

# **Accessibility-related citations for inclusion in the Oxford English Dictionary**

Joe Clark  
2004·01·13

**describe** *v.* write, provide, or narrate audio description

“Leading the Way” in *WGBH Boston 1993 Annual Report*

p1 ¶3

“Now we scan a lifeless battlefield littered with corpses. His face bloated, a dead soldier lies with one fist clenched over his chest,” writes a Descriptive Video Service staffer, describing for blind and visually impaired viewers a haunting daguerrotype image from the Battle of Antietam shown in Ken Burns’ powerful documentary, *The Civil War*.”

p15 col4 ¶4

WGBH’s **Descriptive Video Service** for blind and visually impaired viewers describes its first live event: *The MacNeil/Lehrer NewsHour*’s coverage of the Clinton inauguration.

“DVS Depends on Consumer Feedback” in *Media Access*

Fall 1993

p2 coll ¶1

In 1992, DVS also began describing popular Hollywood movies on home video.

**described** *adj.* equipped with audio description

Independent Television Commission  
*ITC Guidance on Standards for Audio Description*

May 2000

p5 ¶2 line9

This service, which is largely funded by donations and foundations, produces some 6-10 hours of described programming per week and makes it available to 50% of US homes through the Public Broadcast Service network.

James M. Turner

“Some Characteristics of Audio Description and the Corresponding Moving Image” in American Society for Information Science. Meeting (61st: 1998: Pittsburgh, PA), *ASIS '98: Proceedings of the 61st ASIS Annual Meeting, Pittsburgh, PA, October 24-29, 1998: Information Access in the Global Information Economy*

Technical program chair, Ray Larson; SIG sessions coordinator, Karla Petersen; contributed papers coordinator, proceedings editor, Cecilia M. Preston

1998

p109 ¶1 line 1

In order to study this question, three videos were chosen from described tv shows available from the Descriptive Video Service (DVS 1998), a service of the WBGH Educational Foundation.

[Original does indeed errantly write “WBGH”; it’s *WGBH*]

p115 ¶3 line1

Our findings give us enough insight into the characteristics of described productions to be able to conclude already that audio description text is a useful enough source for deriving indexing to the content of moving images.

Unattributed quotation in *Who’s Watching? A Profile of the Blind and Visually Impaired Audience for Television and Video* by Jaclyn Packer, Ph.D. & Corinne Kirchner, Ph.D., American Foundaton for the Blind, 1997

Inside front cover

Having lost the ability to observe action, clothing, facial expression, and landscape, I am grateful for the words description provides. Non-described shows are sometimes rather frustrating, due to the lack of these cues.

Emilie Schmeidler and Corinne Kirchner

“Adding Audio Description: Does It Make a Difference?” in *Journal of Visual Impairment and Blindness*, April 2001

p197 col1 ¶1

Over the past decade, since audio description began being broadcast on television, described videos and other venues have become more common.

**audio description** *n.* narration, explaining action, colours, sets, places, wardrobe, characters, and other visible elements, added (as to film, video, television, or theatre) for blind audiences

James M. Turner

“Some Characteristics of Audio Description and the Corresponding Moving Image” in American Society for Information Science. Meeting (61st: 1998: Pittsburgh, PA), *ASIS '98: Proceedings of the 61st ASIS Annual Meeting, Pittsburgh, PA, October 24-29, 1998: Information Access in the Global Information Economy*

Technical program chair, Ray Larson; SIG sessions coordinator, Karla Petersen; contributed papers coordinator, proceedings editor, Cecilia M. Preston

1998

p108 ¶4 line 1

Just as closed captioning adds visual information for the benefit of hearing-impaired television viewers, audio description is a technique which adds an audio track describing the images for the benefit of the visually-impaired. During available spaces in the foreground audio, trained narrators provide verbal cues integral to understanding the image. The technique dates from approximately 1990, and its biggest promoter is WGBH in Boston.

p112 ¶3 line1

Another observation is that the audio description text sometimes enhances understanding of the picture content by adding information known from the production script but not necessarily from the image. In addition, sometimes details not particularly evident in the image are described, probably because they have some importance to the plot. One useful approach to creating audio description text is to have a visually-impaired person listen to the partially-described production and advise the person formulating the audio description text of what aspects of the production are not understood.

WGBH Educational Foundation

MOTION PICTURE ACCESS (MOPIX®)

Making Motion Pictures Accessible to Everyone

Undated brochure (according to a source at WGBH dated June 2002, it's “two years” old, giving the brochure a date of 2000?)

p1 col1 ¶2 line1

Audio Descriptions provide narrated information about key visual elements for blind and visually impaired people. Descriptions of actions, settings, scene changes and other visual characteristics are inserted during natural pauses in the dialogue or narration.

Jaclyn Packer, Ph.D. & Corinne Kirchner, Ph.D.

*Who's Watching? A Profile of the Blind and Visually Impaired Audience for Television and Video*

American Foundation for the Blind, 1997

page vi col2 sole footnote

More generally, any formal presentation of described information is known by the term “audio description.” Audio description appears to have been available since at least the 1970s; it has been used to make live theater, film presentations, dance

performances, art exhibits, parades, and other events accessible to people with visual impairments. The term “video description” is reserved for description of videotapes or television programs.

Emilie Schmeidler and Corinne Kirchner

“Adding Audio Description: Does It Make a Difference?” in *Journal of Visual Impairment and Blindness*, April 2001

p197 col1 ¶2

Access is increased through audio description, which adds precise, concise verbal descriptions of visual images—about people, objects, scenes, body language, facial expressions, sizes, and colors (Everett, 1994; Miers, 1998).

p198 col2 ¶4

Audio Description International describes audio description as “the art of turning what is seen into what is heard; the visual is communicated through the human voice and descriptive language” (Audio Description International, 2001).

Nick Tanton, Trevor Ware and Mike Armstrong

“Access Services for Digital Television: Matching the Means to the Requirement for Audio Description and Signing”

BBC R&D UK research paper; International Broadcasting Convention (IBC 2000), Amsterdam, 8-12 September. Conference Publication

p1 ¶1 (abstract)

Digital television offers excellent opportunities for the provision of access services such as audio description for the visually impaired and signing for the profoundly deaf.

p1 col1 ¶7

Audio description (AD) conveys salient contextual information about the scene or the action.

p1 col2 2

The experiment demonstrated the benefit of a closed audio description service for the visually impaired but also showed that the service provider should have dynamic control of the main programme sound during description passages whilst the user should control the volume of the description of the overall mix (see figure 1).

Joe Clark, “Accessible TV not a CRTC priority” in *Toronto Star*, September 20, 2000

page A25 col1 ¶5

Then there’s audio description, an access technique for blind and visually impaired viewers. Reading from a carefully honed script, a human narrator succinctly describes out loud those visual details, not evident from the soundtrack itself, that are needed to understand and enjoy a broadcast.

page A25 col4 ¶1

The monopoly provider of audio description here, an outfit called AudioVision Canada, itself produces manifestly inferior work compared with DVS.

page A25 col4 ¶2

And if the CRTC fails even to match U.S. standards for required audio description, by the time the new licenses expire in 2007 a full 20 years will have passed with no real access to television for blind Canadians.

Sid Adilman, “Have you read any good movies lately?” in *Toronto Star*, June 15, 2002

page J2 col4 ¶2

Now a growing number of programs also must be accompanied by audio description for the blind.

*Audio Description International Conference 2002: Conference Proceedings*

“Prepared by Joel Snyder”

2002

p30 ¶2

Quoted remarks of Charlie Crawford

The only way we’re going to get there is Audio Description when it comes to television, when it comes to art, when it comes to museums, when it comes to any number of the activities that all people in this society take for granted – yet blind people are chronically left to guess what’s in our environment rather than mastering the environment we live in.

Deborah Kendrick and Jay Leventhal, “CSUN 2002,” in *AccessWorld*, July 2002

p9 col2 ¶1

Rick Ely, project manager at the National Center for Accessible Media, reported on his evaluation of a new audio description method that will give blind children additional description to enhance their understanding of visual information. Typically, an educational documentary affords little time to insert audio description. With E Description, the pauses in multimedia material can be extended to allow sufficient time to insert audio description.

