For the first 20 minutes there was no sound on that access Webinar. And I read the actual captioning, which was terrific.

The interpreting was not as good. You really could not see the interpreter very well. My question is with the real estate so limited, is there a technology functionality that would allow you to turn off, say, the various points within the frame so that if I just wanted the presenter and the captioning, is that possible within the technology?

- >> Jeremiah Parry-Hill: It is not. As Connect is currently architected, the presenter defines the layout of the meeting room. This is the central limitation in this tool.
- >> Audience member: And there is no possibility of altering the architecture of the tool?
 - >> Jeremiah Parry-Hill: Not without working for Adobe unfortunately.
 (Laughter)

We were given a set of tools called the -- originally was called the collaboration builder software developer's toolkit. And the nature of any software developer's toolkit is that you are given a limited set of tools within which to work. So this is the reason for some of these compromises that may not immediately seem intuitive.

Yes?

>> Audience member: Hi. I have a couple of questions. I am Karen Walker from George Brown College in Toronto.

First of all, when you showed the first example with the interpreter, then you went to the next one using CART, it didn't have the interpreter. Does that mean that you weren't doing it with both features?

- >> Jeremiah Parry-Hill: The example that I showed for reasons of privacy and for FRPA, I can't show anything that actually had a student involved. So the CART test didn't have an interpreter scheduled because there wasn't actually an individual who required one.
 - I am not sure that answers your question.
- >> Audience member: The second one I wonder if the webcasts were then archived, and what did you do with the text? Was that a difficult process?
 - >> Can you hold on one second, please?
 - >> Jeremiah Parry-Hill: Sure thing.

Karen, I am really glad you asked that question because it's limitation that I forgot to mention. The text is locked up inside of Flash media server database, and we can actually not extract that out. It's our dream that we will be one day, but right now a connect archive is not so much a container. We think of AVI files and quick time and all of these things as containers that are discrete and manipulatable. Connect doesn't like that. It's a data base record of a series of media events. I move my mouse, that is a media event. So without using some sort of screen capture software I cannot make one discrete container of my Connect recording. And the text is locked up in there. It's like burning captions on video.

Thank you, Pam. Pam raises an excellent point. There is a -- there is a text file produced as an artifact of the C-Print process that could be archived. And we currently do not have a process in place for that but that is an excellent point.

I'm just curious, how many in here are currently delivering instruction using web meeting software? What are you using?

- >> We use Wimba, Breeze, we use -- I'm blanking on the name.
- >> Jeremiah Parry-Hill: Have you tried using accessibility provisions in Breeze?
- >> Audience member: We do with pro 360 which is not live but for the classroom. And we implemented our own accessibility within it.
 - >> Jeremiah Parry-Hill: Are there any other questions?
 Okay. Well, thank you very much.
 (Applause)
- $\,$ >> May I just remind you, please, to fill out to comment form either here on paper or online. * * * * *

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