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### Captioning Is Launched

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*There's the notion that TV is a visual medium. Try watching TV sometime with the sound off. . . . I promise you, you will soon learn that it's not very visual. It's really a sound-based medium with pretty pictures to make it more effective. Without the pictures it can succeed. Without the sound it can't.*

—I. King Jordan

**D**EAF AND hard of hearing people enjoyed going to the movies in the early 1900s, when silent films were shown on the big screen. But in 1927, the arrival of “talkies,” ended this common pastime. Twenty years passed before Emerson Romero, the deaf brother of actor Caesar Romero, attempted to restore the access that had been lost, by splicing subtitles between the frames of new films.<sup>1</sup> Soon after this (in 1949), a Belgium company developed a captioning technique that succeeded in etching captions right onto the film’s finished print.

Back in America, Edmund Burke Boatner, the superintendent of the American School for the Deaf, and Dr. Clarence D. O’Connor, the superintendent of the New York Lexington School for the Deaf, used the Belgium technique to launch Captioned Films for the Deaf, a small nonprofit enterprise supported with start-up funds from the Junior League of Hartford, Connecticut.\* From 1949 to 1958, their venture captioned and distributed numerous Hollywood films to schools for the deaf around the country. But while Boatner and O’Connor were able to enlist Hollywood personalities such as Katherine Hepburn and Mrs. Spencer Tracy on their board, limited funding and difficulties in acquiring movies from an industry concerned about film piracy severely restricted their operations, eventually prompting the two pioneers to ask the federal government to take over their operations.<sup>2</sup> The men approached Senator William Purtell (R-Conn.), who agreed to introduce legislation that would require the Library of Congress to procure, caption, and distribute films to deaf viewers. The legislation successfully passed in 1958, but reassigned responsibility for running the new program to the Office of Education, Bureau of Education for the Handicapped

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“Opening Remarks,” *Written Proceedings of the National Conference for Closed Captioning of Local News*, sponsored by the US Department of Education, Alexandria, Va. (November 21–23, 1991), 15.

\* Titra Film Laboratories in New York, which had the American franchise for the Belgium captioning process, ultimately did the captioning for this project, having been persuaded to do so by a deaf businessman and teacher named J. Pierre Rakow.

Often known as the “father of captioning,” Dr. Malcolm J. Norwood spearheaded the expansion of open and closed captioning programs at the Office of Education, U.S. Department of Health, Education and Welfare in the 1970s and 1980s.



of the U.S. Department of Health, Education and Welfare (HEW) after the Library of Congress’s new director turned it down.<sup>3</sup>

The Captioned Films for the Deaf program officially began operations under the leadership of Dr. John Gough in October of 1959, with \$78,000 in appropriations. In the years to come, successive laws would expand the scope of the legislation, and through the vision and guidance of Dr. Malcolm J. Norwood—affectionately referred to as the “father of captioning”—the program would come to authorize the production, acquisition, and distribution of captioned theatrical, documentary, and educational films and media equipment to schools, clubs, and deaf organizations across America.<sup>4</sup>

As captioned films began taking off in the late 1950s, a far more ground-breaking technology—television—began finding its way into an increasing number of homes across mainstream America. But while TV newscasts, dramas, and even comedies began to radically alter the way that hearing Americans acquired their information, the absence of television captions kept deaf and hard of hearing individuals from having access to this extraordinary innovation. At the time, all captions were “open,” meaning that they could not be turned on and off by individual viewers. Television network executives and producers vigorously opposed adding such captions to their shows, both because they feared losing viewers who would not want captions, and because they were extremely cautious about tampering with the artistic content of their shows.

As a result of the strong industry resistance to open captions, deaf and hard of hearing people remained without visual access to the audio portion of television programming for nearly two decades. It was not until December 1971 that HEW finally sponsored the first National Conference on Television for the Hearing Impaired in Nashville, Tennessee, enabling television networks, engineers, educators, producers, advertisers, consumers, and federal agencies to explore strategies for making television visually accessible.<sup>5</sup> “Closed” captioning—a new technology that enabled only viewers who *wanted* to see captions on their television screens to be able to do so—quickly became the focal point of the symposium.

Analog television pictures are comprised of 525 lines; 21 make up the “vertical blanking interval,” or the VBI. Line 21 is the last line of the VBI before the television

picture begins. Testing conducted by the National Bureau of Standards revealed that captions—in the form of an electronic code—could be inserted into line 21, and be made viewable through a captioning decoder.<sup>6</sup> The National Association of Broadcasters (NAB) found the new technique attractive, believing it capable of expanding viewing audiences who needed captions without losing viewers who did not.

### Open Captioning Takes Center Stage

However, not everyone believed that open captions would be objectionable to hearing audiences. In fact, in a 1970 study commissioned by HEW, only 10 percent of the members of a hearing audience watching open captioned Disney films reported an unfavorable reaction.<sup>7</sup> Norwood was among the many who were unwilling to give up on this form of access, and in the fall of 1971, he arranged for HEW's Office of Education to contract with Boston's public television station, WGBH-TV, to produce an open captioned television program. WGBH used the governmental assistance to begin airing open captioned reruns of its most popular program, *The French Chef* with Julia Child, on August 6, 1972. Shortly thereafter the station created a new division, The Caption Center, to oversee additional captioned productions that would be funded by HEW.<sup>8</sup>

As President Richard Nixon's second inauguration neared, The Caption Center made his inaugural address one of its next open captioned priorities. The center realized that to achieve this, it would have to prepare and insert captions during the six hours between the time that the address was first aired at noon, and the time that it was rebroadcast at six o'clock p.m. However, WGBH had a dilemma: the Public Broadcasting System (PBS), the center's national network distributor, had chosen not to buy into the video "pool" that would have given the Boston station the right to air the event.\* Without this right, WGBH could not rebroadcast the show, with or without open captions.

To overcome this obstacle, the NBC producer in charge of the pool offered to give WGBH the video portion of the inaugural event at no charge. He reasoned that although pool rules did not allow him to give WGBH (or PBS) free access to something that PBS had not purchased, because PBS had never been offered the opportunity to buy the *video feed* only, he could provide that feed to WGBH for free, as long as the station agreed not to broadcast the audio portion. Unfortunately, this too, presented a problem: under former FCC rules, in order to show the video feed on TV, WGBH still had to fill the audio portion of the president's event with something that was related to its visual component.<sup>9</sup> The station could play music to accompany the video, but this might not be sufficiently related to the speech to be in compliance with the guidelines. The event could be narrated, but viewers might wonder why someone was speaking for the president. Instead, Phil Collyer, The Caption Center's first director, settled on an unlikely alternative: he arranged for the captioned version to be accompanied by an oral translation in Spanish, prepared by the Berlitz School of Languages! As

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\* As a nationally broadcast event, the inauguration was to air via a single video feed to multiple networks. This video pool, from which PBS had excluded itself, eliminated the need for each network to have its own camera and crew at the event.

a result, on January 20, 1973, deaf and hard of hearing viewers were able to watch and understand a televised presidential inauguration for the first time in the nation's history.\*

Having demonstrated that an event could be televised and later rebroadcast with captions, Collyer approached ABC about doing the same for its national evening news program.<sup>10</sup> The network already allowed the Rochester, New York, public station to broadcast its newscast with a sign language interpreter, so it seemed a likely candidate to allow rebroadcasts with captions. After ABC gave its consent, it took six additional months and a team of captioners working under Collyer to figure out the logistics of converting the rapid and specialized vocabulary of the ABC newscasts into captions that could be readily understood by the deaf community.

