Captions for Deaf and Hard-of-Hearing Viewers

Fact Sheet

On August 5, 1972, Julia Child, "The French Chef," in a program televised from WGBH studios in Boston, taught viewers how to make one of her prized chicken recipes. The significance of that day stretched far beyond the details of the entrée to have a profound and lasting impact on human communication. It was the first time Americans who are deaf and hard-of-hearing could enjoy the audio portion of a national television program through the use of captions.

Since then, captions have opened the world of television to people who are deaf and hard-of-hearing. At first, special broadcasts of some of the more popular programs were made accessible through the Public Broadcasting Service in the United States. Now, in Canada, the Canadian Radio-television and Telecommunications Commission (CRTC) requires English and French broadcasters to caption 100% of their programs over the broadcast day with the exception of advertising and promos1. Captions are no longer a novelty: they have become a necessity.

1http://www.crtc.gc.ca/eng/archive/2007/pb2007-54.htm

What are captions?

Captions are words displayed on a television screen that describe the audio or sound portion of a program. Captions allow viewers who are deaf or hard of hearing to follow the dialogue and the action of a program simultaneously. They can also provide information about who is speaking or about sound effects that may be important to understanding a news story, a political event, or the plot of a program.

Captions are created from the transcript of a program. A captioner separates the dialogue into captions and makes sure the words appear in sync with the audio they describe. A specially designed computer software program encodes the captioning information and combines it with the audio and video to create a new master tape or digital file of the program.

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Open and closed captions

Captions may be "open" or "closed." To view closed captions, viewers need a set-top decoder or a television with built-in decoder circuitry. Open captions appear on all television sets and can be viewed without a decoder. In the past, some news bulletins, presidential addresses, or programming created by or for deaf and hard-of-hearing audiences were open captioned. With the widespread availability of closed-caption technology, open captions are rarely used.

Digital closed captioning

Closed captioning has become available for digital television sets, such as high-definition television (HDTV) sets, manufactured after July 1, 2002.2 Digital captioning provides greater flexibility by enabling the viewer to control the caption display, including font style, text size and color, and background color.

[2]*Zenith Electronics Corporation, July 1, 2002*

Real-time captioning

Real-time captions are created as an event takes place. A captioner (often trained as a court reporter or stenographer) uses a stenotype machine with a phonetic keyboard and special software. A computer translates the phonetic symbols into English captions almost instantaneously. The slight delay is based on the captioner's need to hear the word and on the computer processing time. Real-time captioning can be used for programs that have no script; live events, including congressional proceedings; news programs; and nonbroadcast meetings, such as the national meetings of professional associations.

Although most real-time captioning is more than 98 percent accurate, the audience will see occasional errors. The captioner may mishear a word, hear an unfamiliar word, or have an error in the software dictionary. Often, real-time captions are produced at a different location from the programming and are transmitted by phone lines. In addition to live, real-time captioning, captions are being put on prerecorded video, rental movies on tape and DVD, and educational and training tapes using a similar process but enabling error correction.

Electronic newsroom captions

Electronic newsroom captions (ENR) are created from a news script computer or teleprompter and are commonly used for live newscasts. Only material that is scripted can be captioned using this technique. Therefore, spontaneous commentary, live field reports, breaking news, and sports and weather updates may not be captioned using ENR, and real-time captioning is needed.

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Edited and verbatim captions

Captions can be produced as either edited or verbatim captions. Edited captions summarize ideas and shorten phrases. Verbatim captions include all of what is said. Although there are situations in which edited captions have been preferred for ease in reading (such as for children's programs), most people who are deaf or hard-of-hearing prefer the full access provided by verbatim texts.

Rear window captioning

More and more movie theaters across the country are offering this type of captioning system. An adjustable Lucite panel attaches to the viewer's seat and reflects the captions from a light-emitting diode (LED) panel on the back of the theatre.

Current research

Researchers are studying caption features, speeds, and the effects of visual impairments on reading captions. This research will help the broadcast television industry understand which caption features should be retained and which new features should be adopted to better serve consumers. Other research is examining the potential for captions as a learning tool for acquiring English-language and reading skills. These studies are looking at how captions can reinforce vocabulary, improve literacy, and help people learn the expressions and speech patterns of spoken English.

Quality of closed captioning[3]

The CRTC asked English- and French –language captioning quality groups to develop national standards. In 2008 these working groups, which include people with disabilities, were formed.

Monitoring of captioning[3]

As broadcasters renew their licenses, the CRTC requires them to monitor captioning and ensure it is present throughout their entire programming schedule.

New media[3]

The CRTC encourages TV broadcasters to provide closed captioning for their programs that are available online.

[3]http://www.crtc.gc.ca/eng/info_sht/b321.htm

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