

FORM, BUT NO FUNCTION:
EXPLORING THE ACCESSIBILITY OF INFOGRAPHICS TO PEOPLE WITH
VISUAL IMPAIRMENTS, AND WAYS TO EXPAND ACCESS

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Abstract

As digital news has taken over as the dominant medium for delivery of news content to the public, accessibility issues have widened, particularly for people with visual impairments. By researching the question "In what ways can digital news, infographics, infographics technology, and web development be improved to cater to people with limited vision?", this study seeks to examine the ways that digital news, particularly infographics and data visualization, can better serve people with visual impairments. Semi-structured interviews with consumers of news media and infographics who have visual impairments inform a best practices guide for journalists and news media members so that they can make their work fully accessible, fulfilling the press' obligation to the entire public.

Key Words

Accessibility

Infographics

Data Visualization

Visual Impairment

Digital News

Data Journalism

Alt-Text

Screen Reader

CHAPTER ONE: INTRODUCTION

The research presented explores the visual accessibility of news media with a focus on infographics and the accessibility of graphics to members of the news media’s audience who have limited vision. Specifically, this study will compare infographics against alternative forms of delivering news information like text and alt-text. Through qualitative interviews with people who have low or no vision, I will use the data to assess the effectiveness of the news graphic and to create a best practice guide in making accessible news infographics for graphic/data journalists.

Visual impairment – having low vision (vision loss) or no vision at all (blindness) – affects more than 7 million Americans. People with low or no vision experience reduced quality of life, daily activities, and independence, as well as increased direct and indirect healthcare and living costs (CDC, 2024). According to the Centers for Disease Control, more than 3.4 million Americans over the age of 40 have low or no vision, a number expected to double by 2030 as the population of older people increases. Additionally, nearly 80 million Americans are affected by diseases that have the potential to cause blindness (CDC, 2024). The CDC defines vision loss as a public health problem.

The infographic is an effective way to disseminate the news, particularly when data or numbers are involved (Yael De Haan, et al., 2017). However, a graphic loses its effectiveness if an audience member is unable to see it. Even if using a screen reader, a person with low or no vision would only be able to hear a description of the graphic, provided the graphic journalist added adequate alt-text (see “Definitions”) to their graphic.

A brief review of recent improvements for accessibility, at least in the United States, provides context. The 1968 Architectural Barriers Act, the first federal law that sought to enact change on behalf of people with disabilities, U.S. Access Board, 2023). This legislation was

followed up with the first minimum guidelines for accessible design in 1982, and, more notably, the American Disabilities Act of 1990, which protected people with disabilities against discrimination because of their disability (U.S. Access Board, 2023). In 1999, the World Wide Web Consortium (W3C) was the first edition of the Web Content Accessibility Guidelines (WCAG), commonly known as WCAG 1.0. The first edition of the WCAG, since updated with a second edition in 2001, was a list of best practices for web developers when creating websites accessible to anyone, regardless of ability and device used to access a website (W3C, 2021).

The evolving nature of digital media, especially digital news media, has left behind many who are not able to fully participate in an online environment because of visual impairments, among other disabilities. While the updated guidelines, WCAG 2.0, have been helpful to developers and journalists alike, there is likely more to be done to provide for adequate access to infographics and news media. Little available scholarship examines these needs from the standpoint of persons with low or no vision, and not all major news media websites fully adhere to the updated 2008 WCAG guidelines. Further, when there are attempts to follow guidelines, they are inconsistent across various news media sites. While the WCAG is well-intentioned, there need to be better standards for web development, particularly in digital news media. In the following sections I will explore the history of accessibility in the United States – particularly web accessibility for people with visual impairments. Additionally, I will define relevant key terms in the research and relevant theories to news infographics accessibility research. Applicable theories, both Social Responsibility Theory of the Press and Critical Disability Theory, come from very different corners of the research world but come to an intersection as we examine news and journalism’s duty to the public – a public that includes all people, regardless of ability. These sections serve to provide context for the study and to point

out the shortcomings of journalism in serving the entire public and meeting people with disabilities where they are.

CHAPTER TWO: LITERATURE REVIEW

Social Responsibility Theory

Social responsibility theory asserts that in a free society, there is an obligation to all people, and the press, specifically because of the privileges allowed under the First Amendment, is obligated to perform responsibilities and duties for the public (Conti, 2017). This theory is particularly relevant because accessibility falls under the umbrella of obligations and responsibilities of the press in the United States if the media are to meet their obligations to all people. While news organizations may fulfill some or many of their social obligations and duties for the public, there are key shortcomings among many when it comes to accessible design, especially concerning accessibility for those with visual impairments.

Despite the public service function of the press, the press' duty to the public was not widely appreciated until the Hutchins Commission, a group of scholars, was commissioned to delve into the function media should play in a modern democracy (Conti, 2017). Prior efforts to instill ethics into journalism included when in 1914, Walter Williams wrote the Journalists' Creed, which still today hangs in the National Press Club in the nation's capital (Nieman Reports, 2009), and The Pulitzer Prize was established in 1917 to award outstanding achievements in journalism and journalism public service (The Pulitzer Prize, 2023). The Hutchins Commission, however, introduced the concept of an overarching social responsibility, rather than an individual's commitment to being an upstanding journalist. The Commission's report provided a creed for journalism, rather than for journalists. The conclusions of the commission were that the press not only plays an important role in the future and future stability of society, but the press also has a moral obligation to consider the needs of society when carrying out journalism – instilling a pillar of service to the greater good in journalism. The commission described five requirements of a free and responsible press in

modern society: “a truthful, comprehensive, and intelligent account of the day’s events in a context which gives them meaning; a forum for the exchange of comment and criticism; the projection of a representative picture of the constituent groups in the society; the presentation and clarification of the goals and values of society; and finally, a full access to the day’s intelligence” (Hutchins, et al., 1947, p. 28). In summary, news media is the way that people learn about the world around them, which is why the primary purpose of news media and journalism is to provide people with the information they need to be free and self-governing (Kovach and Rosentiel, 2014).

The commission’s report, written in 1947, could not have predicted the shape of media in today’s modern society with its digital news media landscape, but its requirements are still relevant (Conti, 2017). While web development and design and computer programming have come a long way in addressing the needs of people with disabilities, many media organizations have struggled to keep up with the demands of an ever-changing online media world (Davis, 2003).

The press has a rocky past of systemic discrimination against various groups of people (Khan, 2016). Among those excluded are various people with disabilities, who make up just under 13% of the U.S. population (CDC, 2023). If receiving news allows citizens to be free and self-governing, being unable to access news media content has the potential implications to take those rights away from people. In a full circle moment, the news is impeding itself from fulfilling its goals to the public, and in the process infringing on people’s right to be free and self-governing. Here, critical social theory around disabilities comes into focus.

Critical Disability Theory, first developed in the late 1970s, counters the charity and medical models of disability that try to find a “cure” for disability or categorize people’s disabilities by how severe they are or to what extent they affect everyday life (Conti, 2017). Instead, critical

disability theory seeks to involve people with disabilities in the conversation about inclusion and accessibility, casting aside the idea that disability is a medical issue or a compassion issue in favor of regarding disability as a question of politics and power over people (Hall, 2019). Because this study aims to explore accessibility, it is critical to understand the relevant theories that delve into the historic oppression, exclusion, and mishandling of people with disability and the issues they face in everyday life, especially through the lens of critical social theory. The social responsibility at the core of journalism will aid in achieving the goals of the study, as the theory argues that journalism must adapt to serve the entire public, as it is obligated to do. That entire public includes people with limited vision, and journalism absolutely includes news infographics and visuals. In this way, social responsibility theory of the press, created by Sievert, Peterson, and Schrann, will be integral to both the research and creation of a best practices guide to accessible infographics.

The duty of journalism then requires journalists to make their work available to all, which is especially relevant to members of the news audience who have disabilities that create barriers between them and content created by the news media. In order to understand how journalism can break down those barriers and meet audience members where they are with their impairment or disability, we must examine journalism and infographics through the lens of universal design theory.

Universal Design Theory

Universal design began as an idea coined by architect Ron Mace, who helped fight for legislation that would eventually pass as the Fair Housing Act of 1988 and the Americans with Disabilities Act of 1990. Mace, who spent most of his life in a wheelchair, developed the seven principles of universal design to help spur a revolution in architecture, engineering and design to make public and private buildings accessible to all people, regardless of ability (Burke,

2017). Universal design has grown into a more massive movement that is much larger than those initial seven principles of design created by Mace. Those principles have been extended in a variety of ways, particularly by the W3C to create the WCAG guidelines. In this research and study, universal design theory is key because it is part of the backbone of the research questions and explores some of the most basic, but most important, questions about accessibility and disability in the United States.

The seven principles of Universal Design are: ‘equitable use’; ‘flexibility in use’; ‘simple and intuitive’; ‘perceptible information’; ‘tolerance for error’; ‘low physical effort’; and ‘size and space for approach and use’ (Burgstahler, 2021).

Table 1

Seven Principles of Universal Design

Principle	Description/Example
Equitable Use	Desk can be raised or lowered to accommodate users of varying heights or an individual who uses a wheelchair.
Flexibility in Use	Video has an option to turn on closed captions.
Simple and Intuitive	Website that is clearly and simply organized for ease of use.
Perceptible Information	Video includes a voiceover to communicate information regardless of the user’s sensory ability.
Tolerance for Error	Drainage below curbs of sidewalks have grates over them so that people using wheelchairs or who have limited vision are unaffected.
Low Physical Effort	Automatic door openers can facilitate access to an office space or classroom.

Size and Space for Approach and Use	Desks in a lecture hall can be flipped from right-hand dominant to left-hand dominant.
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(University of Buffalo, 2024)

While the roots of these principles are in architecture, barrier-free design is especially applicable to contemporary web design. The cornerstone philosophy of accessible, universal design, particularly in web development is that the user is never the problem, the apparatus is (Riley-Huff, 2012). This pushes web developers to adjust.

While it takes some effort, the ability they have the ability to adjust. At the core of disability theory and accessibility research, then, is that those with the ability to meet people where they are must do so, pulling social responsibility theory back into focus. This research lives at the intersection of universal design theory and social responsibility theory.

Following universal design theory’s principles, especially in the context of news media, infographics, and web design, will help to fulfill the social responsibility that the press – particularly graphics and visual journalists – have to their entire audience, which includes people with limited vision and other disabilities. To take a look at the reality of these shortcomings, we consider the functionality of a screen reader and ways in which the presentation of news media can get in the way of a reader’s understanding of the news story, and sometimes get in the way of a reader’s access to the story altogether.

Accessibility from an Audience Perspective

In a more practical, less theoretical, aspect, accessibility is an intensely difficult issue for people with limited vision navigating the digital world we live in – one that becomes ever more digital every day. From my own experience, using a screen reader heavily limits a website user’s ability to scroll and click freely, as the screen reader restricts a user to accessing

website elements in a chronological order. This order may be invisible to a fully sighted user but is written into the code of the website. Because the back-end code of simple websites is usually optimized for web browser efficiency, screen readers are often an afterthought (W3C, 2021). Additionally, website elements like, for example, a video that automatically plays when the website loads, disproportionately affect users with limited vision who are accessing the site through a screen reader. A user without a screen reader can simply click the pause button to stop the auto-playing content. With a screen reader, the same action to pause the video may take over a minute, as the user must continually hit the tab key on their keyboard until they reach the pause button element in the code of the site. When viewing an infographic, a screen reader may read the chart or map like it's a paragraph, simply announcing the colors and labels rather than interpreting the message that the chart is trying to deliver through data driven graphs or illustrations. This not only completely misses the point of the infographic, but it leaves a reader more confused than if the graphic hadn't been there at all, utterly defeating the purpose of the infographic. Websites and coding languages are advanced, but unintelligent systems, and because of this millions of people are left behind. These are common experiences, too: having low or no vision is one of the top 10 disabilities among adults in the United States and is one of the most common disabilities affecting children (CDC, 2017). About 20 million people, or 6% of the US population, have limited vision defined as visual impairment (Georgetown Health Policy Institute, 2009). These common experiences must be addressed if the news media truly has an interest in fulfilling its duty to the public.

Conclusion

Accessibility, and particularly accessibility research, in the United States is a relatively new concept. Digital accessibility is an even newer concept. While journalism has made strong efforts to keep up with current web design conventions and standards, accessibility is an area

where journalism has often fallen short. Because many journalists lack web design skills and training on accessibility, news content is not always available. Some organizations are ahead of others, but most organizations fall short. Even in large newsrooms, it often takes an individual to lead the charge on the importance of accessible content. I've seen this in my experience at both the Columbia Missourian newspaper and USA Today, where there has been one team member championing alt-text on graphics and social media posts.

While previous research addresses accessibility in news, there is a gap in the research. Scholars have yet to address the accessibility of infographics and the effects that this lack of accessibility has on people with visual impairments. A select few studies have attempted to address infographics accessibility but have done so through the general lens of mass communication and have focused on cutting edge technology to solve this issue in a lab setting. This research aims to address the needs of individuals with visual impairments so that news, and news graphics in particular, can be more directly accessible. Given the gaps in research and the obligations of the press to the entire public, which includes all people regardless of ability, I believe this study will be an important addition to scholarly research and the field of journalism.

Research Question

Given the gap in the availability of resources for people with limited vision, this project seeks to address the following research question with practical approaches:

1. In what ways can infographics, infographics technology, and computer programming practices be improved to cater to people with limited vision?

To address this question, I conducted interviews with 7 people with low or no vision. These interviews were analyzed, and the data was used to create both an analysis of the accessibility of digital news and news infographics as well as an article detailing best practices for

journalists and news media. By creating this analysis “Form, but no Function: Exploring the Accessibility of Infographics to People with Visual Impairments, and ways to expand access,” I hope to further the academic discussion surrounding digital news accessibility and provide concrete steps that journalists and news media members can take to bridge the accessibility gap and better reach people with visual impairments when reporting the news in a digital space.

The following section defines the following key terms accessibility, alt-text, infographic, screen reader, and text. In the subsequent chapters, I will discuss the interviews, their analysis and significant findings, and then....

Definitions of Key Terms

Accessibility:

The availability of content to people with disabilities, including but not limited to visual, auditory, physical, speech, cognitive, language, learning, and neurological disabilities (W3C, 2008). This includes blindness, any type of visual impairment, colorblindness, etc. The extent to which people with disabilities can interact with their environment, in this case, news media web content.

Alt-text:

Short for alternative text. Text that is added to images and other non-text web content, like infographics and data visualizations, so that the content can be perceived and clearly understood by people who may not have the ability to see the content or otherwise grasp its meaning (W3C, 2021).

Alt-text is the “descriptive caption” for an infographic that is either written by the creator of the graphic or auto-generated by software to describe an infographic. Alt-text is what is read aloud by a screen-reader so that people can comprehend the information shown in a graphic. In photojournalism, alt-text is also used. In that application, alt-text is different from

the photo's caption, serving to describe the scene exactly as a person without visual impairments would see it, so that an accurate description of the image can be delivered to people with limited vision.

Infographic:

Data visualizations (quantitative or qualitative data-driven charts, maps, etc.) or illustrations that convey information to an audience (Yael De Haan, et al., 2017). Here, infographic specifically refers to any type of data visualization or illustration used to convey information in online news media.

Screen Reader:

Software programs that allow users to listen to web content displayed on their computer screen. A screen reader reads the text on the screen and transmits the content via a speech synthesizer or braille display. It is the interface between the computer's operating system, its applications (specifically a web browser), and the user (AFB, 2023).

Text:

Text is defined as words or characters on a physical or digital page that form part of a news story, infographic, or data visualization.

Chapter Three: Analysis/Findings

For this project, I interviewed 7 individuals with low or no vision.

Table 2

Sociodemographic Characteristics of Participants

Sample Characteristics	<i>n</i>	%
Gender		
Female	2	29
Male	5	71
Employment		
Unemployed	0	0
Student	2	29
Employed	2	29
Self-employed	0	2
Retired	3	43
Level of Visual Impairment		
Low vision	3	43
No vision (blindness)	4	57

Note. Participants were on average 53.1 years old ($SD = 18.3$.)

In semi-structured interviews with individuals who have low or no vision, many participants mentioned various barriers that limit their access to digital news content in some way. Some participants discussed the difficulty of engaging news stories that contain advertisements or difficulty navigating news organizations' websites. The most common limitation, though, was the lack of alternate descriptions for images and infographics content like maps and charts. These visual, and often interactive, aspects of digital news content were inaccessible the vast majority of the time in the experience of the participants. There are several solutions that journalists and news media members can put into practice to help bridge the gap of inaccessible content, like providing proper alternate descriptions, including data with charts and maps, providing an audio description with the image or graphic, and properly

displaying accessibility statements with feedback mechanisms in an easily accessible place on a news website.

When critically analyzing the accessibility of digital news media, it is not difficult to come across inaccessible web features or other common barriers that the WCAG has flagged in their web accessibility guidelines. In many instances, stories do not have audio options for a story so that someone can listen to a news story rather than reading it or forcing a screen reader to comb through it. Advertisements are often poorly placed and can keep people using a screen reader from advancing further in a story. On some news sites, video plays automatically without the option to easily pause, seriously limiting the way people using a screen reader can engage. Often, the accessibility problems are as simple as images or graphics without any title – making them unreadable by a screen reader or an audio description if one is provided.

When faced with barriers to access on news sites, users with visual impairments are forced with a choice: use 3rd party tools and apps to help them decipher news stories with varying degrees of accuracy or give up and disengage with the news. In many cases, even using other apps and tools can be an unsuccessful endeavor. Because of these fundamental failings in the presentation of digital news, the press is failing to cater to the entire public – leaving behind people who have visual impairments. The ways to correct these failings may be as simple as taking some extra time in the layout of stories, but in other newsrooms it may mean upgrading website frameworks, paying for more services, or hiring dedicated employees. Regardless, it is important to present the news in a way that can be accessed by all people, sighted or not.

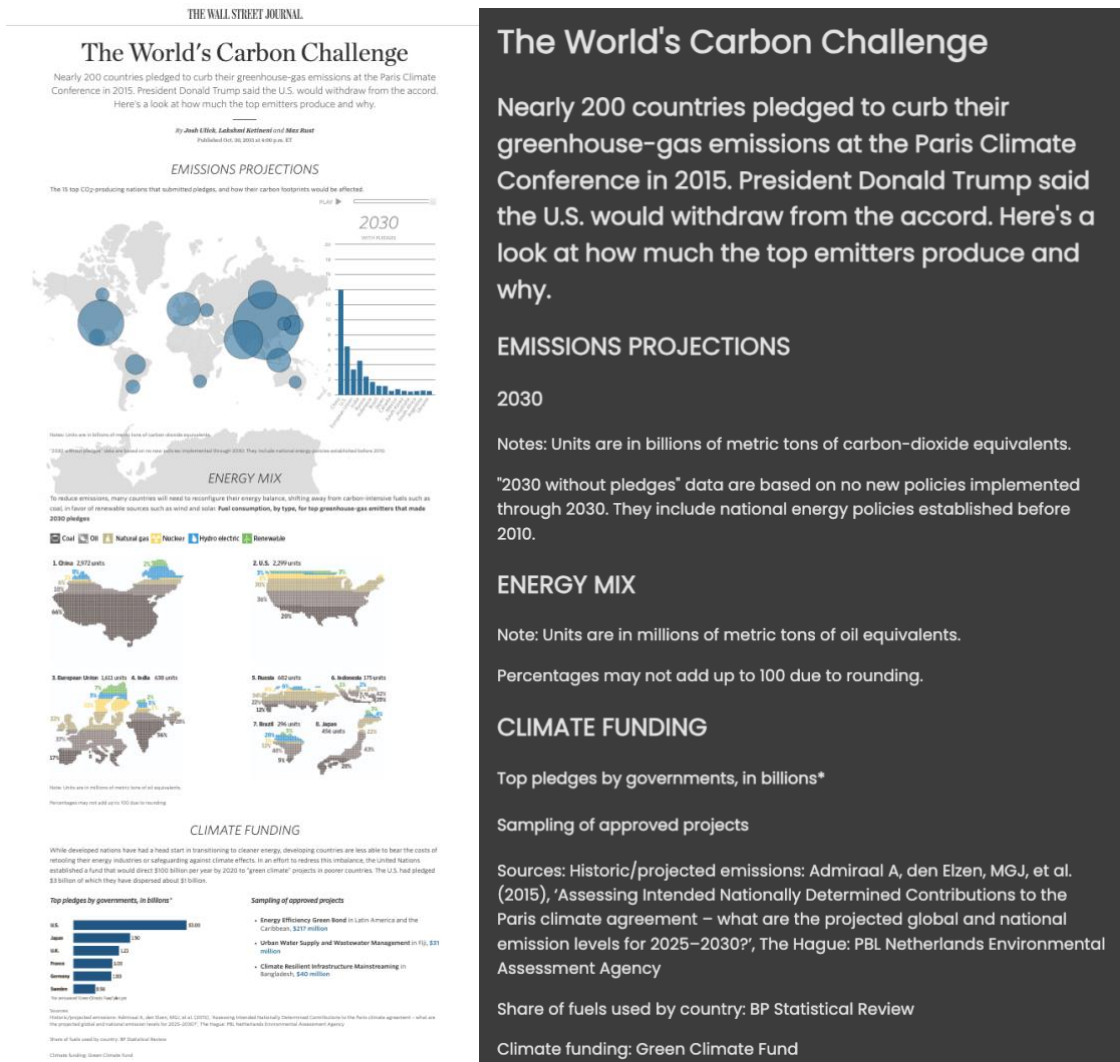
The Biggest Issue: Infographics and Images

While many different factors may make the news inaccessible, none are as common as images or infographics without alt-text to provide a description of the image or graphic. In

multiple interviews, this challenge was cited as the single greatest problem in digital accessibility of the news – in some cases, about 75% of images and infographics contain no alternate descriptor, and when alt-text is present, it is often insufficient, interviewees said. An example of insufficient alt-text is shown in Figure 1.

Figure 1

A Wall Street Journal story, told mostly through infographics, is shown on the left. On the right, the alt-text for the entire story is shown. The alt-text leaves out everything except for the opening paragraph, footnotes, and annotations to the infographics.



(Wall Street Journal, 2024)

Cheryl Meister, a 62-year-old retiree who previously worked for the IRS, is completely blind. She has been working with JAWS (Job Access With Speech), one of the most popular screen reader software options for Windows computers, for nearly 20 years. While Meister said that ultimately JAWS meets her needs – both when she used it for work and when she uses it now in retired life – there are still frustrations with the technology. Working with images and graphics “is probably the most frustrating thing that I find,” Meister said. “It’ll just say ‘graphic, graphic, graphic,’ it’s ridiculous.”