**audio(-)described** *adj.* equipped with audio description

Independent Television Commission

*ITC Guidance on Standards for Audio Description*

May 2000

p4 ¶7 line2

Today, with over 40 theatres involved, the UK still leads Europe in the number of venues which regularly offer audio described performances, with France's 5 theatres taking second place.

Sid Adilman, "Have you rad any good movies lately?" in *Toronto Star*, June 15, 2002

page J2 col4 ¶4

While he also applauds CTV, he says Global has more audio-described programs "than any North American broadcaster except for PBS."

**describer** *n.* person who creates audio description

Independent Television Commission  
*ITC Guidance on Standards for Audio Description*

May 2000

p5 ¶4 line2

Later work concentrated on the studio, where a computer-based workstation was developed to enable the describer to work as efficiently as possible.

*Audio Description International Conference 2002: Conference Proceedings*

“Prepared by Joel Snyder”

2002

p5 ¶4

Questions asked included: “How helpful were the program notes provided before each act or scene in enhancing your appreciation or understanding of the performance? How closely did each describer’s voice conform to the ideal of being comfortably and emotionally in tune with the scenes? How helpful was each describer in providing vivid, objective details of the colors, characters, body language, lighting, scenery, etc.? Did each describer refrain from describing what was aurally obvious or talking over the actors’ lines? How effective was each describer in allowing you to be a participant in the unfolding drama performance?”

**captioning** *n.* addition of captions

WGBH Educational Foundation

October 1989

*The Caption Center Manual of Style*

p1 ¶3 line2

The Caption Center produces captions in the two primary styles made possible by the home viewer's decoder: pop-up captioning (captions appear and disappear one at a time like movie subtitles; they may be placed in various locations in the video picture, and timed to the exact video frame) and scroll-up captioning, (captions appear in a constantly scrolling display in the bottom third of the video picture; the caption text "paints on" the screen from left to right, and just before a new line of text appears at the bottom of the screen, the entire display moves up one line, and the top line in the display disappears).

**encode** *v.* to insert codes, as for closed captions, into (the vertical blanking interval of) a video source

WGBH Educational Foundation

October 1989

*The Caption Center Manual of Style*

p22 ¶2 line2

A caption is placed over the slate so that it may be decoded during the encoding session; thus the slate of the master tape will include a visible indication that the commercial's video includes closed-caption data on Line 21.

Audrey Mehler ("With the assistance of The Canadian Captioning Development Agency")

*The Potential of Captioned Television For Adult Learners*

TVOntario Working Papers of Planning and Development Research

Working Paper 88-3

April 1988

p2 ¶1 line3

The captions are encoded into the video signal of many Canadian and American television programmes, and a decoder is required to enable the viewer to view the captions along with the television programming.

Doris C. Caldwell

"The Caption Production Process at PBS" in Barbara Braverman and Barry Jay Cronin, eds., Melody A. Hertzog, associate ed., *Captioning: Shared Perspectives: Proceedings of a National Captioning Conference, National Technical Institute for the Deaf, Rochester, New York, June 1-3, 1978*

1980

p55 ¶5 line2

6. Deliver the work tape to technicians for dubbing, at which time the captions are encoded on line 21 of broadcast tapes.

Carl Jensema

"Viewer Reaction to Different Television Captioning Speeds" in *American Annals of the Deaf*, Volume 143, N° 4, 1998

p319 col2 ¶5

The words of the script for each topic were encoded on the tapes as closed captions.

Gail Canon

"Television Captioning at the Clarke School for the Deaf" in *American Annals of the Deaf*, September 1980

p645 col2 ¶3

We have one amp, Channel 4, tuned to our local PBS Channel 57 feed which gives us some shows with encoded captions.

Trudy Suggs

"Making Strides in Closed Captioning" in *Silent News*, Volume 34, Issue 2, February 2002

p18 col3 ¶4

He says that often, when tapes are re-encoded (captions being redone to an original, pre-recorded tape) the error is supposedly fixed. “But in practice, even re-encoded tapes – like syndicated episodes of *The Simpsons* – contain the original errors.”

**encoder** *n.* device that inserts codes (as for closed captions) into the vertical blanking interval

Gary Robson  
*Inside Captioning*

1997  
p93 ¶1

The encoder is the heart of the captioning system. It is the piece of equipment that actually places the captions in the VBI of the video signal, to be later extracted by a home caption decoder.

p197 6

Just hook up two caption encoders and go, right? Not quite. The problem is that a caption encoder, when it lays down new captions, *replaces* existing captions in Line 21.

p162 ¶2

In either case, the station has a caption encoder installed in their equipment room, placing captions on the video signal coming out of Master Control.

Daniel Wells

“Captioning for the Deaf – A PBS Progress Report” in *SMPTE Journal*, September 1980,  
Volume 80

p657 coll ¶3

The encoders are available in three versions: (1) a test encoder, recommended for stations that wish to originate a captioning test signal on line 21 to facilitate testing of home decoders in the community; (2) a simple encoder, used at the origination point of the captions to encode the caption data on line 21 of one captioning channel; and (3) a “smart” encoder, which can encode data on captioning channel 1 or channel 2, and which can insert infodata on line 21.

**caption(ing)** *n.* title or sequence of titles transcribing dialogue, identifying speakers, and indicating sound effects, added (as to film, video, television) for deaf viewers

Sharon Earley

“The Philosophy of Edited Captions” in Barbara Braverman and Barry Jay Cronin, eds., Melody A. Hertzog, associate ed., *Captioning: Shared Perspectives: Proceedings of a National Captioning Conference, National Technical Institute for the Deaf, Rochester, New York, June 1-3, 1978*

1980

p12 ¶2 line4

Captions allow a non-hearing individual to understand the audio track, because they are presented visually.

Dave Crane

“Writing for Closed-captioned Television for the Hearing-impaired”

*IEEE Transactions on Professional Communication*, Vol. PC 28, N° 4, December 1985

p17 ¶2 line5

On 11 October 1982, the first real-time closed captions were broadcast. On that day, NCI and the American Broadcasting Company began the nation-wide, real-time closed captioning of ABC’s *World News Tonight*. Funds for the captioning were provided by the U.S. Department of Education.

WGBH Educational Foundation

*The ABC’s of DVS®*

2002

p5 ¶2 line7

And we’re especially happy to provide two sets of captions with every broadcast – original, near-verbatim captions for kids with stronger reading skills and edited captions for those who are not yet fluent readers.

Michael Erard

“The King of Closed Captions” in the *Atlantic Monthly*, Volume 288, N° 2, September 2001

p24 col3 ¶2 line14

The program Clark had stumbled on, *The Captioned ABC News*, wasn’t the first instance of media captioning (the U.S. Department of Education had been subtitled films for the deaf since the 1950s), nor was it the first instance of television captioning (episodes of *The French Chef* had been captioned some years earlier).

Audrey Mehler (“With the assistance of The Canadian Captioning Development Agency”)

*The Potential of Captioned Television For Adult Learners*

TVOntario Working Papers of Planning and Development Research

Working Paper 88-3

April 1988

p2 ¶1 line3

The captions are encoded into the video signal of many Canadian and American television programmes, and a decoder is required to enable the viewer to view the captions along with the television programming.

Gary Robson  
*Inside Captioning*

1997

p8 ¶3

Captions allow you to understand what's going on when you can't hear the audio portion of a television broadcast.

p189 ¶5

Captioning provides, on a normal television monitor or projection TV, the text of the sermon so that people can watch both the face of the person speaking *and* the words being spoken.

Carl Armon, Dan Glisson, and Larry Goldberg

"How Closed Captioning in the U.S. Today Can Become the Advanced Television Captioning System of Tomorrow" in *SMPTE Journal*, July 1992

p496 col1 ¶2

Although the terms "captioning" and "subtitling" are sometimes used interchangeably, "captioning" in the U.S. most often refers to on-screen text for the benefit of deaf and hard-of-hearing viewers. Captioning must convey all relevant audio, including off-screen sound effects, speaker identification, etc.

