

ACCESS TO MEDIA AT HOME AND IN THE COMMUNITY AN UPDATE FROM WGBH

Mary Watkins and Annette Posell

Mary Watkins: I want to tell you some of the things that are available today. And then we want to hear from you about what you see a need for in terms of access in your daily life. We are now The Media Access Group at WGBH, which includes The Caption Center, Descriptive Video Service and the National Center for Accessible Media. Next year, we will celebrate our 30th anniversary making media accessible. The Caption Center, which most of you are by now familiar with, opened in 1972. Annette and I are coming close to 30 years of service at WGBH when you combine our years there. Let's talk a bit today about how we got to where we are now in terms of building access to television, and what is on our agenda going forward.

When The Caption Center was started in 1972 captions were open. Everyone could see them. Some of the early programs were Julia Child's *The French Chef* and *The ABC Evening News*. We eventually heard from television networks, which said you have got to find a way to hide the captions because we are getting complaints from the hearing audience. We realized that if a way could be found to present closed captions that captioning would be able to really take off. So we worked with PBS to develop the close captioning system, which debuted around 1980 and has stayed the same for pretty much 21 years. About ten years after that, in 1990, WGBH looked at the development of stereo televisions and said, what can we do with that extra audio program channel to help possibly people who are losing their vision or who are blind. That is when we developed the Descriptive Video Service, which describes what's happening on television by inserting short pieces of narration during pauses in dialogue. The first described television program was *American Playhouse* on PBS. Today, we've got captioning and description on many programs.

Captioning is ahead of descriptive video in terms of the amount of programs available. Captioning is further ahead in terms of its availability due in large measure to the strong advocacy efforts of consumers who said, not only do we want this, we need this. It is our right. Access is a right. Members of the blind and visually impaired community look to the progress made on captioning as a model and to captioning advocates as role models.

In 1993, we built on the expertise of The Caption Center and Descriptive Video Service and formed the National Center for Accessible Media, a research, development and advocacy unit. And here we are taking what we learned developing captioning and description and moving into new, I call them venues, whether it is on the World Wide Web, in movie theaters, on CD-ROMS and other types of mass media. Of the projects we're working on now, the most high profile initiative is probably motion picture access.

Before we talk about movies, let's just talk a bit about some of the other areas we're working in. Let's begin with Web sites. When the web first came about, e-mail, we all loved e-mail, and surfing the Web. People who are deaf or hard of hearing found it especially welcoming because it was so text based. There was freedom there. This put deaf people on a level playing field as the hearing population. But as things have progressed, videos or multimedia clips have moved onto the Web--entire movies are being produced for the Web only. So here is another access challenge and potential

barrier. What we've done at NCAM applied for and won several funding grants to tackle specific problems about multimedia on the Web.

Video and audio on the Web will become especially important in the area of distance learning, which really means continual life long learning. It means children in a classroom, in a kindergarten classroom hooked up to another classroom in another country, sharing lessons and fun. It also pertains to college course you can take from home. Professors tape their lectures and put them on the Web. Distance learning also means continuing training. If you work at a large company and the whole company rolls out some kind of new software plan and the training is on the Web and it is not captioned, what do you do? You don't have equal access. We are tackling this challenge from a few directions. The first is from an industry standard angle. We go to the people who set technical standards for the industry to educate them, to make sure they know about access, that they know that there are going to be increasing numbers of students who need captions or descriptions. To let them know that it is not only a matter of serving people with hearing loss, but also people learning English as a second language, among other things. These efforts are part of a four-year project funded by the Department of Education. The result will be a set of technical guidelines about access features that will be shared with educational software developers, curriculum developers and universities that are shaping the evolution of distance learning. This is going to be important as we progress in the next ten, twenty, thirty years as this is how many of us will continue to learn, so we're working to make sure it is accessible. Another thing that we are working on in this area is a project in conjunction with The Massachusetts Institute of Technology to develop a 24-hour help center for a freshman physics course. It will be a prototype of how an online course hundreds of video clips of the professor's lectures that are available on a 24-hour kind of Web help desk. This approach accomplishes two things: it makes the material accessible and it introduces young people, young students at MIT, who will graduate and go into other companies, to the issues of access and its importance to the larger population.

AUDIENCE MEMBER: Captioning is presently on a volunteer basis isn't it?

