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<div align="center">What is Digital Accessibility, and Why Does it Matter?</div>

I.   What is Accessibility?

The point of accessibility is to make sure that products or environments are able to be used by everyone. It is nearly impossible to make everything perfect for all users, but designers should strive to make their content as inclusive as possible. Those with disabilities greatly benefit from accessibility, and accessible features are also convenient for those without a disability. People should not be held back by the failures of society, since that gives them a disadvantage compared to those who may be considered as the average person.

According to author Laura Kalbag, accessibility can be considered as a form of inclusion. Accessible designs do not "make the objects less usable for those without the particular impairments they address - in fact, they usually make a product easier for everyone to use." (Kalbag Chp. 1). For example, Kalbag explains how pivoting handles allow for everyone to have easier access to a space. If you are holding a lot of stuff, it is much easier to push down and out on a pivoting handle, versus grabbing a spherical door knob with your entire hand, and turning it. The second option requires you to have a firm grip of the doorknob, which is inaccessible for people with mobility disabilities, and for people holding a lot of stuff in their arms. So by making this feature accessible, it is inclusive for everyone.

II.   Disability Models

There are two main models of describing disability: the medical model and the social model. Each model portrays different mindsets of how to view disabilities in society, and offer interesting opinions on their advantages and disadvantages.

A. The Medical Model

The medical model of disability is fact based and straightforward. It is based on the science behind different disabilities, and focuses on fixing the person. This is the model that most people are familiar with.

This model is very literal and has certain categories that it organizes people in. When someone's vision is unable to be corrected to 20/20, they are medically considered to have low vision. (Adobe Disability Module 3). Therefore everyone who fits in this category is considered low vision, despite their vision being affected by many potential variables. These categories are helpful for those in the medical profession, but this criteria often gets blended into government policies and the education of the average person. This leads to disabled people being treated as if they are broken and need to be fixed. Their legal rights are also based on this medical model, so legal accessibility requirements do not take into account what they want. Instead the requirements are based on medical opinions created by doctors. While this can be helpful, it limits the effectiveness of the products or environments created. If the designers took the opinions of disabled people into account, the designs would be much more accessible and effective.

The medical approach leads people into thinking that disabled people themselves need to adapt to the world around them. They need to buy expensive equipment and adapt their bodies in order to function in society. This puts a lot of unfair pressure onto disabled people that the average person would not experience.

This leads into the concept of disability dongles, a term coined by disability advocate Liz Jackson. She explains that some innovations created by well-intended innovators are focusing too much on a "specific fix" and that it takes away from "time and resources that are not allocated to actually innovating access." When interviewing disabled people's opinions of a design, such as the stair climbing wheelchair, they explain that the innovation is too expensive, not wanted, or too extravagant. This is because disabled people are often not included in the research that was done in order to create this product. The designers often do not even consult their key audience, and instead solely focus on the medical research. While that is important, it is also imperative to get opinions and feedback from actual disabled people, since they can offer ideas that can make the project more accessible, successful, and useful for its audience.

B. The Social Model

The social model of disability shifts the blame of adaptation onto society rather than the disabled community. For example, in the medical model, a person in a wheelchair needs to adapt to the world. In the social model, the world needs to adapt to the person in a wheelchair. If a designer does not consider the needs of disabled people while creating a product, then they have failed their job. This model focuses more on the environment rather than the person. The world needs to be altered in order to accommodate every person and their needs in order for everyone to have the same experience. This model "recognizes people with disabilities not only as underappreciated customers, but as stakeholders" (Adobe Disability Module 3). It improves the overall diversity of how businesses work, and how they design their products. Since they would be more willing to work alongside people with disabilities, it would help them become more open minded. They would have to dig deeper in order to find more creative ways to design their products, which would improve the quality and accessibility for everyone.

III.   History of Accessibility and the Disability Rights Movement

The disabled rights movement has a long history, beginning with the pensions given to the men who were wounded in the Revolutionary War. Citizens were thankful for those who served and wanted to make sure they received help after their service.

In the 1940s, polio cases rose and caused more people to become disabled. These people did not have many rights, and were often mistreated. This was shown in the Netflix documentary *Crip Camp*, when the institution called Willowbrook was mentioned. Mentally disabled children were shown sitting in the halls of the building, covered in their own feces. The so-called school was closed in 1987, but it was after years of mistreatment.

Kids who grew up going to summer programs such as Camp Jened forged strong friendships with each other, and they were inspired to do something about their situation. They grew up to be the civil rights activists of the future. They led the movement in signing Section 504 of the Rehabilitation Act of 1973. Judy Heumann was essentially the leader of this movement, where she and hundreds of other people in the disabled community protested across the country. The Capitol Crawl of 1990 was a movement where hundreds of people crawled up the steps to the west Capitol entrance. They did this because Congress was stalling the signing of the A.D.A.

In 2006, the National Federation of the Blind filed a class-action suit against Target, since their website was not accessible. Target was told by the court to make its website accessible. This leads into our post-COVID future, where technology is a huge part of everyday life. Remote work and school are commonplace now, and those need to be accessible for everyone in order to provide equal opportunities for all. Now that technology is more widespread, laws relating to accessibility need to be re-edited in order to protect the rights of the disability community.

IV.   Digital Accessible Design

When creating a design that is digitally accessible, the designer must consider the needs of everyone. They need to first follow the WCAG Guidelines, and do their best to reach the highest rating. The conformance levels are A (lowest), AA (mid range), and AAA (highest). The WCAG website states that it "does not recommend that Level AAA conformance be required as a general policy for entire sites because it is not possible to satisfy all Level AAA success criteria for some content" (WCAG Standards & Best Practices). The goal should be to have a website be rated AA, with efforts to get it close to AAA. It is very difficult to get the highest rating, but that doesn't mean that a designer shouldn't at least attempt to get there.

Personas can also help designers create accessible products. These are characters that are created based on real studies in order to help designers connect with those who need accessible technology.

When creating videos, including subtitles should be the standard. Subtitles are helpful to everyone. For deaf people, it allows them to receive the information from the video. It is also helpful for those who simply process information better while reading. Video subtitles on websites like YouTube are present, but not on all of their videos. The company needs to improve their captioning technology in order for it to be easier for creators to add captions to their videos.

Digital accessibility matters because everyone should have the ability to access the same information. This allows everyone to have the same opportunities in life, and to not be held back by society's failures to adapt to their needs.

V.   Universal Design

According to Ronald L. Mace, universal design is "the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design."

The key difference between universal design and accessible design is that universal design is made so everyone has the same experience. An example of accessible design is a scenario where a wheelchair user would like to enter a building. The building has steps in the front, but it does have a ramp! However, the ramp is located all the way in the back of the building, and the wheelchair user needs to roll past the dumpsters and into a back entrance. While they do gain access to the building, it is not the same experience as a person who is able to use the stairs in the front.

Universal design allows for everyone to use the same entrance. An example of this is a combined ramp and stairs. This helps everyone: maybe there is a mother pushing her baby in a stroller. A ramp would allow her and her child easier access into the building. Maybe there is an elderly man, who finds it painful to walk up stairs. Now he has access to the ramp as well, without the need for a separate back entrance.

When applied to web design, Laura Kalbag uses the example of changing the text size of a website. It is accessible design to have an option at the top of the page to change the text size, but it is universal design if you just make the text bigger to begin with.

If a designer creates a product with universal design in mind, the result will give everyone the same experiences. If everything is designed with this concept in mind, then everyone will have the same opportunity to succeed in society, since the world has adapted to their needs.

Image by Kevin Ruelle, accessed from communitycrossroadsnh.org.

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