

# An Alphabet of Accessibility Issues

**A** is blind, and has been since birth. He's always used a screen reader, and always used a computer. He's a programmer, and he's better prepared to use the web than most of the others on this list.

**B** fell down a hill while running to close his car windows in the rain, and fractured multiple fingers. He's trying to surf the web with his left hand and the keyboard.

**C** has a blood cancer. She's been on chemo for a few months and, despite being an MD, is finding it harder and harder to remember things, read, or have a conversation. It's called chemo brain. She's frustrated because she's becoming more and more reliant on her smart phone for taking notes and keeping track of things at the same time that it's getting harder and harder for her to use.

**D** is color blind. Most websites think of him, but most people making PowerPoint presentations or charts and graphs at work do not.

**E** has Cystic Fibrosis, which causes him to spend two to three hours a day wrapped in respiratory therapy equipment that vibrates his chest and makes him cough. As an extension, it makes his arms and legs shake, so he sometimes prefers to use the keyboard or wait to do tasks that require a steady touch with a mouse. He also prefers his tablet over his laptop because he can take it anywhere more conveniently, and it's easier to clean germs off of.

**F** has been a programmer since junior high. She just had surgery for gamer's thumb in her non-dominant hand, and will have it in her dominant hand in a few weeks. She's not sure yet how it will affect her typing or using a touchpad on her laptop.

**G** was diagnosed with dyslexia at an early age. Because of his early and ongoing treatment, most people don't know how much work it takes for him to read. He prefers books to the Internet, because books tend to have better text and spacing for reading.

**H** is a fluent English speaker but hasn't been in America long. She's frequently tripped up by American cultural idioms and phrases. She needs websites to be simple and readable, even when the concept is complex.

**I** has epilepsy, which is sometimes triggered by stark contrasts in colors, or bright colors (not just flashing lights). I has to be careful when visiting brightly-colored pages or pages aimed for younger people.

**J** doesn't know that he's developed an astigmatism in his right eye. He does know that by the end of the day he has a lot of trouble reading the screen, so he zooms in the web browser to 150% after 7pm.

**K** served in the coast guard in the 60s on a lightship in the North Atlantic. Like many lightship sailors, he lost much of his hearing in one ear. He turns his head toward the sound on his computer, but that tends to make seeing the screen at the same time harder.

**L** has lazy-eye. Her brain ignores a lot of the signal she gets from the bad eye. She can see just fine, except for visual effects that require depth perception such as 3-D movies.

**M** can't consistently tell her left from her right. Neither can 15% of adults, according to some reports. Directions on the web that tell her to go to the top left corner of the screen don't harm her, they just momentarily make her feel stupid.

**N** has poor hearing in both ears, and hearing aids. Functionally, she's deaf. When she's home by herself she sometimes turns the sound all the way up on her computer speakers so she can hear videos and audio recordings on the web, but most of the time she just skips them.

**O** has age-related macular degeneration. It's a lot like having the center of everything she looks at removed. She can see, but her ability to function is impacted. She uses magnifiers and screen readers to try to compensate.

**P** has Multiple Sclerosis, which affects both her vision and her ability to control a mouse. She often gets tingling in her hands that makes using a standard computer mouse for a long period of time painful and difficult.

**Q** is ninety-nine. You name the body part, and it doesn't work as well as it used to.

**R** was struck by a car crossing a busy street. It's been six months since the accident, and his doctors think his current headaches, cognitive issues, and sensitivity to sound are post-concussion syndrome, or possibly something worse. He needs simplicity in design to understand what he's reading.

**S** has Raynaud's Disease, where in times of high stress, repetitive motion, or cold temperatures her hands and feet go extremely cold, numb, and sometimes turn blue. She tries to stay warm at her office desk but even in August has been known to drink tea to keep warm, or wear gloves.

**T** has a learning disability that causes problems with her reading comprehension. She does better when sentences are short, terms are simple, or she can listen to an article or email instead of reading it.

**U** was born premature 38 years ago — so premature that her vision was permanently affected. She has low vision in one eye and none in the other. She tends to hold small screens and books close to her face, and lean in to her computer screen.

**V** is sleep-deprived. She gets about five hours of bad sleep a night, has high blood pressure, and her doctor wants to test her for sleep apnea. She doesn't want to go to the test because they might "put her on a machine" so instead she muddles through her workday thinking poorly and having trouble concentrating on her work.

**W** had a stroke in his early forties. Now he's re-learning everything from using his primary arm to reading again.

**X** just had her cancerous thyroid removed. She's about to be put on radioactive iodine, so right now she's on a strict diet, has extremely low energy, and a lot of trouble concentrating. She likes things broken up into very short steps so she can't lose her place.

**Y** was in a car accident that left her with vertigo so severe that for a few weeks she couldn't get out of bed. The symptoms have lessened significantly now, but that new parallax scrolling craze makes her nauseous to the point that she shuts scripting off on her computer.

**Z** doesn't have what you would consider a disability. He has twins under the age of one. He's a stay-at-home dad who has a grabby child in one arm and if he's lucky one or two fingers free on the other hand to navigate his iPad or turn Siri on.

This alphabet soup of accessibility is not a collection of personas. These are friends and family I love. Sometimes I'm describing a group. Some people are more than one letter. Some represent stages people were in 10 years ago and some stages we know they will hit — we just don't know when.

Robin Christopherson points out that many of us are only temporarily able-bodied. I've seen this to be true. At any given moment, we could be juggling multiple tasks that take an eye or an ear or a finger away. We could be exhausted or sick or stressed. Our need for an accessible web might last a minute, an hour, a day, or the rest of our lives. We never know.

We never know who. We never know when.

We **never** know who. We **never** know when.

We just know that when it's our turn to be one of the twenty-six, we will want the web to work. So today, we need to make simple, readable, effective content. Today, we make sure all our auditory content has a transcript, or makes sense without one. Today, we need to make our shopping carts and logins and checkouts friendly to everyone. Today, we need to design with one thought to the color blind, one thought to the photosensitive epileptic, and one thought to those who will magnify our screens. Today we need to write semantic HTML and make pages that can be navigated by voice, touch, mouse, keyboard, and stylus.

Tomorrow, it's a new alphabet.