Pam Bristol

"An End to the Silent Screen" in *MediaScene*, June 1987

p9 col1 ¶33

Although captioned ads are often buried in non-captioned shows, some hearing impaired leave their decoders on so they can catch these hidden ads.

Steve Featherstone, "Raising the Profile: Valerie Waite" in *Saturday Night*, May 2002

p29 col1 ¶5

Five seconds from the moment the words leave Petersen's lips, captions appear on thousands of TV screens in southern Ontario and beyond (belonging to the hearing impaired and those learning English, among others) reproducing his words verbatim, and adding a description of the wailing siren.

Joe Clark, "Typography and TV Captioning" in *Print* XLIII:I, January/February 1989

p96 col2 ¶1

That's especially true in one particular video art—television captioning, or subtitling programs for the hearing-impaired.

p96 col2 ¶3

The captions, which looked much like the subtitles of a foreign-language movie, were usually placed at the bottom of the screen and were set in a font resembling a cross between Helvetica and Franklin Gothic.

p99 col2 ¶1

Like NCI, CCDA believes it's necessary to show only a change of speaker, though CCDA feels there's enough difference between a left-justified block of caption text and a *centered* block to do the job. But since centering occurs only in four-character increments, it is approximate at best, and many centered captions look like left-justified captions. On the whole, CCDA's captions make it far too difficult to tell who is speaking from the caption alone, a double failure of typography and philosophy.

J.O. Darbyshire, D.A. Vaghy

*Final Report of a Pan-Canadian Survey of the Communication Needs of Hearing-Impaired Youths and Adults*

October 31, 1979

p31 ¶2

While the hours shown can not be taken as definitive evidence of how much time deaf Canadians would watch captioned television if it were available widely and for long periods of time per week, it is very clear that those who have had experience of watching captions are already demanding several hours of it per day.

p81 ¶1 (typos in original)

“This section is going to deal with captioning.”

“When a T.V. programme is captioned, what is being said is printed out across the bottom of the screen.”

“An alternative to captioning is super-imposed interpreting where what is being said is relayed using sign language.”

“Adapted Interactive Media (AIM)” in *Media Access*

Fall 1992

p3 coll ¶3

The Adapted Interactive Media (AIM) Project provided deaf students with interactive videodisc packages produced at WGBH based on the popular public TV series *NOVA*. Our goal was to observe how students used the packages and discover what kinds of modifications (in addition to captions) might make them more useful to this audience.

“Coming Soon to a Theatre Near You... Access!” in *Media Access*

Fall 1992

p4 coll ¶3

MARDO’s technology projects manager, Dan Glisson, has begun investigating solutions. Glisson, a 16-year veteran of WGBH, has been instrumental in designing systems for producing television closed captioning. However, movie captioning brings a unique set of problems, not the least of which is that the captions must be unobtrusive for other patrons.

Nancy Dye & Connie Mayer, “Captioned Media: An Untapped Resource,” in *Cable in the Classroom*, Winter 1997

p8 sidebar

3. Focus the students’ attention to the location of the captions on the screen which contain the text for the dialogue. Make sure the students understand that this text represents the actual words that the characters are speaking.

“QUESTIONS AND ANSWERS, Rogers TVSee Program”

Memo undated in original text, but received at the Metropolitan Toronto Reference Library June 15, 1994, according to the library’s stamp. No author, either, but it’s obviously from Rogers Cable

p1 ¶5

The speed with which the captions appear on the television screen is controlled at the point of captioning – when the television program is produced.



**(closed(-))caption** *v.* to add captions, as to a film, video, or television production

“Contract for Captioning Movies Terminated” in *The Deaf Canadian Magazine*, March 1983  
p1 col1

On September 30, 1982, the federal government (Department of Education) (US) awarded a contract to the WGBH Caption Center to closed caption 120 movies per year for commercial network television.

Gail Canon

“Television Captioning at the Clarke School for the Deaf” in *American Annals of the Deaf*,  
September 1980

p645 col1 ¶8

Their purpose was to develop the potential of captioned television to provide deaf youngsters with a wealth of entertaining yet informative language experiences.

Trudy Suggs

“Making Strides in Closed Captioning” in *Silent News*, Volume 34, Issue 2, February 2002  
p1

It was on March 16, 1980, that the American deaf population tuned in to watch some of the first staples of American television that were closed captioned by the National Captioning Institute (NCI), including *The ABC Sunday Night Movie*, *The Wonderful World of Disney* and *Masterpiece Theatre*.

p19 col2 ¶4

“I was standing there watching and following the news when all of a sudden it hit me. Hey, I can understand this! A local news program was captioned! Live!”

Steve Featherstone, “Raising the Profile: Valerie Waite” in *Saturday Night*, May 2002

p29 col1 ¶5

According to Toronto-based Joe Clark, the eccentric self-appointed guru of closed-captioning, Waite is not only fast, “she captions with unusual finesse. It’s more than getting the words onscreen. Val uses the proper punctuation and upper and lower case. You might find that in court reporting but not TV.”

Joe Clark, “Typography and TV Captioning” in *Print* XLIII:I, January/February 1989

p99 col2 ¶3

NCI captions sound effects and other commentary the same way it captions explicit speaker IDs—in capitals, between brackets.

Canadian Radio-television and Telecommunications Commission

*Introduction to Decisions Renewing the Licenses of Privately-Owned English-Language  
Television Stations*

24 March 1995

p15 col12 ¶2

Of particular interest to interveners were the efforts made by broadcasters to increase the amount of captioned programs in their schedules and to caption the live segments of news programming.

p18 col1 ¶3

The commission requires the licensees of all stations earning more than \$10 million in annual advertising revenues and network payments to caption, by 1 September 1998, all local news programming, including live segments, using either real-time captioning or another technology capable of producing high quality captioning for live programming.

The Commission also requires all such licensees to close caption at least 90% of all programming during the broadcast day, by the end of the license term.

*Captioning News: The Newsletter of the Canadian Captioning Development Agency Inc.*

August 1987

p2 ¶1

In a news release announcing the additional captioned hours, Mimi Fullerton, director-general of TV Ontario, said, "I am very pleased that our ability to caption an increasing amount of programming has been assisted by CCDA's efforts to keep the cost of captioning down. Through this, TVO can increase learning opportunities significantly for this important segment of the population."

*Captioning News: The Newsletter of the Canadian Captioning Development Agency Inc.*

July 1987

p4 ¶5

#### **Quatre Saisons Captions News**

Quebec's newest television network, Quatre Saisons, began captioning their early newscast on Monday, June 22nd. Hearing impaired viewers in Montreal, Quebec City, Ottawa/Hull, Sherbrooke, Chicoutimi/Jonquiere, Trois Rivieres and Abitibi can now see and understand "*Le Grande Journal*" every Monday through Friday at 5:30 p.m.

[Numerous French transliteration errors in original]

*Verbatim: Vital Access Through Captioning*

"Published by Vitac" (Vitac Corporation newsletter)

Winter 1999

p1 ¶3

Sports programming is particularly challenging to caption because of fast-talking sports announcers and the flexibility needed for games that go into overtime.

p1 ¶4

Matlin comments to Leeza, "...I also work on behalf of an organization called VITAC, which provides closed captioning on television. Your show, in fact, is closed captioned by VITAC. Not only does it help 28 million hearing impaired, there are also individuals, 35 million children, who watch TV who can learn to use closed captioning to learn how to read while they watch TV. It's a great thing. VITAC does a great job, and I thank all of them, all the shows that are closed captioned..." VITAC has been captioning Leeza since October of 1996.

Nicholas Negroponte

*Being Digital*

Vintage paper edition, 1996

p179 ¶3

In the next few decades, bits that describe the other bits, tables of contents, indexes, and summaries will proliferate in digital broadcasting. These will be inserted by

humans aided by machines, at the time of release (like closed captions today) or later (by viewers and commentators). The result will be a bit stream with so much header information that your computer really can help you deal with the massive amount of content.