Based on her experience, Meister estimates that around 25% of websites she encounters have no alt-text built into them whatsoever, and while the other 75% have some kind of alternate descriptions present, there isn’t much consistency in the way it is presented. Because of these barriers, Meister opts to get her news from her Amazon Alexa, asking for news briefs on the latest headlines every morning. When sent something by a friend, she may visit a website, but she said that is a rare occurrence. In the past, Meister used to use the National Foundation for the Blind’s “Newslines” service, which began as a call-in service that members could select any large newspaper and have the stories read out via an audio file. The Newslines is no longer a call-in service but rather a digital collection of .mp3 files of news stories, but Meister doesn’t use the service anymore. Ultimately, she does not consider herself the most “news savvy” person, as she finds much of the news to be depressing and harsh. While the Amazon Alexa daily reports are all she needs, it is a solution that she’s found because of barriers to other news sources.

Eric Boklage, a 63-year-old graduate student studying vision rehabilitation therapy in Chicago, has no peripheral vision and deteriorating central vision due to glaucoma. While his central vision is correctable, it isn’t usable for long periods of time. Boklage shares some of the same difficulties with screen readers that Meister mentioned. While Boklage does not use a screen reader for all his internet use, as he does have some vision, he is a vision rehab training

intern at Seconds Sense Chicago, a nonprofit dedicated to helping people with visual impairments learn how to use technologies to aid them in their daily lives, among other services. Because of his unique position, Boklage is incredibly familiar with screen readers and other assistive technologies.

In his experience, images and graphics with alt-text are much harder to come by than in Meister's experiences. Boklage estimates that alt-text is present in 20–25% of visuals that he comes across. "It really is contextual," Boklage said. "If I'm looking at something related to my vision rehab studies, that number is going to be a lot higher. The people who are in that field are going to be more conscientious about putting it in. If you're looking at The Wall Street Journal, The New York Times, or a general publication for the masses, then it's going to be a lot lower."

As someone who can see images and infographics in news stories but uses screen readers often and teaches people how to use screen readers, he can unequivocally say that much of the news content he comes across with a screen reader is "lacking, to say the least."

"There's this age old saying that a picture paints 1,000 words, and nobody wants to write those 1,000 words," Boklage said. "In addition to that, people don't think about the fact that they need to put a description to go along with graphical images ... and if they do put a description, they might say, 'This is a chart of the population since 1900,' but it doesn't give you an indication of how the chart represents change and the progression of that line." That's the biggest problem surrounding alt-text and new infographics, Boklage said.

Boklage is also familiar with the National Foundation of the Blind's Newslines service but noted that while it is a good alternate source for news, it doesn't include any images or graphics – because there are no alternate descriptions. This only reinforces the failure of the press to provide an adequate alternative for images and infographics to people with visual

impairments.

Ian Guendry, a 36-year-old digital accessibility consultant at Pfizer who has been legally blind since birth. Like Boklage, Guendry uses assistive technology not only for his own use, but also in his work testing websites and digital content for accessibility. Guendry reiterated the point that both Meister and Boklage made about the struggles using assistive technology to interpret images and infographics. Guendry specifically highlighted the limitations of alt-text, even if it is present. “A standard for alt-text is probably 150 to 200 characters – can you convey [a description] of an image of a campaign rally in that many characters?” Guendry asked.

He also pointed out that many people with visual impairments have become conditioned to skip over images and graphics entirely, as it is too tiresome and difficult to deal with these pieces of content. While Guendry says these people often operate on the assumption that they’ll get all the information from the text content itself, the reality of many news stories is that often infographics and images are relied on for storytelling purposes. This is especially true with interactive maps, which Guendry said tend to be the biggest issue for people using assistive technology. “You run into [issues with] just how interactive they are,” Guendry said. “You miss out on a lot of information if the information [in the map] isn’t provided in a table or an accordion or some sort of alternate media.” In his experience, Guendry said he rarely comes across these accordions or alternate forms of media.

Available tools and aids

While screen readers can often be difficult to use, and ultimately be ineffective when coming across different types of visual content like images and infographics, many tools and apps exist that can help aid people with visual impairments in browsing the web or getting descriptions for images, items, or scenes in their everyday life. Based on conversations with

several people who rely on these tools daily and who teach them to others, I've compiled a list of the most commonly used assistive technologies with descriptions of how each one works.

Be My Eyes

Be My Eyes is a smartphone app originally built to connect users with visual impairments to a network of volunteers to assist with tasks that required sight. Users can request a call, and one of Be My Eyes more than 7 million volunteers will pick up and virtually assist the user with quick tasks by remotely accessing the user's phone camera. The volunteer will describe the scene seen through the camera, and answer follow-up questions to adequately assist the user. Since the original launch of the app, Be My Eyes has launched additional features, like a service directory that includes customer service lines for hundreds of companies. Rather than connect users with the regular customer service representatives, the numbers listed in the directory connect users with representatives specifically trained to assist people visual impairments. Users can select a group of "favorites" out of the companies listed, so that there is no need to hunt through the directory each time. Recently, Be My Eyes has released a "Be My AI" feature that uses GPT technology to generate automated descriptions of any photo a user takes.

Seeing AI

Seeing AI is a Microsoft smartphone app with multiple different AI and Optical Character Recognition (OCR) features integrated into the user interface. Seeing AI's short text channel can be used to read any text that the phone camera is pointed at, whether on note pads, text on appliances or signs, or on envelopes. After pointing the camera at the text, Seeing AI will read the text back to the user. The document reader channel can be used to read longer documents. Users can take a photo of a large document and Seeing AI will transcribe the text and read it aloud. There is also a currency reader channel that can identify the denomination of

U.S. bills, and a person recognition channel that can locate and identify people in a scene that the user has previously saved photos of. Seeing AI also has scene description capabilities similar to Be My Eyes' "Be My AI" feature – where a user can point the camera at a scene and the AI will generate a description. Ultimately, I've heard from users experiences that at the time of publication, Be My AI has more robust AI scene description capabilities than Seeing AI. Be My AI describes more than just what is present in the scene – it will also describe lighting, colors, and mood of the scene, while Seeing AI focuses on objects in the scene.

Aira

Aira is a smartphone app that is very similar to Be My Eyes, as it is a visual interpreting service that connects people with visual impairments to interpreters. Where Aira differs from Be My Eyes, though, is that Aira offers connection to trained visual interpreters rather than volunteers. Trained interpreters are able to do more than just view the camera of a user – Aira can help decipher text messages, files and documents, and help users use navigation apps, shop online, and view schoolwork.

Screen readers:

JAWS

JAWS, as mentioned before, is the leading screen reader on the market compatible with Windows operating systems. JAWS is a basic screen reader, with multiple different keyboard shortcuts that can make using the screen reader easier for experienced users. JAWS offers AI technology in the beta stage (not fully tested) that can generate alt-text descriptions for images and infographics that do not have alt-text provided or have insufficient alt-text.

Apple VoiceOver:

The leading screen reader technology for Apple operating systems is Apple's VoiceOver technology. VoiceOver is a standard screen reader that includes keyboard shortcuts

on laptop and desktop computers. In addition, though, VoiceOver has Apple's Siri virtual assistant technology integrated into the system for voice activated shortcuts, which users say is incredibly helpful to launch apps without having to search for them, and other uses.

VoiceOver's integration into the Apple system works more seamlessly as it is created for the Apple operating system. While JAWS is made for Windows, because it isn't fully integrated in the operating system, it isn't as flawless of a user experience.

Universal Design Theory is the Key to Solutions

At the end of every conversation with my interview participants, I asked a loaded question: "What should be the top priority for accessibility tool designers and news media to focus on...what would be the most helpful fixes to accessibility problems you experience?"

I received a wide range of answers to this question, and every participant's answer was unique. Eric Boklage, though, gave a particularly unique answer to this question. When asked what the top focus should be for accessibility, he asked, "Are you familiar with universal design?" Boklage said that Universal Design should be the core value of web development in any form, but particularly in the news. But, he then pointed out that so much of the internet is not fully accessible because putting Universal Design into practice is not profitable – ultimately making "diverse populations, such as those who have visual impairments, an afterthought." Boklage said that "Universal Design has proven over and over and over and over again that the masses benefit from the things they have put into Universal Design." He argues that accessibility should not be something developers and journalists need to be compliant to, but rather it should be something that they want to do so that the largest amount of people can access their work. "I'm too much of a realist to think that's possible," Boklage said, but he affirmed that it should be the top priority of developers, accessibility tool designers, and journalists and the news media.

Boklage works with college students who have visual impairments and helps them to access their course material, and often he finds that public university's websites are not properly marked or identified in a way that a screen reader can navigate the site. Markings for "enrollment" and "class schedule" on a screen reader should be a necessity, but instead the lack of awareness has resulted in a lack of access, Boklage said.

Accessibility Consultant Ian Guendry echoed Boklage's sentiment that Universal Design is necessary, but he had some action items to incorporate Universal Design into the news media ecosystem.

Accessibility Statements

Some media outlets, like the Associated Press, New York Times, Fox News, and CNN, include accessibility statements on their websites to help people using screen readers to understand the accessibility features of the news website and toggle on and off specific features added for accessibility. The New York Times, for example, includes five different features that can be enabled or adjusted for accessibility needs. Fox News, by contrast, simply provides a single paragraph about the company's adherence to WCAG accessibility standards.

Guendry said that robust, detailed accessibility statements, when combined with a feedback mechanism, are incredibly important in helping people navigate news websites. These accessibility statements can help provide guidance on best practices if a user gets lost in the website with their screen reader, as Guendry mentioned often times advertisements can trap screen readers inside of them without a clear way to move on to other content, and ads are especially prominent on many news sites. In addition, these accessibility statements can provide different keyboard shortcuts that can also help with navigating the site more easily with a screen reader or other assistive technology. When more news organizations put together detailed accessibility statements, users with visual impairments can navigate to these pages

before even engaging with the site, so many questions can be answered before they arise. In the case of questions that remain unanswered after consulting the accessibility statement, a feedback mechanism that allows users to input issues with the site is incredibly important.

Alternate Forms of Media

Providing alternate forms of content is an incredibly useful tactic for journalists and news media organizations when trying to mitigate accessibility issues in news stories. Many news video clips are posted with no captions and/or no option to turn on captions. This is one form of incredibly helpful alternate media. Alternate media can also take the shape of an audio player that can read a news story to a user of a news site. Providing transcripts for videos in addition to captions can be incredibly helpful for screen readers, and above all, alt-text should be provided for images and infographics in all cases. Alt-text should be incredibly descriptive, and in the case where characters are limited for alt-text, Guendry suggested including an info box to provide the necessary information that the graphic or image portrays. Often times images attached to news stories are not original images taken to accompany the story and are stock photos or file photos attached for aesthetic or thematic purposes. In these cases, simply marking these images with the alt-text “decorative.” This often saves users with screen readers from spending time trying to investigate the image further or use generative technology to try and come up with a description for the image that is truly, just decorative.

Other helpful tips

Other best practices include templated websites for news organizations, so that there is a consistent presentation, flow, and ease of use throughout the website. Guendry emphasized that accessibility should be considered in the design phase of a site, because if it is left as an afterthought, the chances of inaccessible elements or an inconsistency throughout the site are much higher. When content is added to these pre-built, accessible templates, the underlying

structure is already accessible and won't present a problem that needs to be fixed.

Finally, consulting accessibility specialists or running small focus groups or accessibility screenings with people who have visual impairments to test run websites or large pieces of content is a best practice that will help flag accessibility issues that could come up later in content rollouts.

Accessibility specialists are not only well-versed in accessibility guidelines and best practices, but also are on top of the new technologies and techniques that can ensure accessibility in often more affordable and easier ways. In addition to accessibility specialists and consultants, it is important to engage with the community of people who have visual impairments, as ultimately their experience will inform the creation of accessible practices in the most effective way possible.

Developing Technology

While accessibility technology and tools are being updated with the latest AI tools every day, it's not very often that entirely new assistive technologies become available to people with visual impairments. While many of these technologies come with lots of expenses, one personal technology could be on the horizon: Meta Ray-Ban Sunglasses. Cyrus Habib, SJ, a 43-year-old Jesuit priest in training who has been totally blind since birth, explained, in-depth, the progressing technology of these sunglasses and the ways that they can be used to assist people with visual impairments. Meta's Ray-Ban Sunglasses, in their current version, are a pair of Ray-Ban frames equipped with Meta's AI technology. Currently, with the glasses on, users can ask "Hey Meta, what's around me?" and the glasses will take a photo and describe the scene around you. This, by itself, is already helpful to people with visual impairments, but Habib, said that this technology will only keep advancing with Meta CEO Mark Zuckerberg's announcement that Meta AI will be partnering with Be My Eyes' "Be My AI" technology to

be integrated into the Meta smart glasses in the future. Habib described the Meta glasses currently in development as frames that, after partnering with Be My AI, will be able to describe what's going on around users in real time, much like an augmented reality system. Rather than analyzing a picture that the glasses take, the AI will be able to analyze and describe the user's environment based on a live feed from the glasses' camera.

Habib noted that ultimately, he views AI-powered technology such as the Meta Ray-Ban glasses as the future of accessibility technology. Rather than added accessibility features for users with visual impairments, Habib hopes for richer, more robust AI tech, much like the JAWS screen reader's AI integration, that will help describe the web more accurately and generate descriptions for pieces of content. without them.

Chapter Four: Conclusion

Limitations and Recommendations for Future Research

In reflecting on the effectiveness of this study, it's incredibly important to address any potential limitations to the study and resulting analysis. Chief among these limitations is the skewed demographics of the participant sample. To start, this study targeted participants who were news-consumers and in doing so missed out on the experience and perspective of any people with visual impairments who aren't regular news consumers. In addition, the sample for this study was 71% male participants, which also may have potentially skewed the resulting analysis.

If I had to conduct this research all over again, I would work to adjust the sample so that the analysis reflects the experiences of more women and more people who do not consider themselves to be consumers of news media. Including more of these perspectives would help to balance out the sample. I would also make a concerted effort to speak with people who are not retired, as retirees made up over half of my sample. Ultimately, the sample for this study was effective and the resulting analysis was robust, but in order to push the research further a more diverse and larger sample will be necessary.

Best practices for journalists/news media practitioners, as detailed in the final section of the analysis titled "Universal Design Theory is the Key to Solutions:"

- Supplying alternate forms of media for all content
 - o Video captions and transcripts, including data tables for any visualizations, proper alt-text, and adding info boxes when necessary
- Adding robust accessibility statements to news websites, with relevant information, keyboard shortcuts, and a feedback mechanism

- Consulting with people who have visual impairments and/or accessibility specialists on overall news website/content design
- Templatizing overall website design for consistency

Personal Assessment

To say I am pleased with the outcome of this project is an understatement. At the outset, I really wasn't sure what form it may take. I had grand aspirations of a quantitative experiment to scientifically establish the infographic as a more effective modality of delivering news content than text and alt-text, followed by a series of semi-structured quantitative interviews with people who have visual impairments. Thanks to Dr. Luisi, I just went with the second part – if I hadn't, this project may be dated with December 2034 instead of December 2024. Ultimately, though, these interviews gave me everything I hoped for going in, and then some.

The participants in this study were amazing people, and they were not only incredibly helpful with the information they provided, but also were thankful that this topic was being researched – every participant said that the inaccessible nature of digital news is absolutely a problem. The participants were a diverse bunch, ranging in ages and background, but they shared similar challenges. By the end of my series of interviews, I could talk about different tools on a higher level with participants. Rather than simply asking “what tools do you use” and moving on, I was able to engage with them and ask questions about the way they use certain tools and how they compare to other tools on the market that they may have had experience with. Perhaps my most enlightening interview was with Eric Boklage. Boklage has a visual impairment himself but can still mostly see for short periods of time. What made for such an amazing interview, though, was the fact that Boklage teaches accessibility technology to people who are completely blind. So not only was he able to share his perspective as a person with a visual impairment, but he also had such an incredible perspective on the different tools, since he

can see while using them and has such a depth of knowledge of each tool because he teaches them to others. I was so grateful for his insights.

This project will absolutely push the academic discussion around digital news accessibility forward, if only a small bit, and that's exactly what I set out to do. While I made some discoveries along the way that changed my original vision for the project – for example, I thought the discussion around accessibility best practices would involve more code and computer programming tips, but it turned out to be impractical to go in that direction; and, I set out to make an accessibility checker, but that already exists in different fashions – I have been able to create a solid best practices guide for digital accessibility, gleaning insights from everyday people with visual impairments and digital accessibility consultants alike. I'm proud of the work I've accomplished, and very thankful for the support I received along the way.

Observations

In my review of available literature and subsequent interviews with participants who have visual impairments, I spent a lot of time defining terms and describing tools and available technology to lay the groundwork for further research on this topic. While my research gives a glimpse into the web browsing experience of people with visual impairments, and more specifically their experience engaging with news, it just sets the stage for more solutions to a bevy of accessibility issues. Ultimately, I have been pleased to be able to come up with a guide of best practices for news organizations, but at the same time there is so much more work to be done in the world of digital news accessibility. What Eric Boklage said rings true, journalists, web developers, and editors need to incorporate the values of Universal Design into their daily lives so that accessibility is a core pillar in digital news, rather than an afterthought to try and not leave anybody out. Alt-text should be taught in journalism schools, not just mentioned briefly at the end of a lesson in one journalism elective.

This project has really been an attempt to push the research, and ultimately, the discussion of accessibility in newsrooms, forward just a little bit closer to finding true solutions. I set out to find solutions, but I just found more problems. In a way, though, I feel the scholarly discussion will be closer because of the problems I found doing this project.

The interviews I did for this project were incredibly enlightening, and I was lucky enough to speak to some truly incredible people who have such a wide range of experiences and paths in life. Every conversation gave me more amazing things to write about, and so much to reflect on.

I am thankful to the participants in this study for the troves of information they gifted to me, but most of all, at the end of this analysis, I'm hopeful that someone will push the research further than I have. There is certainly more difficult questions to be asked and more work to be done, and while I am proud of what I've done with this project and very pleased with the findings and result, it is incredibly important that someone steps up to carry the torch at some point in the (hopefully) near future.

Appendix I: Interview Transcripts

Interview 1: Jerry White

Bio – Jerry White is a 59-year-old retired stockbroker living in Park Ridge, Illinois. He has about 20% vision – no peripheral vision, and spotting on his central vision that makes facial recognition and reading very difficult. Jerry has been affected by this for 40 years.

Teddy Maiorca

Well, we'll get started. I gotta I got an easy one for you first. Could you just tell me your name and spell it for me?

Jerry White

Do you want the proper or do you just want informal.

Teddy Maiorca

We can go proper.

Jerry White

Okay, Jerome, J, E, R, O, m, e, White, W, h, i, t, e,

Teddy Maiorca

all right. Could you tell me where you're from?

Jerry White

Originally from upstate New York, small town called Utica,

Teddy Maiorca

where are you residing? Currently?

Jerry White

Park Ridge, Illinois,

Teddy Maiorca

wonderful. And you said you were 60,

Jerry White

yeah, so 59

Teddy Maiorca

wonderful, going to be all right. And what is it that you do? Jerry,

Jerry White

I actually am a retired stockbroker and now have become a spiritual director. It's not on a professional more of a vocation. Gotcha. My profession was I was a stockbroker. I retired from that because of my visual situation, and recently, vocationally, got certified as a spiritual director.

Teddy Maiorca

Well, congratulations to you on that. And Jerry, could you tell me to what level? What level is your visual impairment?

Jerry White

I probably have about 20% of my vision. I have what's called labors, L, E, B, E, R, S, optic hereditary neuropathy, which means that my optic nerves have atrophied entirely, also taking my tear ducts with them. So I see. I have peripheral vision, so I am ambulatory. However, in terms of reading and any acuity is all spotted. So face facial recognition, looking at a menu, I can't do any of those things. Gotcha, I have to use all assisted or a single magnifier that is mounted to a iframe for my right eye, which I have to hold up to my face, like, literally, an inch, half inch from my face, and read with one eye. Wow. And that's not very efficient. You probably get some money. Yes,

Teddy Maiorca

I can imagine, I can imagine, oh my gosh, yeah, it's, it's brutal. And for how long have you been dealing with this

Jerry White

40 years? Started when I was 19.

Teddy Maiorca

I guess now you know, we'll kind of get more into into the nitty gritty, but I'm curious right off the bat, how has you know over those 40 years, would you say that the technology available to assist you has has developed, and if so, how

Jerry White

technology has developed from a standpoint that there are software and devices that can read for you, however, they're not surrogates. They are helpful. But in terms of efficiency, it's just, I don't foresee any actual tool that's going to make it that could work to the effectiveness that you're that your vision, that you're visually, it's the same as seeing, is it better from 40 years ago, absolutely, as a matter of fact, I used several different apps for while I was studying, ironically, at Bellarmine is where I got the certification, and so that was very helpful for going through the texts where the print was too small. So the short answer is yes and no, yes, it's better. However, substitute No

Teddy Maiorca

So you touched on a few there. But if you could just, you know, name for me, the tools or apps that you use on a regular basis to help you read text.

Jerry White

One is called seeing AI, which is by Microsoft, or from created by Microsoft, and that actually will take a picture as several different ways, several different ways you can use it, because it'll take a picture of the page of the book, and then it'll read it back to you, and you can pause it, rewind it, and then go forward with the book. Also, you could use it in a grocery store. It'll read the barcode. It can read text. So there's a few different ways you can use that. So that was really helpful. And then there is Microsoft, 123, hold on a second. Have you interviewed anybody else yet? Or am I the first person?

Teddy Maiorca

You're actually my very first one

Jerry White

there are a couple other softwares that are used to is called JAWS. And ZoomText, which go into the computer. And jaws will read, read the actual like the internet, it'll read for you. And ZoomText is a magnifier that will enlarge and enlarge the print. So the other one is really weird. And then there's Braille readers they have now as well. And Word, Microsoft Word Gotcha. So I have that on my iPad. I use that for email and pretty much anything through the internet, you know, through Safari or

Teddy Maiorca

Sure. Okay, so you really are reading my mind here, Jerry, so I was just about to ask you about online browsing and tools for that. So would you say you use Word, or are there other tools you use when you're when you're browsing the web?

Jerry White

To browse, I utilize the microphone that's on the keyboard. So if you look at the bar, next to the bar is a microphone, totally and I will, I'll tap that and say, Google Search Arizona restaurant, Scottsdale, or something like that. And then, of course, I've enlarged with, with the iPad, you can enlarge the font size to Gotcha. So I'll do that as well. The only problem is that gets ineffective at some point when the font gets too big, because then you're reading one letter at a time, and you can't really do that. So

Teddy Maiorca

would do you use any kinds of tools that would have the results read to you for a Google search or something of that, that nature, read to you what's on a web page or something like that.

Jerry White

No, actually, I end up using my magnifier that is in my eyepiece. Okay, gotcha. However, I also I do use because on my iPhone, I the text. I can have my text read to me, and I can also dictate, and I can dictate as well emails right through the iPad. And I guess that's would be apple that provides that software.

