

Chapter 17

Personal Reflections on the Educational Potential and Future of Closed Captioning on the Web

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ABSTRACT

This chapter explores the value of closed captioning in universal design. While closed captions positively impact a wide range of our students—deaf, hard of hearing, and hearing—they also have the potential to create more robust and interactive digital learning systems. Caption technology can address the current limitations of video search and retrieval by offering students fully searchable, fully clickable interactive transcripts. The future of closed captioning on the Web will offer students a means to search the video collection of an entire course, or even across all of the videos produced in all of the courses of a department, college, or university. In this future learning environment, captions will enable students to use keywords not only to find and review course content across multiple videos but also to insert their own “margin” notes, share comments with students, and create customizable video mash-ups as study guides.

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INTRODUCTION

As closed captions on the Web become more common, and online captioning technology becomes more sophisticated, we are beginning to see captions deliver on the promises of universal design (Chisholm & May, 2009) to make digital video more accessible to every student, regardless of hearing ability. This chapter describes how captions are enabling more robust data mining techniques by facilitating digital video search, retrieval, analysis, and synthesis.

BACKGROUND

On television, nearly all English language content is required by U.S. law to be transmitted with closed captions (FCC, 2010). On the Web, Section 508 of the Rehabilitation Act of 1973, as amended in 1998, requires federal agencies that “develop, procure, maintain, or use electronic and information technology” to make their products and services, including their websites, accessible (Section 508). §1194.22b of Section 508 mandates the use of synchronized alternatives (e.g. open or closed captions) for video content: “Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation” (Section 508). In the private sector, businesses that have contracts, or hope to have contracts, with the federal government must ensure that the products they deliver to the government comply with Section 508. The Americans with Disabilities Act (ADA) *may* also require closed captioning for the Web’s private sector. For example, the judge presiding over the landmark *National Federation of the Blind v. Target* case ruled in 2006 that the Americans with Disabilities Act (ADA), which was signed into law before the advent of the Web, applies to private businesses regardless of whether goods and services are offered in brick-and-mortar stores or online. “Judge Marilyn Patel rejected Target’s position that their site couldn’t be sued under the

Americans with Disabilities Act (ADA) because the services of *Target.com* were separate from Target’s brick-and-mortar stores” (Chisholm & May, 2009, p. 16). But because Target settled the case in 2008 “without admitting any wrongdoing,” “the question of the ADA’s applicability to the Web [is] somewhat unresolved” (p. 16). Regardless, the Department of Justice has declared that the ADA does indeed apply to the Internet. According to Thomas E. Perez, Assistant Attorney General in the DOJ’s civil rights division,

It is and has been the position of the Department of Justice since the late 1990s that Title III of the Americans with Disabilities Act (ADA) applies to websites. We intend to issue regulations under our Title III authority in this regard to help companies comply with their obligations to provide equal access. (quoted in Evans, 2010)

Finally, the “21st Century Communications and Video Accessibility Act,” signed into law by President Obama in September 2010, requires all TV and comparable programming, when (re)transmitted on the Web, to be available with closed captions (see Valentino-DeVries, 2010). This landmark legislation will ensure that when TV shows and movies are redistributed on the Web by the original TV networks and authorized retransmitters like Hulu™ and Netflix™, they are accompanied with closed captions (e.g. see Zdenek, 2009).

In an educational setting, captions are designed to provide a synchronized text transcription of speech and other significant sounds for students who are deaf and hard of hearing. But captions also benefit our non-disabled students, particularly when these students are temporarily or *situationally disabled* due to “changes in one’s abilities based on environment, device, or other temporary conditions” (Chisholm & May, 2009, p. 12). For example, a hearing student who tries to study with her laptop in a noisy student union building (assuming she left her headphones in her dorm

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