MARY WATKINS: That's true. Right now it is on a volunteer basis. Some of you may have heard about section 508 which mandated that software purchased for government agencies must now to be accessible. While this regulation does not apply to schools and universities, the state of California has elected to apply these rules to its community college system. The system is making their on-line materials accessible. We help by proving that it can be done, and one relatively inexpensively. We develop prototypes like the one mentioned earlier with the MIT physics course online materials. Then we work with consumer organizations and parent organizations and our partners on this distance-learning project to make sure word gets out into the marketplace of the need and also to provide workable access solutions.

ANNETTE POSELL: I think it is important to understand that the projects we are working on at the Media Access Group at WHBH are not all broadcast television. We are also involved in research to make things possible. We're still, however, convincing broadcasters that it is something that they should be doing. Eventually, all television programs will be captioned. There is legislation pending right now in Washington to mandate some, not anywhere near 100%, but some description. And to be honest with you, that's met with a lot of opposition. At the same time, description is something that is as important and vital to people with vision problems or blind people. I am excited about the Motion Picture Access project. People like Mary go to the movies all the time. They come in and say "Did you see this? Did you see that?" And I have to wait until they come out on home video. It is not the same thing. So WGBH put together a very innovative package where a film can be captioned and described and it is very private for the consumer. The person who needs the descriptions can sit wherever that person wants in the movie theater. All you do is pick up the headsets. It looks like a

Walkman. And just sits there and can watch. A deaf person, how do you get the captions? There is what is called the rear window reflector. It is clear Plexiglas and it fits into the cup holder on your armrest. And then captions come from the rear and if you look at them reflected on the Plexiglas as you would television. That trick with this is that, again, we are still working to convince producers of the movies of the importance of captioning. We are convincing movie theaters they must install some very simple basic equipment to be able to display the options and use the descriptions. It costs about \$10,000. We have developed the technology. It exists. It can be done. It is not expensive relative to other equipment in movie theaters. The problem is we need more equipped movie theaters and more movies. There are various things that are going on around in the country such as in Connecticut where State Representatives have introduced a bill in the legislature to require captioning in movie theaters.

AUDIENCE MEMBER: Can you explain digital analog movie captioning?

MARY WATKINS: When you say digital and analog captioning, that's pretty much digital TV or analog TV. In terms of film, there is really no analog system. It is just film. And the difference between the open captioned prints is that the captions are actually burned into the film and several copies of that are made through Tripod, an organization out in California. Those prints are shipped to various theaters in the country where they play for say a Friday or Saturday and then the open-captioned print moves on to another city. The prints aren't available for at least a week, sometimes a month after the film debuts in theaters. Rear Window Captioning is different. After we caption the film and describe them we have these files--text files or audio file in the case of description. Those are sent to a company called Digital Theater Systems and pressed onto CDs. These CDs go with the film as the film is shipped to all the theaters equipped with the access systems. Each time the film is played; those discs are cued to play along with the film. If we had the funding to do it we could do this in other languages also. And theatres could use either language (for example, English or Spanish) depending on their customers' needs. There are changes on the horizon, for example, when theaters transfer over to a digital film format. Instead of having a spool, a reel of film like we have had since films have been in theaters, films will be distributed by satellite. Film will be electronic data that will be downloaded into a computer or server at a theater and then it will be able to be shown as many times as you want, without any of the scratches or other results of aging on films. The key to access in the digital cinema environment is that you still have an issue of displaying the captions. Theater managers will still have the question of whether to open up the captions for everyone to see or whether to have a discrete system so only the people who need the captioning or desire the captioning will see them.

We are also working on the television side to make sure as digital television rolls out, and it will eventually roll out, to make sure the gains we have made in access, via captioning and description, remain there in digital television. We are working with television manufacturers to ensure viewers will have user control over the color, size and placements of captions on television. One day you may not have to wonder what a person's name is on the local news. Today, captions often cover up this identifying information, but that will not have to be the case in the future.

AUDIENCE MEMBER: At times when you go to a movie and use the rear view captioning and there is some kid who has no idea how to turn on the data wall, what do you do?

MARY WATKINS: You come out and look for a person working in a suit. Don't go to the popcorn person or the person standing over near the video games. Ask for a theater manager and literally all they need to do is turn on the data wall. We do as much as we can to educate the theater staff but it is also going to be somewhat the responsibility of the user to make sure they advocate for themselves.