Teddy Maiorca

Sure,

awesome. So

Teddy Maiorca

next, I mentioned alt text earlier. Do you familiar with, Okay, gotcha, you're not familiar with all text. Then, no, cool. That's, that's, honestly, I'm glad to hear that, because alt text is not a great it's, it's with, it's what's baked into the code. Basically, you know, if you upload an image to the web, the alt text is what, whoever put that image into the web, what they chose to put in as the alternative text to describe the image, which is just often, it's often an afterthought. So it's it really, I digress.

Jerry White

Would that be like video description on a movie? Yes?

Teddy Maiorca

Exactly. Okay, exactly. So we'll, we'll jump right past there. So you maybe touched on this a little bit with your phone. But do you use screen readers at all?

Jerry White

That will be that the screen reader is the seeing. Ai,

Teddy Maiorca

gotcha,

Jerry White

think word is too Microsoft

Teddy Maiorca

Word as well. Okay, yeah,

Jerry White

because, as a matter of fact, when I'm doing Chicago diocese has Vertis training, so if I get any email from them to go through another module of training. I'll just use the word and that'll read, it'll read whatever the the training for that segment is that module.

Teddy Maiorca

And how would you say that is not bad,

Jerry White

it's not great, but it's better than me having to, you know, use my magnifier, Sure, absolutely. Yeah, it's not terrible. It's pretty good.

Teddy Maiorca

And similarly, with seeing AI gets, gets the job done, it does, and

Jerry White

it's getting better, okay, particularly, you know, the jump that we've had with AI, and it's getting better. Cool, awesome. Well,

Teddy Maiorca

thanks so much for sharing those, those tools with me. I'm interested to get into more of more of the news. So I guess I'll start with asking you, How do you get your news?

Jerry White

Um, I am an avid user of Alexa YouTube. Reality is I'm not a real big news by either at this point in my life. So I have to say that it'll come through using my iPad primarily, and use on television and through Alexa, so it'll give me a broad base update,

Teddy Maiorca

gotcha, and anything necessarily that you customize, or just, You know, you generally just ask Alexa

Jerry White

yeah, just generally ask what's happening in the world. And I'm around enough people, and I'm interactive with enough people that I'm it's, I'm kind of kept up to date if I want to be or not sure, sure

Teddy Maiorca

you're in the loop as much as you'd like to be. You know what

Jerry White

the other thing I have. The other thing, pardon me for interrupting, is that the Illinois State Library for the Blind is a wonderful tool, tool, and they have audio books, and they also have magazines and newspaper so that's the other way that I keep up with news through the Illinois State Library for the Blind. Excellent. Yeah, awesome, yeah, that goes through what's called the Bard, B, A, R, D system.

Teddy Maiorca

All right, yeah,

Jerry White

I'm sure I'm not the only person that though you'll hear that from other folks. Sure,

Teddy Maiorca

great, awesome. And so, and you said, you mentioned, just to kind of regroup here, you mentioned your iPad, and basically Alexa and the interactions with others for news, does that pretty much that count all of it.

Jerry White

Yeah, that. And then, of course, and then yes, yes, my iPhone, iPad, and yes, occasionally in the television as well,

Teddy Maiorca

sure, and, you know, based on the device, if you're on your phone or your iPad, and pardon me if I'm asking a question I've already asked, but are you, you know, basically using those same tools you'd use for web browsing and other other things to to get that news information? Awesome. Yeah, cool, excellent. So you know, when you're using these tools, are there any particular shortcomings or challenges that you haven't already mentioned that stand out?

Jerry White

Just using them in general is difficult. I mean, that's the reality of it. It's it's funny, because I'm in a space where I've got enough vision that you wouldn't even know that I have a vision on Barry unless you kind of hung around me a little bit. As a matter of fact, the head of technology, I volunteer and sit on the board of directors for an organization called second sense, which helps people that are visually if you if you need other avenue or anybody to talk to to as well. I have access to one of the philanthropic organization, so let me know if you want that second sense Chicago. And we end with we work probably 1000 people a year, to get them acclimated with

vision loss and adjusting. However, one of the followers that said to me, Jerry, you're, you know, you're in a spot that, because you're not totally blind, you're kind of stuck, because when you lose your sight entirely, you have to make a choice on are you going to use Braille moving forward. So back to the question, Is it difficult? You know, I kind of juggled between large print periodicals that I get for news and information, which is challenging. It's just, it's not time. The biggest obstacle is it's just not efficient. That's the biggest, the biggest obstacle. I mean, I can get any information I want. It's just a matter of how fast do I tire out? How effective is it that that's really the biggest. Biggest obstacle?

Teddy Maiorca

Absolutely, that totally makes sense Are there any particular, you know, moments that stand out within it with a particular tool that have been frustrating?

Jerry White

I mean, I again, you don't, that's a good question. I don't know. I You're grateful for all of the tools that you have, and you say to yourself, What could be better? What could be a little bit more helpful? And you just have to work with what you got. And each person you're going to come to find out each one of us are very different in a comfort level. And because of my age, I got kind of caught. I'm not very technologically adept. So that's that's a problem. I would imagine there's some folks that are younger as well, that are more adept, because so much you can do musically. You know, again, I have streaming. I have music streaming, so that's the other I have Amazon streaming, so I do get news. I never thought about this question. So it's kind of opening up different thought process. Sure, I do have, I have Amazon, I have prime so I use, you know, a variety of different underneath that umbrella of Amazon music, there there are a lot of different news outlets, so I get it through that as well. So there is, in terms of availability, it's there. It's just a matter of figuring out which works best. That's the frustration. What if you know again, what? What can I use? How do I learn how to use it? And then having somebody teach you how to use it,

Teddy Maiorca

yeah, and I'm sure you know, getting to know one tool that I'd be then is not necessarily super effective. Can be like, right back where one and a waste of time and energy, right?

Jerry White

for example, seeing AI works really well for a hard copy book, again, time effective efficiency is limited, but then Word works better for so if I have a physical book, seeing AI works better. If I have something physical I want to read it reads money or something in the grocery store that works. So you're juggling tools, not there's not one particular tool that works across the board. There's the frustration. There's not, hey, I've got excellent, you know, seeing AI works across for everything I need. It works. It doesn't work like that.

Teddy Maiorca

You really need the tool belt.

Jerry White

You need all, yeah, you need, you know, I have to use, so I need bar for books and periodicals. I need seeing AI for my bills and things that come in the mail. And Microsoft Word works for all the things that I get through the internet. And then whatever Apple has available with texts and

emails reading that. So there's, you know, there's an arsenal of different things. There's no one size fits all. Gotcha. So which would be great if I had a, you know, for example, you know, to make a metaphor, if I'm using, if I have a 716, to nine sixteenths, I can use a crescent wrench, an adjustable wrench that fits everything. I don't have to worry about it. I have no crescent wrench that works for my visual loss for being black. Yeah,

Teddy Maiorca

that's a great analogy. another, another question on, you know, the ways that you mentioned getting your news were a lot of, you know, newer technology, you know, iPad, phone and Alexa, but before those things, you know what, what did you use for for news? I guess you really, really, how has that changed over time?

Jerry White

Pretty much everybody else is physical paper, and you try to, you know what? What did I need to know? I mean, when I was working, it was geopolitical, it was what's happening in the market. So you would focus, and again, you have to be, I had time management. How am I going to use my time most effectively? Because, you know what would take somebody five minutes is going to take me 20 minutes. So I would get a newspaper and say, Okay, I need in the Wall Street Journal. That's most effective right now. What do I need in Barron's? So it was the actual physical publication, or the availability at our offices. We would have what was called squawk boxes, and they would talk to us and tell us the highlights of what happened overnight overseas. So that's where that would come from. Or CNBC, you know there were audio. I mean, there's so many media outlets. You know that. Now that you know, what do I want to know? Do I want to know about finance news? Okay, I can find a channel for that. No problem. I could go to YouTube. I use YouTube quite a bit. YouTube is wonderful, as long as you know, again, you got to find, what? How do you find unbiased journalism today, right? I'm sure, you know, there's, you know, we can get a whole conversation. It

Teddy Maiorca

could be a whole other Master's project.

Jerry White

That's not what we're looking so, yeah, YouTube is very helpful. But prior to that, it would be the physical publications. I mean, you know, 30 years ago. This was three years ago. I was 30 years old, and that's what you did. You'd catch up, you'd have Financial Times, you'd have barons, you'd have the Wall Street Journal and a variety of other Forbes Bloomberg, and your computer that was, you know, set up on Dow Jones news, etc, sure.

Teddy Maiorca

And you mentioned YouTube that you use? What? What? What? What do you use YouTube for? Would you say,

Jerry White

um, I for a lot of theological information. It's, you know, the plethora of that. I started playing a guitar about three years ago. So there's a lot of great tutorials on there for that news and just anything that's kind of interesting, somebody will mention to be can all give you seen this and some TV programs to get highlights that I wanted to re see again, music music videos. But I use Amazon for that as well, too. Gotcha. And

Teddy Maiorca

YouTube is pretty much across the board.

Jerry White

I mean, I use it for just about any, yeah,

Teddy Maiorca

there's nothing YouTube doesn't have, right? Exactly.

Jerry White

I mean, you know how to you know how to clean something, how to fix something, but primarily it's theology, Guitar Tutorial. News, you know, Bishop Aaron. I follow Bishop Aaron, quite a bit awesome. So yeah, and again, once you get into the algorithm, it'll start bringing up different things that are in that, in books, you know, books do

Teddy Maiorca

gotcha, and on YouTube, you know, do you use some of those same tools you've been naming or does YouTube have any kind of tools itself that that helps for reading the content out? Yeah, I

Jerry White

read the content, you know, it's usually as a narrator, gotcha. So, no, I don't really, I don't have to utilize, I don't utilize any other tools. Sure. Awesome. All right, so

Teddy Maiorca

I guess you know one, you know, diving one more layer into the news today. You know, do you Well, let me start here. Do you still engage with the Wall Street Journal at all? I'm just curious. No, gotcha. No. So

Jerry White

I have the apple page, totally icon. So I do have that that comes up on my iPad, so it's more of me checking headlines as opposed to any deep diving Sure, I hear Yeah, world, yeah,

Teddy Maiorca

I and so I guess you know, with the headlines, when it when it comes to differing between a more local outlet, you know, like any other Chicago papers and PR station, what have you to something more, you know, like a world outlet. Is there any difference that you have in using those? Or is it all kind of the same? Kind of the same?

Jerry White

Because I don't use Apple news as well, aside from the Amazon Prime, which has access to news to Sure.

Teddy Maiorca

So then we'll, we'll pivot a little bit into into infographics. When you are, you know, interacting in whichever way, whichever way you are, do you interact with any sorts of charts or infographics in any way,

Jerry White

in what, In what respect?

Teddy Maiorca

So, I guess you know, say you were working with a financial story that may have a chart of a particular stocks performance could be something like that. Could be a, you know, if you remember when I would

Jerry White

sure, again, the capability of enlarging it with your fingers, sure, so that that would be my primary tool. It usually gets it pretty big. Gotcha

Teddy Maiorca

just able to zoom?

Jerry White

Yeah, I'll use that Zoom. Whatever the Zoom is on the iPad. I'll utilize that, sure. And so essentially, how some of my emails as well, too. I just expand, when I was reading yours, I just expand it and then, you know, scroll, yeah, the

Teddy Maiorca

iPad, and it's, you know, a larger screen has been helpful. Oh, absolutely

Jerry White

no. There's no question about it. Yeah, the iPhone, other than, I mean, the iPhones just too small. Even if I had a bigger one, you know, I'd have to use, it's too it's too daunting to use the magnifier. I just can't do it. So the iPad, from the standpoint of news, email, graphics, all those things that you're asking is, that's my primary that'll be that that's my primary tool, gotcha? Well, I'm

Teddy Maiorca

glad to hear that it's, you know, effective enough, right? Yeah, it is, so, I guess. And then this, this kind of leads us right in, well, right into the next question. In your your digital news experience, the tools that you have at your disposal, the techniques that you are using to get the news, you feel like it's ultimately a satisfactory experience. You get what you want out of it? Oh,

Jerry White

sure. I mean absolutely. I mean this day and age, if and again. One of the things that is satisfactory is the fact that you can kind of do your own fact checking. You can go, just for example, I could see a story on Apple news, and then I can go to Safari, or whatever browser I use. I can ask, I could call that up and go to whatever sources they have available. There's no shortage of sources. And then from there, I can go to YouTube. So you're always getting, really, you know, there's so many, there's a variety of how deep do you want to go into the story? For example, if I'm studying a particular saint, I can go to, you know, again, to go to Safari and ask about, you know, St Francis was easy. Then I can go to YouTube, and then I can ask any news source as well. And, you know, I can compare one to the other together.

Teddy Maiorca

Sure, awesome. Well, I'm glad,

Jerry White

and that goes in line with a new story to anything particular that, you know, I find interesting, you know. And again, there's a lot of wonderful documentary, books and documentaries. So, yeah, there's, there's no shortage of availability and how to do that, and I utilize the microphone and the audio, the audible,

Teddy Maiorca

excellent. Well, I'm glad to hear that. Yeah. So just a couple more questions for you. Gary. So next, you know, if you had, if you had control, you know, control in the respect that you know, if you wanted to get all your news on, say, your iPad or, you know, wherever you want it, what would be your ideal format for getting news if you had to change, if you could tweak, you know, the way that you're getting it. Now,

Jerry White

good question. I ideally, and I suspect that I can do this, and it has availability. I could hit the topic that are of more interest to me, and then have it read back to me in the morning, like the on my on my on my echo device, and have each story and then say, Yeah, could you read the story on that? So today, here's, you know, the story about different musicians or different business news, world news, ecological news, ideally, it would be great to have a highlighted and audio audible experience for me, because the, you know, the visual is lost,

Teddy Maiorca

sure. So a little little bit more customizable, yeah, yeah, gotcha. And then, you know, one, one, quick aside, before we get into my last question, yeah, in kind experience with some new sites, have a tool where, you know, you go to a site, you visit a story, you know, so you visit their site, you're on a story, and it has an option to hear that story. Ever, have you ever used one of those tools? Yeah,

Jerry White

sure,

Teddy Maiorca

yeah. What has that experience been like? Um,

Jerry White

it's okay. They're okay because they're, you know, they're they're biased. They're very sure. And I shouldn't say I don't know if they're biased for sure, but the experience overall is fine. I mean, it's for me, it's good because I don't have to get into the text as deep, and it gives me an overall snapshot. And if I am interested in going again deeper. There's always that availability to go YouTube and find the particular journalist is more often than not. That's what I'll do, is find that particular journalist, because I'm sure that they're doing more.

Teddy Maiorca

Totally cool, awesome. Well, I'm glad to hear that.

Jerry White

So yes, it is helpful, great, like anything else, how far do I want to take it? If I just want a snapshot, it's fantastic. And if I want to go further, I have the availability of, you know, how far do I want to take it? And what you know, what resource do I want to use? So I want to use their particular news site, or go to another, you know? Or do I go into a different search engine?

Teddy Maiorca

Sure that totally makes sense. So my last question, Jerry, we kind of touched on this a little bit earlier, but I'd like to revisit it. If you could speak to your tool designers who are making making these different things that you're using. What would you want them to know? You know, What should their top priorities be?

Jerry White

It's a good question. You

Teddy Maiorca

can take your time with it.

Jerry White

I would say that there would be more audio choices as opposed to text choices. So as to your last question, do I go to that snapshot of an interview? It that they would make it more more audio friendly. So whatever's in text that I'm able to translate to audio to listen to it, as opposed to which, which? Again, we use our tools, the seeing AI and Microsoft so that they have audio availability.

Teddy Maiorca

Gotcha across the board. Just, you know, yeah, awesome. That

Jerry White

makes a lot of sense. Or synopsis, or synopsis audio,

Teddy Maiorca

yeah, that would be excellent.

Jerry White

Again, you're making me think of stuff that I really haven't thought about. I, you know, it's kind of like, whatever they give us, you know, it's like, okay, I get to use this. And again, for the people, for people that are blind and visually impaired. And again, reality is, follow the money. You know, there's not a lot of money to be had there. So there it's limited. It is limited. There's availability of things. But you really have to do you've got to work hard to get access to these things. It's not as it's not as easy. It's not as easy as being fully sighted, because there's so many different places, you know, you look at an iPad, there's and one particular story, there's, you know, 20 different places you can go to. So, you know, it's, it's, it's limited, that's, I don't know how they go about making it more accessible. If you can't see it and you don't know what's available, how do you expand that? Yeah,

Teddy Maiorca

I think, I think what you said audio is ultimately, yeah, ultimately the answer, right?

Jerry White

So we have to in. The onus falls on us that whatever topic we feel that as the news releases it, that we find interesting, the onus falls on us that we want to research it deeply, deeper. And I guess whatever news organization has, however they have it, you know that they pay in advertising or however that works. Who gets who gets you there first, and then you find who you're most comfortable with, and then utilize that particular outlet, and then we

Teddy Maiorca

totally that makes a lot of sense. Well, well, Jerry, thank you so much. That was the last question. I actually, I really appreciate your insight.

Jerry White

I hope I was helpful. I don't again. I sure some younger folks are going to give you a greater insight as well. But I guess it's good to have all different, you know, different demographics, age wise.

Teddy Maiorca

Oh, without a doubt, without a doubt, I'm really appreciative for your insights. And, you know, it's absolutely, it's, it's an important topic. It's an important topic to think about. And I'm really I'm glad that I got to talk to you to get started with this. I really appreciate

Jerry White

it. I don't mind you, if you don't mind me asking you, How did you end up coming to I mean, that's very thoughtful of you to think about people with the visual impaired as a journalism major to make it easier for us. What was the impetus of that? Well, so ultimately,

Teddy Maiorca

it was in my in my graphics class in in journalism undergrad, they taught us, you know, and you have to make sure this part is alt text, you know, make sure you fill this out. And my immediate thought was kind of just like that. Doesn't really seem fair, like the whole point of an infographic. The reason I'm taking this class is to help break the news down visually, and the best we can do as an alternative for people who are blind or have visual impairments is to just basically describe it, and it's like, that's the whole point of the infographic, is that so you don't have to describe the information. So that kind of just bugged me and and I knew I wanted to do my Masters, but I wasn't exactly sure what I wanted to do it in, until I hit that point. And I that was, that was the impetus, for sure. I was just like, you know, there's got to be more to this. So I've spent a lot of time over the past year researching, you know, what is out there, and really, it's, I've just come up with, there's not a ton. I mean, no,

Jerry White

it's not important. So, I mean, so you as opposed to, and then how do you capture the, I guess, photograph, or whatever the text that you're talking about, I

Teddy Maiorca

think ultimately, it really is what you said, and it's audio, you know, there's, there's like, experimental tools, there's some AI stuff out there that's coming out that is, is doing a really good job of of describing that off the bat. But I think until that stuff is a regularly available and affordable and be like, consistent and accurate. It's just the onus is on, is on journalists, with

their content, to go take that extra step, you know, people, journalists, it goes on all professions. You know, you finish a project, and it's really nice to just like, close the computer and keep your feet up, but you know, to take that little bit extra time to make it accessible to everyone, I think is an important step.

Jerry White

Well, I appreciate the fact that you're kicking that door open because it is challenging for people that are visually impaired and blind. 96% unemployment rate, and there's reason for that, because we just don't have access to the rest of the world, and we're just not as efficient as the rest of the world. We're just not it just doesn't work as I mean, you know how fast things going out? Yeah, without everything's finger touching. If you don't have that audio you don't have that visual acuity to I mean, think about the Think about a keyboard on the iPad or the iPhone. I forget it. Yeah, you're lost. And you know you're lost in that world. So is it going to get better? Sure, however, you know it only as good as you are able to do it. And you know, again, how far you want to take it yourself as well. Yeah. So anyway, thank you for doing that. I appreciate. It's

Teddy Maiorca

wonderful, absolutely, yeah, and it's a it was a pleasure to speak with you, but I know you meet with you as well. You mentioned, too, before I let you go, you mentioned you were on the board of second sense in Chicago, and I wondered if there's any one in particular at second sense that I should reach out to.

Jerry White

I um, you know, there is a, there is a guy, actually, he's, he's the fellow that comes to my house. He's been teaching me to play guitar as well. He is a, he's a trainer. So he's certified. He's a mobility trainer. And, for example, how do you think about somebody, an older person, that all of a sudden lost their vision. How do I make tea? How do I how do I cook? How do I, how do I manage my household, or how do I get around? How do I use Uber? How do I know I use Uber as well? That's another, another tool that's available. So he's a certified trainer. He's the Cody. Is his name, and I could, I could actually email you. I can text or email you. And Cody is the program director at second science Chicago. And if you want to look up first, go to our website, and we are platinum status. I mean, our organization is the best, absolute best, in what we do, in training people to have and adjust a vision loss so, and you want to his name is Cody froter, awesome and and his name will be on there. And if you want to call him and use that line and use my name and say that I referred you. He'll, he'll talk to you. Well,

Teddy Maiorca

thank you. That's it's very kind to you, and I really appreciate that. And

Jerry White

if you don't get any traction by that way, just let me know, and I can text them. But you know, if you call them in, I think you looking at the website and seeing a little getting a little bit information of what we do might be helpful for you as well,

Teddy Maiorca

absolutely.

Jerry White

And then he's program director, you know, tell him that I had said to talk to you absolutely, will do perfect. Well, Jerry, thank

Teddy Maiorca

you so much for your time today. And that was wonderful talking to you. Yeah,

Jerry White

it was a pleasure. And your mom's terrific, by the way. Oh,

Teddy Maiorca

thank you. She really is. She really is. It's nice to say, take care.

Jerry White

God bless you. I have a wonderful evening, God

Teddy Maiorca

bless you too. Bye bye bye.

...

Interview 2: David Shields

Bio – David Shields is an 81-year-old retired Jesuit priest living in Wauwatosa, Wisconsin. David has 60–75% of his vision due to macular degeneration, and has been affected by this for over 60 years.

Teddy Maiorca

so we'll start off with some easy ones just like that. So for the first question, could you just tell me your name and spell it for

David Shields

me? David shields, S, H, I, E,

Teddy Maiorca

L, D, S, all right. And could you tell me where you're from, who's born?

David Shields

In East Central Iowa, but I grew up pretty much here in walwood, Tulsa, Wisconsin.

Teddy Maiorca

Wonderful. And could you just tell me what you do

David Shields

at this point in my career, I am retired. I'm retired. J priesthood. I've been a retirement center prior to Yeah, that's what I'm doing.

Teddy Maiorca

Thank you. Could you tell me your age,

David Shields

81,

Teddy Maiorca

And could you tell me as well the level of your visual impairment?

David Shields

I probably have 65 or 70% vision my I have, I have dry macular degeneration,

Teddy Maiorca

all right, and and how long have you been dealing with this?

David Shields

I was the teenager. Okay, thank you.

Teddy Maiorca

All right, so, so in your everyday Do you use any tools or apps or anything of that nature to help you to read text,

David Shields

to help me read text. I try to avoid reading much text as I can with my eyes. So what I do that I find Microsoft Word is what I use, and that's the really most helpful thing I have because I what I do is, as I get things on internet, on my computer, I will copy them onto Microsoft Word, and then Microsoft Word reads it to me.