On December 3, 1973, *The Captioned ABC Evening News* appeared for the first time with open captions in three cities: Boston and Springfield, Massachusetts, and Orono, Maine.<sup>†</sup> A week later, permission was extended to air the program on all ten public stations of the Eastern Educational Network. By August 1974, pressure from deaf consumers prompted PBS to distribute the program to local affiliates around the nation, and over the next eight years, more than 190 public stations broadcasted the accessible newscast.<sup>11</sup> During the next several years, PBS also expanded other open captioned programming to approximately five hours per week. In addition to rebroadcasts of presidential campaign debates, open captions were added to various PBS series, including *Zoom*, *Masterpiece Theater*, *Nova*, and *Great Performances*.

### Line 21 Takes Hold

While some local public television stations carried broadcasts with open captioning in the early 1970s, other broadcasters and networks, led by PBS, continued to explore closed caption alternatives. In 1972, HEW took over the NAB's initial endeavors, and awarded a contract to PBS to develop the line 21 technology and prototype decoders. A team of PBS engineers, working under John E. D. Ball, began line 21 testing during the fall of 1972, and two years later, the FCC granted temporary authority to try the new system over the airwaves. PBS responded with a fourteen-week test during which Gallaudet researchers recorded the reactions of deaf and hard of hearing audiences watching captioned programs at twelve public television stations around the nation.<sup>12</sup>

Viewer response to the new system was overwhelming: 95 percent reported an interest in purchasing home decoders, and deaf associations quickly pledged their support to mobilizing decoder sales. In 1975, after additional market surveys sponsored by PBS and conducted by the Deafness Research and Training Center of New York

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\* In fact, the captions for the twenty-two minute speech were ready a full hour before the Spanish feed was completed.

<sup>†</sup> The broadcasts were originally scheduled to begin a few months earlier, but were delayed as a result of scheduling changes made by PBS to rebroadcast the Watergate hearings during the late evening hours. Sharon Earley, one of the show's first producers, described the challenges that WGBH had confronted in preparing these programs during its earliest months in "Captioning at WGBH-TV," *American Annals of the Deaf* (October 1978): 655–62. Collyer and his staff, she wrote, "enrolled themselves in a self-directed crash course in the science of reading and in deafness" in order to make sure that the news programs would be understood by their caption audiences.

University confirmed the effectiveness of and interest in the new technology, PBS petitioned the FCC to permanently reserve line 21 for closed captions.<sup>13</sup>

While the major commercial television networks had initially expressed interest in a closed form of captioning, these networks now dealt a considerable blow to line 21's progress. Insisting that the closed captioning system was not yet technically possible, they opposed PBS's petition, effectively delaying an FCC response for nearly a year. To spur the FCC into action, consumers sought help on Capitol Hill. On October 1, 1976, they were successful in getting Senator Randolph (D.-W. Va.) and ten of his colleagues to sponsor a resolution strongly urging use of the new captioning system.\* Randolph explained that it would be "tragic and highly discriminatory to continue to exclude deaf and hearing impaired Americans from full enjoyment of television," especially given how modest the costs of captioning were.<sup>14</sup> Pressure on the FCC intensified when only three weeks later, President Gerald Ford also released a statement in support of the new PBS system.<sup>15</sup>

On December 8, 1976, the FCC finally amended its rules to authorize broadcasters to voluntarily use line 21 technology for closed captions.<sup>16</sup> But the Commission was still a long way from mandates that would *require* captions. Indeed, the FCC had addressed this issue just three months before, when it amended its rules to require visual access to all televised emergency announcements.<sup>17</sup> Then, as now, the Commission concluded that because the best technical and financial procedures for making television accessible remained uncertain, it was best to allow broadcasters to decide for themselves whether and how to caption their programs.<sup>18</sup>

Of all of the networks, CBS remained the most resistant to using the line 21 technology. The network was more interested in promoting "Teletext," an alternative system that, like captioning, transmitted words and graphics simultaneously with the television picture, but also allowed text to appear in different colors, speeds, and sizes, and could be used to convey other kinds of information, including news, sports, and airline schedules.<sup>19</sup> CBS believed that the many uses of Teletext, already available in France and England and under development in Australia and Japan, made this system more appealing to the general population than line 21, which seemed to focus more on only providing access for the deaf community.

CBS's stance on line 21 was especially disappointing given the network's concession to the deaf community two years earlier. In 1975, consumers had requested CBS to open caption an airing of the sitcom *Good Times* after learning that it featured a deaf character. Once the network made the decision to go ahead with a captioned version, it publicized the show's broadcast, along with the fact that it was being aired with captions, to approximately 200 television stations and 1,800 major newspapers, and agreed to help deaf leaders make appearances on talk shows for this purpose.<sup>20</sup> Now, however, CBS's ongoing refusal to use the dominant captioning system was calling into question the sincerity of its prior actions. In a letter to CBS, PBS President Lawrence Grossman expressed his considerable frustration with the network. Grossman charged CBS with overreporting captioning costs: the network's estimate of seventy-six man hours to caption a program, he said, was about 400 percent too

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\* The other senators joining Senate Resolution 573 were: Percy, Javits, Leahy, Beall, Dole, Durkin, Kennedy, Pell, Schweiker, and Taft.

high and its per broadcaster investment of \$250,000 was “off-the-wall!” He implored CBS, as well as the other public and commercial broadcasters to be more cooperative in efforts to bring television to the deaf community.<sup>21</sup>

Fortunately, CBS’s (and, to a lesser extent the other commercial networks’) initial reluctance to use line 21 did not stop PBS from moving ahead with its plans for the development of home captioning decoders. In 1977, PBS awarded a contract to Texas Instruments for the development and manufacture of a marketable decoder, and to EEG Enterprises and others for the development of broadcast encoding and decoding equipment. Ultimately, Sanyo Electric Corporation agreed to manufacture the decoders in their Arkansas factories, and Sears, Roebuck, and Company agreed to market, sell, and service the equipment. With FCC authority for line 21 firmly secured and the Department of Education poised to grant funding for closed captioning, the only issue that remained was who would handle the expected increase in demands for closed captioning.

PBS seemed the logical choice to handle the new responsibility, given its invention of the captioning prototype and The Caption Center’s status as the nation’s leader in open captioning for the past six years. But while The Caption Center was very eager to take on this task, some questioned whether PBS had either the facilities or the staff to handle the anticipated programming load. Moreover, commercial networks such as ABC were beginning to express reluctance about having PBS or WGBH, a PBS station that was ABC’s broadcast competitor, handle their captioning needs; they preferred to have a separate, nonprofit company take on this responsibility. To resolve these issues, PBS hired Arnold and Porter, a Washington, D.C., law firm, to develop a blueprint for captioning’s future.

In June 1978, Arnold and Porter delivered two recommendations.<sup>22</sup> First, in order to minimize resistance to captioning by commercial networks, a new, nonprofit captioning operation would be established to handle captioning for both commercial and public television programs. Second, to reduce costs, captioning would be carried out in two locations—one in the east for programming produced by public television stations, and one in the west for Hollywood programming. Although The Caption Center feared that the new proposals would essentially write it out of the captioning picture, an overriding interest in ending divisiveness among the networks and reducing captioning expenses prompted Congress to accept the recommendations.