“The Caption Center Turns 20!” in *Caption Center News*

Spring 1992

p1 ¶1

In 1972 The Caption Center changed the lives and television viewing habits of deaf and hard-of-hearing audiences forever when it captioned Julia Child’s *The French Chef*—the first accessible television program.

Gail L. Kovalik, “ ‘Silent’ Films Revisited: Captioned Films for the Deaf,” *Library Trends*, vol. 41, n° 1, Summer 1992

p108 col1 ¶4

Working with staff from Gallaudet University, a project director in South Carolina, and using the services of the National Captioning Institute (NCI), AND proposes to screen and caption educational videos in a shorter time frame than was possible through the annual video judging-validating-captioning workshops (Stark, 1991, p. 2).

**closed(-)captioned, close(-)captioned** *adj.* equipped with closed captions

Meryl Kaplan-Evans

Letter to editor, *People*, 22 January 1990

p4 col3 ¶6 line6

You listed Billy Joel's Storm Front as one of 1989's worst albums. I was outraged. I may be hearing impaired, but I know what makes a good song. The video of "We Didn't Start the Fire" is one of the few that is close-captioned on MTV. Therefore, I know the words, and this is no different from Joel's other great songs. Maybe you should hire a hearing-impaired person to be your music critic.

Carl Jensema

"Viewer Reaction to Different Television Captioning Speeds" in *American Annals of the Deaf*, Volume 143, N° 4, 1998

p318 col2 ¶1

Since it first appeared on television broadcasts, on March 16, 1980, close-captioned television has become an important factor in the education and entertainment of people who are deaf or hard of hearing. More than 500 hours of closed-captioned programming is telecast each week, and the number of hours is steadily increasing. By the turn of the century, most television programs are expected to be closed-captioned.

[In this paragraph, both *close-captioned* and *closed-captioned* are used]

Edward Carney and Ruth Verlinde

"Caption Decoders: Expanding Options for Hearing Impaired Children and Adults" in *American Annals of the Deaf* 132/2 (1987)

p73 ¶1

Thanks to the introduction of closed captioned television in March 1980, people who have hearing impairments can watch many television programs at the same time and with the same understanding as the general population.

Carl Jensema

"A Demographic Profile of the Closed-Caption Television Audience" in *American Annals of the Deaf*, December 1987

p389 col2 ¶4

Each respondent was asked how many people would watch closed-captioned TV with the decoder.

p390 col1 ¶4

Table 4 breaks down the responses according to the number of hearing-impaired people reported to watch closed-captioned television.

Cheryl Gerber

"The Captioning Quagmire: Is There Room for Private Enterprise?" in *Channels*, June 1988

p10 col3 ¶2

With that money it developed a closed-captioning system that required a decoder to view the captions, and landed a contract to close-caption ABC programming.

[This example uses both *closed-captioning* and *close-captioning*]

Christopher P. Denis

“Closed-Caption Market Booms As Homevid Makers Wake” in *Variety*, May 16, 1984

p52 col1 ¶1

Closed-captioned videocassettes and closed-captioned tv programs are on the verge of becoming a mass market.

With 85,000 households nationwide, representing 335,000 people, now equipped with decoders to receive 45 hours per week of closed-captioned tv programs for the hearing-impaired, the National Captioning Institute foresees more than 100 hours per week of nationally broadcast programs closed-captioned for an audience of 500,000 households within five years.

This enormous leap in servicing deaf or partially-deaf residents is being reflected in sales of VCRs, decoders and closed-captioned cassettes.

Jan Ivarsson, Mary Carroll

*Subtitling*

1998

p24 ¶5

(Experiments with closed captions for the deaf were also conducted in the USA from 1974, but they were not introduced to television until 1980, the same year they were officially launched in Britain.)

Carl Armon, Dan Glisson, and Larry Goldberg

“How Closed Captioning in the U.S. Today Can Become the Advanced Television Captioning System of Tomorrow” in *SMPTE Journal*, July 1992

p497 col3 ¶3

The concept of program-related data should be expanded to include not only closed captions (for deaf and hard-of-hearing viewers) but also subtitles (for viewers of various linguistic groups), and hypermedia information.

“Closed Captions Help Viewers Listen to America” in *Caption Center News*

Spring 1992

p1 col2 ¶3

According to Bill Moyers, the series' host and editor, “*Listening to America* is a forum for presenting ideas affecting Americans as they prepare to go to the ballot box in November. I feel it is important that the series is closed captioned in order to provide all voters with access to information which will influence the election and the future of our country.”

“Capitol Continues Support of Captioning” in *Caption Center News*

Spring 1992

p3 col1 ¶2

Capitol Records' support began in 1989 when Capitol started to caption their artists' music video clips. Over the years, music videos from artists Bonnie Raitt, Bob Seger, Beastie Boys, Richard Marx, and Tina Turner have been captioned.

Capitol Records also captions many of its long-form music videos including Hammer's *The Making of Addams Groove* and *The Making of Too Legit to Quit*, plus videos from Bonnie Raitt and Bebe & Cece Winans which are available for sale or rental.

“Sony Music Video Enterprises Captions Two Instant Classics” in *Caption Center News*  
September/October 1991

p4 col2 ¶1

Fans of James Taylor and the PBS series *The Civil War*, take note: The Caption Center has closed captioned *James Taylor in Concert* and *Songs of the Civil War* for **Sony Music Video Enterprises** for home video rental and/or purchase. This is the first time SMV Enterprises has made its exciting music programs accessible to deaf and hard-of-hearing viewers. SMV Enterprises’ sister divisions (under the Sony Music Entertainment Corporation), Columbia and Epic Records, have been closed captioning their music video clips since 1989.

Gail L. Kovalik, “ ‘Silent’ Films Revisited: Captioned Films for the Deaf,” *Library Trends*,  
vol. 41, n° 1, Summer 1992

p104 col1 ¶3

A closed captioned program is broadcast the same way any other program is broadcast, but when a decoder is attached to the receiving television, the decoder can “open up” the closed captioning, making it visible on the screen.

**captioner** *n.* person or firm creating captions

Sharon Earley

“The Philosophy of Edited Captions” in Barbara Braverman and Barry Jay Cronin, eds.,  
*Captioning: Shared Perspectives: Proceedings of a National Captioning Conference,*  
*National Technical Institute for the Deaf, Rochester, New York, June 1-3, 1978*

1980

p17 ¶1 line3

A beautiful solution, except . . . except for the fact that one captioner working full-time on verbatim captioning would probably only produce two hours of captioned material a week.

Michael Erard

“The King of Closed Captions” in the *Atlantic Monthly*, Volume 288, No 2, September 2001

p25 col2 ¶2 line13

Valerie Waite is a real-time captioner at Waite & Associates in Whitby, Ontario (and one of the rare captioners who have earned Clark’s praise).

Gary Robson

*Inside Captioning*

1997

p148 ¶8

Successful captioning firms get a lot of inquiries from aspiring captioners, and you *will* want to stand out from the crowd.

p162 ¶8

One captioner, Kevin Daniel, of Bay Area Captioning, in Sam Ramon, California, has even gone so far as to set up a notebook computer to run from the cigarette lighter adapter in his car, along with a special modem hooked to a cellular phone, and a Sony Watchman portable battery-powered TV. He can lose power *and* telephone service, and still stay on the air.

p188 ¶2

If the Senate floor is open and active until midnight, the captioners must be there until midnight, still as accurate and fast as they were first thing in the morning, which explains part of the rationale for the 30-minute shifts worked by the Senate captioners.

p155 ¶4

You *need* to have backup captioners. You don’t have to have full-time captioners on staff as employees, but if you’re going at this alone (without a partner), make sure you’ve at least got a couple of people on contract.

Gail Canon

“Television Captioning at the Clarke School for the Deaf” in *American Annals of the Deaf*,  
September 1980

p647 col2 ¶4

In selecting the two captioners, I am mainly looking for persons who have good typing skills and seem genuinely interested in learning how to caption.