Teddy Maiorca

Awesome. Okay, it

David Shields

has a reading function under the review section.

Teddy Maiorca

Gotcha. Awesome. Yeah,

David Shields

yeah, which is very, very helpful. Because I, when I try to read things, even short things, even small things, my mind, my eye, jumps from one one place to another, and it misses things. Or I find myself needing to go over things three or four times, sometimes to really get the flavor of it. So, so that's the most, but that's time consuming also, but I also have is a what I have, PF PDF documents. I am able to, through a PDF Converter, convert them to to Word documents, and then they can, I can read them. The other thing, very, very frequently, besides that, that is in, well, I guess it's who does this thing anyway? Probably Microsoft. Anyway, I have it has a magnifying feature in the what do you call that thing that you use? The investigator, no, that's not right. Browser, yes. Browser, so the browser has this, this function called, you know, the magnifier, which sits right, can sit right at the top of your screen, your screen all the time, and wherever your the wherever your cursor is, that's that's what right in the middle of your screen,

up on top, you can make the print as big as or as small as you want. So that allows you to maintain the idea of using whatever you have on a screen at the usual size, but you can read it on top. So actually, I could be typing along, and now I'm looking at the text, but looking at what I'm doing on top. Gotcha? Does that make sense?

Teddy Maiorca

Yeah, absolutely. I appreciate your walking through that. Yeah,

David Shields

that's how I get through that's how I get a lot of information. Process.

Teddy Maiorca

Sure, and do you do this? You said, you mentioned you do this on a computer. That's all on a computer. Do you have any other devices that you use, like a phone or anything else?

David Shields

Well, I have an Android, Android phone, so I have a phone when I need to do something that's not on my computer. With the technology I have there, I have a pair of glasses that I got from my low vision doctor that has the right lens is a 10 power magnifier, and so I could put the glasses on, like they remember, quick regular glasses, except that we have a 10 power magnifier one side, nothing on the other kind of this plastic and and then I can read my phone, you know, I bring my phone close up to my you know, that's get pretty Close. It's pretty close. It's kind of awkward. I always have to, when I take talks or retreats and stuff, I'd be one of the first things I do is say no when I put on these Cyclops glasses. You know this means that I'm gonna have to read something. Also gonna have to stick by no thread of paper or make it work. But what it does is it's very portable. It's easy to use. It gets me through. You know, when you want a piece of paper, something on just one sheet, couple paragraphs, this and that, and you want to make your whole whatever those kinds of things are, this could do it very easily and you have your hands free, whereas there are a lot of other kinds of helps out there for people with visual impairment, but you gotta hold on to them, or you gotta put them on a table, or you gotta Use them this way and that way. Yeah, that's these classes. These classes give a great deal of freedom on the one hand and on the other hand, they they are a little weird looking, but, you know, people say, okay, used to it, sure. The other I used to have the closed circuit TV reader that would where it would be, kind of a machine. It had a platform to move. You have kind of a move a platform, and then the TV looks down on it, and then you have a TV screen. The camera looks down on it, and you have a TV screen, which you can make bigger, larger, whatever it is, and you, as you move the platform the bottom, the bottom one, you can move it backwards and forwards, and you can read that I find that I felt I gave mine weight. That was just a totally difficult way for me to access information. My eyes got tired almost immediately. I never want to use it, and that was always in my way. So that's one, one piece of technology that I, I have rejected, but I have the glasses and and the computer. Do I do very well, you know, and even even texting people with with the glasses I can text, but it's slow. I mean, it really is slow. So when people from the hospitals call me in the doctor's office or something and they want to make an appointment, you know, I can just go to my calendar, and I can get go to the data to make what I can do it, but it's a hell of a lot slower than anybody else, right? A sighted person will just zoom right through it. But even it's a picking or stuff. I Yeah, because I find that the voice activated is terribly helpful always, it makes a lot of mistakes.

Teddy Maiorca

Now, when you say voice activated is that you know a sort of thing where you're using, you know, dictation, or some sort of features like that, where you're asking the phone to do something

David Shields

right you when you we you can text either by by doing it manually or getting the little microphone button and doing it, otherwise doing it by Just saying, I find just saying it oftentimes is not accurate. I mean, totally inaccurate, and I can't and some things you can never get the phone to understand. You have to type it in anyway. That kind of technology, at least on the Android that I have, is not very

Teddy Maiorca

helpful. Sometimes, yeah,

David Shields

sometimes I use it, but so, but more and more, if it's something kind of longer, I might do the voice activated and then go back and fix it up. If I'm doing that kind of a text on my phone, sure,

Teddy Maiorca

yeah. But then again, you know, you gotta, you're going back and doing it again, so I understand why, yeah,

David Shields

yeah. So it's yeah, you say, Gee, I can almost done this faster, but I just done it right. Microsoft Word also is they have, if you have from person. I didn't discover this. So I got into zoom, and I put on one of those clip on cameras and microphones. Once you do that, there is a function on Microsoft Word that you click on as a micro that is very accurate you just read into it. It'll type it for you, in other words, so you can actually do a whole letter. So if I'm going to do a text, or rather an email that's somewhat longer, I'll just, I'll just use that function and then copy it into my into my browser, or into my Microsoft, into my What do you call it? Email? My Gmail, sure. Yeah, if I'm unclear, just let me know sometimes I get a little stuck here.

Teddy Maiorca

No, you're totally, totally making sense, but, but I appreciate you walking me through that. And I'm, you know, you got a little bit ahead of me, even, and kind of talking about like that, closer to TV tech that you, you know, was just too much. Have there been things, you know, other things that you used before, before you were using Microsoft Word in the computer that you know either work for you, but just you don't use anymore. Or similar to that, that technology that you just gave away, you know, just didn't work for you.

David Shields

When you when you start out in the low vision reality, or you go to what we used to have, Milwaukee and other places used to have really good services for low vision people, but I think those have been all taken away and gone and everything. So there isn't very much left like there used to be, but they will start you with with all kinds of different little magnifiers and stuff. And they all work pretty well. You know, there might be a lighted one of your issues is going to be light. So they sometimes they give the magnifiers that have lights on them, and they have a

handheld magnifier with light. I used to get those. It was just a handheld. It looked just like a magnifier, but it takes two batteries, and it was lit up, and it was like eight or nine point. But again, I discarded that when I got the glasses, because I didn't have that way. I didn't have to use my one hand and try to hold the book with the other hand, and all that stuff. So you kind of progress through things as your vision diminishes, at least, that's my experience, sure. But there used to be, there used to be some, some stuff that you could get that were, were really was some services out there. I'm not sure if DVR still operates or not here in Milwaukee, but they were kind of shutting down when I when I got to town or like MATC. I went to MATC for a while, and I learned braille there. And there's all kinds. They had all kinds of classes for people all the way up to the profoundly blind that all got shut down. Wow, there's a history in Wisconsin of the Indian partisan here with the Republicans, I would believe, without the Republicans, but there would be, there was over a period of years since I've been here in Milwaukee, and I came in 1995 where stuff has just gone away.

Teddy Maiorca

Wow, gotcha. So you walked me through, you know, the glasses that you use for your phone and for, you know, things that you can hold in front of you, like like paper, and then you know, Microsoft Word and the dictation functions on your computer, any other tools that you use before we move on, that's great, awesome. So you know, now we can get into a little bit of the news side of things. I'm curious how you know when you go to look for news stories or or you're interested in finding out about the news what? What's your process? What do you do?

David Shields

I go to the radio I have done. I personally have sort of slid into listening to National Public Radio in the morning and then in the evening. If I'm looking for some in the evening, I might, I will. I will do it on TV, and I'll listen probably to mm, SMBC, or what's the other one goes, CNN, sure gotcha, because anything that's news like news on since I do not have a reader on my computer, and I asked about readers for a long time, but up until recently, until last time I asked anyway, people always said the readers that are out there for blind people on the very complex and can be clunky and slow, and so they said, Just forget it. If you do it, if you're happy, you're pretty happy what you got, but the current layout of front of pages of things that are like home pages on websites are not laid out in such a way. For whatever reason, I have a hard time seeing them. What do I mean by that? I mean, obviously I see them. I can't they just, they just all kind of run together. All the words run together. It's just too complicated. Somehow click on that and click on this and click on that, get through some of that stuff. And for me personally, just is not worth it. So if I can't get it on my radio, if I can't get it on my TV, I don't get it

Teddy Maiorca

gotcha on those, those news websites, I understand what you mean. You know, there's so much, so much stuff everywhere.

David Shields

By having they just have headlines. Or doing the headline kind of a thing, they get more on their page, but more more writing in front of me is more distracting and more it's more difficult for my eyes than what I used to what they used to have or how they used to do it. I'm not criticizing how they do it. I'm just saying that it doesn't open,

Teddy Maiorca

sure, sure, sure, I understand. If

David Shields

I were a sighted person, I'd probably say this is really great.

Teddy Maiorca

And you mentioned there the readers, so that's something that I've been doing research into. So you it sounds like you haven't used one of those, one of those screen readers then,

David Shields

No, I've never had anybody say this is a good screen reader for you. I understand. And so sometimes I ask them, sometimes I don't. I'm not really in contact with the hot, hottest thing going in

Teddy Maiorca

screen readers right now, sure, sure, sure. Well,

David Shields

I know there was one called, there is one called JAWS. And I said I explored that one, and they said, Well, it's a very expensive, but B, it's, it's, it really is kind of clunky. Yeah,

Teddy Maiorca

I would, I would echo that sentiment. You know, Father Davis is part of my research, and I am cited, and I did use screen readers, and as someone who could see it and use the screen reader, it was clunky for me. So, you know, I really it's one of those things that is, it's a great technology, but it really has its limitation. So I understand, but thank you for giving me a little bit of insight into your experience with it, yeah. On one last note, on the screen readers, are you familiar with alternative text? No it's part of the screen reader. It's, it's, you know, for a photo or a chart or something, the screen reader would read the alternative text that is provided for the photo. So to describe it, rather than just reading out, there is a photo here. So I was, I was interested if you had any experience with that, that technology. But no, So back to the the news for just a minute. So you you said that pretty much, you know, if it's not on on NPR or or on one of those two, two news channels, MSNBC or CNN, or, you know, if it's not on TV or radio, you're not going to get it correct. That's probably true, gotcha, and is that, you know, something that you've kind of something you've come to recently, you know, working with the working with other forms of news before,

David Shields

I used to read the newspaper, I used to read the newspaper when I do the when I have I with my magnifying glass and then with my my readers. But when I moved out here to carmillus and sort of got myself retired, whatever reason, I stopped doing that. Well, first of all, reading this paper is not necessarily easy thing for you to do, because a lot of words, some the other thing, the one thing I like to read would be the New York Times, which we get, but the New York Times print is really hard for me to read the font, the very font, the very fond, the very size. It's more and it's it's a fun if you take the New York Times and put it next to the Milwaukee gym, and you'll see what I mean. It's a different font. It's different size. It's kind of like narrow and squished together, the narrow font. And that's very hard for me, yeah, yeah, but damn it, because that's the one newspaper that has news,

Teddy Maiorca

yes, oh, you're right about that. Gotcha. So you know, as I mentioned, a lot of my research is focusing on infographics, and, like I said, charts and maps, graphs, things of that nature. I imagine you know when you were reading the newspaper. I'm sure you know you could see those things in there with your glasses or your magnifier, just fine, right? But now that you know, now that you're using the TV and NPR, I'm sure. Do you see any new info? You know? Do you get any new infographics from those places?

David Shields

Not from them, unless they're on TV. Sure, I've had trouble like the area when I talked about taking things, a screen reader on Microsoft Word will not read pictures or or or text that has been photographed, sure, like a like, what do you call a peg? Yes, it will not read a JPEG. Now,

Teddy Maiorca

does it just skip right over those bits, or does it

David Shields

skip right over and that would be true that JPEG, most called charts and stuff show up as JPEGs, and it skips over them. So it'll skip over all this stuff, sure. So that very area that you're interested in, this area that I I spend the least amount of time with, yeah,

Teddy Maiorca

I totally understand, you know, a lot of the reason that I am doing this research is because, you know, one of the things that I, I set out to kind of evaluate is if infographics are really, you know, to me, as I got into infographics at the Missouri School of Journalism, they taught us about, oh, make them accessible, you know. But I kind of thought to myself, I feel like that's that's just not available. Technology doesn't make them accessible. So, and it sounds like that is the case,

David Shields

explaining me what you mean by infographic. So

Teddy Maiorca

like, I said, like, like a chart, or like any sort of map, or maps, maps

David Shields

or maps are very hard for me. If it's a map of a place I know, or if it's a map of like, what is it? Ancestry.com? You know, every once in a while, then they'll say, Oh, you we've got an update on your DNA and all that stuff. And so they have the maps that, you know, pertain to my DNA, where my ancestors come from, and everything. Well, I can figure all that stuff out. Sure, that's not awful that, you know, it's not so bad either, you know, because I can work with our program, but it kind of depends on how the program presents it. If the program presents it in a way that your your cursor, can do something with it, then it can be helpful. If they present it in a way in which you just sort of have to look at it, it's not necessarily quite as helpful.

Teddy Maiorca

No, when? Yeah, it does. But I do a follow up for you. When you say, you know, when your cursor does something with it, do you mean kind of like, zoom in, or, if it like, you know, if it read red parts of it loud, something like that, right? So we,

David Shields

like, on the map, you know, doing all the color, if you're talking about your Norwegian parts, and are we the part of Norway that lights up for sure in that program, also, if they have a it'll be a JPEG or Something like that, of something obituary for you can click on it and you will able to make it bigger, much bit larger so you can read it. You can make it lighter. You can do a lot of things with the those kinds of documents. Now that's very helpful. But because if it stayed very small and dark, I'd have a hard time. What could I do? So it can be very helpful. When you magnify, when the magnifying for me, the magnifying things like death certificates from us, you can make these things really these things. That's how you learn stuff you didn't know before, like, Who's who was there, who's related to who? Or, you know what, all this stuff and how it's spelled. So anyway, without going into my genealogy too much for you. That's what I mean by if your cursor can do something different,

Teddy Maiorca

sure that totally makes sense. So I just have a few more questions for you. And again, thanks so much. This is this is really great help.

David Shields

Well, that's fine. I

Teddy Maiorca

so. Do you, you know, you've told me about the tools that you use and the, you know, the systems that you have for these things. Do you seek out new tools, or does does your setup currently work for you?

David Shields

When I came here 19 to 2023, in January, 2023 I came because of the issues that I've never left. I stayed because I realized that this was probably the best place for me with the health issues I have and and I had already given up. I prior to that, I was the executive director and founder of a nonprofit here on the south side of Milwaukee, but I had let go of the executive director part and had stepped back from any kind of I had a lot of different issues. I have a license issue, and I have mobility issues, and I got this. And so I just said, you know, I quit. So the fact that i What do I need to see? What do I need to read Milwaukee Journal and Chicago paper, if I care to do it, but it takes a long time for me to do it. So then and so I terms of mine, the news I get right now, I'm a little more focused because of the election. Sure, I really want to know what's going on. I'll tune into those kinds of media outlets that I think are probably giving me some strange stuff, and they will give you, hopefully, the sources, if you want to go check it out yourself, this whole fact checking thing. So if I try to, if I'm going to read a news source of some kind, I like to get something that they claim is non political. Non political, because these are political things. But there's another term for it, where it's done now. There's no outlets to the left.

Teddy Maiorca

Yeah, no, no. Would it be correct to say no bias, no

David Shields

bias, or no bias? I try to seek those out. If I'm going to listen to something or if I'm going to read something, I'd like to have a report from those kinds of places. Sure. You know, yellow journalism is not what I need. Yes, yeah. And then this stuff was, you know, I just don't do that much, you know, I stopped giving preach retreats so I don't have to do so much things and put together talks and stuff like that. I started to come to the border. I say I quit.

The technology I have

Teddy Maiorca

makes sense and similar, however I am,

David Shields

or if there was some issue that came up and I needed more, I would get it. I am not against that law in my own case. So if I thought there was a reason to do something else, I do it. But right now I just say, you know, I don't the only thing I do. So I do some of this ancestry stuff. That's why don't make PB minutes. I do that on the computer, and then and I do email, there you go. And then I do, you know, if I'm going to write something up, but you know, I do, I have documents. But I started doing the documents out of that bathroom. They used to save this and say that, well, I don't need to save anything for anything. First of all, I can't read it if I got I used to print up. I got papers all in place, and I can't see, you know, it's kind of like I was sitting in my room a few years ago, and I looked at my bookcase, and I had two bookcases, four books. And I said, David, what else gone? You don't read. You can't read a book, not like you don't even want to pick up a book read it. So when I left there, I left most of my books because I didn't, I don't need it. Was a few books I like to have, like poetry books, but I'm not gonna. So that's kind of where I am with all that stuff. So I would say I consider, once I consider myself retired, then I considered all that other stuff. There's not stuff I need to have or use

Teddy Maiorca

absolutely and similarly, then I'm curious. You know, with with the system you have for forgetting yourself news that you're interested in, with, with the TV and with, with NPR, do you feel that that meets your needs? Do you feel satisfied by that?

David Shields

I'm pretty satisfied because I wanted something else I would get. I don't, you know, like David, David Brooks has a Friday morning editorial in New York Times. I like David Brooks. I think, I think David Brooks has, as he's got good sense and and so I will sometimes if somebody says, Boy, that David sighted person, of course, boy, David Brooks is really good this week. Well, then I'll get on, I'll hop on the internet and grab read David Brooks, find David Brooks on on New York Times, and then I'll copy him, and then have so I'll go look for something. If I heard, you know, somebody says, Boy, this, this or that is really good, if, which would for me, means informative, something maybe that can stretch my mind. How big getting a new idea. I'm old, but I'm not dead. I it. I like new ideas. I like to learn. I was just listening to a book on Robert open called, oh, wow, very cool. You know, who is this guy anyway? This great movie. I try to get a book, and then this book is okay. I mean, it's fairly okay. I mean, it really doesn't. Has to this point, it's not quoted, anything open highly said. I mean, so it's not, it's like kind of, I think it's very superficial, but it helps me understand the guy, what, how he got to where he was, and

how he got to be involved in the Manhattan Project, by the way. So I do that. I do a lot of lot of what I do in terms of history and all that kind of stuff is books on recorded books. I'm big into the library and audible, yeah, wonderful for a guy like me, are you kidding? Yeah, for a few bucks, you buy a book and you can just enjoy it.

Teddy Maiorca

That's awesome. So my last couple questions are really, you know if you if you had complete control or over the technology, you know, if you could say, poof, you know, I wish I had this kind of technology to assist me so it exists. If you had complete control, what would, what would your ideal format for for digital news be?

David Shields

I would, I would really appreciate having the ability to turn on my computer and go to a website and then put my cursor down, and I would start reading. And when I was done, I would stop the recorder, I go to someplace else, and it would start so that I didn't have to copy text. So I could go to a place where I could do it, but I could manually determine when it starts and when it stops, because the technology they have now, and you like Jaws, is, I mean, it kind of goes from one thing to another, and I'm not sure you can if I were blind, how would you know, a lot of quarters old

Teddy Maiorca

on the page. Yep, exactly,

David Shields

and oh, and I know necessarily interested in everything on that page. But I would like to be able to have some control, because I have some vision, and that's what I'd like. Thank you. And like, right away, if you put, yes,

Teddy Maiorca

oh, that's, you know, and that's, that's really, ultimately, things like, what you just said are, are the biggest goal for these, these interviews that I'm doing as part of this project. Because I think that, you know, I have, I have some coding capability, but I know that there's people who have much more prowess than I do, and, you know, to be able to connect to those people and say, These are the biggest needs are really what I hope to do. So thank you. I appreciate your, your thoughtful response. Yeah, and, and finally, good if you could speak to the designers of like the tools like the Microsoft word reading or, you know, or the phone dictation things like that. But accessibility tool designers, if you could speak to them, what should be their top priorities,

David Shields

they've come a long way with this, and I know they're working on this, but just the in terms of recording my voice, to be able to record I say, and I mean, I know there's some words, if you're doing dealing with a foreign a foreign language, it just doesn't end it's, you know what? Figure out what you're saying in English. You say something in Spanish, just a word like PORCIA caso or something. And that's kind of just totally but I was, I was looking for, sometimes the scientific terms or their ways they could be geographic anyway. I just kind of keep sharpening up to continue sharpening up the equality, the ability of the voice back to get directly the other piece of the other side of that is to help have them, and they really come a long way, from 10 to 15 years Both your screen readers. I mean, I'm sorry to for instance, the it's a Google the Google

Reader. You know that thing about being well again, you know what you want to say, and you know what you want to say, and you can picture and everything that the word is going to come anyway. It's automated readers. You know, they come on the phone. They're much more you know, you call somebody, they, you know, say hello. This is so and so. Obviously, not so and so, but and to make it like natural with inflection. Sure, sure. You know, when you end of a sentence, you go down naturally, like we always do when we understand less robotic. Less robotic, yeah, that's it.

Teddy Maiorca

That makes a lot of sense. So

David Shields

the less robotic on the one end, when it's reading and but it's a little more sensitivity, and I'm a happy guy,

Teddy Maiorca

there we go. Wonderful. Thank you so much for walking me through all that and for for sharing your experience and your perspective with me. It's, you know, incredibly valuable to the research I'm doing and and I'm really thankful.

David Shields

I hope that's helpful for you, and it was a pleasure to be to talk to you

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Interview 3: Cyrus Habib, SJ

Bio – Cyrus Habib is a 43-year-old in formation to be a Jesuit priest. Before entering the priesthood, he was involved in politics. Cyrus has been completely blind since age 8.

Teddy Maiorca

Awesome. All right, so some more, some more easy ones. First off, could you just please tell me your name and spell it for me?

Cyrus Habib, SJ

Yeah, Cyrus, Habib, C, y, r, u, s, Habib, H, A, B, I, B,

Teddy Maiorca

could you tell me where you're from, Cyrus?

Cyrus Habib, SJ

I'm from Seattle.

Teddy Maiorca

And could you tell me your line of work?

Cyrus Habib, SJ

I'm a Jesuit working in India right now. Jesuit Justin Technology Network Africa, in the formation process that leads to priestly ordination.

Teddy Maiorca

Awesome, wonderful. And how long have you been doing what you're doing?

Cyrus Habib, SJ

I've been in this particular assignment for just over a month, but I've been a Jesuit for I'm in my fifth year.

Teddy Maiorca

How long do you have left before ordination?

Cyrus Habib, SJ

It's not exactly a cookie cutter thing, but I would say probably five more years,

Teddy Maiorca

wow, wow, that's awesome. Good luck to you, and thank you, Attorney. And so then, can you tell me how old you are, Cyrus,

Cyrus Habib, SJ

43

Teddy Maiorca

and then could you also tell me the level of your visual impairment,

Cyrus Habib, SJ

completely blind. I've been completely blind since age 8, since age 8,

Teddy Maiorca

so into more of the nitty gritty now, for reading text or for aid and reading text. Do you use any tools or apps that will help to read text for you or anything like that.

