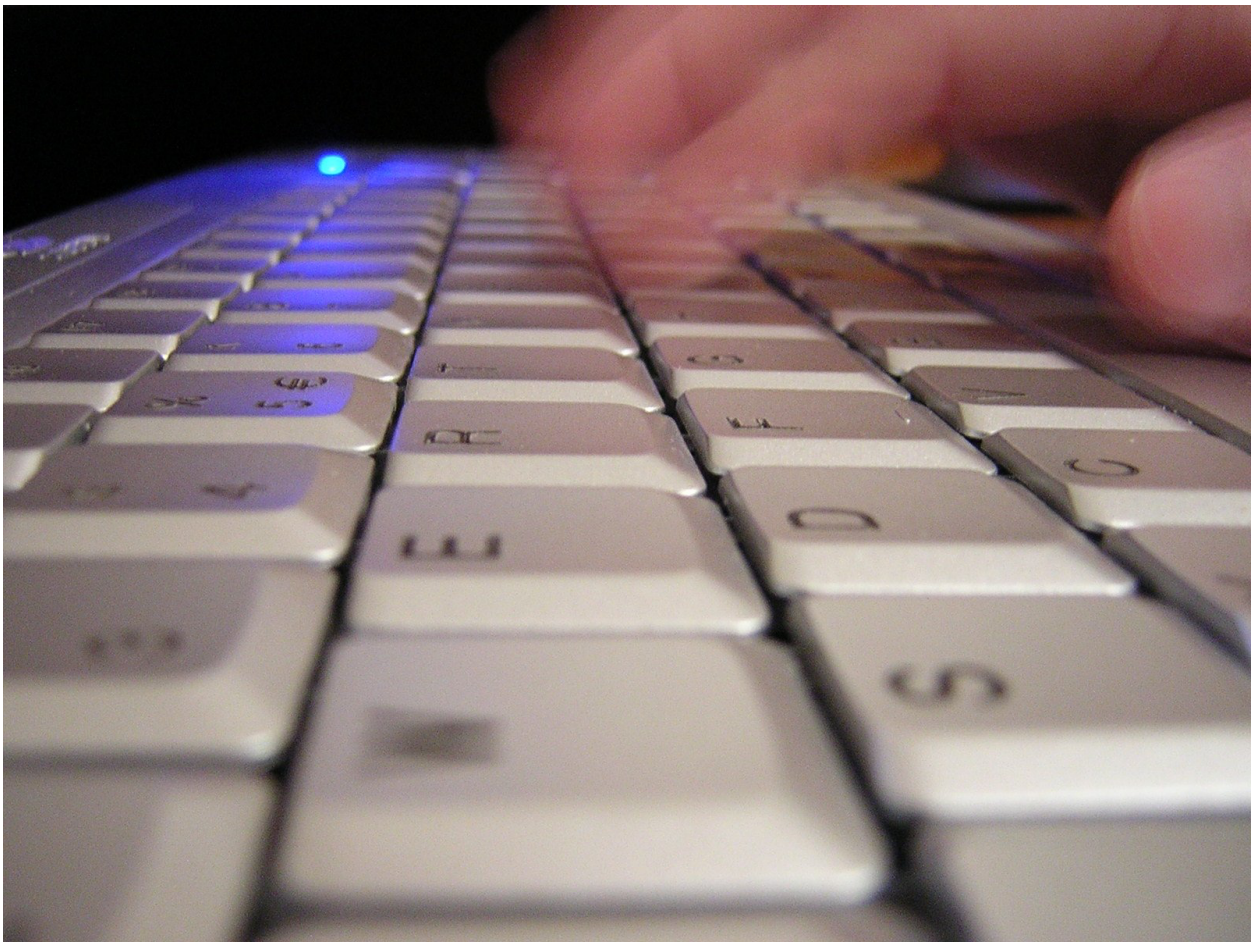
Web Accessibility: The Importance of Artificial Intelligence

Accessibility on the internet is just as important as accessibility in physical spaces. Individuals with disabilities need to enter online spaces just as frequently as physical spaces, and inaccessible websites can lock the disability community out of everything from online banking and shopping to social media and job applications. Online accessibility has become increasingly important in light of the COVID-19 pandemic; with many schools and jobs having moved online, the disability community often found itself at the mercy of inconsistently enforced standards. However, recent advances in Artificial Intelligence (AI) technology could be the key to making online accessibility easier and more universal than ever.

How AI Can Improve Accessibility Online

One area where AI can help improve web accessibility, especially for people with motor and visual disabilities such as a spinal cord injury, is accessing websites with password-protected logins. If you prefer to only use a mouse on the internet because you only have one free hand, or are visually impaired, entering in long passwords can be cumbersome or outright impossible. Facial recognition technology, currently used in smartphones and occasionally in laptops, removes the need to type in these passwords and allows people with motor and/or visual disabilities to log into any website they need to without the security risks that might come with a short password. Facial recognition technology is also beginning to be used as an alternative to CAPACHA, the way websites make sure its users are not robots, because typing in CAPACHA codes or selecting images containing cars from a crowd can be an unreasonable ask for someone with motor or especially visual disabilities.

There is a lot that AI can do to make the internet more accessible for those with motor disabilities, but its potential is even greater for those with visual or audio disabilities. AI Technology can be used to instantly and automatically create captions for videos in multiple languages, and the accuracy of these captions is constantly improving. For those with visual disabilities, AI can examine, recognize, and describe images so that someone relying on a screen reader to navigate a website. The technology is still in development, but it is constantly improving, and increasing the ability of websites to provide their full content to everyone, no matter what.



How AI Can Help Universalize Compliance

Of course, these accessibility feature such as captions, image recognition, and accessibility for one-handed navigation are already possible, and even required under the Rehabilitation Act and ADA or recommended by WCAG. A large company or government, with enough time and resources, could create the same kinds of accessibility features that AI brings to the table. However, for medium and small businesses, nonprofits, or personal websites that are not connected to any kind of organization, AI has the promise to be a much more affordable and fast option to achieve the goals of universal access than implementing them manually.

These AI features are being created both by large companies like Microsoft and Google and by smaller companies that specialize in this technology. For the small business owner

looking to make their website accessible, a dedicated company can offer audits, website repairs, and free resources to develop strategies to achieve universal accessibility. As AI develops, this will include which AI software to apply to the website to fix lingering issues. A website that includes lots of videos would get a lot of mileage off of a caption AI system, for example.

The other benefit of AI is in finding accessibility issues. A nondisabled person looking through their website might be unable to find any accessibility issues, while an AI designed to locate them would be able to find tons. The disability community is vast and diverse, with diverse needs, so an AI that understands all of them and is able to pinpoint all sorts of accessibility issues can go a long way toward full accessibility.

It is no mystery why companies promoting AI for this purpose are citing increased numbers of lawsuits over website accessibility as a selling point for the AI; it can be sold to companies as a quick, inexpensive, and easy way to insure the lawsuits do not come their way. Ultimately, this would lead to increased compliance with the web accessibility guidelines laid out by WCAG by making implementation of accessibility features easier and cheaper than ever.