In 1979, Congress authorized HEW to create the National Captioning Institute (NCI), a nonprofit corporation, with six million dollars in start-up funds. All patents and rights to the captioning technology were transferred exclusively to NCI, which was to build two centers, one in the Washington, D.C., metropolitan area and one in Los Angeles. The plan was for NCI to jumpstart the provision of television captioning with federal funding for the first few years, which would be supplemented by financial contributions from major networks, private foundations, television program sponsors, and proceeds from decoder sales.<sup>23</sup> Over time, the federal funding would be phased out, to allow captioning to become a self-sustaining operation.\*

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\* A November 13, 1979, NCI press release stated, “After 1982, it is expected that NCI will require no further federal monies. The three participating networks will pay NCI a fee, currently set at \$2,000 per program hour, for its captioning services.”

## Closed Captioning Gets Underway

On April 5, 1979, the FCC held a public meeting to review the impact of its 1976 decision to authorize the use of line 21.<sup>24</sup> Shortly after this event, NCI, ABC, NBC, and PBS reached an agreement for the three networks to provide sixteen to twenty hours of closed captioned programming each week, later broken down into five hours each for ABC and NBC, and twelve and a half hours for PBS. The agreement also called for Sears to oversee the production and sale of decoders. Still adamant that its Teletext system was preferable, CBS refused to be a part of the deal, concluding that it would be unfair to the deaf community to promote the purchase of soon-to-be obsolete decoder equipment.

On March 15, 1980, the Sears catalog began selling two types of “Telecaption” decoders: an “adapter unit” for \$249 that connected to a regular television set, and an “integrated TV receiver,” built into a nineteen-inch color set and sold as a single unit for approximately \$500. Nonprofit groups engaged in impressive efforts to publicize the new devices: NCI distributed hundreds of thousands of brochures announcing the devices’ availability to national organizations, schools, clubs, and churches. The National Retired Teachers Association/American Association of Retired People (AARP) reached millions of members through its newsletters. The National PTA, acknowledging the benefits of captioning as a tool for teaching children with learning disabilities, sent out 28,000 mailings to local chapters. And the Lions Club distributed NCI’s brochures with community activity guides that offered recommendations on how to encourage decoder sales and captioning use to 16,000 of its local affiliates.<sup>25</sup>

During the week of March 16, 1980, television witnessed its first closed captioned broadcasts with ABC’s *Sunday Night Movie* and *Barney Miller*; NBC’s Monday and Friday night movies and *The Wonderful World of Disney*; and PBS’s *Mystery!* and *3-2-1 Contact*. Initially, decoder sales were brisk. During the first month on the market, enthusiastic consumers purchased 5,000 devices, a figure that jumped to 11,000 over the next two months.<sup>26</sup> The thirst for access to television programming was so overwhelming that by June 1980, Sears reported weekly sales of 1,800 decoders.

Commercial sponsors were quick to see a business opportunity in the new viewer market. *Business Week* reported that Procter & Gamble, IBM, AT&T, and Bristol-Myers were among the many companies “jumping in to use a new technology that lets them heighten the effectiveness of their TV commercials.”<sup>27</sup> Analysts said that these businesses were in the “forefront” of a captioning movement that would spread to all major advertisers. According to the Seiko Time Corporation, captioned advertisements commanded the same type of heightened attention received by the first colorized commercials. Some companies also zeroed in on the ability of line 21 technology to capture niche audiences. For example, J. Walter Thompson began adding captions to ads for laxatives, antacids, and pain relievers commonly used by senior citizens. The cost of making thirty-second advertisements accessible with captions—around \$165.00—was nominal compared to the tens of thousands of dollars associated with their creation and broadcast.

Notwithstanding the apparent success of line 21 captioning, CBS remained a pocket of resistance, and in July of 1980, the network petitioned the FCC for a national Teletext broadcasting standard. A few months later, the Los Angeles CBS

affiliate also announced plans to test Teletext over the air in April 1981.<sup>28</sup> CBS was so opposed to line 21 that even when advertisers captioned their commercials *at no charge to CBS*, the network allegedly promised to strip the captions off before airing the ads!<sup>29</sup>

### **Ascertainment and the Gottfried Cases: Other Avenues to Access**

Three years before the networks entered into their major contract to provide television captioning, deaf community activists in California, growing increasingly disgruntled with the slow pace of the industry's voluntary progress, began pursuing television access on a separate and parallel track. At the time, PBS was still the only network providing open captioning on any of its programs. Although work was being done behind the scenes to develop line 21 closed captioning, deaf viewers remained without any access to commercial television.

Rather than wait for the federal closed captioning program to evolve, the California mavericks took their claims for accessible television programming to the FCC, and ultimately, the federal courts. The string of federal challenges that they brought began in October 1977, when Sue Gottfried, the Greater Los Angeles Council on Deafness, Inc. (GLAD), and the California Association of the Deaf, joined various other organizations and several hundred individual petitioners in asking the FCC not to renew the licenses of eight Los Angeles television stations—seven commercial and one public—on the grounds that the stations had not provided captioning access to their programs.\*

Under the Communications Act, television broadcasters are obligated to provide programming “in the public interest” in exchange for their free use of the airwaves.<sup>30</sup> In the mid-1970s, the FCC ruled that this public interest obligation required commercial television broadcasters to ascertain and respond to the problems, needs, and interests of the communities they were licensed to serve.<sup>31</sup> This became known as the “ascertainment” obligation, and in order to meet it, stations had to consult with community leaders from a designated list of “19 typical institutions and elements normally present in a community.” While the list included groups such as labor, minorities, and women, it did not include people with disabilities.<sup>32</sup> Although there was an “other” category, so long as a licensee consulted with community leaders from the principal nineteen categories, it was deemed to have fully met its obligations. To make matters worse, both of the most common methods used by broadcasters to assess community needs—random telephone surveys and call-in television shows—remained inaccessible to the deaf community.

Gottfried's complaint alleged that by not providing captioning, the stations had violated their obligations to ascertain and provide programming in response to the needs of deaf and hard of hearing viewers, had ignored the FCC's 1970 public notice encouraging broadcasters to make their programming visually accessible, and had violated Section 504 of the Rehabilitation Act, the federal law prohibiting programs and activities that receive federal financial assistance from discriminating against people

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\* In addition, it alleged that KCET, the public station in Los Angeles, had for a period of time, failed to show the captioned version of the ABC evening news.



with disabilities. Although the seven commercial stations named in the complaint did not receive the type of direct federal assistance that typically triggered Section 504's obligations, Gottfried argued that their receipt of *free* broadcast licenses was the equivalent of federal aid. Without the licenses, the stations would not have been able to operate, and therefore could not generate the millions of dollars they received through commercial advertisements. The eighth station—KCET—did receive direct federal funding from HEW.