Cyrus Habib, SJ

So I use both a PC laptop running windows and software called JAWS for Windows is leading text to speech solution, or for Windows and then I also use an iPhone which has built in to speech all iOS and Mac OS for that matter. Releases come with equipped with VoiceOver, which is Apple's built in text to speech solution,

Teddy Maiorca

gotcha and jaws, that is a screen reader. Correct.

Cyrus Habib, SJ

Yes, exactly.

Teddy Maiorca

Awesome. And so when you're do the tools you use change based on if you're using the device for web browsing or for for other reasons.

Cyrus Habib, SJ

No, it's, it's, I think, just like anybody else, it just all depends on where I'm at. I mean, you know, I would say I use the phone at the same times and in the same ways as a sighted person would, right? And then I wouldn't write a paper for class, like, if I were, you know, back when I was a student, like, I wouldn't write that on my iPhone, you know, and I probably wouldn't listen to podcasts on my laptop, right? So it's just, I think it just just dictated by the particular, you know, optimal use case of the device

Teddy Maiorca

that totally makes sense. And do you when, when browsing the web, say, on, on your phone, compared to the laptop, do you find that there are differences, or maybe advantages or disadvantages to using the the Apple tech compared to Jaws

Cyrus Habib, SJ

overall? I would say, you know, JAWS is, JAWS is a is a legacy, you know, product that has been around. I mean, I myself, have, you know, used it for, for, you know, over two decades, jaw goes back even to, you know, there was a predecessor product that was dos space, before Windows, and it goes all the way back, you know, so, so this, I mean, JAWS, is a very mature, sophisticated piece of software, you know, voiceover is in this, in a way, you know, there's a kind of an analogy, I would say, with, with, with with Windows and I and and the Apple operating system generally, which is, like, you know, pull is very streamlined, right? It's very simple. It's very it's very design oriented. It's very user interface oriented, to be to be simple. It's not often a prize solution, or not as often as Microsoft and so, you know, simplicity, ease of use are, you know what, what I think the general public would attribute to Apple products as opposed to Microsoft products. And I think the same can be said for voiceover versus versus Jaws, which is not a Microsoft product, but, you know, isn't he, you know, is in that ecosystem. So, so, so that's what I'd say. Like there are lots and lots of commands and jaws that are specific to, for example, office, the Office Suite, or, you know, very, I mean, there's just, there's just lots of richness that, if you know that, that are tailored solutions, but also, in that sense, something that you'd have to if you want, you know, to that higher level, you know, you have to really invest in learning. It requires a lot more training. Um, but VoiceOver is pretty simple. You know, the way that it works is it reconfigures the touch gestures, so as to allow you to navigate and and understand what's on the screen without actually selecting things. Then you you double tap to select. That's, that's, that's probably the most significant change to the gestures, but the other gestures that they've that they've programmed in, you know, to allow a blind person to to navigate and to type and all of these kinds of things. But beyond that, there's just not a lot of customization for particular apps and so on. I think that's generally fine, especially because, you know, when we're using phone, it's probably less important that we that it be like really easy to make a bulleted list, you know, or to change fonts and to do things so the overall, you know, use of a smartphone or an iPad. I haven't used MAC OS with VoiceOver, so I can't speak to that. And maybe there are more features with that, but, but in the, in the in the tablet or smartphone context, because the use cases are simpler, I think it also makes sense that the screen reader is simpler, gotcha,

Teddy Maiorca

would you say that that ultimately it meets your needs? On on the Apple voiceover, though

Cyrus Habib, SJ

it meets your needs, would you say that the iPhone meets your needs?

Teddy Maiorca

That's a good question, right? I

Cyrus Habib, SJ

mean, sometimes I don't, I don't think, I don't think it's a great question, to be honest, because with I mean, no offense, right? But I think, like, I just think, I just think, like, technology, you don't have to include that in the No, but I just think that, like, I mean, meets my needs in a way. It's in some way. You could say the iPhone as a whole are exceeds our actual needs. And in other ways, you could say it's a it's a pay limitation of what is possible and what we will proceed. Oh, I mean, there was a time when the record player blew our minds, you know. And you know, so, so here we are, you know. I mean, it's a moment in time, I guess I would, I guess the way I would reformulate it, or the, maybe, the, you know, the question I'll answer is to say, I mean, I think that the delta between a blind user and sighted user is smaller in the, you know, in the iOS next, then, then before, with other technologies, I do. I think that that has as much to do. I think there's a few reasons for that. One is, like I said, the overall use case is simpler for sighted people as well as for blind people. So, so the, in a sense, the challenge to be solved is in some ways simpler. Two is that, you know, it's the solution has been developed in house. And this is something that, you know, I always found frustrating about Microsoft. You know, think that the you know when you're developing so, every so, so, you know, iOS 18 just came out every Apple release to go through the accessibility gauntlet, you know, before it's released to the public. You know that's not the case with a third party developer, like with JAWS. Now, you know, they may have relationships and they may get, you know, kind of like, you know, preferred developer treatment and access to alphas and so on. Like, I don't know, I presume, but like, but still, it's different than when you know it comes, you know, you know, kind of, you know, you know, kind of, you know, prepare, you know, kind of pre, pre packaged, sure, with the solutions and, and it's not just voiceover, the blind. I mean, there's, there's, there are solutions for the deaf, blind, or people with all kinds, you know, people on the autism spectrum and so many different things that have been taken into consideration.

Teddy Maiorca

Sure, sure. Sure. And I appreciate the reformulation. No no offense taken. You know, part of doing this interview, that's what you're learning, exactly, right, exactly. I really, I really do appreciate it. You know, being able to ask better questions to do to the interviews I do next. So thank you. So digging a little bit more into the screen reader experience, with JAWS. Have you encountered alt text when using JAWS?

Cyrus Habib, SJ

Tell me what that means exactly. So tell me what, yeah,

Teddy Maiorca

alt text would be the sometimes default, other times, custom descriptions of images, infographics and whatnot that are baked into the code that the jaws theoretically would then read when it comes across, yeah,

Cyrus Habib, SJ

yeah, yeah. I have come, I mean, I have come across those on websites and things like that. I think that's a transitional solution, right? And we're already seeing this with, you know, in the con, you know, you already see this, actually, with new releases of IOs that you know, that use AI to, you know, to do image descriptions. Actually, Facebook, you know, has been doing it for a while. So, so, yeah, I mean, I think I don't see that being necessary any longer,

Teddy Maiorca

gotcha. And so you say that Facebook's been doing it for a while, is that something that is beginning to be integrated into screen readers. Or would you say it's, it's, you know,

Cyrus Habib, SJ

I don't think it needs to, I mean, you know, I'm not qualified to be technically precise on this, but I don't think it needs to actually be the screen reader that's doing it, right? I think basically the, the I think in the context of Apple, it's actually, well, it's with Apple, it's hard to say where the boundary because, because the screen is built into the operating system. So it's actually kind of hard to know where the boundaries, but it's, it's built in so, so right now, like when you go to under settings on an iPhone, you go to settings, accessibility, voiceover, and then there's a, there's a, there's a menu under there that's called Voiceover description. I believe it's what it's called. Then underneath that is image descriptions, on or off, you know, and so it's already there, sure, you know, it's already there. And then, you know, the next, I mean, so the whole kind of the moment that we're at right now in in adaptive technology for the blind and for others too. But let me speak to blade the room right now, which is so exciting, is is really driven by AI and the best, I encourage you to play with this. There's an app called Be My Eyes. Have you heard of it? I actually have Yes,

Teddy Maiorca

but

Cyrus Habib, SJ

so Zuckerberg, two weeks ago, actually showcased this is quite rare for them, you know, in these, in these, in these developer conferences and so on, to actually mention a particular developer, but it he actually spent a good amount of time talking about this, this, this company or nonprofit that makes Be My Eyes. Well, be my eyes was traditionally, I mean, not traditionally, not been around that long, but for years, has been, you know, it app where, you know, you take a photo and call a volunteer here describe you know, what, what, what you know you've, you've, what you shot in your photo. So, you know, if you want to say, like, what, what medication is this? Or what are the instructions on this? You know, you know, on the on this label, or whatever. Like, you know that volunteer would, would, would read it to you, will starting, like, I don't know, a year and a half ago, they introduced a feature called Be my AI, which is powered by GPT for and, and it's, it's unbelievable. I mean, it's, really, I there's not a single person, including, like, really plugged in techie people in Silicon Valley, whom I've showed this to, who are not blown away Wow at the precision and the act. I mean, it'll, it'll say things like, you know, you know, the image shows a cozy looking living room with, you know, two gray upholstered armchairs. There's a coffee table with what looks like an empty, you know, half empty red wine glass sitting next to a plate with cheese and crackers in the background. There's a fireplace. The lighting is dim, the overall, the overall impression is of a friendly, home

environment, whatever. Wow, that. It's unbelievable. And I urge you to play with it well. So that's like, Okay, so that's, that's one major development is, you know, should they still have the volunteers, but, but the AI thing is really something. And then earlier this year, the meta Ray Ban sunglasses, which had come out, you know, several months earlier, got access to metas AI, specifically the ability, because those sunglasses have a camera on them, you can say, hey, meta, what's around me? And it'll take a photo and it'll describe so now it's like, it's like, be my AI, except you don't have to take your phone out and and kind of point it at something, or whatever you're, you're, you're just doing it, you know, and it's looking out of this basically the same place where you would be looking with your eyes, right, mounted on your sunglasses, right? Wow. So, so that's also amazing now that that particular AI, it's, it's, it's not tailored so unlike be my AI, it wasn't developed for the blind. I don't actually, you know, really know what the particular use case is for people who are cited, but other than to just play with it, but, but, but, what Zuckerberg announced recently was a partnership with Be My Eyes, you know, and these sunglasses, and then the final, you know, and so, so, so, so, look for that integration soon. And then the final thing I'll say is that with the new version of with the new GPT release, I believe it's for O. The letter O showed was the ability for GPT to process real time visual input, not a photograph that it analyzes, but like in real time, you know, it's looking and and able to, you know, to respond in ways that relate to its visual environment. For example, there's a cab, you know, driving towards you, whatever, right now. So, so, so just think about those vectors that I just described, and all of those intersecting with the fact that Zuckerberg is making a huge smart glasses play, which you know, other companies are going to respond to he says he thinks smart glasses will replace the smartphone as the primary interface, you know, and that's partially because of his AR, you know, his kind of AR moves and so on. But, but, but he also makes a point that hands free, I mean, it is one step closer to, you know, that, that you know, whether it's utopian or dystopian, I don't like I kind of, you know, the you know, kind of mind meld, right? I mean, at least, you know, now it's on your face. So anyway, sorry, long, you know, maybe diversion. But I wanted to give you the kind of larger context of, like, where we're at with, with you. We, you know, kind of new models of user interface.

Teddy Maiorca

Totally no and absolutely no apology necessary. I really do appreciate that, that that dive into it. And I'm glad to hear that Zuckerberg is has not only noticed Be My Eyes, but is trying to partner with them. That's really great. Um, I'm curious. I've heard in a few of my interviews of uses of Microsoft seeing AI. Do you have any experience with that technology

Cyrus Habib, SJ

I've used seeing AI? I didn't, and maybe I've got to go back and check that again. But seeing AI was when I used it was before the kind of like, you know, last when was it last January, when the world changed and all of a sudden, fat GBT, 3.5 was it was around. I mean, I think probably some insiders were, had access. You know, knew about it a couple months earlier. But I kind of remember that moment when so many of us were like, wait, what? I mean, I didn't where it felt like something that was like 15 years away. Was just all of a sudden there, and I don't remember the last time that that happened was technology. I mean, I I am, like I said, I'm 43 I feel like I've grown up with all of this, like it's evolved during the course of my lifetime. You know, you know, I mean, I was a teenager when, you know, the first websites came up. And, you know, before that, like, you know, I was in elementary school when they first started doing, like, you know, typing classes for kids, you know, and things like that. So it's like, you know, I mean, I've seen it. I've seen kind of all of these, these, these different iterations, you know, the smartphone,

I mean, specifically the iPhone, you know, these, these are all kind of, you know, significant but, but that moment truly felt like science fiction in a way that I don't. I don't remember anything else feeling and and seeing AI. I used it, but I used it before they use the term AI. I mean, it's now, it's kind of weird for us to think that people actually use the term AI before llms, but they actually use that term even back then. So I don't know that it's backed by an LLM at this point, I haven't heard that it is, and, you know, so, so if it is, I don't, I feel like I would have heard, but I think, you know, without, with the LLM, you're just, you're, you know, you're, you're in a, from our perspective now, kind of antiquated space.

Teddy Maiorca

Oh yeah, I asked because, you know, in the cases that I had, that people had described using, it just seemed, you know that this, this other tech, the be my AI and whatnot, just seems to be leaps and bounds ahead.

Cyrus Habib, SJ

Yeah, it's way and and we're so close to being able to move from the static photograph analytics to being able to move to real time, you know, you know, video, you know, we said it, I mean, because then you're, you know, once you have that and, I mean, I've seen it demoed, you know, so I know that it's not, I mean, it's not even that we it's not even that. It's not possible yet, and we're waiting for it's already there. It's already been demoed. The only, the only question is, when will they feel that it's, you know, you know, kind of bug free enough and viable from a processing and bandwidth perspective to be able to, you know, to launch to the public, but it's already there where, you know, you can wear sunglasses and be walking, and it'll be like, Okay, you're coming up on, you know, you're coming up, but there's a, there's a, there's a mother and child walking towards you. Okay, look out. There's a, there's a scaffolding, you know, whatever. Or like, it's, you know, it's time to cross the street, river, like, in real time, like, that's, you know, that's already, that's already technically accomplished. And then, and then, you know, for these other use case, I mean, that's, that's a lot of that's mobility oriented, I'm talking about, but you can also, you know, you can also imagine how AI makes so many other aspects of the computing environment, you know, more friendly. I mean, I mean, I remember, like, 10 years ago, you know, when Siri and Alexa were, were exciting to everybody, you know, and I would say this, like, these are, are they're exciting for everybody, but here's, here's my theoretical frame on it is that to say that like, Look, why do people you know? Why do people like, you know, using Siri to send text messages? Because, you know there are times when they hands free. Well, you know that also actually hands free is, is more it's more convenient for blind people as well, you know, and more often, right? Because, like, we may be walking with a cane, or, you know, typing is just a little it's just a little bit harder. So, like, you know, like oral input or spoken input is more convenient for blind people. Now, just like everyone else, it's not always appropriate, right? Like, if I'm sitting in a meeting, or, like, let's say I'm doing this interview with you right now, and I need to text someone like, hey, I'll be there soon. Like, you know, so it's not appropriate at a situation. So it can't be the only fix, right, or the only outcome. But like, you know, there's definitely a lot of these things that we're seeing, you know, out there that are kind of, I mean, the term that you hear a lot of multimodal, right? A lot of multimodal stuff, because it's multimodal is also more accessible, because it lets people plug in to the mode that works for that. Yeah,

super cool. Thank you so much for sharing all that with me, and it's awesome, awesome to hear. I'm curious now to kind of get a little bit more into the news side of things. So could you tell me? Cyrus, how do you get your news?

Cyrus Habib, SJ

Well, I consume less of it today than I did when I was in politics and and not a Jesuit, but I, you know, I still do consume a decent amount. I use but the primary way I actually received news is through the Apple news aggregated the Apple news app with, with, you know, Apple plus whatever the like, you know, kind of like premium services. So like, you get access to the Washington Post, The Atlantic, The New Yorker, Wall Street Journal, you know, like, all these outlets included, and you know, it also, you know, lets you follow topics and and so on. And it's kind of mean, I describe it as kind of like Twitter, you know, without, like, you know, user generated content, right? It's just, like this. It's just the news aggregation side of things. It's customizable, and so that's probably the number one way that I consume it, obviously like everyone else. So I stopped using social media personally when I became a Jesuit, not because I was required to or anything, but just I felt that it was more conducive to the life that I want to live and but I mean, before that, I would get all my news on Twitter, not all, much of it.

Yeah, well, I think it was just from a personal standpoint, I think that you, you got off Twitter and onto the Apple news, part of things at a good time that, yeah, it has only gotten crazier and crazier about App

Cyrus Habib, SJ

Twitter. I mean, I mean, look like all of that's true. I will say, like it's sad. Because you know, what was so good about Twitter was the breaking news aspect of it, like fact that you know before you know you know before, like a even, like a wire or publisher would send something out. You need us, if someone would tweet the thing that you were waiting to find out, you know what I mean? And like, in those, in those moments, like, I'm, you know, it's like that, you know, I mean, so like, right now we're in the midst of this Israel, you know, Hezbollah, Hamas, Iran, tension, or whatever. It's like someone would tweet something, and then, you know, it mattered if they were verified or not verified in a way that it doesn't now, and, you know, I mean, but like, if some, you know, someone will post me, and it's like, you know, some reporter way before they could get a news story out and written and through the editors, like, they would just tweet it. Like, that was

Teddy Maiorca

amazing. Totally, yeah, that just so I do mourn. I do mourn that it's something certainly worth mourning to be able to be plugged in right directly to the to the reporters themselves and the facts themselves, was, was really something. And, you know, there's still a little bit of it out there, but, but I digress,

Cyrus Habib, SJ

like two other things that I like. So, yeah, so one is that was, was the was the speed. Two was, you know, which, which you just kind of like ability to connect with people whom you wouldn't be able to otherwise. And this is a little bit like because, because I had a verified account. You know, I often, like, would explain to people at the time that, like, it was almost like a different service if you were verified, you know, because it was like, so like, if I, you know, it's like, if I

responded to an author, I like, they would actually see my response, you know, because, because number one, it gets boosted, it gets it gets bumped to the top right. But then also, they probably have a feature on which I had on, you know, for many times, where it would only show me content from other verified users, to filter out a lot of like the garbage, you know, and unfortunately, also filter out a lot of you know, good people saying worthy things. But there's so much. By the end, there was so much you know, so so that you know, but, but no matter what, I just the ability to like interact with people who are otherwise like, completely inaccessible to the general public, was great and, and it was even it was even more of a kind of experience for people who, you know, who were given a verified account at that time. And then the third thing I say is, like the ability to find subcultures, you know, in the way that, like, you know, news groups and other types of technologies on the internet had done, like 2030, years earlier Reddit. But like you know, to have the you know to kind of like have like communities where you know that only care of, you know that the people, like small number of people, who are the only people who happen to care about, you know, a particular thing. So, like, my Twitter feed was definitely Washington state politics and demo there's also, you know, fantasy literature. It was also like, you know, you know, certain, certain cancer subtypes, you know, that my father or I had had, or, you know, you know, Catholic, you know, a bunch of Catholic media and cons. It's like, you know, very, I don't think there's another person that had that particular mix, you know, of interests. So there's a lot, you know, there was a lot about it that was, that was really good. It's too bad, and I'm sure, hopefully something new will come about

Teddy Maiorca

at some point, right? I'm sure. But you know, I guess you know, it sounds like that, that that kind of Twitter helped to to meet your your breaking news, and those kind of more niche news circles needs, but would you say, for where you're at now, you know, does Apple news generally, does it do the does it do the job? When you're searching for news, do you end up, you know, I guess, generally satisfied?

Cyrus Habib, SJ

Yeah. I mean, I think it's, I think it's pretty good, you know. I mean, it doesn't have, it doesn't, you know, there's a lot of news sources, doesn't have, you know, and I'm sure, like, as you know, as as AI and Apple's been kind of late to the, you know, to the AI party. But like, you know, as they get better about it, you know, about integrating AI in then, like, you know, I think what will happen, you know, quite soon, it may even already exist, but like, you know, is that you'd be able to, you know, to interact and say, like, hey, what's what is, I'm stuck on this Israel thing because it's what we're In the middle of. Hey, has Netanyahu said anything about, you know, Joe Biden, and Biden's support or lack of support? And they could be like, Yeah, you know, he's quoted by the Washington Post as saying this, you know. And then he'd be like, Well, what did the White House said, you know? And then it'll be like, this, right? So, like, so that's obviously where we're going, where we're headed. And it may not even be, you know, as I said, it may even already exist, you know, but, but, but that's where you know, like an apple news or something like, it's not going to be like this for very much longer, sure. In this idea, the idea that the best they can do is just give you articles based on topics you like is just hidden, like this. What I'm saying about last year, it seems like everything changed, right? Like our whole whole set of expectations around what's innovative technology has complete I don't know about you, but for me, it's all completely changed. Like everything that seemed impressive now just seems completely obsolete,

Teddy Maiorca

totally I would say it's definitely the same for me too, especially, you know how quickly 3.5 was incredible, but the jump to four and now to four, oh, it's just continues to blow my mind entirely. Yeah, you know, it used to, I was taking some programming classes, and it used to be able to be like, you know, if I was, if I wanted to debug my code, it could help out with that if I really wanted to. But, you know, now I can. I can ask it a question and ask for an end result that previously would have been, you know, unheard of, but it'll code in Python in real time to give you an analysis or what have you. So it's just unreal.

Cyrus Habib, SJ

But there's no, there's no reason why, if it could write a novel right now based on, if you say, like, write a novel, you know, where two people meet in Cairo and end up falling in love in my Bible. But if you can do that, there's no reason why, right? I don't think there's no, there's any reason why it couldn't be like, write me a piece of software that you know that does X or Y, you know, and that content is no more difficult for it to generate. You know, it's not like, it's not like, you know, any of these programming languages are any more challenging for it than, you know, English, right? So, so, yeah, I think it's interesting. I mean, coders, coders have put themselves out of work, yeah, but, but no. I mean, yeah, so, so, I think the, you know in terms of news consumption, I think it'll be much more which, which, you know, interestingly, like, like, if you're when you're in politics, if you have a person, or if you're in any kind of kind of position of certain level of privilege, you know, you know, that's actually, in a way, what, what people will do is they'll go to their their communications director, or to be like, what's, what are people saying about whatever? And I'll be like, well, you know, they ran this and, you know, whatever. So, so, so, in some, in some ways, imitating, and, you know, only with, with much more precision, kind of the mode of interaction that you know, I think, you know, people kind of like, you know, again, look, do people also like to, like, take the broad sheet and, like, look over it with a cup of coffee? Like, yes, there is also, you know, you know that that, that kind of almost esthetic pleasure is, is still there for people to not everything is just optimizing, but

Teddy Maiorca

working on it all right,

Cyrus Habib, SJ

yeah, so,

so you mentioned that this is kind of where you where you think it will be going. Would you say that's what you would the direction you'd get to go? Would that work best for you to, you know, make those queries say of an AI integrated Apple news or whatever.