Joe Clark, “Typography and TV Captioning” in *Print* XLIII:1, January/February 1989

p99 col3 ¶2

Where necessary, sentences are excised and terms are rearranged; occasionally, misguided captioners delete individual words under the incorrect assumption that people read word-by-word.

Gail L. Kovalik, " 'Silent' Films Revisited: Captioned Films for the Deaf," *Library Trends*, vol. 41, n° 1, Summer 1992

p104 col1 ¶4

The captioner views and listens to a videotape of a program, prepares a transcript, edits the script into chunks of communication (at the same time editing out extraneous material), types the new script into a computer, and decides where and when the captions should appear on the screen.

**closed(-)caption(ing)** *n.* hidden caption, usu. requiring a decoder, reflector, or other device to make visible; the process of adding closed captions

Dave Crane

“Writing for Closed-captioned Television for the Hearing-impaired”

*IEEE Transactions on Professional Communication*, Vol. PC 28, N° 4, December 1985

p15 ¶2 line14

Closed captions permit hearing-impaired persons to read on their video screens what most of the population hears.

p17 ¶2 line1

On 11 October 1982, the first real-time closed captions were broadcast. On that day, NCI and the American Broadcasting Company began the nation-wide, real-time closed captioning of ABC’s *World News Tonight*. Funds for the captioning were provided by the U.S. Department of Education.

David Sillman

“Television Captioning for the Deaf” in *IEEE Transactions on Consumer Electronics*, Vol. CE-30, N° 2, May 1984

p62 ¶4 line11

What was required was a means for providing “closed” captions, that is captions transmitted by the broadcaster which appear only on the screens of specially equipped receivers without interfering with conventional TV receivers.

WGBH Educational Foundation

MOTION PICTURE ACCESS (MOPIX®)

Making Motion Pictures Accessible to Everyone

Undated brochure (but post-1993)

p1 coll ¶1 line1

Closed Captions are same-language subtitles designed for deaf and hard-of-hearing people. In addition to spoken dialogue and narration, captions convey essential information, such as sound effects and speaker identifications.

Michael Erard

“The King of Closed Captions” in the *Atlantic Monthly*, Volume 288, N° 2, September 2001

p24 coll ¶1 line14

His mind isn’t just on the action, however: Clark has turned on the closed captions and is focused on the words at the bottom of the screen—even though he is neither deaf nor hard of hearing.

Hamida Ghafour

“The English Patients” in *Toronto Star*, May 27, 2001

pA1 ¶6

Street English being crucial to getting around the city, he usually watches the Discovery Channel until the early hours of the morning, turning on the closed captions. The single narrator used in many of the programs makes them easier to follow than sitcoms.

“At the same time the person is speaking, the closed caption is there. All night I watch closed captions and listen to the person,” he says, leaning over pretending to watch a screen.

“I listen to the guy pronouncing the words as it is spelled on the television.”

Deborah Russell

“Closed Captioning of Clips Increases” in *Billboard*, December 2, 1989

p48 col1 ¶1

LOS ANGELES Closed captioning, the video technology that subtitles TV dialog for the hearing impaired, is making its way into music video.

p48 col1 ¶3

Living Colour decided to caption its videos when producer Ed Stasium mentioned that his hearing-impaired daughter had expressed a wish to know what was being sung in the band’s clips.

Carl Jensema

“A Demographic Profile of the Closed-Caption Television Audience” in *American Annals of the Deaf*, December 1987

p389 col1 ¶1

The hidden subtitles are referred to as closed captions and can be seen only on television sets equipped with a special electronic “TeleCaption” decoder.

Gary Robson

*Inside Captioning*

1997

p2 ¶1

What we refer to as “closed” captions are captions that are hidden in the video signal and are invisible without a special decoder.

“Canadian Captioning Development Agency”

*The Deaf Canadian Magazine*, May 1983

p13 col1 ¶4

It is felt that by broadening the base for closed-captioning, the viability of this service for the deaf and hard-of-hearing will only be enhanced.

Joe Clark, “Typography and TV Captioning” in *Print* XLIII:I, January/February 1989

p96 col3 ¶2

Through closed captioning, a program can be enjoyed by deaf viewers with captions and by hearing viewers without.

**decoder** *n.* device that translates hidden codes into visible captions

David Sillman

“Television Captioning for the Deaf” in *IEEE Transactions on Consumer Electronics*, Vol. CE-30, N° 2, May 1984

p64 ¶5 line2

—Design, development and high volume production of low cost caption decoder adapters and decoder-integrated television receivers.

Michael Erard

“The King of Closed Captions” in the *Atlantic Monthly*, Volume 288, N° 2, September 2001  
p25 col1 ¶2 line8

Viewers who wanted captions now needed a decoding device (in 1993 decoders became mandatory on most new TVs).

Audrey Mehler (“With the assistance of The Canadian Captioning Development Agency”)

*The Potential of Captioned Television For Adult Learners*

TVOntario Working Papers of Planning and Development Research

Working Paper 88-3

April 1988

p2 ¶1 line3

Captions can be transmitted openly, whereby they are visible to everyone watching the programme, or closed, in which case they cannot be seen unless the viewer’s television set in equipped with a special decoder.

[Yes, it says “in equipped” in the original]

Joseph Blatt and James S. Sulzer

“Captioned Television and Hearing-Impaired Viewers: The Report of a National Survey” in *American Annals of the Deaf*, December 1981

p1021 col2 ¶3 line3

This finding is consistent with the fact that 83% of the respondents reported that they own closed caption decoders (presumably the Sears Telecaption adapter, although television receivers with integrated decoders became available before the completion of the survey).

Sy DuBow

“The Television Decoder Circuitry Act—TV for All” in *Temple Law Review*  
64 *Temple Law Review* 609-618 (Summer 1991)

p609 footnote3

Reports by the House and Senate have further defined auxiliary aids to include closed-captioning decoders: “For example, it would be appropriate for regulations issued by the Attorney General to require hotels of a certain size to have decoders for closed-captions available or, where televisions are centrally controlled by the hotel, to have a master decoder.” H.R. REP. NO. 485, 101st Cong., 2d Sess., pt. 2, at 107 (1990); S. REP. NO. 116, 101st Cong., 1st Sess. 64 (1989).

Carl Jensema, Ralph McCann, Scott Ramsey

“Closed-Captioned Television Presentation Speed and Vocabulary” in *American Annals of the Deaf*, Volume 141, N° 4, 1996

p285 col3 ¶2 line3

The videotapes were replayed with the signal being run through a special closed-caption decoder which read the closed-caption information from line 21 of the vertical blanking interval and fed that data into a computer file.

Carl Jensema, Ramalinga Sarma Danturhi, and Robert Burch

“Time Spent Viewing Captions on Television Programs” in *American Annals of the Deaf*, Volume 145, N° 5, 2000

p464 col2 ¶1 line8

Since 1993, closed-captioned television decoders have been built into every television set with a screen larger than 13 inches.

Deborah Russell

“Closed Captioning of Clips Increases” in *Billboard*, December 2, 1989

p48 col1 ¶4

Only televisions with decoders are able to unscramble the messages that line the bottom of the screen.

Cheryl Gerber

“The Captioning Quagmire: Is There Room for Private Enterprise?” in *Channels*, June 1988

p10 col3 ¶2

With that money it developed a closed-captioning system that required a decoder to view the captions, and landed a contract to close-caption ABC programming.

[This example uses both *closed-captioning* and *close-captioning*]

Christopher P. Denis

“Closed-Caption Market Booms As Homevid Makers Wake” in *Variety*, May 16, 1984

p52 col1 ¶1

Hearing-impaired residents have to date spent \$25,000,000 to buy decoders, a device that when triggered by the viewer, makes visible hidden subtitles enabling the hearing-impaired to read on their tv screens what the rest of the world can hear.