MARY WATKINS: The long-term goals of our project, the movie access project, are to, number one, build awareness at movie studios that there is an audience that relies on captions and descriptions that, for the most part, is not going to movies now and it is a large audience segment. It is an audience that will only get larger as the population ages. The second thing we want to do is to be able to create the awareness in the audience that these systems are available. Whether these systems stay like this forever, whether other companies see there is a market for assistive technology in movie theaters and develop new and different technologies that work alongside the ones we've developed, the point is to let the audience be served. Create the market. Create a demand, and let this industry flourish and let more people go to the theaters. As a non-profit part of public broadcasting, so we see it as our mission to develop these innovative access services. We developed the systems, but other companies sell all the components of a system. We are making progress. In two weeks five theaters will debut in Canada with the access systems. There are three theaters with them in the Boston area. Soon there will be four in Los Angeles and three in Seattle, two in Chicago, one in Atlanta and more in Florida at Disney World and at several IMAX theaters. The Pearl Harbor Visitor Center in Hawaii also has a system.

AUDIENCE MEMBER: Can you tell us what is going on with live TV captioning?

MARY WATKINS: For real-time captioning, which is live captioning, specially trained court reporters listen to a news broadcast and type combinations of keys which phonetically represent the words and phrases they hear. That is why you see strange errors that don't make sense but that sound similar to what's being said. Now with the increase in the demand for local news captioning and the increase in the number of agencies that are offering real-time captioning as a service, the pool of stenocaptioners, especially trained court reporters, has grown. However, the accuracy rate of the captions, the quality of the work that they put out has not necessarily risen to the level that it needs to make news broadcasts understandable. At WGBH, we have about a 98-99% accuracy rate that the steno captioners must meet before they go on the air to caption real time. So, what is happening as a result of complaints about the error rate in real time captioning is a new movement to better recruit and train qualified stenocaptioners. The National Court Reporters Association has received some funding from the Department of Education and the Department of Labor to better train stenocaptioners, to create new curriculum and raise the level of quality across the field.

AUDIENCE MEMBER: My question also is with the TV captions. If I am watching a program that is on before the local news it often stops captioning five minutes before it ends. Why?

MARY WATKINS: We hear that pretty often. What is likely happening is that your local television station passes through a network program, say E.R. on Thursday nights. This comes from the national network with captions. Your local station has probably contracted with a stenocaptioner locally who captions the local news broadcast immediately following E.R. at 11 PM. The local station is probably switching equipment at the station in order to hook up the stenocaptioner and get ready to broadcast the news captioning. This unfortunately, causes a break in the captions being received by viewers for E.R. This doesn't have to happen, and in fact it is illegal not to pass the program's captions as they are transmitted. You should contact your local news station. If they do not respond or do not correct the problem, you can contact the Federal Communications Commission and they will handle the problem. Learn more about captioning rules at the FCC's Web site, www.fcc.gov.

AUDIENCE MEMBER: They seem to be captioning with smaller letters these days, what can you tell me about that?

MARY WATKINS: Last fall, The Caption Center switched to a mixed case captioning style. When decoders were first developed back in the early 80's, they couldn't display the descenders of a letter-- the tail on a g or a y; so, it was decided that all the letters should be in upper case. Today, decoders built into televisions have more features and functions. We switched from an all upper case to a mixed case based on the fact that most text that you see in the world in papers and books is mixed case and based on research done by the American Foundation of the Blind which promotes the use of mixed case captioning wherever possible because it is easier to read mixed case than all upper case ones. We have heard from some people, relatively few, that they don't like it. It displays differently depending on what kind of television set you have-- a Sony TV vs. an RCA or Panasonic for instance. It's important to comparison shop when you buy a television set to see how the captions display and you prefer

ANNETTE POSELL: Thank you all for coming today.

Mary Watkins is Outreach Manager for Media Access Group at WGBH. She implements education and dissemination strategies for projects and products such as technical specification for emerging media technologies, educational uses of accessible broadcast and Web-based media, media access authoring tools, access systems for movie theaters and guidelines for accessible software development. mary_watkins@wgbh.org

Annette Posell became deaf at the age of sixteen and is Manager of Corporate Development, Media Access Group at WGBH. She is responsible for securing private sector funds for captioning and describing TV programs.