A month after Gottfried filed her challenges, the Denver Commission on the Disabled challenged the exclusion of people with disabilities from the FCC's ascertainment community checklist.<sup>33</sup> A few months later, the National Gay Task Force and 142 gay rights organizations formally petitioned the FCC to add issues concerning the portrayal of homosexuals on television to the formal list. In response to these and other community concerns, in August 1978, the FCC proposed to revise its ascertainment mandates to require broadcast stations to ascertain the needs of *any significant elements* in their communities—which, the Commission said, possibly included “the handicapped”—even if those groups were not within the FCC's original nineteen community categories.<sup>34</sup> Deaf community advocates readily supported the new proposal, as this provided yet another means by which they could alert broadcasters of their desire for more captioned television programs.\*

Notwithstanding the release of this new ascertainment proposal, in the same month, the FCC rejected all of Gottfried's license challenges.<sup>35</sup> The Commission gave as its reason Gottfried's failure to allege any specific FCC violation, because the FCC did not have any rules requiring stations to gather information from people with hearing loss, nor any guidelines requiring captioning or otherwise mandating television programs to be visually accessible. The FCC also rejected Gottfried's claim that Section 504 applied to commercial broadcasters, because they received no direct federal money. Although the Commission found that public station KCET was, in fact, covered by Section 504, it said that only HEW—which provided funding to that station—and not the FCC, was responsible for ensuring access to KCET's programming. Because HEW had not yet adopted rules on the Section 504 obligations of public broadcasting stations, the Commission concluded it would be unfair to deny KCET's license for noncompliance. When, on reconsideration, the FCC upheld this decision, Gottfried appealed her case to the D.C. Circuit Court of Appeals.<sup>36</sup>

While the D.C. Circuit was deliberating the merits of Gottfried's case, the FCC released its final rules on ascertainment (in April 1980). In yet another blow to consumers, the FCC rejected its own suggestion to add gay and disability elements to the ascertainment checklist, yielding to broadcaster claims that it would be too difficult to consult with every significant community group. The Commission explained that the list already contained the socioeconomic elements common to most communities, and reached the startling conclusion that the record lacked evidence that “gay and handicapped persons are significant in all or most communities.”<sup>37</sup> Rather than

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\* In addition to using ascertainment to educate stations about the need for more captioning, NCLD saw it as a way to increase coverage of disability issues on news and public affairs programs. NCLD, Comments on Revision of Programming and Commercialization Policies, Ascertainment Requirements, and Program Log Requirements for Commercial Television Stations in MM Dkt. 83-670 (October 13, 1983).

require broadcasters to reach out to these and other community groups, the FCC shifted the burden to the excluded groups to approach their local broadcasters. Only *after* being contacted by one of these groups would a station have an obligation to take their needs into account.

The FCC's 1980 ruling effectively eliminated use of the ascertainment obligation as a legal strategy for expanding captioning mandates. Contacting television stations was difficult, if not impossible, for most deaf and hard of hearing consumers, who were still largely without TTYs and entirely without relay services. But this had only short-term significance; a few years later, in yet another turn of events, the FCC would do away with its ascertainment mandates altogether, and rely instead on the competitive marketplace to encourage broadcasters to respond to the needs of their communities.<sup>38</sup> Consumers were sorely disappointed when they failed in their last-ditch efforts to convince the FCC that a marketplace theory had never worked in meeting the television needs of people with disabilities.<sup>39</sup>

In 1981, Gottfried finally secured her first partial victory in the D.C. Circuit.<sup>40</sup> Although the court agreed with the FCC that a license was not sufficient federal assistance to bring the commercial stations under Section 504, the court did reverse the FCC's renewal of KCET's license, concluding that the public station had a duty to comply with the Rehabilitation Act, even in the absence of specific HEW guidelines defining that compliance. Judge J. Skelly Wright, delivering the opinion for the court, complained that in the quarter of a century since television had first been made available, "millions of Americans have lived and died . . . without being able to enjoy radio and television simply because their hearing was impaired. It is time for the Commission to act realistically to require, in the public interest, that the benefits of television be made available to the hard of hearing now."<sup>41</sup> He then sent the case back to the FCC, with a directive for the agency to examine the extent to which KCET had made reasonable efforts not to discriminate against deaf and hard of hearing people.

Unfortunately, even this minor victory was overturned by the U.S. Supreme Court two years later, in February 1983.<sup>42</sup> Although the Court acknowledged an interest in having both commercial and public stations respond to the needs of the disability community, it held that the FCC had no obligation to evaluate the compliance of public stations under Section 504; rather, only federal agencies that provided federal assistance, like HEW, could impose nondiscrimination obligations on these stations. In a strong dissent, Justices Marshall and Brennan charged that the Court's majority had been wrong to ignore the underlying obligations of the Rehabilitation Act. Even though the FCC's responsibilities were dictated by the Communications Act, they asserted that the agency was not free to administer those duties to the complete exclusion of other relevant statutes in matters of the public interest.

While the first Gottfried case had been making its way through the federal court system, Gottfried teamed with Marcella Meyer, GLAD, and thousands of deaf and hard of hearing residents of various California counties in a second lawsuit to push for open captioning on television.\* This time, Gottfried brought a class action in a

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\* Deaf and hard of hearing people in the Los Angeles, Orange, Ventura, and Santa Barbara counties were included in the class action. GLAD was eventually dismissed as a plaintiff because the court found that it did not have standing to bring the lawsuit.

California federal district court against three types of defendants: (1) KCET, for its failure as a federally funded station to provide open captioning; (2) federal agencies, including HEW, the FCC, and later on, the Department of Health and Human Services (HHS) and DOJ, for disbursing federal funds to public stations that were not accessible; and (3) the Corporation for Public Broadcasting (CPB) and PBS, for distributing those funds. The lawsuit was an attempt to halt the distribution of funds to public stations that did not fulfill their open captioning obligations and to force the defendant agencies to finally issue captioning rules under Section 504.

By the time the second Gottfried case went to trial in February 1980, HEW had concluded that Section 504 applied to public broadcasters receiving federal financial assistance, but had not yet finalized its regulations delineating how stations needed to meet their Section 504 obligations.<sup>43</sup> Unfortunately, over the next few months, the responsibility for producing these rules bounced back and forth to and from federal agencies in a game of regulatory ping-pong. This began when, in May of 1980, HEW was divided into two agencies, HHS and the Department of Education, and the latter was given responsibility for continuing the captioning program and completing the Section 504 guidelines.<sup>44</sup> A few months later, in November 1980, the president also shifted the responsibility of coordinating federal implementation of Section 504 for *all* federal agencies from HEW to DOJ.<sup>45</sup> In January 1981, the Department of Education finally released a notice of intent to issue Section 504 public broadcast regulations.<sup>46</sup> However, a half a year later, the department decided to drop this rulemaking and instead require television access through individual cases and contractual provisions. In apparent disagreement with this approach, during the summer of 1981, DOJ announced to the district court trying the second Gottfried case, its intentions to again proceed with a Section 504 rulemaking to cover public broadcasters, and to have final rules issued by June 1982. By this time, however, the court had little interest in waiting for the federal agencies to get their affairs in order any longer.

On November 17, 1981, the court issued its opinion, dismissing Gottfried's case against KCET, CPB, and PBS because there were no Section 504 rules obliging these stations to provide access to television programming.<sup>47</sup> However, the court found that the federal agencies' continual delays, their ongoing shifts in rulemaking authority, and their ultimate failure to promulgate any Section 504 rules for public broadcasters—despite the distribution of significant federal funding to these stations—“deliberately fostered and promoted discrimination against deaf and hearing impaired persons.”<sup>48</sup> It was “simply irrational,” said the court, not to have issued rules, given the specific mandate of all federal agencies “to enable qualified handicapped persons to achieve their full capability, foster their self-sufficiency and independence, and integrate them into the community.”<sup>49</sup> Going even further, the court ruled that the agencies' foot-dragging violated both the first and fifth amendments to the Constitution because the absence of access denied deaf and hard of hearing people the information they needed to participate meaningfully as informed citizens in our democracy.