Gary Robson

*Inside Captioning*

1997

p3 ¶6

There are some disadvantages to the external decoders, like having an extra box to plug in, and an extra remote control – don’t we have *enough* remote controls? – and not being able to view color captions (all captions appear white on black when viewed using an external decoder.)

[End-punctuation error in original]

p8 ¶4

Even though nobody in my household is deaf or hard of hearing, we have had a caption decoder on our main television set for quite a few years.

p133 ¶3

Zenith put televisions with built-in caption decoders into production in early 1992, over a year before the July 1993 deadline imposed in the Act.

Carl Armon, Dan Glisson, and Larry Goldberg

“How Closed Captioning in the U.S. Today Can Become the Advanced Television Captioning System of Tomorrow” in *SMPTE Journal*, July 1992

p496 col2 ¶7

For the original decoders which went on sale in 1980, PBS developers included a minimal set of Spanish characters as substitutions in the standard ASCII set.

“State-of-the-Art Norpak Captioning Equipment Makes Dual-Mode Captioning a Reality at the WGBH Caption Center”

*The Deaf Canadian Magazine*, July 1983

p15 col2 ¶2

Your line-21 decoder will still be useful; teletext decoders will bring many of the same captioned programs into your homes while providing a visually-based printed information system as well.

Pam Bristol

“An End to the Silent Screen” in *MediaScene*, June 1987

p9 col1 ¶3

Decoders can be purchased from several companies—the Sears catalogue sells them for \$450—or leased from Rogers Cable. When the device is turned on, the captions appear.

Joe Clark, “Typography and TV Captioning” in *Print* XLIII:I, January/February 1989

p96 col3 ¶2

Similar to a cable converter, a decoder translates the caption codes into characters which then appear on the TV screen.

Letter from Dan Glisson to Joe Clark

14 April 1991

p2 ¶2

To the bitter end, they believed that their decoder chip, developed in collaboration with ITT, would become a de facto feature of all new receivers, resulting in a flood of cash and the ability to offer free captioning services to all their best customers.

p3 ¶7

We suggested that a data channel of 9,600 bits per second be allocated to closed captioning (and similar services, such as translation/subtitles, literacy drills, etc., but not other text services).

*Captioning News: The Newsletter of the Canadian Captioning Development Agency Inc.*

September 1987

p5 ¶1

Bridge Integrated Technologies of Richmond Hill, Ontario, will begin marketing a new, all-Canadian closed caption decoder under the Cedemco brand name.

“Captioning: The Next Generation” in *Media Access*

Fall 1993

p3 col2 ¶1

A milestone in media access is upon us. As of July 1, all TV receivers 13 inches and larger manufactured or imported for sale in the U.S. will be equipped with caption-decoder circuitry. This is the climax of a fast-moving sequence of events set in motion by the Television Decoder Circuitry Act.

President Bush signed the Act in October of 1990, whereupon the FCC, with the assistance of the Electronic Industries Association (EIA), embarked on a six-month process to develop a comprehensive specification for the new built-in decoders. That done, the EIA drafted more than a hundred pages of recommended practices to help manufacturers and service providers implement the new FCC rules in a consistent way. The EIA document (known as EIA-608, available in draft form from MARDO) also paves the way for innovative new uses of decoder circuitry known as Extended Data Services (EDS).

Etan Vlessing, "Broadcasters boost Captioning Week" in *Playback*, May 24, 1993

p5 col3 ¶6

From July 1, the enactment of the Television Decoder Circuitry Act in the U.S. will ensure that all TV sets larger than 13 inches built after that date will contain captioning decoder electronics.

Letter from Laura M. Denney, Director of Marketing, MYCAP USA, 1123 East Dominguez Street, Unit E, Carson, CA 90746, to PUBLIC LIBRARY-TORONTO-DISABILITY SERVICES, 789 YONGE ST., TORONTO ONT M4W2G8 (Ms Perez), April 30, 1996

¶2

Despite the fact that all new television sets contain caption decoding circuitry, full implementation of the new EIA-608 recommended practice for line 21 of the upcoming captioning service will make most existing set top decoders and many captioned television sets inadequate under the new standard by the year 2002.

¶4

With great anticipation from educators, cable industries, deaf, and hard-of-hearing, MYCAP Supervision is expected to be the most popular decoder ever in the history of closed caption decoder markets.

**line 21, Line 21** *n.* twenty-first line of the vertical blanking interval, used for transmitting closed captions on television and video

Andrew Malcolm, member, IEEE

“How Closed Captions Work” in *IEEE Transactions on Professional Communication*, Vol. PC 28, N° 4, December 1985

p19 ¶4 line1

Closed caption data is transmitted during Line 21, the first unblanked horizontal line following the vertical blanking pulse in field 1. Although the captioning data modulates Line 21, this line is not normally seen because sets are adjusted so that several lines at the top and the bottom are off the viewing screen.

David Sillman

“Television Captioning for the Deaf” in *IEEE Transactions on Consumer Electronics*, Vol. CE-30, N° 2, May 1984

p64 ¶2 line9

This floppy disk becomes the program caption data source which, when used with a Line 21 Encoder automatically inserts the correctly timed Line 21 data signal into the program video line.

Doris C. Caldwell

“The Caption Production Process at PBS” in Barbara Braverman and Barry Jay Cronin, eds., Melody A. Hertzog, associate ed., *Captioning: Shared Perspectives: Proceedings of a National Captioning Conference, National Technical Institute for the Deaf, Rochester, New York, June 1-3, 1978*

1980

p55 ¶5 line2

6. Deliver the work tape to technicians for dubbing, at which time the captions are encoded on line 21 of broadcast tapes.

Joseph Blatt and James S. Sulzer

“Captioned Television and Hearing-Impaired Viewers: The Report of a National Survey” in *American Annals of the Deaf*, December 1981

p1018 ¶2 line2

Further impetus for the project arose from the introduction in March 1980 of the line 21 closed captioning service by the National Captioning Institute. The WGBH Caption Center decided to offer hidden captioning services in line 21, teletext, and other encoded systems (and, in the spring of 1981, has begun to do so).

Joseph Blatt, Gary Rosch, Carole Osterer

“The Promise of Teletext for Hearing-Impaired Audiences” in *1980 Chicago Spring Conference* (IEEE, 0098-3068/80/0717-0722)

01639980 INSPEC Abstract Number: B81012192

Title: The promise of teletext for hearing-impaired audiences

Author(s): Blatt, J. ; Rosch, G.; Osterer, C.

Author Affiliation: WGBH, Boston, MA, USA

Journal: *IEEE Transactions on Consumer Electronics*

vol. CE-26, N° 4, p. 717–22

Publication Date: Nov. 1980  
Country of Publication: USA  
CODEN: ITCEDA ¶ ISSN: 0098-3063  
p717 col2 ¶5

In February of 1976, in response to a petition for rule making filed by PBS requesting an amendment of Subpart E of Part 73 of the FCC's Rules and Regulations, the FCC issued a Notice of Proposed Rule Making providing that line 21, field 1, and the available half of line 21, field 2, of the television vertical blanking interval be reserved for the transmission of captioned information for the deaf.

Carl Jensema  
"A Demographic Profile of the Closed-Caption Television Audience" in *American Annals of the Deaf*, December 1987  
p389 col1 ¶1

This system involves the transmission of subtitles encoded on line-21 of the vertical blaking interval, the familiar "black bar" often seen on television sets which need adjustment.

Carl Armon, Dan Glisson, and Larry Goldberg  
"How Closed Captioning in the U.S. Today Can Become the Advanced Television Captioning System of Tomorrow" in *SMPTE Journal*, July 1992  
p496 col1 ¶3

If field 2 of line 21 were to be shared with such services, with captioning/subtitling taking priority, it is more likely that decoders capable of both fields would become commonplace.

Carl Armon, Dan Glisson, and Larry Goldberg  
"How Closed Captioning in the U.S. Today Can Become the Advanced Television Captioning System of Tomorrow" in *SMPTE Journal*, July 1992  
p497 col1 ¶2

A great advantage of the line-21 system is that the caption data are rugged enough to survive multiple generations of copying and playback by consumer VCRs.

