How People with Disabilities Use the Web revisions- Martine

**Ms. Martinez, Online student who is hard of hearing**

Ms. Martinez is taking several distance learning courses in physics. She is 62 years old and has been hard of hearing since birth. She can hear some sounds but not enough to understand all speech, so she learned sign language early on in addition to the written language. She likes to use text messaging and chat to communicate with her instructors and classmates.

**More about Ms. Martinez**

She had little trouble with the curriculum until the university upgraded their online material to a multimedia approach, using an extensive collection of audio lectures. For classroom-based lectures, the university provided sign language interpreters and CART writers (professionals typing spoken language verbatim). However, for web-based instruction, they initially did not realize that accessibility was an issue, then said they had no idea how to provide the material in accessible format.

With the help of a local disability organization, Ms. Martinez was able to point out that the university was clearly covered by a policy requiring accessibility of the online educational material. She was also able to show the [Web Content Accessibility Guidelines (WCAG)](http://www.w3.org/WAI/intro/wcag) as a resource providing guidance on how to make websites accessible, including those with multimedia content.

The university had the audio-only lectures (no video) transcribed and made these transcripts available through their website along with audio files. For multimedia presentations that include video and audio, the university provides captioning of the audio. Ms. Martinez uses a media player that displays these captions directly below the video so that she can better understand the context of what is being said.

Through this process, the university discovered many more benefits of transcripts and captions. For instance, it was much easier to comprehensively index the accessible multimedia resources and provide them to the search engine of the website. They also found they can provide captions in other languages to support international students, students who could not download or play the audio, and much more.

Draft proposed revision-

Martine, online student who is hard of hearing

Martine is 62 years old and has been hard of hearing since birth. As a child she learned sign language and written language during her early school years. She is currently a student again, taking online college courses.

The university she attends provides sign language interpreters and CART writers who provide written verbatim text interpreting of spoken language for her courses. However, Martine has encountered barriers when video and other media content are not captioned. The university became aware of the need and requirement to provide captioned media and transcripts for audio content and is now working with a captioning provider to caption all content posted on university websites and course content in learning management systems. The university found it helpful to provide captions for multimedia content and now requires all departments to include the production of captions as part of their video production workflow. In addition to providing access to the content for students who are deaf or hard of hearing, the university has found that the use of captions and transcripts facilitates easier production of subtitles in a number of languages and improves the indexing of their online content which provides improved search engine optimization and improved discoverability of the university’s online content.

For more information on implementing techniques that remove barriers for Martine, see the following resources:

**Sections related to Ms. Martinez**

**Diversity of web users:**

* [Hard of hearing (Auditory disabilities)](https://www.w3.org/WAI/intro/people-use-web/diversity#auditory)

**Diversity in web use:**

* [Captions (Perception)](https://www.w3.org/WAI/intro/people-use-web/browsing#perception)
* [Transcripts (Perception)](https://www.w3.org/WAI/intro/people-use-web/browsing#perception)
* [Sign language (Presentation)](https://www.w3.org/WAI/intro/people-use-web/browsing#presentation)

**Accessibility principles:**

* [Text alternatives for non-text content (Perceivable)](https://www.w3.org/WAI/intro/people-use-web/principles#alternatives)
* [Captions and other alternatives for multimedia (Perceivable)](https://www.w3.org/WAI/intro/people-use-web/principles#captions)
* [Content is easier to see and hear (Perceivable)](https://www.w3.org/WAI/intro/people-use-web/principles#distinguishable)
* [Content is readable and understandable (Understandable)](https://www.w3.org/WAI/intro/people-use-web/principles#readable)
* (new) Accessible Media Tutorial