The California district court went on to hold that the FCC's mandate for broadcasters to act in the public interest encompassed Section 504's national policy of nondiscrimination, and was applicable to both commercial stations and public stations that directly received federal grants. It then rejected closed captioning as a “reasonable

alternative” because of the “prohibitive” cost of decoders, noting as evidence that only 40,000 decoders had been sold to date.<sup>50</sup> The court concluded by directing both DOJ and the FCC to adopt Section 504 regulations for public broadcasters and prohibiting all federal agencies from disbursing additional funds to broadcasters until these rules were released, unless those funds were to be used for open captioning.<sup>51</sup>

Unfortunately, the district court’s favorable rulings again failed to survive an appeal. The Ninth Circuit U.S. Court of Appeals reversed the lower court’s decision to allow federal funds to be withheld from television stations that failed to provide captions because no regulations linked federal funding to specific access requirements.<sup>52</sup> Even worse, the appellate court held that *neither* DOJ nor the FCC even had an obligation to issue television access rules because neither distributed federal funds to television stations. Additionally, the court said that the Department of Education, which *did* provide some funding, was within its authority to require television access through contractual provisions, rather than regulations. The court also overturned other rulings made by the lower court that would have required federally funded programs to have open instead of closed captions, and that interpreted the Constitution to impose the duty to make television accessible.

On July 9, 1981, Gottfried, Meyer, and GLAD filed yet a third Section 504 complaint with the U.S. Department of Commerce, alleging the department’s failure to condition federal grants to KCET on the provision of captioning to be a violation of that statute.<sup>53</sup> After the complaint languished before the department for several years, the matter once again ended up in the Ninth Circuit Court of Appeals, where, in 1987, the court directed a lower court to send the complaint back to the Department of Commerce for resolution.<sup>54</sup> Although KCET was eventually found to be in compliance with Section 504, the case made the department aware of the need to consider television access by people with disabilities in future contracts with federal grantees.<sup>55</sup>

Although it was somewhat frustrating that the chain of Gottfried cases did not secure greater court victories, the cases undoubtedly contributed significantly to television access, both by bringing these issues into the spotlight, and by helping to shape the captioning debate. For example, several years later (in October 1989), CPB would require all public television producers receiving funding from its corporation to include closed captioning as a mandatory budget line item.<sup>56</sup> Having come at a critical juncture in the development of captioning, the cases set the stage for captioning successes in the years to come.

### **The 1980s: Closed Captioning Takes Firmer Ground**

By the end of 1980, 30,000 homes had acquired decoders. While substantial, this number remained far below original projections. Part of the problem may have been that the government had given Sears and other retailers a very small mark-up on their decoder sales, leaving these companies with neither the funds nor the incentive to conduct extensive consumer outreach.<sup>57</sup> Although NCI and other nonprofit organizations made substantial efforts to inform the public about decoder options, they could not reach sizeable segments of television viewing audiences. In addition,

decoder prices were high, especially for the deaf community, which had a greater unemployment rate than the general public. But beyond this, many felt that the main reason that consumers were reluctant to purchase decoders was simply that there just were not very many closed captioned programs on TV that made those purchases worthwhile.

The Department of Education grew concerned. Although it had hoped that ongoing appropriations for captioning would not be needed once its captioning program was well off the ground, it now realized that the fate of its initial investment in the line 21 technology might depend on its increasing the number and variety of federally subsidized captioned programs. Responding to the state of affairs, over the next several years, the department significantly expanded captioning access to newscasts, sports, children's shows, movies, television specials, series, and syndicated shows.

By 1981, captions were available on thirty-five ABC, NBC, and PBS programs. But although this progress prompted the American Association of Advertising Agencies to continue advising its members to caption their commercials, slow decoder sales began to cause broadcasters to question whether their one-million-dollar-a-year captioning investment would ever turn a profit. A catch-22 followed: the networks became increasingly reluctant to invest money into captioning new television shows until they witnessed a growth in decoder sales, while consumers grew progressively more hesitant to spend hundreds of dollars on decoder equipment until broadcasters added more captioned programs.<sup>58</sup>

In an attempt to break this logjam, NCI embarked on a campaign to both expand decoder purchases and attract new captioning grants from major foundations and corporations.\* But even more significant were efforts by NCI to expand its audiences through the creation of simultaneous, or "real-time" captioning. A recent NCI survey had revealed that 75 percent of these individuals were more interested in having access to the evening news than any other programming.<sup>59</sup> However, up until now, the technology to caption a program simultaneously with its on-the-air broadcast had not yet been developed. Deaf viewers were still relegated to watching captioned ABC newscasts several hours after these were first broadcast to the rest of the United States.

As far back as 1978, HEW had begun to fund research into a method of providing viewers with instantaneous access to live news, sports and other programs. However, initial efforts were slow and so, in 1980, NCI hired Jeff Hutchins to achieve a viable real-time captioning solution. Hutchins in turn contracted with a firm called Translation Systems, Inc., which employed individuals who had successfully developed a means of converting shorthand into printed text during their previous work with the CIA. Unfortunately, the method they designed relied on a cumbersome mainframe computer and used prepared transcripts, rather than real-time material. In order to effectively add captions to live events as they were being televised, NCI needed a way to directly connect a stenotype machine to a small computer. When, in 1981, computer innovations made this possible, Hutchins hired Martin Block, a court reporter

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\* Among other things, NCI asked its newsletter subscribers to share names of individuals who might be interested in purchasing decoders.

in the Philadelphia courts, and the two finalized the technical specifications and operational practices that finally allowed live transcription of television dialogue for caption viewers.<sup>60</sup>

In April 1982, the Academy Awards on ABC became the first live special ever to have real-time captioning. Block himself provided the captioning, working with a team of assistants who fed him the correct spellings of the award nominees. On October 11, 1982, *ABC World News Tonight* began live broadcasts with the new technology.<sup>61</sup> In the same year, the Sugar Bowl became the nation's first real-time captioned live sporting event.<sup>62</sup>

Deaf advocates also did their part to spur the growth of television captioning. In 1981, William Castle of the National Technical Institute of the Deaf, E. C. Merrill Jr. and Merv Garretson of Gallaudet, Al Pimentel of the NAD, and Frank Sullivan of the National Fraternal Society of the Deaf formed a new Ad Hoc Group to Promote Closed Captioned Television. On April 15, 1981, the group extended official thanks to ABC, NBC, PBS, and others in the television industry for their efforts to promote line 21 captioning, and tried to push CBS into joining its competitors.\* By now, CBS was not only absent from the captioning lineup; it was releasing statements about the future obsolescence of the line 21 system. Consumers feared that CBS's actions would damage decoder sales, and jeopardize the system's future by causing other networks to weaken their own captioning commitments.<sup>63</sup>

The following year, when NBC's captioning commitment continued to waver, the Lexington School for the Deaf sent several busloads of its students to picket at NBC headquarters in New York City. Phil Bravin, chair of a newly formed NAD TV Access Committee, was also dispatched to represent the deaf community in executive level meetings with NBC. While the dual effort successfully put NBC's captioning efforts back on track, similar overtures to CBS were not as successful. After one particularly frustrating three-hour meeting with the CBS President of Affiliate Relations Tony Malara, Bravin left, promising to "see you on the streets of America."<sup>64</sup> Six weeks later, the NAD orchestrated protests of hundreds of deaf captioning activists at more than one hundred CBS affiliates across the country. CBS's resistance finally gave way: in 1984, the network began dual encoding its programs with *both* Teletext *and* line 21 captions.<sup>65</sup>