*Sears Technical Training Manual: TeleCaption Adaptor 21205, Course #57-516-87*  
February 1987  
p1 col1 ¶1

The new service of captioning for the deaf utilizes line 21, field one, for transmission of coded character data.

p1 col2 ¶16

The composite video is received by the input video processor; this circuit slices the digital data on line 21 from the composite video signal and passes it onto the serial to parallel converter.

Etan Vlessing, "Broadcasters boost Captioning Week" in *Playback*, May 24, 1993  
p5 col5 ¶4

The process operates on line 21 of the vertical blanking interval, the horizontal black bar between individual television images.

**non-speech information** rendition in captions of auditory events other than dialogue

Technology Assessment Program, Gallaudet Research Institute

Judith E. Harkins, Ph.D., Project Director, Ellie Korres, Research Associate, Beth R. Singer,

M.S., CCC-A, Research Associate, Barbara M. Virvan, M.S.W., Research Associate

September 13, 1994

p1 ¶3 line1

The purpose of these guidelines is to improve captioning of “non-speech information” (NSI). NSI is a term that describes aspects of the sound track, other than spoken words, that convey information about plot, humor, mood, or meaning of a spoken passage.

**open(-)caption** *n.* always-visible caption; *v.* provide, create, or include always-visible captioning

David Sillman

“Television Captioning for the Deaf” in *IEEE Transactions on Consumer Electronics*, Vol. CE-30, N° 2, May 1984

p62 ¶1 line10

While the hearing-impaired can be served to a limited extent by the addition of “open captions” to programs, (sub-titles seen on all receivers), viewers with normal hearing find open captions distracting and therefore it is not a general solution to the problem.

p62 ¶4 line8

As mentioned earlier, the alternative (open caption) displays on the screens of all TV viewers and proves annoying to people with normal hearing.

Michael Erard

“The King of Closed Captions” in the *Atlantic Monthly*, Volume 288, N° 2, September 2001

p25 col1 ¶2 line6

But that year TV-industry executives, responding to anecdotal evidence that hearing people disliked having text on their screens, took “open” captions off the air.

Carl Jensema, Ralph McCann, Scott Ramsey

“Closed-Captioned Television Presentation Speed and Vocabulary” in *American Annals of the Deaf*, Volume 141, N° 4, 1996

p284 col1 ¶2 line4

In 1972, public television station WGBH in Boston did a unique experiment in which *The French Chef*, a cooking program featuring Julia Child, was open-captioned. The success of this first attempt at captioning led WGBH to rebroadcast daily an open captioned version of *ABC World News Tonight* for deaf and hard of hearing people.

Captioned Films/Videos Program, National Association of the Deaf

*Captioning Key: Preferred Styles and Standards*

July, 1995

p2-1 ¶2 line1 (pagination uses section numbers followed by dash and page number)

Open-captioning (subtitling) is “burned” onto the videotape and is always visible—no decoder is needed.

Edward Carney and Ruth Verlinde

“Caption Decoders: Expanding Options for Hearing Impaired Children and Adults” in *American Annals of the Deaf* 132/2 (1987)

p73 col2 ¶3

Open captions proved to be a distraction for normally hearing viewers in all but the few situations when captions were needed to aid comprehension (e.g., foreign language movies); and objections were raised by this audience.

Cheryl Gerber

“The Captioning Quagmire: Is There Room for Private Enterprise?” in *Channels*, June 1988

p10 col3 ¶2

Before 1980, open captions (not requiring decoders) were produced almost exclusively by The Caption Center, a nonprofit captioning agency under Boston public TV station WGBH's educational foundation. WGBH, for example, would take ABC's evening news feed, open-caption it, then rebroadcast it nationwide over public TV stations.

Gary Robson  
*Inside Captioning*  
1997  
p2 ¶2

Open captions, on the other hand, are captions that have been decoded, so they have become an integral part of the television picture, like subtitles in a movie. In other words, open captions cannot be turned off.

Joe Clark, "Typography and TV Captioning" in *Print* XLIII:I, January/February 1989  
p96 col2 ¶4

Open captions had many advantages—different fonts and colors were available, for example, and anyone with a TV set could watch them—but their "openness" was their undoing.

*Captioning News: The Newsletter of the Canadian Captioning Development Agency Inc.*  
October 1987  
p4 ¶1

Hearing impaired visitors to Bethune Memorial House in Gravenhurst, Ontario, can now enjoy two open captioned videos — one on the Bethune Homestead and what life was like in Gravenhurst in the 1890's, and this latest video on Bethune's remarkable life as a wartime surgeon and humanitarian in Spain and China.

Etan Vlessing, "Broadcasters boost Captioning Week" in *Playback*, May 24, 1993  
p5 ¶3

Participating broadcasters include CBC, the CTV Television Network, City-TV, Global Television, TVOntario and YTV, which will open-caption selected primetime programming during the week.

p5 ¶5

City, besides premiering *Casablanca* in open captioning on June 4, will also open-describe the film classic for people who are blind during an afternoon broadcast that day.

"Caption Awareness Prime Time Weekend on Rogers"

Media Release  
Cate Freeman, Publicity Officer  
Rogers Community 10  
14 May 1996

¶1

*Rogers Caption Awareness Prime Time Weekend* will present some of Canada's best local television programs with open captions which will be telecast simultaneously on Rogers Community Television Stations across Ontario and British Columbia.

National Information Center on Deafness, Gallaudet University, "GLOSSARY OF BASIC TERMS FOR CAPTIONING VIDEO," 10/92

p7 ¶5

Open captions are advised for any situation where a decoder may be difficult to obtain or operate (for example, in a hotel, convention center, or museum). For this reason, open captioning is recommended for training and promotional videos.

Coalition for Movie Captioning, "Coalition for Movie Captioning Position Paper: Access for Moviegoers who are Deaf, Hard-Of-Hearing or Late-Deafened," in *The Blue Book: 2001 TDI National Directory & Resource Guide* (Silver Spring, MD: TDI, 2001)

page labeled Resource Guide-39

Movie studios and theaters have been slow to adopt open captioning of movies by claiming that open captioning causes a negative effect on box office sales.

**subpicture** *n.* DVD bitmap overlay, used esp. for subtitles, captions, karaoke lyrics, and menus.

Gary Robson  
*Inside Captioning*  
1997  
p6 ¶5

3. Subpictures. These are pictures that are overlaid on the main picture.

Dana J. Parker, *CD-ROM Professional*  
August 1996  
p79 col1 ¶2

Another new term, subpictures, refers to a graphic representation of a menu, title, subtitle, or decision box that prompts the viewer for input.

Jim Taylor, *DVD Demystified*  
1998  
p348 ¶3

The subpicture feature of DVD could be extended far beyond simple captions, menus, and crude animation if it were not limited to four colors and four transparency levels at a time.

p348 ¶4

The designers obviously chose to limit the subpicture format to save cost and bandwidth, but even a small improvement of 16 simultaneous colors would have made for significantly better-looking subtitles, more sophisticated highlighting, and a superior graphic overlay environment.

p525 ¶5

Subpictures can be used to create limited animation overlaying the video. A subpicture rate of 15 per second is the practical limit for many players, although anything faster than 2 per second will cause problems on some players.

Ralph LaBarge, *DVD Authoring & Production*  
2001  
p32 ¶6

The DVD-Video format supports up to thirty-two (32) simultaneous subpicture streams for use as subtitles, closed captions, graphical overlays or simple animation. Each subpicture stream is multiplexed into the overall DVD-Video bit stream so that they are synchronized with the video and audio data. Subpicture streams are stored as Run Length Coded Bit Maps with 2 bits allocated per pixel of data.

p118 ¶1

**Subpicture Quality** All subpicture streams should be checked to insure that all subpicture elements meet the minimum acceptable quality levels set out by the Project Requirements document. The brightness, color, contrast, start and stop times, and the content of each subpicture element should be checked, as well as the correct operation of the subpicture on and off controls for the title, either through the viewer remote control or via menus. It is important to review subpicture streams on a television monitor so that you can verify that each element is within the title safe area on the TV, and the display colors are appropriate for use on television displays.