Cyrus Habib, SJ

Yeah. I mean, definitely yes, in some ways. Let me be clear. I think that there's, there's, there's kind of two things. I mean, I'm just theorizing this as I go along. I'm an extrovert, so I think as I think, as I'm talking, but I'm kind of thinking like, Okay, there's one mode of news consumption that is like, I want to know this thing. Like, I want to know what the Seahawks score is right now. Or I want to know, like, did the lions win? Okay, so, like, so that's a situation where it's like, it's like, I I know what I don't know, you know, and I know what I want to know, right? But then there's also, like, news consumption for the purpose of, like, I don't know what I don't

know, you know. And that's where, like, you know, one of my best friends is, you know, a writer for The New Yorker, and she writes these long form investigative pieces, you know, describing things in context that people are often not aware of, you know. And she just does it with with tremendous research and empathy. And, you know, that's a different kind of, you know, news consumption experience, and that I don't really know. You can imagine me, you know, you saying, like, you know, hey, can you give me some story that might be interested in that, or social, just whatever, and then it'll give you some of that, but it would be, then you'd want to read the article. You know, you want to read it to get the experience of it, but, but I don't know that it'll head that way, and I worry that it won't. I mean, I was thinking yesterday, I was I was listening to music, and this song came on from old play's first album, but back when they were still good and, and I remember talking about how, you know, I used to when I was a grad student in Oxford, someone had lent me that CD, parachutes and, and I would listen to that CD, you know. And we would have it on when we were hanging out with friends and just hanging out, drinking in the room and, like, whatever. And we should listen to that album all the way through so many times, you know. And so then I went back, and I pulled up the album, and I was listening to all these tracks that aren't like yellow or whatever, like, they aren't like the famous ones and like, and I was just remembering that experience, and I was like, that's just, it's just not an experience of music that I have anymore, because it's so single driven, and it's, you know, it's so song driven, you know, will it be the case that people will read 5000 to 10,000 word long, you know, investigative pieces in the future, I but I don't know. Yeah, I do not know. I mean, you know, people are way more interested in Tiktok. You know that, then they are seemingly in in full length feature films, yeah, yeah. So I don't know, right,

Teddy Maiorca

yeah and yes, I hope, but I don't know, right? Just a couple more questions for you, Sarah, before we wrap. So interested, as I mentioned, specifically in in digital news, infographics, like maps, like charts. Do you come across any infographics in your browsing of Apple news and and, you know, if so, what is the experience with with VoiceOver, like with the things of that nature?

Cyrus Habib, SJ

Um, yeah, and it's not, it's not good. I think it's, yeah, I have to say I am a the word is somewhere between like, I mean patient and lazy, like, in in the sense that it's like, I don't know. Like, if it doesn't really matter to me, like, I probably won't try too hard to, like, figure out what the table would, you know, what the graphic is showing, you know. And usually they'll do a good you know. They'll, you know, depending on the content, but like, you know, they'll explain the significance, you know, but, yeah, I have to admit that. Like, I don't, I don't dig in and try as hard now I think, like, what you can do now, this is why, like, I'm saying, like, a lot of these changes, like, now, if I cared, what I would do is either with my meta sunglasses on, just be like, hey, meta, describe what's on, whatever. Or, you know, probably still a better thing would be to take a screenshot, share it to be my eyes, which it actually, you can actually be my is not only an app, but it's also available. It's like they've built it in. If you have it, it appears in like, your share menu, you know on when you go to share. So, so, so I would like take a screenshot and share. It would be my eyes, and you don't even ask anything. It knows what you want, and it'll say, you know, you know. The image is a screenshot of a news story you know, from the New York Times, you know. And there's a take, you know. And you can ask follow up questions, be like, what you know? What happened to population rates between 2020 you know, you could, you can do all of that, so, but that's why, what I would do now, if I really cared and wanted to get that information, sure, cool in some ways, some ways it's also, is also just a product of like. And

I kind of wonder what, you know, what a person who's blind, who's 20 years younger than me would have to say, you know, but like, but in some ways, like, you know, it's also kind of like, I grew up, it's a sad thing to say, but I kind of grew up without the expectation that I would have a fully rich experience of of of graphics. And so maybe it's, it's a, it's a kind of internalized, like, whatever I don't, you know, like, it's just not that important. I'll learn what I need to learn in other ways. Like, my I've, like, my neuroplasticity has, like, you know, addressed this in a way. And so, like, I just don't need to learn that way, or don't think to learn that way, sure. So maybe it's not sad, I don't know. Maybe it's maybe, just maybe, you know, it's, but it'd be interesting to know what like a 20 year old, you know, who maybe has, who's kind of, you know, maybe had a richer experience of these things because of newer technologies, like her whole life and so then maybe feels more entitled, or maybe, you know, wants to, wants to understand the visual aids better,

Teddy Maiorca

sure, yeah, I totally get it. And so my last one,

Cyrus Habib, SJ

are you, are you? Are you interested? Because you're, I mean, is kind of the idea like, how can publishers of content, you know, adapt these better.

Teddy Maiorca

Essentially, yes, that that, and that was ultimately, in a way, going to be my next question. So you really put me to it, but, but, yeah, I guess, you know, ultimately, to give a little bit of background, I, you know, I took graphics classes at the Mizzou J school, and it was kind of like, you know, the last step was like, Oh yeah, remember put alt text on your interactive graphics. And, you know, a, nobody ever did that. And so, and B, like, I used a screen I used the max screen reader, and, like, experienced alt text. And I was like, That is terrible. Like, the whole point of the infographic is to make it not just more visually appealing, but, like, more, you know, more comprehensible. It's supposed to break down the information that would be a series of numbers and a block of text, right, and change it into something that's more easy to understand. And and that experience with alt text, I was just like, this is this? It's just so far behind. It seems to me like we have better technology. Of this was kind of my thought. And so, yes, I guess essentially it's like, how can, how can journalists, how can news web developers, how can accessibility tool designers and whatnot, how can they adapt, right, to give a better experience with infographics? So,

Cyrus Habib, SJ

yeah, I mean, I would say the narrow answer that is that there are, you know, just like there were, like, web three standards, or whatever, you know, like, I'm sure there's like, different standards and entities, you know, who work with them. I mean, an organization for the, you know, specifically in the blind context that that, I don't know whether they have the specific answer, but like, are the kind of people who would who I like a lot, is the American Foundation for the Blind. They're the one who really pushed, I think, I believe, they're the ones who pushed audio description. You know, kind of the hardest you know, on streamers and movies and things like that, and they like, even give, like, an award against them, you know, who give an award for, like, best you know, audio description you know, and like, you know, kind of best, you know, accessibility play like in that space. And so I kind of think, like, they, you know, they're, you know, they or other advocacy groups would be the best to like, to say, like, you know, what

are the tools? Or, like, the best, best in class, ways to do it. But like I said, I think this is such a rapidly changing world right now because of AI that, like, I just would be surprised if, if, all, if, like, you'd need to write in the old text anymore, right? Like, why would that even be? Just seems like you'd want the, you know, the APD, the some kind of like, you know, API visual description, you know, having a AI visual description, API thing to like, you know, to do it for you, right?

Teddy Maiorca

Yeah. And I think that's right,

Cyrus Habib, SJ

yeah. I think it's already the case, because it's already the case on the iPhone, natively that it does that, right? No one's, no one's typing it like, when I take a photo, you know, or someone sends, and people will send me a photo you know, and, believe it or not, like and they will and then, and then, you know, I'll click on in the iPhone will say, you know, the photo shows, you know, A group of people and a birthday cake. You know, me, it's not, it's not as good as be my, be my AI, right? You can then share it with be my AI, and it could do it, if that's an extra step, but, but the iPhone will do it, and it's all, you know, it's that that's even like a pre LLM AI, kind of, you know, application, so, I think it's already there. Whether content publishers are, you know, have have easy access to that yet or not. I

Teddy Maiorca

don't know Sure, yeah, but that's, that's, that's the thing. But

Cyrus Habib, SJ

then the but then the question is, like it actually, will it be the case that it's on the content producer, publisher, is it on them to do it? Or if it's just, if it's built into the maybe you asked this question earlier, you know, but like, if it's, if it's if it's actually on the, you said, the screen reader. But I would even say, you know, on your operating system, whatever, like, if that's already doing it, then maybe you don't need to do anything

Teddy Maiorca

right and then, and then nothing changes on the content side, which is

Cyrus Habib, SJ

on the content sides. It's just there and then now, you know, the tool is there, which, which is a better situation overall. You know, because, certainly, because it's foolproof, right? Like now, it's just like, now I just have the thing on my end of things. The only exception would be like, if there are situations where, like, you know, the content provider wants you to know something is abnormal, or I would catch or there'd be, like, a just, you know, some kind of a heads up, or an alert. But like, no, as a general matter, I think it's better it's on the client side, no

doubt. Yeah, just so you know, processes can stay the same for for users and for for creators, which is fascinating. But, yeah,

Cyrus Habib, SJ

I mean, think about how much like international content there is and, you know, all this stuff, you know. I mean, like, it's like, because then it's like, all text is great, but like, what if I wanted Swahili,

Teddy Maiorca
right? Exactly,

Cyrus Habib, SJ
you know. So since so it's already like, you know, yeah, yeah. I mean, this is why I'm an optimist. I mean, I think there's, there's, there's, you know, there's so many doomsday scenarios, and I'm not but there's nothing I can do about that, you know. So I'm just like, Okay, well, let's at least hold so be excited and try to maximize all the good that AI is going to be able

Teddy Maiorca
to do. Totally Wow. Well, Cyrus, that's that's all I have for you, and I apologize for going over time, but thank you so much for being so gracious.

Cyrus Habib, SJ
I would have done this just to have this conversation with you. I enjoyed it

Teddy Maiorca
Yeah, thank you so much for sharing your perspective with me.

...

Interview 4: Cheryl Meister

Bio – Cheryl Meister is a 62-year-old retiree living in Kansas City, Missouri. She has had no usable vision for 25 years.

Teddy Maiorca
All right, let's get started. All right, so I'll start off with some easy ones. Could you just tell me your name and spell it for me?

Cheryl Meister
Sure it's Cheryl, C, H, E, R, Y, L, last name is Meister, m, e, i, F, T, E, R, all right. Excellent.

Teddy Maiorca
And where are you from? Cheryl,

Cheryl Meister
Kansas City, Missouri, wonderful. And what do you do? I am retired, awesome.

Teddy Maiorca
And if you don't mind me asking, how old are you Cheryl?

Cheryl Meister
I am 62 currently, right?

Teddy Maiorca

Could you tell me the level of your visual impairment?

Cheryl Meister

A little tiny bit of light perception, but basically, I don't have any usable vision at this time. It was a slowly progressive degeneration of my eyesight, and so I've been probably where I'm at for about 25 years or so, gotcha, gotcha. And

Teddy Maiorca

that's that you said that. That's you know from that point, 25 years ago is where you've been at the level you are today, right, right. Gotcha. Well, thank you for sharing that with me now to get a little bit more into the tools side of things. In that broad conversation, I said we'd start on what kinds of tools or apps, if any, do you use on a regular basis to help you read text

Cheryl Meister

on the phone or the computer. I have an Apple phone, and I use VoiceOver. So an apple, the iPhone has, in my opinion, the best accessibility features for that. And then I use JAWS on my computer as a screen reading tool. That's what you're talking about. Now that I have many apps on my phone that helped me read my cans of vegetables, or, you know, directions on how to cook Hamburger Helper or something like that. I have many apps like that. Are you talking about that as well when those app names

Teddy Maiorca

really all of the above? But yes, if you, if you could walk me through those, those apps that you use for things like that too? That would be great. Okay,

Cheryl Meister

well, Ira is a service that blind people can be subscribed to, but they also offer five minutes free every other day for anybody who is blind. They also, if you go into certain locations, like Target and airports, some airports, you can go in. And Ira is a service where you call and you can get a live reader to to read something. They use the camera on your phone, and they also have the ability like FaceTime audio so that you can do face to face, and they can see if you hold the camera up to a document for you. So that's IRA, a, I R A, I believe Be My Eyes, is another app on the phone that you can call a volunteer. And this doesn't cost any money at all. Call a volunteer that can do the same thing as IRA. They also just come out with a be my AI, so you can take a picture of something, and it will read the document. And it's it's pretty good. I use it quite a bit. There's another one on my phone called seeing AI, and it takes pictures and reads documents. You can do short text. It can also read currency and things like that. So scene AI for that one. Voice Dream scanner is another one, VD. VD scanner is what it's called. It does the same thing. You can hold the camera up and it will be text. What other ones do I use that are tools like that? I'm trying to think those are quite a bit there's Jaws is getting really a lot better, and having some AI functions, I don't utilize them all that much, but they're getting a lot better in identifying sources to reading documents. I've used before I'm not using now, program, a software program on my computer where you would scan a document and it would read it, and that was the cursed curse Kurzweil scanner, and it would read open book. Is another one I'd use, but I don't currently use those much anymore. You can take you can scan a document now with jaws, and the OCR will convert it into a readable document. So that's pretty useful. So you know, those are the main ones that I use, sure,

Teddy Maiorca

sure. And so it sounds like you do, you know, you do? You use a would you say you use a variety of these on a day to day basis?

Cheryl Meister

Yeah, yeah, I do. If I get on the computer, I have to use DAWs because I can't see the screen. And if I'm on my phone, which I am on my phone quite a bit. I have to use the voice of feature on my phone, or I wouldn't be able to use my phone at all.

Teddy Maiorca

Sure, and you really read my mind, getting ahead of me with right when I asked you about the tools you use, you said, which device, and that was exactly my next question. But so it sounds like, you know, VoiceOver on your phone, jaws on the computer. And do you use those other apps? Like, like, Be My Eyes, like the other one you mentioned,

Cheryl Meister

I believe, is I use those. Yeah, I use those as needed. I try not to bother a live person as much as as I used to. Because if I can take a picture and have it read in it, and it reads accurately, and I think it does, you know, most of the time, you can even hold it up to a T shirt, and it will tell you which t shirt you have. It'll say it's a black T shirt with a with a picture of something on it, and it's this or that, or whatever. So it's pretty cool in that regard. So, yeah, I use, I use those throughout the day all, all the time. Gotcha. And

Teddy Maiorca

I've heard, you know, different from different folks. Some prefer be my, be my AI, but others you seeing AI? Do you have one that you prefer? Or, you know, are there differences that you feel there are between the two?

Cheryl Meister

Sometimes, if you want to make sure it's accurate, you want to use them both, just to compare and contrast and make sure I've heard from some people that that may be my AI, sometimes will interject words in there that aren't really there. I haven't noticed that to be true, but just to make sure, if it's important, that I have the accurate information, you know, I've been using be my AI lot lately, because I kind of like the information gives and it seems to, you know, come up pretty quickly, and I like that it's free, not that I, you know, wouldn't pay for. I don't have a subscription to IRA, but I will say that if I had something very sensitive, I'd use a live reader with Ira to read it, because they're employed and they, in theory, are not supposed, won't use your personal information in any way that's, You know, nefarious or illegal or anything, whereas, be my eyes, they take volunteers, and I don't know that they have background checks on them and things like that, so I don't know. I wouldn't let them read my credit card. Let's just say,

Teddy Maiorca

yeah, totally understand what you mean there. So now to talk a bit more about you, mentioned that it's got a bit better. But could you tell me about your experience using JAWS just generally?

Cheryl Meister

I've probably been using JAWS for, I don't know, 20 years or so. I used Window Eyes before that. But when I when I got some training to go to work, I worked for the IRS. They use JAWS with their systems in the AR, in the IRS programs and jaws, I don't know. You probably know this stands for Job Access with speech. So it's the most predominant speech software out there. There's other ones, NVDA, which is a free, similar program to Jaws, but I don't use it. I have jaws, and they keep it updated and secure and stuff. So when I use it, it meets all my needs. I mean, I'm able to navigate it. I I'm always still learning little tricks of it, different shortcuts to navigate a document, to search for words, to get me to where I need to be, and so, so, yeah, I'm pretty I wouldn't say I'm advanced, because I don't need to be, but it certainly needs all my needs currently, and if I needed to do something that I don't know how to do, I can research to figure out how to do it. And I sometimes time will do that. So I don't know if that answer your question, yeah,

Teddy Maiorca

absolutely, absolutely. I mean, I really, I was interested in the effectiveness of it for you, and to hear that it meets your needs. I'm glad

Cheryl Meister

now I don't have it. I don't have a lot of needs right now. I mean, I typically retirement because of a hand elbow injury, and I was able to work on the computer all day long, every day, like I like I needed to. So, you know, I don't have a lot of pressing issues that require a lot of technical ability, but certainly for whatever I need it, for it, it meets my needs.

Teddy Maiorca

Sure I'm interested in the effectiveness of images. When you use JAWS, when you come across images, how often do you think it is successful in in describing the image, or does it kind of skip by? What's the experience like with that? Well,

Cheryl Meister

it's being aware it is if it's in the document or PDF. PDFs have gotten better. The OSR, OCR times can identify it, but sometimes it can, so it is probably the most frustrating thing that I find. Although I don't need, you know, I don't have a lot of need to get images described to me. But you know, if you get a manual that's in a PDF formula format, I mean it, if you open it up and you don't have it converted or anything, it'll just say, graphic, graphic, graphic. It's ridiculous. And so if you can get it converted, it's probably 90% successful. It could use some formatting, oftentimes, but, but it does pretty good job some websites, if they don't take in consideration the people who might be using screen readers to come across pictures and it'll say, graphic, graphic, graphic. And so in that case, guess if I was really searching for something, I'd try and figure out how to get those labels or something, or I would call an IRA agent. I could have them do a teen team. What is it called Team, Vision team, something where they could actually see what I'm seeing on my computer, and they could read it to me. You know, it described the picture, I mean. So I know I can do that if it's really important that I do that. So I have the ability to do that. So, so, so, yeah, it is probably the most frustrating thing that I kind of cross traffic pictures, yeah, and I will say this, I have noticed that voiceover has gotten better and or maybe it's Facebook, because when I'm on Facebook, which I'm not on, a lot of people are, but occasionally I will get on and if people post a picture on their sometimes it'll say, you know, sure, with text, well, now you can put your finger on there and hold it, and sometimes it will read the text to you. And I don't know if you're getting it all, but I think you're getting some of it

to get the gist of what it is. Otherwise it would just be gliding over. It's not saying much of anything. So I think in that respect, that voiceover has gotten better on Facebook. I don't do Facebook on the computer. I use it on my phone.

Teddy Maiorca

Gotcha. Gotcha. That's, that's, you know, images and screen readers are really one of the points that I dive into most, you know, that really, honestly got me interested in this topic,

Cheryl Meister

right, right? And it is frustrating, yes,

Teddy Maiorca

you mentioned too, when websites don't always think about, you know, putting that, that alt text behind the image, that something else. I you know, you said that sometimes websites do, sometimes websites don't. If you could ballpark, you know, how many websites you come across where there isn't any kind of alt text for the screen reader to read? What would you you know, what do you think the percentage would be? Well,

Cheryl Meister

they're not 100% consistent, even when they try to take the time to do that. But, you know, they are getting better than they used to. I will say that. I would say 25% are more of a problem. You know, 75 are doing a much better job, you know. So

Teddy Maiorca

Gotcha. Well, that's that's good to hear that it's that it's at least been getting

Cheryl Meister

better in some respects that it has. I don't do a lot of navigating to order stuff online by myself. Sometimes it's frustrating to do that. And so those when you get started getting into to that kind of thing, it can get a little tricky. So I don't know, I avoid the anxiety of trying to deal with him. Often have my husband do it or something.

Teddy Maiorca

Yeah, don't blame you. And one more question before we move on from the you know, the web browsing super specifically. But I'm curious if you ever come across websites, or, you know, anything on the web that has a video that plays automatically, and if that is ever an issue for you

Cheryl Meister

on a computer, yeah, sometimes I have, and, you know, if you navigate away, it seems like it stops sometimes, but sometimes you get come to it. So it has happened occasionally, but I don't think not too often.

Teddy Maiorca

Gotcha not, now, one of the you know, not something that comes to mind when you think about the biggest

Cheryl Meister

issues. No, no, no, gotcha. Well,

Teddy Maiorca

thanks for sharing that with me. I appreciate your insights. So I'm interested. You know, you listed off a lot of different apps and tools right at the beginning of our conversation. I'm curious how you go out looking for additional tools or or just, you know, new things to use and try out.

Cheryl Meister

Well as a blind individual, I think networking with other blind people is really useful. And so in particular, Gary was one of those back when I got my first iPhone, I wanted to keep up with the world and technology, and I didn't leave behind. And so, boy, picking up an iPhone for the very first time was scary. There's no buttons on that. Gosh, don't think and I'm old, and I'm used to having buttons and pushing them in, and they're tactile, and I can navigate the phone, you know, easily with buttons, but you know, so Gary was a good resource to ask. So, networking with other successful people that are doing things that you might need to learn, you know, talking to them if you have questions, I'm on several lists that come out with updates, tech updates, new tools. Apple has what's called it used to have what's called Apple vis, which is an accessible website for Apple users. And so that's that's been a good resource. I'm on several online gaming slash chat sites for the blind, that all of them have tech nights where if you have a tech issue, you can call and ask questions. So again, asking people who might know more about what I need you know. So and then, of course, there's also some blindness retailers that I get merchandise emails from, like we have this new product that will do this for you and that for you, and so getting updates on the new products that are out there, and then hearing reviews about them and stuff. So I get newsletters, emails about that kind of stuff from two or three different sites that I chose their opinions. So, yeah, gotcha.

Teddy Maiorca

That's good, really good to know. And I'm glad to hear there's good, you know, newsletters and things like that.

Cheryl Meister

Sure

Teddy Maiorca

I'm so I'm interested now in kind of getting back into the web browsing conversation, but more in the context of news. So I'll just start off broadly. How do you get your news show?

Cheryl Meister

Well, I'm probably not the most news savvy person, only because it gets a depressing oftentimes. Tell me. So I have a lady a device that will tell me the the news I get like in the morning, they'll give me a news update on things. If I hear something there, I will often, sometimes go into the computer and just type in a search to get more information. If I have or whatever, things like that. I listen to Teddy rarely, but sometimes I will get it from TD. I subscribe to some YouTube channels that have news updates, entertainment news updates. Again, I'm not the most reliable person to talk to specifically about news because I avoid a lot of the harshness of the news, so radio, sometimes I listen to radio, and news will come on there, so they're not a lot of digital tech stuff, unless I want to go research about it and pull up a story that I want to read more, I'll do A I'll do a Google search for something on it online.

Teddy Maiorca

Gotcha, yeah. And I totally understand, you know, it's, it's, it is not an easy thing to do to keep up with the news and not, not a always happy thing to do, or, you know, inspiring thing to do. So I totally understand, yeah, but, but I still do, you know, I still do appreciate you sharing your news habits with me, and I just want to go back to to the first thing you listed off, just because I missed what you said. You talked about how you got a news report in the morning was that from a person.

Cheryl Meister

Oh, on lady, Ava,

Teddy Maiorca

gotcha. I like,

Cheryl Meister

I have two or three of those around my house, and so you can set up like a news brief in the morning and see you get some highlights of things. And so, so, yeah,

gotcha. Did you? Did you call your Alexa lady a because I think that's amazing I

Cheryl Meister

did, because she's sitting across the room from me, and if I say her name, she'll be, she'll be wanting to talk.