As the 1980s progressed, the marvelous leadership and enthusiasm of Malcolm Norwood and later Jo Ann McCann at the Department of Education succeeded in significantly expanding program options for caption viewers; by the early- to mid-1980s, a burgeoning market of captioning providers were competing for millions of dollars worth of federal captioning grants. By the spring of 1984, over 80,000 decoders had been purchased, more than 335,000 viewers were using closed captioning, and new caption viewers were being added at an estimated rate of 4,000 each month.<sup>66</sup> In October 1984, ABC-TV's *World News This Morning* became the first daytime television program to be broadcast with captions; a little more than a month later, it was joined by ABC's *Good Morning America*.<sup>67</sup> In order to accommodate the new viewers,

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\* Consumers especially appreciated the efforts of ABC Executive Julius Barnathan, who was widely known to champion the benefits of captioning among his network colleagues. Vera Wells also became known for the support she lent to captioning efforts within NBC.



As chair of the NAD's TV Access Committee, Phil Bravin challenged national television networks to provide captioning access to their programming in the early 1980s. For a period of time in the 1990s, he also served as president of the National Captioning Institute.

that same fall, Hyatt Hotels become the first national hotel chain to make its in-room televisions captioning accessible.<sup>68</sup>

The 1984–85 television season brought approximately seventy hours of weekly captioned television programming. This would increase to ninety-four hours the following year, encompassing nearly two-thirds of prime-time broadcast programming. NCI was able to increase captioning of news and public affairs programming alone to twenty hours per week.<sup>69</sup> For the first time, the availability of real-time captioning was also providing the deaf and hard of hearing community with live access to presidential political debates and conventions, election night coverage, and major sporting events, including the Summer Olympics.<sup>70</sup> Advertisers, aware that more than one-third of all caption viewers switched to brands featured in captioned commercials, requested NCI to caption more than 5,000 commercials during the first four years of its operations.

Notwithstanding the spectacular growth in captioned programs, sales of decoders continued to creep along far below the initial projections of 100,000 per year. In order to expand the number of captioned programs—which would in turn increase decoder purchases—NCI had created a “Caption Club,” through which individual and organizational members could donate money to support captioning. By 1985, the club boasted more than 3,500 members and total contributions exceeded \$100,000.<sup>71</sup>

Lagging decoder sales also prompted efforts to ease the financial burden associated with purchasing decoding equipment, including new tax credits and leasing options, the latter made available through cable companies.<sup>72</sup> In January of 1986, the TeleCaption II was released, a second generation caption decoder that was smaller, more cable-ready, and equipped with remote controls and other state-of-the-art features. A \$1.5 million subsidy from the Department of Education enabled the first 50,000 of these new devices to be sold for only \$199.99.<sup>73</sup> By now, Sears was no longer the sole player in the decoder business; competition by JC Penny, hearing aid dispensers, and consumer organizations was also helping to bring down retail prices. In the spring of 1986, TDI put the new devices on sale for only \$160.<sup>74</sup>

By 1987, nearly 180 weekly hours of broadcast and premium cable programming were captioned, together with more than 7,000 commercials, produced by over 400 major advertisers.<sup>75</sup> In 1988, this figure rose to 200 hours per week, a third generation of new and improved caption decoders—the TeleCaption 3000—was introduced, and

closed captions were added to more than 1,000 videotapes. In addition, new competition among captioning providers was now bringing down the costs of these services. Still, the haltingly slow growth in decoder sales raised eyebrows among network executives who, having liberally invested in captioning to widen their audiences, realized that only a limited number of deaf and hard of hearing viewers were receiving access to their programs. Fewer than 200,000 decoders had been purchased during the entire eight-year period that these devices had been on the market.\*

Many began to grow concerned that the future of captioning was in serious jeopardy. By 1988, the Department of Education had invested more than \$45 million into its captioning project and was spending over \$6 million each year—or approximately 40 percent of all captioning costs—to support television captioning.<sup>76</sup> But with so small a viewing audience, the economic incentives for networks, producers, and advertisers to continue supplementing these funds simply did not exist. By the late 1980s, these investors were feeling that they were putting far more into captioning than they were getting back.

### Commission on Education for the Deaf

The Commission on Education of the Deaf (COED), was created by the Education of the Deaf Act of 1986 to assess the quality of and propose solutions for deaf education in the United States. Under the chairmanship of Dr. Frank Bowe, the commission met for well over a year, and on March 18, 1988, released its final report, *Toward Equality: Education of the Deaf*.<sup>77</sup> The document had a number of things to say about closed captioning.

COED identified television as “the most persuasive and influential means of sharing information in America,” and *captioned* television as the “most significant technological development for persons who are deaf.” But the commission took issue with the way that captioning was funded. Specifically, COED concluded that reliance on the federal government was keeping captioning rates artificially inflated, stifling competition, and preventing this service from becoming privately funded and self-sustaining. Even use of the Department of Education’s money to finance a third generation decoder was perceived to have possibly hurt the long-term viability of captioning.

*Toward Equality* contained two proposals aimed at securing the future of captioning. First, the report included a recommendation for legislation that would mandate all new TV sets to be capable of decoding and displaying closed captions.<sup>78</sup> The theory behind this proposal was that if all television viewers were able to access captions, the larger audiences would make it easier for networks to sell advertising time. The additional revenues that were collected would then help to cover the costs of the networks’ captioning investments. COED based this conclusion in part on NCI’s assertions that the future of closed captioning was “inextricably tied” to the number of households that received those captions; the captioning agency predicted that captions needed to reach 500,000 to 1,000,000 homes by 1990 to truly become self-sustaining.<sup>79</sup>

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\* Changes to the tax code had done little to entice low income and unemployed deaf consumers who were unable to benefit from the credits.





As chairman of the Commission for Education of the Deaf, Dr. Frank Bowe of Hofstra University helped to identify proposals to secure the future of closed captioning. Pictured here (right) with Senator Tom Harkin (middle) and former NAD executive director Charles Estes.

Second, the commission recommended the enactment of federal legislation that would require television programmers to caption their shows.<sup>80</sup> Despite the considerable growth in captioned programming since 1980, as of 1988, less than one-third of all programming shown on the three major broadcast networks contained captions. Few daytime and late evening programs were captioned, and although more than 38,000,000 American homes subscribed to cable television, captions scarcely appeared on any basic cable programming.\* Many deaf and hard of hearing consumers shared COED's concerns. The voluntary efforts by the television industry had been fine for the 1980s. But it was very clear that advocates were ready to see captions taken to the next level as the decade drew to a close.

## Notes

1. Missy Whatmough McManus, "Quality in Captioning: The Key to Equal Access," *NADmag* (June/July 2002): 18–19.

2. Edmund Burke Boatner, "Captioned Films for the Deaf," *American Annals of the Deaf* (August 1981): 520–525; Malcolm J. Norwood, "Captioning for the Deaf: An Historical Overview," in Judy Harkins and Bobby Virvan (Eds.) *Speech to Text: Today and Tomorrow Proceedings of a Conference at Gallaudet University*, GRI Monograph series (Washington, D.C.: Gallaudet University, 1989), 133–38.