**vertical blanking interval** *np.* portion of television or video signal in which the electron beam is turned off and passes from screen bottom to top

Gary Robson

*Inside Captioning*

1997

p21 ¶3

The time that the beam is turned off and sweeping back to the top of the screen is called the *VBI* (Vertical Blanking Interval).

p222 ¶1

**VBI** – Vertical Blanking Interval - the 21 “blank” lines of video picture between the bottom of one frame and the top of the next. Line 21 of the VBI is where closed captions are stored.

[En dash/hyphen mismatch in original]

Carl Jensema, Ralph McCann, Scott Ramsey

“Closed-Captioned Television Presentation Speed and Vocabulary” in *American Annals of the Deaf*, Volume 141, N° 4, 1996

p285 col3 ¶2 line3

The videotapes were replayed with the signal being run through a special closed-caption decoder which read the closed-caption information from line 21 of the vertical blanking interval and fed that data into a computer file.

Joseph Blatt, Gary Rosch, Carole Osterer

“The Promise of Teletext for Hearing-Impaired Audiences” in *1980 Chicago Spring Conference* (IEEE, 0098-3068/80/0717-0722)

1980

p717 col2 ¶5

In February of 1976, in response to a petition for rule making filed by PBS requesting an amendment of Subpart E of Part 73 of the FCC’s Rules and Regulations, the FCC issued a Notice of Proposed Rule Making providing that line 21, field 1, and the available half of line 21, field 2, of the television vertical blanking interval be reserved for the transmission of captioned information for the deaf.

Herb Friedman

“Communications Corner: Closed-captioning” in *Radio-Electronics*, October 1986

p92 col3 ¶3

Closed-captions do not interfere with normal video because the ASCII captioning codes are inserted into the TV signal during line 21 of Field 1, which occurs during the vertical blanking interval.

**real(-)time caption(ing)** *np.* captions produced as a program or event takes place, usu. with stenographic transcription equipment

*Sears Technical Training Manual: TeleCaption Adaptor 21205, Course #57-516-87*

February 1987

p34 ¶5

It is also possible to caption live programs, such as news reports, presidential speeches, press conferences, sports, and awards programs. The captions for many of these live programs must be created instantly, using a process called “real-time captioning.”

Real-time captioning is usually done by court reporters. They use a machine shorthand system and a computer which translates their shorthand into English words.

Dave Crane

“Writing for Closed-captioned Television for the Hearing-impaired”

*IEEE Transactions on Professional Communication*, Vol. PC 28, N° 4, December 1985

p17 ¶2 line5

On 11 October 1982, the first real-time closed captions were broadcast. On that day, NCI and the American Broadcasting Company began the nation-wide, real-time closed captioning of ABC’s *World News Tonight*. Funds for the captioning were provided by the U.S. Department of Education.

Michael Erard

“The King of Closed Captions” in the *Atlantic Monthly*, Volume 288, N° 2, September 2001

p25 col2 ¶2 line13

Valerie Waite is a real-time captioner at Waite & Associates in Whitby, Ontario (and one of the rare captioners who have earned Clark’s praise).

No author listed (but it was Mark Dillon)

“Problems with real-time captioning” in *Playback*, May 28, 2001

p19 col1 ¶6

“The use of real-time captioning equipment or live captioning often results in incomprehensible captions,” he laments. “The equipment is set up on a phonetic programming basis – one keystroke prints a pre-programmed syllable. So a word like ‘holodeck’ might end up as ‘hole on deck’.”

Gary Robson

*Inside Captioning*

1997

p164 ¶6

In the early days of realtime captioning, it was standard practice for each realtime stenocaptioner to have a coordinator, someone who sat through the entire nescast and helped out on the computer keyboard.

**screen reader** software or computer device that converts text, menus, icons, and other visual information into voice; talking computer software

Jason Snell

“Mac OS X Leaps Forward” in *Macworld*, July 2002

p18 col1 ¶2

And OS X has gained some of OS 9’s accessibility features, such as screen zooming and inverting, a basic screen reader, and visual notification of beeps.

Martin Gittins

“Flash MX: Popular Web-Animation and Interface-Design Program Is Now Even More Powerful” in *Macworld*, July 2002

p24 col4 ¶3

Second, a new Accessibility panel lets designers add text descriptions, for use by screen readers, to every object – the Flash equivalent of adding **alt** tags to images in HTML pages.

Joseph J. Lazzaro, *Adaptive technologies for learning and work environments* (American Library Association, 1993)

p51 ¶3

Screen readers, software programs that directly command voice synthesizers, can drive either internal or external voice hardware.

p52 ¶1

Screen readers link the voice hardware to the computer’s operating system so the keyboard and video display become verbally interactive; thus, users can hear their keystrokes spoken aloud and can read the video display on command. Depending on the needs of the user, the typical screen reader can instruct the synthesizer to speak keystrokes as individual letters or as words. The screen reader also can command the synthesizer to verbalize the video display character-by-character, word-by-word, line-by-line, or screen-by-screen.

p52 ¶2

Depending on what information is present on the computer’s display, the screen reader can be programmed to automatically read select portions of the screen. In other words, if the phrase “Help Screen” appears on the video display, the screen reader can be programmed to automatically read the entire video display based on that visual trigger.

p53 ¶2

The term “silence is golden” also applies to screen readers, and there are commands to squelch the speech upon command. The user even can tell the screen reader what not to verbalize and set up windows of silence on the display. This can be useful when a program talks too much. For example, a program that constantly prints the time and date to the screen brings endless chatter from the voice synthesizer. The silence feature is important because a screen reader will verbalize every word present on the video display and will not stop talking until it is commanded to do so.

Annemarie Cooke, “The Conundrum of PDF Accessibility,” *AccessWorld*, September 2002

p5 ¶1

She sent the file to a URL that translated the file into text that was compatible with her screen reader.

p7 ¶3

Adobe is working on reading software that would use more sophisticated logic in presenting information to an end user whose screen reader would automatically be detected.

p8 ¶1

He notes that Acrobat Reader 5.05 has smoothed out many of the glitches involved in using a screen reader to access PDF documents; the issue for Window-Eyes also remains with reading complex documents and forms.

Jim Denham, "Braille on Display: The ALVA Satellite Traveler and the Braille Star,"

*AccessWorld*, July 2002

p15 col2 ¶1

In Windows, it is the screen reader that provides the interface between the braille display and the computer applications you need to use.

p15 col2 ¶2

Because the screen reader presents information that appears on the screen and determines the relationship among items, the manufacturer of the screen reader is responsible for providing the programming that allows a braille display to handle navigation. This interplay between the braille display and the screen-reader software makes it difficult to sort out the unavoidable access problems that come up while using a display. It is usually unclear whether a different screen reader or another braille display would work better or if the quirk is an intrinsic characteristic of braille.

Crista Earl, "Questions and Answers," *AccessWorld*, September 2002

p5 col1 ¶2

**Answer:** Typing or checking things on a web page is called "filling out a form." Several screen readers have different modes for completing forms and for simply reading pages.

You know you're in a form if your screen reader is telling you that there is an edit box, a check box, or other interactive item on a web page, other than a link. These are things that you would normally find in dialog boxes and would know how to handle there. But on a web page, your screen reader may be busy reading the page as a document and may not automatically know that you want to fill out the form.

Sarah Morley, *Window concepts: An introductory guide for visually disabled users*, Sensory Disabilities Research Unit, Psychology Division, University of Hertfordshire, February 1995

p7 ¶2

Even when the applications became more graphical, using menu bars, pop-up messages and pull-down menus, standard screen-readers (software which interprets what is on the screen and passes it to a speech synthesiser or to a braille display) were able to follow these developments. This was because the more pictorial information was still based on ASCII characters and was displayed in highly restricted positions on the screen.

The problem for screen-readers posed by GUIs is that now they can no longer read exactly what is on the screen.