Teddy Maiorca

You're right. You're right about that. Oh

Cheryl Meister

my goodness, yeah, that's

Teddy Maiorca

hysterical. I just turned around and I saw mine Listen to me. So it was a good call. Thank you for clarifying that. And you know, I guess, does that mean, do these meet your news needs? Then would you say

Cheryl Meister

they do? Because, as I mentioned, I'm really I know that I'm not a news junkie. I've been around some people that are news junkies. And you know, they want to tell me everything on Court TV about a murder trial, and I just get really depressed. And, you know, and all my brother in law watches political stuff all day long. And you know, too. And so I, you know, when I hear debates coming out, I'll listen to the Teddy about that. And, yeah, it's hard to know what to believe when it comes to that kind of stuff. Sometimes I don't know. I'm a little jaded and cynical. And then I, you know, again, I don't want to, I don't want to get sad. Sure, much too much sadness is not good for me. So

Teddy Maiorca

totally understand. So we'll get any more into that than we need to. I'm I'm curious, though, how your experience with getting news has changed over time.

Cheryl Meister

Well, yes, possibly, I don't know. I would used to watch a lot more TV, a lot more TV, and would listen to the news, but, you know, I just don't so much anymore. I watch TV hardly at all. Back in the day, when I was going to college, I still had some musical visions and I would read newspapers, oftentimes for for a report that was due in a particular class, but also I found that it was very interesting and really kind of liked the Wall Street Journal a lot. There is the news line, which is a service with gamers being developed that you can used to be able to call in and navigate through a menu to pick a newspaper to have it read to you. That used to be eating on a landline phone. Now I don't have a landline phone anymore. I have this, this cell phone. And I suppose I could still call in, but I haven't done that in a very, very long time. They do have, like my phone, that signed up for Newsline, but in all honesty, I don't, I don't use it very often at all. So it has changed a lot, I think, in that I used to watch TV more, or listen to TV, and now I don't so much, but that's been more, not so much a blindness thing, as I getting older and just guarding my mental health, I think, and staying away from things that may be too sad. So

Teddy Maiorca

totally get it and and on that Newsline note, would you say that that not using the Newsline app so much is is part of that, just like, you know, less interested in the news, or is it more to do with the Newsline app itself,

Cheryl Meister

the Newsline app can be a little cutting my phone. I did like the way it navigated with using a landline phone with actual buttons. I could I could still do that and use my cell phone, but trying to get to the key keypad screen and push the right button. It's not as easy as just putting a button push the button when you're holding a phone in your hand. I mean, I do a pretty decent job of it, but not, you know, it's not as comfortable to me. So I think it's not. It's a slight combination of lack of interest in some of the news and that it's not as easy to use as what I remembered it used to be. If that makes sense,

Teddy Maiorca

totally, totally makes sense. So earlier you mentioned, you know, occasionally you'll go, you'll go to Google search a news story, if you're really interested in diving into, you know, not necessarily curious in the content of the news or what drives you there, but I'm interested in, when you do browse the web, coming across images, or more, more specifically, I guess, maps or charts for things in those new stories. Is that something that you've ever come across? And if so, what was that? You know? What was that like?

Cheryl Meister

Yes, I have come across it. Maps are, I never found one that's been really user friendly, but I've been able to navigate to the point where I needed to spend more time figuring it out. It just, it just didn't seem to work. Tables, I can do tables pretty good. Pie charts are more difficult, for sure, and a lot of time. If you get some some tables and charts, they'll have all the headings, and then they have the next line, and they'll just go off figures and he can't remember which the heading it went that number went with. So those are sometimes hard to navigate and or if it just will say graphic or something. So yes, when I come across something like that, it, it is very

frustrating oftentimes. And so I will try to get the information from the text, maybe above or below it, or ask somebody to visually look at it.

Teddy Maiorca

Sure. And do you find that these charts or maps ever have descriptions or anything baked in that the screen reader is able to read

Cheryl Meister

it? Sorry I'm giving text, take your time. No, I don't need to read them. They're just about talking in my ear. I you know, most of them are not well defined. I'm just gonna say when it comes to some maps, and so I would, yeah, I would say most of them could do a much better job. I don't. I can't tell them how to do their job better, but they need to do a better job at doing, you know, maps and charts and you know, if it was a, if it was a barcode or something like that, that would be really just not clearly labeled. Doesn't verbally describe what information you need to glean from a table, or, you know, graphic

Teddy Maiorca

like that, when you say like a barcode or something like that, do you mean something that you could you could scan that would give you a description, or something like that.

Cheryl Meister

Well, and I can't think of a time when I've had to do that then scanning, you know may, may or not, give you the information clearly where I can remember visualizing, I can remember seeing charts and when scanned, items get scanned, and then they're trying to decipher what it what it is, and then tell you, oftentimes they'll get, like I said, they'll give you headings, and then they'll give you can't look down and See that that number is directly below the color red or whatever. If you have colors listed across the top and then percentages down below, you can't line them up and see as and maybe it has something to do with the fact that I used to be able to see and now I can't, and so I want to visualize it and and I can't, but I think the information isn't presented in it as clear way as I would like it. To be sure,

Teddy Maiorca

sure, to give you a bit of background on these specific questions. You know, the whole reason I'm doing this project was because in my my classes, you know, I in the journalism school for my undergrad, I specialized in doing a lot of these charts and these maps and whatnot. And, you know, there was a lesson in class, like, I'll remember, to put all text in so there's a description. And really, in my head during that lesson, like a this is kind of defeating the whole purpose of the of the infographic itself, right? Trying to the whole point of making an infographic is so you don't have to explain it via text. So there's got to be a better way to do this and then be you know, how often is that alternative description being added?

Cheryl Meister

Right? And I don't know that I'm the right person to give you, because the information you need only because I don't have any driving need or requirement to access much of anything anymore. Whereas, if I was it, if I was a young student, blind and going to school and I needed to get that information, I would certainly want it to be accessible, or I didn't have to go to somebody all the time to ask him to decipher what this graphic was and it I do this when I went to school, when I was going to mu I was losing my vision at that time, although I still had a lot of it, but I was

losing it, and it's just so frustrating to always have to ask for help when, for instance, in my mind, and even when I went to work, I'm not a stupid person. And if, if I could just see I could do this myself, but no, I have to stop and ask, because it's not presented to me where I can comprehend how it's set up. And that was that got to be frustrating. So I'm not. I don't have a requirement at this point in my life, because I am much older, but if I was still employed, and if I was still, you know, needing to access information for reason would probably be more urgent for me to be able to do these things more independently. But I do feel for the young people how they're trying to do and navigate

Teddy Maiorca

so sure. Well, you know, ultimately, I really appreciate the the answers you've had for my question. Cheryl, I mean, I am interested right in the effectiveness of of the accessibility of infographics and whatnot. But ultimately, you know, the information that you've given me about your experience using JAWS and voiceover I've been super valuable. I really appreciate your time today. Good. I hope so. Yeah, absolutely. I guess. You know, I just have one more question before we close, and that is if you know, if you could have complete control, you know, kind of say, poof, like, snap your finger or a tool or something that would make browsing the web easier. What do you think that that would be?

Cheryl Meister

Well, honestly, and I understand this is probably going to be an impossibility unless you pay good bucks for it. I don't know. Advertisers put all these ads in the middle of everything, and just getting past them without landing in an edit field and then having to get navigated out of the field and get below the ad to get what you're wanting, you know. It can be a news article you're looking up. It can be a recipe you're looking up, you know, and right in the middle all of it, you've got all these ads people are wanting to make money, but they're hard, because once you get caught in an ad, it's hard to get out of it, oftentimes. And maybe I just don't know what I'm doing, who knows? But would like to eliminate or have a tool, and there probably are those out there. And again, I just haven't checked into me, you know, to to get rid of ads. And you know that that probably in my life, which is very central life at the moment, ads are just a nuisance. So another thing that is really a nuisance is when you're on a site and you're trying to this would probably might have to do with, with even a site where you're trying to log into, to maybe even eventually purchase when you're logging in, and then you have to a robot. You know what I'm saying? You, you, you see pictures, and you're supposed to do whatever you they want you to do, but I can't do that. So then they say, get a voice question or something. Well, I try to do that, and half the time you can't hear what they're wanting you to repeat back or whatever, and that's very frustrating. And I suppose there is a need for confirming you're not a robot, because it's going to be such a mess out there, the scammers and whatever. But those two things get rid of a lot of those ads that get you locked into into them, and you can't get out and or confirming a robot, which is so very frustrating, it's kept me out of a lot of things oftentimes. So gotcha,

Teddy Maiorca

yeah, thank you for sharing. I'm curious. I have a very quick follow up for you. But when you when you say locked into an ad when you're using when you're using JAWS, and you come across an ad. Do you mean that sometimes, you know you you click onto it, and it'll just, you're not able to click off, per se,

Cheryl Meister

right right, if you're down arrowing, or if you're got a command that's just continuously reading, and then it adds right there. And then there'll be like an edit field to, you know, and then you try to get out of it. And then you go down and and you often, sometimes you can't just keep reading down to get to the more of the text of the article. It wants you to do something, and you've got to click a close button that you didn't never see there. And in the first it actually has an overlay that has happened many, many times, where the ad will open up and you have to close again the actual article that you want to continue reading. So it can be very time consuming, consuming and frustrating to kind of get in that and not be able to figure out how to get out of it. Sure. Gotcha,

Teddy Maiorca

I appreciate you walking me through that. I thought I had an idea, but I appreciate the specifics, but that's those are all the questions I have for you today. Cheryl,

Cheryl Meister

thank you so wonderful. I hope it was helpful. I hope more people have signed up to participate with you, and that your article. I'm sure it sounds like you have a sincere interest, and I really want to learn the struggles that a group of people have. And I'm sure ours are not the only group that have different struggles for different things, but my husband is also legally blind, but he also has a hearing loss, and he uses hearing aids and just and seeing his struggles in life, I know that I would much rather be blind than be deaf, and so I'm sure that the deaf community, which doesn't pertain to what you're researching, but they have a lot of struggles too. They have a lot of struggles. So I appreciate you trying to kind of work towards, you know, helping people access, you know, the news and information more successfully. I appreciate that.

Teddy Maiorca

Oh, well, thank you. It really is, really is my privilege, and all the people who are speaking with me, I'm just, I'm truly honored to hear the insights and hear your perspective. Well, great,

Cheryl Meister

great.

Teddy Maiorca

Thank you so so much. Cheryl. I hope you have a wonderful

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Interview 5: Eric Boklage

Bio – Eric Boklage is a 63-year-old graduate student and vision rehab intern based in Chicago, Illinois. He has lost his peripheral vision entirely but has correctable central vision. Despite this, though, it is difficult for Eric to use his central vision for extended periods of time due to Ocular nerve damage. He has been dealing with this for 15 years.

Teddy Maiorca

I go ahead and get that started, wonderful. So I'll start off with some easy questions. Eric, could you just tell me your name and spell it for me?

Eric Boklage

Sure. Eric, E, R, I C, excellent. If you if you need last name, so be it. But just you can just put an initial B,

Teddy Maiorca

okay, perfect. Can do on that front. Excellent. And do you mind telling me where you from? Eric,

Eric Boklage

I am originally from Kentucky, and have lived in multiple places around the US, but currently live in Chicago. Wonderful.

Teddy Maiorca

And could you, if you don't mind, and feel free to pass on this, but if you don't mind, could you tell me how old you are? Eric,

Eric Boklage

63 All right,

Teddy Maiorca

and could you tell me what you do?

Eric Boklage

I am currently a grad student and intern in vision rehab at second sense. I am retired from my first career, which lasted over 40 years, and I am currently working to become a vision rehab therapist. Wonderful.

Teddy Maiorca

Good Good luck to you in your studies. Thank you. And could you? Could you explain to me the the level of your visual impairment? Eric,

Eric Boklage

sure, so I have lost peripheral vision to the extent that I can no longer drive. I have glaucoma as one of several different vision related clinical issues, and because of that, I am at the stage where there is lost peripheral but I currently have good, correctable central vision because of one of my other ongoing vision issues, that central vision works for a period of time, and then it will gradually create headaches, so I end up needing To listen to things when I need to do in depth or lengthy reading, because if I try to overuse my eyes, I get headaches. I have optic nerve damage that apparently will tolerate a certain amount of use, but not extensive use.

Teddy Maiorca

Gotcha okay and and could you tell me how long you've been affected by this

Eric Boklage

in a gradually increasing way over the course of the last 15 years.

Teddy Maiorca

Gotcha, okay. Thank you for sharing that with me. And so we'll start off now talking a little bit about the tools that you may use on a day to day basis. And then as we go through the interview,

we'll kind of narrow down into more, more specific questions about how you get your news and whatnot, but, but like I said, we'll start off with what, what tools do you use, or apps or anything on a daily basis to help with with text or using your devices? Okay?

Eric Boklage

Do you want me? Well? Is the question open up to speak both about computer as well as mobile,

Teddy Maiorca

absolutely. And that was my next question. You are ahead of me, Eric, so that's exactly right. Yes, feel free to differentiate.

Okay, so starting with computer, I use a Windows computer with Windows 11, and I have modified the screen display in order to change the size of the fonts and the amount of contrast that is available. Everything that I can possibly do in dark mode, I do in dark mode, and that periodically means that I need to tweak things, because they may come across that is not in dark mode or doesn't have an ability for me to switch it to dark mode on an automated basis. And when I say automated basis, you know, I have, if you will, extensions on my web browser that will move everything to dark mode when possible. That one extension in particular is called Dark reader that facilitates that. But then everything related to both Windows and to my Microsoft suite of applications are set up in dark mode. The same token I have the contrast moved up pretty high, which allows for the font to be brightened, vis a vis that dark about our black background, which increases contrast, which I need the optical nerve damage has caused, if you will, some reduced contrast sensitivity. So that's on the computer platform. I also am a user of both an Apple iPhone and an Apple iPad Pro, working my way down from the largest screens down to the smaller ones. On my computer. By the way, I use a laptop with a big, 15 inch monitor in order to help facilitate being able to have larger fonts and things of that nature, and yet still being able to optimize how much of the stream I can typically see when I'm in my home environment, I use an additional external monitor that's even larger, and that helps to ensure the amount of real estate that I can do at one time. When I moved to the mobile platform, I use an iPad Pro, which is a 13 inch and once again, our 12.9 whatever, in order to maximize the real estate space and everything is set up in dark mode, I Take advantage of all of the iPad OS modifications that allow me to change font size and color scenes and things of that nature in order to facilitate when I can being able to view the screen. So I can, if you will, make it easier on my eyes, so that lengthens the amount of time that I can use it. And then when it comes to the Apple iPhone, again, I've made modifications to ensure that everything is in dark mode and on so hard optimized for me from a size and boldness and contrast perspective, is that the sort of information you wanted from a general parameters and setup?

Teddy Maiorca

Yeah, yeah, no, absolutely. That's very it's definitely helpful. I appreciate that insight. I'm curious, in addition to the setup of the operating systems on the various devices, are there any other tools that you use?

Eric Boklage

No, not really, unless you want to consider there are apps that I use with the phone and with the iPad that help facilitate my ability to deal with the rest of the world, so to speak. And included in that, I would include the magnifier app that allows me to basically carry around a handheld

magnifier that has light effects to it that I can change the contrast on things of that nature. I also use the seeing AI app, which has multiple channels, including short text, an OCR document reader and things of that nature that can help facilitate my ability to to read and to listen to things and then be my eyes. Is an app that not only has the ability for me to call in assistance when I do if I need to, but more than likely, in my case, if I need to use the AI portion of Be My Eyes where I can take a photo and have the AI provide additional descriptors of it. Again, it has the ability for me to modify what the camera can and can't see in order to enhance, enhance something that I might not see. Beyond that, I do have tools that I use for the school work that I do, as well as for my own enjoyment, included with that, I use an application called Bookshare in order to access all of my textbooks, because virtually all of my textbooks are available through Bookshare, which not only makes them intensive free, it also provides the ability for me to have the content of the textbooks read aloud to me, rather than to have me read it. And yet, at the same point, it will track along what is reading aloud, so that if I wish to follow along, or if I need to pause it to make certain that I'm understanding what it said, then I can pause it long enough and do a rewind if I need to, or highlight what's been read aloud to me. And then I also use BARD Mobile, which are the tools that are available by the NLS, or National Library Service of the Library of Congress to not only access, in some cases, textbooks, but for the most part, that's what allows me to read for enjoyment. Rather than reading a book, I can listen to a book and have it narrated to me. Awesome.

Teddy Maiorca

Thanks for sharing all those with me. And I'm curious about a particular couple of them. You mentioned seeing AI and and be my eyes and in the interviews that I've done, you know these, those two specifically come up quite often. And so I'm interested in in your experience with with each of them individually, but but also how you compare them against each other.

Eric Boklage

Okay? Well, with full disclosure, I teach people how to use them. So I not only have used them myself, but I also teach others the different use cases and scenarios where they can come in handy and how they might be able to be used, and how they can, if you will, modify the settings to optimize their own personal usage of them. If I start with one, seeing AI first. That's a Microsoft product. Microsoft considers it to be still a work in progress. And of the I think there's something like nine or 10 channels, is the term that they use for it, or different tasks that the app will do. There are a good handful of them that are active, and there are others that are still in beta and actively going through modification. It is a really versatile tool in that in one tool, you can do a number of different things. And I don't know how much of this you want me to go into Teddy but I am going to start down a path and interrupt me if I go down too

Teddy Maiorca

far. No, I appreciate it.

Eric Boklage

Okay, so it typically defaults to a short text channel in which, whatever you point the camera of your phone at, it will read aloud. So if, for example, somebody's checking the mail that they just got out of their mailbox, they can use that app to quickly read whatever is on the front of the envelope so that they can sort the mail. This goes to my husband. This goes to my wife, this goes to my son, whatever the case might be. They can also identify who the sender is, and other basic information that's from the front of the envelope. If someone has left them a note, they can use

the app to make sure that it reads the note any kind of short text like that. It can even read what appears as text on the front of an appliance or something of that nature, and it will just read it aloud to you, and it doesn't capture it in a photo. It just begins reading it. One fault of that is that it brings in everything that the camera sees. So you might be moving your phone around and anything that's in print form that's going to start reading it a lot, whether you're in the privacy or at home or outside, it doesn't matter. The next one is a document reader where, let's say you continuing that use case of you got the mail and you got a letter, and you want to know what's in the letter. So if you open up the letter and you flatten it out on the page, on the table or whatever, then you can use the document reader portion, and it will guide you through centering document. Four Corners aren't seen, move to the left or something along that line to where you can actually center the document. And then it will snap a picture. It'll make a little musical note in the background while it's processing it. And then it takes whatever it read and it retranscribes it onto the screen. And it does that in if you will, like uniform, larger text, you can then control size the text and the way it's presented, dark mode or reverse contrast or whatever. But it will also read that out to you as an OCR reader, optical character recognition reader, which is great because then if you have a letter that's been typed out and it's in a font that is difficult for you to read or challenging for you to read, then you've got it there in front of you end up being read aloud to you. It also has another channel that is a currency reader, so if you happen to be someone in the US, our currency, our bill, currency, is all the same size, and it's in many ways the same colors. More recent bills, there might be some color variations, but for the most part, it's not easily identifiable by someone who's low vision. So if you use the currency channel, it will literally use it over and hold the phone or the cameras over the top of the currency. It'll read to you what that currency is, and you can differentiate it. And within the privacy or on home, you can sort your bills, and then you can do whatever you do to keep your bills straight when they're in your wallet, which part of what we teach people to do is to fold those denominations in different ways, so that they know that a bill folded a certain way is a certain denomination, and that way, when they're getting into their wallets while they're out and about shopping, they have greater confidence that they're pulling out the right denominations when they need it. There is also a person recognizer, where you can if you will save photos of individuals, and it will identify when that person is around you. It will tell you in a crowded space, how many people are around you, and if you have any of those individuals saved, it will tell you whether or not that individual is in the group and where that individual is, because you're scanning with the phone. And once it identifies someone while you're pointing at them, it'll tell you there's Teddy for example, there are scene descriptors that helps facilitate the description of the scene and things of that nature. For me, the biggest component of it that's good is that the day to day tasks, like checking mail, checking correspondence, anything of that nature, the other way that I've heard of it being used, but I've not done it myself. If you have a computer screen that's not responding and or a computer graphic that's not responding and you can't see what's on the screen, let's say it's a blue screen of death kind of thing, you can use this app and literally point it at your screen and it'll read to you anything that's displayed on it. And why that's important is that people who use screen reader technology may not be able to to get screen readers don't always work when there's issues and errors like that that are showing up on their computer screen. So this is a way for them to be able to see what what's going on or what is up on the screen. By comparison, Be My Eyes is a tool that started out where you could call somebody to help and they would lend you the benefit of their eyes looking through the camera on your phone. And the way the app is set up, you sign up as either a volunteer to help, or you sign up as someone who may need help, and you identify what language you use and what country you're in. They do that to help identify and match up people with someone who speaks their language and someone who is generally

located in their same part of the world for a lot of different reasons. And mad app is available in a number of different languages throughout the world, but you can literally call a independent, unknown person who has volunteered to donate their eyes to you. It's intended for snippets. I've dropped something where the devil is. I can't seem to find it or trying to pull something out of the refrigerator. You know, somebody can give them a quick snippet of ice. It's not intended for somebody to read your mail to you, but it is intended that I need to quickly settle here. Or, you know, does this shirt match with this pair of slacks? I'm not getting the right information. And that's another channel that's available on the seeing AI as a color identifier. There's also a daylight or darkness identifier, where, depending upon how bright the light is, it changes tone. So someone who is completely blind can know whether the lights are on, for example, or what time of day it generally is as far as daylight outside, but be my eyes had also been augmented. I think it was two years ago or last year, in 23 early 23 to have an AI component to it, and that allows you to then make a photo with the app, and then it gives you an AI description of whatever you've made the photo of which is great, because sometimes you don't necessarily want to bother somebody else, but you do want to have the scene described to you, so that you can use that. And it now has the ability with the AI for you to ask him questions, so it might give you a description, but then you can ask it a more in-depth question. I did that once, not too long ago, where I took a photo of I was out for a walk, and it was on the sidewalk, and the app informed me there was a bird in the photo. And just for understanding purposes and trying to better understand the way the app worked. I asked the app what kind of bird, and it came right out and told me that because of the angle of the bird facing away, it couldn't give me a better description. Isn't just that a great bird. The other component about the Be My Eyes app that I have taught people to use it as actually quite good is it's I want to make sure that I'm using the right terminology here, so bear with me one second. It is called a service directory. And that service directory that all these apps are free, but the service directory is such that people who need to have help with something have a really hard time, especially if they have low vision at their point, have a hard time, necessarily, following along and going through all the prompts to get to customer service. And then when they do get customer service, it's, you know, a tenuous and arduous task to try to explain to somebody like, I'm blind or I can't see well, and this is what I'm trying to do. And if that person doing the customer service hasn't been trained in how to interact with those who are blind or low vision, then it can be a difficult conversation. If you can get your old prompts to get ahold of the money. Well, the way that seeing AI funds itself is that it has contracts with various organizations around the world, such as banks, assistive technology organizations, service organizations, travel companies, hotels, airlines, etc, different types of entities that people with visual impairments may need to interact with and their customer service desk, where people have been trained to provide services to those who are visually impaired, you can directly reach them. You can bypass all of the Q and A's and bypass all of the phone queues and get directly to those parties, because once you've identified the entity that you're trying to reach, it makes the call for you and connects you directly into that customer service group that is trained to deal with those of us with visual appearance. An example use case is I need to get a hold of my bank. Let's say it's Chase Bank, so I can go out under the app, I can go into banking institutions, read down the list using VoiceOver to get to chase bank, and then it will contact Chase Bank. And it will contact Chase Bank, specifically at the customer service desk for people who are trained to deal with those with visual impairments. You can also, because it's a list of hundreds of different organizations, it's been curated by type, so banks are separate from assistive technology organizations are separate from travel organizations, etc. But then you can go through and you can identify the ones that are your favorites. And then once you've created your favorites list, then you don't have to go sorting through the full list of a

couple of 100 of them, which is constantly growing. You only have to go to your Favorites list in order to find the one that you're looking for. So to me, that's a phenomenal benefit. Both of those apps have the ability for you to set up shortcuts both Be My Eyes, as well as Seeing AI, have the ability for you to set up Siri shortcuts, if we use Apple products, so that literally have to open the app, you'll do it. You can literally point your phone at something and say, for example, identify currency, and that Siri vocal command will automatically open up. Seeing AI will open up the currency identifier, and it will tell you what the nomination of currency it is awesome. Wow.