3. P. L. 85-905 was signed into law by President Dwight D. Eisenhower on September 2, 1958. The Library of Congress had originally been chosen to run the program because it was the agency responsible for making reading materials accessible to blind individuals.

4. Initially, the laws that expanded the scope of the captioned law were P.L. 87-715 (September 28, 1962), P.L. 89-258 (October 19, 1965), P.L. 90-247 (January 2, 1968), and P.L. 91-61 (August 20, 1969). The program was later renamed Media and Captioned Films.

5. National Conference on Television for the Hearing Impaired, sponsored by the Southern Regional Media Center for the Deaf at the University of Tennessee at Nashville, December 14–16, 1971.

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\* Premium cable channels, such as HBO and Showtime, were significantly better, captioning many of their movies.

6. Other captioning applications were tested by Hazeltine Research, Inc., and HRB-Singer Co., the latter of which used a portion of the video signal that was typically received off the edge of the picture. Variations in reception and fears that this technology might hurt the life of the television picture tube ultimately eliminated this as a possible solution. Malcolm J. Norwood, "The Development and Growth of Closed Captioned Television," *Written Proceedings of the National Conference on Deaf and Hard of Hearing People, El Paso, Texas*. (September 14, 1988), 94-98.

7. R. T. Root (ed.), *An Analytical and Experimental Investigation of Means of Enhancing the Value of Television as a Medium of Communication for the Hearing Impaired*, Study done by HRB Singer, Inc. under contract to U.S. Office of Education, 1970.

8. Mardi Loeterman, "The Caption Center at Nineteen," *Deaf American* 39 no. 2 (Spring 1989): 9-15.

9. Several years later, the FCC would do away with this rule. In the 1970s, stations often went off the air during the early morning hours, known as the dark hours. During the winter of 1980, the FCC proposed to allow use of this dead air time for news, financial information, sports, and other informational programming without audio or with background music. On March 5, 1980, NCLD sent in comments supporting the revision as one that could increase access to television by deaf and hard of hearing people. See *Operation of Visual and Aural Transmitters of TV Stations*, BC Dkt. 80-10, FCC 80-22, 45 *Fed. Reg.* 6419 (January 28, 1980). The rule now permits aural and visual transmitters to be operated independently of each other or, if operated together, to be used with different and unrelated program material. 47 C.F.R. §73.653.

10. Loeterman, "The Caption Center," 9-15.

11. Interviews with Phil Collyer and Larry R. Goldberg, July 28, 2003.

12. Public Broadcasting Service, "Closed Captioning Service for the Hearing Impaired," *PBS Fact Sheet* (September 1977): 2.

13. The petition, RM-2616, was filed on November 6, 1975, and requested amendment of subpart E of Part 73 of the FCC's rules.

14. Senate Resolution 573, 122 *Cong. Rec.* 34716 (October 1, 1976); reprinted in *NCLD Newsletter* 1 (Fall 1976): 7.

15. "Ford Delivers Statement Supporting Captioning," *NCLD Newsletter* 1 (Fall 1976): 6.

16. *Amendment of Subpart E, Part 73 of the Commission's Rules and Regulations to Reserve Line 21 of the Vertical Blanking Interval of the Television Broadcast Signal for Captioning for the Deaf*, Report and Order, Dkt. 20693, FCC 76-1134, 63 FCC 2d 378 (December 20, 1976). Hereinafter cited as Line 21 Order.

17. *Amendment of Part 73 of the Rules to Establish Requirements for Captioning of Emergency Messages on Television*, Dkt. 20659, 61 FCC 2d 18 (September 15, 1976), recon. denied, 62 FCC 2d 565 (1977).

18. Line 21 Order, 63 FCC 2d, 389, 445 (1976).

19. "Teletext Background Information," CBS/Broadcast Group (undated).

20. "Good Times Ahead!" *NCLD Newsletter* 1 (January 1976): 7. CBS even sent copies of the broadcast to NCLD.

21. Larry Grossman, PBS President, letter to CBS President John Backe, March 22, 1977.

22. Arnold & Porter and Touche Ross & Co., "A Suggested Management and Organization Plan for Captioning Public and Commercial Television Programs" (June 1978). Michael Curzan of Arnold & Porter was instrumental in the development of this plan.

23. NCI News (November 13, 1979).

24. "Commission to Receive Briefing on Status of Captioning for the Deaf in April 5 Meeting," FCC Public Notice, March 29, 1979.

25. "Closed Captioning Participating Groups," *NCI News* (undated), 5; John E.D. Ball, "The Visual Voice," *Lion Magazine* (1980).

26. "Sponsors Rush to Caption TV Commercials," *Business Week* (June 2, 1980): 104E.

27. *Ibid.*

28. CBS Broadcast Group, "CBS/Broadcast Group and Public Broadcasting Stations Announce Plans for a Program/Audience Test of Teletext in Los Angeles" (November 13, 1980).

29. "Sponsors Rush to Caption," 104E.

30. The specific statutory obligation is for television broadcasters to serve “the public interest, convenience and necessity.” 47 U.S.C. §§307(c); 309.

31. *Ascertainment of Community Problems by Broadcast Applicants*, Dkt. 19715, FCC 75-540, 53 FCC 2d 3 (May 15, 1975), based on *Primer on Ascertainment of Community Problems by Broadcast Applicants*, Dkt. 18774, FCC 71-176, 27 FCC 2d 650 (February 23, 1971). See also *Renewal Primer, Ascertainment of Community Problems by Broadcast Applicants*, First Report and Order, Dkt. 19715, FCC 75-1361, 57 FCC 2d 418 (January 7, 1976). Although early ascertainment requirements originally pertained only to commercial stations, this was later expanded to noncommercial broadcasters. *Ascertainment of Community Problems by Noncommercial Educational Broadcasters*, 58 FCC 2d 526 (1976).

32. A list of these community groups, also called “socio-economic elements,” can be found at *Renewal Primer Appendix D*, 57 FCC 2d 418, 447 (1976).

33. Denver Commission on the Disabled, letter to FCC, November 22, 1977.

34. *Amendment of the Primers on Ascertainment of Community Problems by Broadcast Renewal Applicants*, Memorandum Opinion and Order and Notice of Proposed Rulemaking, BC Dkt. 78-237, FCC 78-583, 43 *Fed. Reg.* 35357 (August 9, 1978) (commercial stations); Further Notice of Proposed Rulemaking, 43 *Fed. Reg.* 41241 (September 15, 1978) (noncommercial stations).

35. *License Renewal Applications of Certain Television Stations Licensed For and Serving Los Angeles, California*, Memorandum Opinion and Order, FCC 78-599, 69 FCC 2d 451 (September 8, 1978), recon. denied, 72 FCC 2d 273 (June 15, 1979).

36. *Petition for Reconsideration of Community Action*, Memorandum Opinion and Order, FCC 79-320, 72 FCC 2d 273 (June 15, 1979).

37. *Amendment of the Primers on Ascertainment of Community Problems by Commercial Broadcast Renewal Applicants and Non-commercial Educational Broadcast Applicants, Permittees, and Licensees*, Report and Order, BC Dkt. 78-237, FCC 80-134, 76 FCC 2d 401, 411 (April 4, 1980), ¶23.

38. *The Revision of Programming and Commercialization Policies, Ascertainment Requirements, and Program Log Requirements for Commercial Television Stations*, Report and Order, MM Dkt. 83-70, 98 FCC 2d 1076 (1984); recon. denied, 104 FCC 2d 358 (1986).

39. Comments of NCLD and NAD in MM Dkt. 83-70 (October 17, 1983). To a very limited extent, the FCC would revive the community ascertainment concept under a new name nearly two decades later. Specifically, in 2004, the Commission would set up a series of “localism” hearings in cities around the country, offering an opportunity for consumers to share their concerns about local television programming with the FCC. Deaf consumers would use these forums to testify on the ongoing need for real-time captioning of emergency information.

40. *Gottfried v. FCC*, 655 F. 2d 297 (D.C. Cir. 1981).

41. *Gottfried v. FCC*, 655 F. 2d at 301. The court of appeals also rejected an argument, made by ABC, NBC, Metromedia, and others who had intervened on behalf of the California stations, that an FCC captioning mandate would regulate content in violation of the first amendment. An attack on captioning based on first amendment considerations would resurface many years later when Congress would consider enactment of comprehensive captioning mandates in the 1990s.

42. *Community Television of Southern California v. Gottfried*, 459 U.S. 498 (1983).

43. HEW issued its first regulations implementing Section 504 on May 4, 1977. Pursuant to Executive Order 11914, 41 *Fed. Reg.* 17871 (April 29, 1976), the following year, HEW also issued regulations to coordinate implementation of Section 504 for all federal agencies, See 43 *Fed. Reg.* 2132 (January 13, 1978), originally codified at 45 C.F.R Part 84.

44. The U.S. Department of Education redesignated the guidelines at 28 C.F.R. Part 41.

45. Executive Order 12250, 45 *Fed. Reg.* 72995 (November 4, 1980), codified at 42 U.S.C. §2000d-1; 28 C.F.R. Part 36.

46. *Amendment of Regulation Under Section 504 of the Rehabilitation Act of 1973, to Define Rights of Hearing Impaired Persons to Access to Television Programs*, 46 *Fed. Reg.* 4954 (January 19, 1981). NCLD submitted comments on behalf of the deaf community, urging the agency to require open captions. Comments of NCLD (March 5, 1981).

47. District Court Slip Opinion, No. CV 78-4715 (November 17, 1981).

48. *Ibid.*, Conclusions of Law ¶4; See also ¶9.

49. *Ibid.*, ¶10.
50. *Ibid.*, ¶13; Findings of Fact ¶44.
51. *Ibid.*, Conclusions of Law, ¶12.
52. *Greater Los Angeles Council on Deafness, Inc. v. Community Television of Southern California*, 719 F.2d 1017,1028 (9th Cir. 1983), cert denied, *Gottfried v. United States*, 467 U.S. 1252 (1984); reh'g denied, 468 U.S. 1224 (1964).
53. KCET-TV was a grant recipient under the Public Telecommunications Facilities Program, a program operated by the Commerce Department's National Telecommunications and Information Administration (NTIA), which awarded money to public television stations to acquire and install public telecommunications facilities. 47 U.S.C. §§390–393; 15 C.F.R. §2301, et. seq.
54. *Greater Los Angeles Council on Deafness, Inc. v. Baldrige*, 827 F.2d 1353 (9th Cir. 1987).
55. See 15 C.F.R. §8b (prohibiting discrimination against people with disabilities by NTIA grant recipients pursuant to the Rehabilitation Act of 1973; <http://www.ntia.doc.gov/ptfp>).
56. Donald E. Ledwig, president and CEO, CPB, letter to Senator Tom Harkin, January 11, 1990.
57. "Introduction, *Local News Captioning Conference*, 3.
58. Edward C. Carney, "Captioning: Growth and Responsibility," *Caption* (Fall 1981): 4.
59. "Live Captioned News Becomes a Reality," *Caption* (Fall 1981): 3.
60. This real-time transcription was able to occur at a rate of 250 words per minute. Karen Peltz Strauss, e-mail exchanges with Jeff Hutchins, November 17–18, 2005; Norwood, "Development and Growth of Closed Captioned Television," 97. See generally, Linda D. Miller, "What is Real-Time Captioning and How Can I Use It?" *SHHH* (January/February 1989): 7–10.
61. Some saw ABC's involvement in early captioning efforts as its way to gain a competitive advantage in the race for television viewers. Lawrence K. Grossman, "My Strange Involvement with Closed-Captioning," *Local News Captioning Conference*, 115.
62. "Programming Milestones, NCI's Proud History of Captioning Facts," *NCI fyi* (March 12, 1993). In a case concerning the educational rights of deaf children, Joe Karlovits became the first court reporter to successfully try out the new real-time technology before the U.S. Supreme Court.
63. Albert T. Pimentel, "CBS and Deaf People," *Deaf American* (April 1981): 3.
64. Phil Bravin, e-mail to the author (January 31, 2005).
65. CBS had received FCC authorization to provide Teletext service in 1983. *Amendment of Part 73 to Authorize the Transmission of Teletext by T.V. Stations*, BC Dkt. 81-741, RM-3747, RM 3876. The network continued to provide dual encoding on its Teletext service and line 21 for several more years. Ironically, in the 1990s, under CBS's Director of Captioning Mark Turits, the network would become a leader in the provision of closed captioning, achieving 100% compliance with FCC captioning rules well before the agency's deadlines.
66. "Captioned TV Audience More Than 335,000," *GA-SK* 15 (Spring 1984): 14.
67. "A Dramatic Increase in Closed-Captioned Television News," *NCI News* (October 24, 1984).
68. "Hyatt Hotels Offer Guests Captioned TV," *Caption* (Fall 1984): 4.
69. Karen Peltz Strauss, "Television, Telephones, and TDDs . . . Access is the Issue!" *Gallaudet Today* (Spring 1985): 17–21.
70. *Ibid.*
71. "NCI Wants 4000 Members in its 1986 NCI Caption Club," *Caption* (Fall 1985): 5; see also "NCI Caption Club—Outstanding Success Story," *Caption* (Fall 1984): 5. By fall 1993, the club's members would number over 14,000. "NCI Caption Club Celebrates Its Tenth Anniversary," *GA-SK* 24 (Fall 1983): 18.
72. See, for example, IRS Ruling 80-340, the product of legislation introduced by Senator Patrick Leahy (D-Vt.) and Representative David Bonior (D-Mich.) in the fall of 1984. See "Facts to Keep in Mind About," *nci for your information* (January 4, 1985): 2.
73. Lottie Gatewood, "Television-Caption II: A More Affordable Decoder is Here," *Caption* (fall 1985): 1, 4.
74. "TeleCaption II Decoders," *GA-SK* 17 (Spring 1986): 5, 16
75. "General Information About the Closed-Captioning Services," *nci for your information* (July 1987): 3. Showtime/TMovieC, HBO/Cinemax, and the Disney Channel were the primary cable stations participating in the captioning program at this time.

76. Robert Davila, Office of Special Education and Rehabilitative Services, letter to Sy DuBow, NCLD, March 23, 1990.

77. COED, Frank Bowe, ed., *Toward Equality: Education of the Deaf*, (Washington D.C.: GPO, 1988), 112.

78. *Ibid.*, 120, Recommendation 42.

79. *Ibid.*, 119.

80. *Ibid.*, 116–17, Recommendation 40.