Teddy Maiorca

Thank you so much for your your really, your in depth knowledge of both of these. I really, really am thankful to hear, hear your perspective on these. And really cool to hear about those, those contracts that seeing AI has with those different organizations, that's, it's good, good that those exist and and glad that it has those, those features.

Eric Boklage

Well, one of the things that we do here at second sense, is, and we recently started doing this, is that we have, and I have done this, I put together a seminar of once a week, we'll do apps, you should know, and I'll do early a half an hour, type of overview of a couple of different key apps that people with visual impairments can really use as tools. And those are two of those asks and then answer questions for people about because those are those are the kind of tools that we really think people ought to know about, and they benefit those who have no vision, because they can use VoiceOver on their cell phones or their iPads in order to work their way through the tools, or if they do have some vision, but that vision is compromised in one way or another, then the apps can help fill in and address any of those compromised capabilities.

Teddy Maiorca

Gotcha, yeah, that makes, makes a lot of sense. Well, shifting away from tools and again. Thanks so much for all that, all that info. Super great. I'm curious. We touched on it a little bit earlier with the use, your use, in particular, of of your your laptop and iPad and phone, but anything that you use, in particular when web browsing, to aid in your browsing in the web. Or really, are you just using the built in tools on your laptop and on your Apple devices?

Eric Boklage

I'm using the built in tools on the devices there is. There's an extension that I use on both my iPad and my iPhone that makes Safari dark mode all the time, called nor in the French pronunciation, N, O, I, R, and it allows, if you will. So even though the phone has the ability to make things dark mode, if you're opening up something through the web browser, the web pages themselves can be bright, right? So what this extension does is allow you to make the mobile devices go into dark mode at your discretion, similar to the way that an extension on a Windows computer will allow you to change your web browser on the computer into dark mode regardless of the way that the page was designed.

Teddy Maiorca

Gotcha. Gotcha. That makes sense. Okay, so

Eric Boklage

there's that, that kind of a tool that I use for the web browsing I am able to still read visually, but I am learning how to use screen readers, and enough learning about them, enough that I teach people how to use them. And screen readers are, if you will, assistive technology software that basically translates text to speech. They exist for Windows computers, Apple computers, Apple mobile devices, even for Android mobile devices. And those tools allow for any of the text that's being displayed on your computer, regardless whether it's a web page or a Word document or an Excel file or what have you, or even your email, it will take that text and translate it to speech in order to provide that information audibly to you So it is available. And there are times when I switch to do that, I get a document in that I'm being asked to read as a part of, for example, my grad student courses, and it's a lengthy document, or it's an Uber small font and a PDF. As long as that's an accessible PDF, then I can tire up jobs and read it aloud to me. Jaws is the PDF. Jaws is the stream reader technology made by Freedom Scientific or use with Windows PCs, I could also fire up NVDA, which is a completely free stream reader technology that provides the same sort of screen reader functionality, and then on my iPhone or my iPad, if I'm doing a similar thing, then I can use the software that's inherent with the Apple devices, called VoiceOver, which acts as a screen reader as well, to help facilitate my being able to read those documents. I'm I'm

Teddy Maiorca

curious in your use of of the screen readers, have you come across any images or or, you know, any kind of graphic documents on web pages or wherever, with the screen reader? And if you have come across those, I'm curious what that experience

Eric Boklage

was like. I obviously I have, because those things on the web are very graphically oriented. And what generally occurs, because there's a very inconsistent development of web pages, is that sometimes there is alt text, if you will, under textual descriptions of those images, and sometimes it's not there. And if it's not there, then you don't get very good information, and you don't know what it is. In my case, I happen to have enough vision usually, that I can see it. But if I'm using the screen reader and working my way through something, then it is, how do I want to say this is lacking? To say the least it is to say the least it is lacking. Because what? How do I want to say this The translation of an image, there's this age old saying a picture paints 1000 words, and nobody wants to write those 1000 words. And in addition to that, most people don't think about the fact that they need to put in a description to go with those graphical images, and that's true whether it's a PowerPoint slide that happens to have a chart on it, or whether it's literally a chart that you might see in a newspaper clipping or a newspaper article. And if they do put in a description, they might say, this is a chart of the population since 1900 but it doesn't give you an indication of how. How does that chart represent a change in the graphical line over time from 1900 to now to 2024 and what is that progression of that line? And where are the blips? And what have you which someone with eyes can see someone without eyes would need to have a much more robust description than just this is a chart of the population across the x axis since 1900

Teddy Maiorca

to use that example, yeah, absolutely. To get to give a bit of background on my research. Specifically, I was an undergrad at the journalism school at the University of Missouri, and began taking classes to specialize in in data journalism, so lots of maps and charts and all types of infographics. And in those classes, it touched on all text, but, you know, it was really just that,

like, you know, when, when applicable, make sure to put in the description. And I, you know, I was like, this doesn't really seem to be this doesn't really seem to be a good solution. And not only is it not a good solution, but the whole purpose of these charts is, like you say to to paint 1000 words, right, and make it easier that to understand than just a block of text. But all text is almost like two steps back from that step forward. And so I, you know, I, I'm, this is definitely the stuff that I, I'm interested in in here. And so thanks for sharing that with me. You know, it's a lot of it's interesting to hear that that, you know, you have that experience too, especially with the charts, that even when there is alt text, it isn't great. So I guess you know my question leading out of this, then is, in your experience with the screen readers, when you come across images or charts or what have you, how often is there alt text, if you could ballpark it, and then you know, in a similar ballpark, how often is that alt text sufficient.

Eric Boklage

In my former data analytics world, we would have called this a wag. That's an acronym. I'll let you figure out first words wild and the last word to guess, and that that wag is that it's going to be maybe 20 to 25% of the time there will be alt text. It really is contextual in that depending upon what it is that I'm looking at, if I'm looking at something that is related to my vision, rehab, related studies and things of that nature, that number is going to be a lot higher. It's going to be closer. The people who are in that field or in that discipline are going to be more conscientious about putting it in. If you're looking at something like, let's say, The Wall Street Journal, New York Times, or anything along that line, where it's a general publication for the masses, then it's going to be a lot lower, okay, because their audience isn't the visually impaired, or isn't likely to be visually impaired, whatever alt text is there. And once again, this has a contextual nature to it too. If I'm looking at something that is a part of the framework of revision rehab studies, it's much more likely that that alt text has some relevance and is reasonably insightful, but it's not going to be in depth purely because you can't take the 1000 words, because the whole point is with an alt text description, you want to one just hit the highlights and not give them every single data point. For example, in the case of something that might be out there on general news site, is going to be the quality of that alt text is going to be extremely limited.

Teddy Maiorca

Sure. Yeah, that makes a lot of sense, and tracks with you know, what I've been seeing in my research as well. So thanks for sharing that I'm, you know, one more question on the back of that is, when you do come across something like a chart in the New York Times say, or something of a like, Are there alternatives, you know, to, oh, this chart has no alt text, and screen readers haven't told it. Is there an alternative, or is that really kind of where, the where the where the road ends?

Eric Boklage

Well, I haven't tried this yet, but I have an idea, sure, and that idea is using the seat of the Be My Eyes, be my AI function, because, in my experience, those descriptions are more robust than is the description that you would get from a scene on seeing AI. Okay, so because of the greater robustness of the descriptions, using the be my AI descriptor. If you use that app and were able to get it to focus specifically on a chart, I would be interested to see how that AI tool might describe that chart and provide, in essence, a better description than alt text Gotcha. And what that would also lead me to do is to pose the question in a hypothetical way of why can't they take one way to me, a good use of an AI tool would be to apply it in the generation of alt text in a way that can create those quote 1000 words, but to do so succinctly. Gotcha. Thank you.

Teddy Maiorca

Now, quickly pivoting, Eric, I'm interested in your news habits. Could you just share with me? You know, how do you get the news? What are the places and the mediums through which you get the news, whether it's on a daily or a weekly basis, or whatever it looks like for you? Okay,

Eric Boklage

I have electronic subscriptions to both the Chicago Tribune and New York Times, and in both cases, well, in case of the Chicago Tribune, that's a page by page, Electronic Imagery of it that I can read using my iPad or scan using my iPad. I could use my computer too, but my day to day preference is to use the iPad just for comfort. I can sit on the couch, and I think I also have in the case of the New York Times, it is a daily news summary that I get, which, when I find something that I want to go into further detail on, I can go to the app, and I surely read that detail story. In the case of both of those journals, journals and publications, I get emails once a day that have headlines separate from that. I also use apps for news organizations like ucna as an example to be able to provide a different take on the news of the day. I also have apps on my phone for several other news organizations that if I wish to go to and to look at, I can and that would include ESPN for sports news. I'd like to follow NFL, for example, the BBC for some international news. I also have at and Reuters, so that if something really draws my attention and it's something that I want to see, if there's a different take on it, then I can go to those respective news sites and their respective apps to look for it. And I tend to do that on the iPad because it's larger rather than my phone, but it is an interface that I can control. I can use the pinch and reverse pinch mode if I need to change how something is displayed, and I can also listen to it the voiceover, if I wish to well separate from that. Go ahead.

Teddy Maiorca

No, please continue. Sorry to interrupt you.

Eric Boklage

The only other thing is that I have recently acquired access to the NFB Newslines, in which it has the ability for you to choose multiple news sites and to get that news transcribed into just a verbal form. There's no photographic or graphical content. It's just the words and nothing but the words, but the end of the news line is available and reads aloud to me so that if I want to hear a story that way, I can have it read about

Teddy Maiorca

Gotcha. Well, thanks for sharing all that with me, and I must, as a journalism major myself, tip my hat to you on your your incredibly diverse news diet, Eric, I love it. Love to hear.

Eric Boklage

I gotta tell you, we've become quite entrenched and biased in this country in particular, from certain sites that are are very biased in one way or another. One of the best charts that I saw during the pandemic was one that had a graphical chart. Towards the left was the more left wing organizations, and towards the right was the more right wing organizations. And then it went down according to the different types of news site, whether it was a newspaper, magazine, television news, etc, and it plotted which ones tended to be, if you will, more liberal or more conservative in the presentation of the news, which, to me, very insightful thing, because I always thought journalism was supposed to be balanced,

Teddy Maiorca

right? It's, it's, it's one of those things that seems to be becoming more and more unbalanced every every year, right? But, but, but totally. You know, a diverse news diet is great. It is important in this day, but I'm interested it's in in your news intake. Do you have any accessibility issues, or are you able to access everything as you as you need with these news apps and in the different websites that you have?

Eric Boklage

I'm fortunate that I still have the central vision that I have. So even though I can't read, for example, I can't sit down and read a novel. It's a paper novel. I don't have the ability to sit down and read for an hour or two. And most news stories are snippet news, if you will. They're not quite sound bites, but they're stories that might be five minute reads or 10 minute reads, and because of that, I generally have access to what I need to I also am aware enough of my situation that when I start having issues, I put it down, walk away, and then I go back to it later. So I have to say that I'm very fortunate I don't have the kind of limitations that I know that others do have gotcha

Teddy Maiorca

Well, well, thanks for sharing that with me and and to Eric, thank you for for the work that you do. It really sounds like you do important, important and amazing work with second sense and in your in your study. So thank you for what you're doing.

Eric Boklage

Thank you. I do it because I enjoy it.

Teddy Maiorca

It's wonderful, and it's, and that's, and that's important. You know, I got one more question for you. Thank you so much again for your time today. And I know I've gone just a little bit over my my promise 30 to 45 minutes, but thank you for bearing with me. My last question for you is, what should be the priorities of web developers, app developers, you know, in accessibility tools, things that are missing in this day and age, and what you know, what's the, what's the top thing that should be focused on?

Eric Boklage

Okay, are you familiar with a concept called universal design?

Teddy Maiorca

I sure am. Yes.

Eric Boklage

Okay, so in my opinion, people don't do universal design because it isn't the, if you will, bottom line, profitable, economical thing to do. They do things first to get it to market and get it out there, and then the ability for, if you will, diverse populations to be able to absorb it, such as those who are who have visual impairments, is an afterthought. And to me, websites and web development and things of that nature ought to have universal design as their core, and they ought to be thinking about it in terms of, let's put it out there in the way that everybody can observe it and read it. Universal Design has proved over and over and over and over again that

the masses benefit from the things that they put into Universal Design, rather than just, if you will, the subset population that they may have originally intended to be for. So while I'm on my show box, I would say that universal design should be a, if you will, a requirement, and should somehow be, if you will, something that is thought of as I'm not doing it because I'm having to be compliant, but I'm doing it because I want everybody to be able to read it, or to be able to have access to it. But I'm too much of a realist to think that that's possible. But if I had, if I'm on that show box, and I had the ability to guide people in the path that they ought to go down, I would say that they should incorporate universal design and their websites. I have, I have worked with clients who were college students who went to their college website in order to be able to access their schedule or to access enrollment. And those websites were not marked or identified in a way that a screen reader would be able to find the category called enrollment or even the class schedule. And then they've gone to the accessibility office and they've asked us students who use JAWS, and the response is, we don't care what kind of note taking software our students use which Jaws is not a note taking software. But that's an indication that the disability office themselves didn't even know what the tool was and how it was going to be used, or how could these so there's a lack of awareness, and there is a lack of access that results from that.

Teddy Maiorca

Yeah, there certainly is. I'm right there with you on universal design. It's one of the universal design theories. Is one of the pillars this whole research project I'm doing is built on. So that's like, I said, I'm right there with you, and there's so there's so much, there's so many times, right? You know, it's like, shouldn't you want, if you're a designer of a website or an app, it's like, don't you want everybody to be able to use this? But, right? Like you said, oftentimes it's not the the foundation of of profitability, right? But, but thank you so much for your thoughtful answers, Eric and and you really your insights were fantastic. I really appreciate your time this morning and for sitting down with me.

Eric Boklage

You're welcome. And Teddy, good luck with the project and or the assignment that you're working on, and good luck with your studies in general.

Teddy Maiorca

Thank you very much. And you too. Good luck. and wishing you the best, Eric, thank you so much.

Eric Boklage

Take care. You too.

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Interview 6: Ian Guendry

Bio – Ian Guendry is a 36-year-old digital accessibility consultant at Pfizer. He is located in Denver and is legally blind with 20/200 vision, which he has been dealing with since birth.

Teddy Maiorca

If you could just tell me your name and spell it for me

Ian Guendry

Ian Guidry, I A, N, G, U, E, N, D, R, Y,

Teddy Maiorca

all right. And where are you located in

Ian Guendry

I'm in Denver.

Teddy Maiorca

great. And what do you do?

Ian Guendry

I work in digital accessibility.

Teddy Maiorca

awesome. And could you tell me how old you are

Ian Guendry

36

Teddy Maiorca

All right. And could you tell me what level of visual impairment you have

Ian Guendry

I am legally blind, with the ratio of 20 over 200

Teddy Maiorca

Gotcha. And how long have you been dealing this?

Ian Guendry

since birth

Teddy Maiorca

Well, those, those intro questions are out of the way, so I'm just interested in in day to day, what kind of tools do you use when using different devices or anything like that?

Ian Guendry

Depends on what I'm doing. But for the most part, it could be for myself, mostly tools that are high magnification, high zoom, color inversion to like a dark mode, or different types of colors depending on the content, like a screen reader, voiceover, narrator, type thing, gotcha.

Teddy Maiorca

And so it sounds like the tools do vary by device. But could you tell me? Could you elaborate a little bit more on when you change devices, what you use where?

Ian Guendry

Yeah, so mobile is just mostly zoom, color contrast, computer with the zoom and the color contrast, but also, I do use the screen reader for web computer based stuff..

Teddy Maiorca

So it sounds like you are using a screen reader on the web,

Ian Guendry

yeah, some personal and some professional for some of the testing and auditing that I do.

Teddy Maiorca

so I'm interested, you know, I'm sure that when you do use, use a screen reader, you've come across alt text in some kind of a format behind images. I'm interested what your experience with that has been like, you know, the effectiveness of it, and also how often you see alt text being used.

Ian Guendry

That's probably like, the highest thing you'll see that often gets missed. But also, I mean, I have some vision, so I can, kind of, I can see some of his images, and I can see where, if it's the alt text given is actually descriptive enough, or if it's could purely just be decorative. But oftentimes I feel like, you know, it's, if it's concise enough, it should convey enough, as long as it's not like, there's no, you know, marginal or, like, fractional type information that's in the image that's not being conveyed. It's like percentages, or, you know, like an actual piece of fact, like a text over image.

Teddy Maiorca

I gotcha. I'm curious. You mentioned that that's kind of one of the things that's most missed. But I'm curious, what other, what other kind of challenges you faced in using screen readers.

Ian Guendry

You see a lot of times where they're like the improper heading structure. So if you're navigating a page on screen reader, heading structure is like one through six, and depending on the titles, need to be properly tagged. So that's fair. You could go from title to title, you see kind of a lot of MIS orders, or the hierarchy being skipped is a big one

Teddy Maiorca

Gotcha. And in just kind of my research, something I came across when I've been using screen readers, is auto play video. I wonder if that's something that you know, you've seen that's that's become a problem occasionally, or if it's not really something that affects you

Ian Guendry

very much, as far as like, the video automatically playing once you come on the page, exactly right? Yeah, that's definitely prevalent. It's got a lot better, I feel like, over the years, our strategy stricter guidelines and most native and built in audio players. It's simple to just once you deploy it to turn that off, but it depends on kind of back to the alt text. Is it an informational video, or is it like a decorative GIF or just some sort of animation? So I guess kind of diluted on where that autoplay should be, but it's, I don't see it too too much in the work that I do, but it definitely is a problem, because it's you have to navigate to it once you get onto the page, and it's makes it kind of like a clunky experience. Sure,

Teddy Maiorca

I'm interested how long you've been doing the work that you have doing in digital accessibility.

Ian Guendry

I've been doing this work for about three years. As far as, like the digital accessibility specialist, but I've worked for other blind organizations, and I've been around the technology for like, 20 years or so. Gotcha from a school age, sure. So

Teddy Maiorca

you've kind of seen it develop, then, would you say,

Ian Guendry

yeah, definitely develop. And then how it's kind of like, just the last few years, it's really starting to be prominent, and a lot more changes.

Teddy Maiorca

And could you elaborate on that? Just the growth of the last few years, and what, what those changes are

Ian Guendry

starting to see, more amendments to like the ADA and 504, if I wait, bigger adaptations from Department of Justice has put a lot of emphasis on like the education arena, as far as compliancy with and audio books and just the push for online learning. Certain states are passing House bills that require their public facing state websites to be accessible, or you know, penalties for the counties and organizations that don't meet the compliance as that'll probably be federal at some point to sectors like the health department, Health Human Services, have just rolled out new guidelines. And then there's global push for it's the EAA. The European Accessibility Act is making there be compliance across the entire EU, starting next year, with five years for all countries to be compliant.

Teddy Maiorca

Gotcha. Wow,

Ian Guendry

a lot of that new stuff is kind of just coming down. And, you know, it started to be like a focal point, cool.

Teddy Maiorca

I'm glad to hear that. But I'm interested, too, in, you know, the way the technology itself has developed over, really, over the 20 years that you've been working on it, but, but especially recently, if you could speak to that

Ian Guendry

yeah, the technology is always, it's been there. It just has the sites and apps built for it to be functional, which has been like the biggest change. And then, of course, with everything going mobile, you know, 1015, years ago, all the built in technology with an Apple and Android, as far as, like talkback features and narrator, those have been some pre instrumental things that have

been the biggest, like the last little bit that seemed to get the most use of the most bang for the buck, as far as individual user being able to set their own accessibility feedbacks on their personal devices.

Teddy Maiorca

interesting about that switch to mobile.

Ian Guendry

Yeah, 90% of interactions now are pretty much mobile. You know, the web is almost not dead, but it's like most people live on your phone to get most of your information right?

Teddy Maiorca

Yeah, absolutely. When you say websites that are adhering to the guidelines for screen readers and whatnot, are you referring to WCAG?

Ian Guendry

Exactly. Yeah, that's kind of the universal, you know, the set of standards that even US, US standards go the whole European standard. They're all based off of those, those wicked guidelines, gotcha.

Teddy Maiorca

And, you know, obviously, I'm sure there's, there's no, like, solid number that there is that you have to go off of, but if you could, like ballpark, you know, the number of websites that are now adhering to those guidelines and more functional with screen readers compared to, you know, years ago. You know, you give your best estimate, what do you think it's looking like today?

Ian Guendry

I mean, I saw a report not that long ago, and it's still like, I think 90% of the top 100,000 websites still have some sort of accessibility issue, it's still pretty high. Like, as far there's not much that's like, 100%

Teddy Maiorca

Yeah, yeah. And in a lot of my other previous interviews, I've heard that really, like, the only ones that are truly accessible are a lot of, you know, nonprofits or, you know, not even a lot of government websites are even 100%

Ian Guendry

Right. It's for the people trying to push the program at the accessible sites. Everything else isn't really up to snuff.

Teddy Maiorca

And when you know, when you say that 90% have at least, like, one shortcoming, what would you say is, the most is the most common in your experience? Thing to come across? I know you mentioned, you know, the kind of image, alt text, that is there anything else that stands out?

Ian Guendry

yeah, that's like, so that's like, it's low hanging fruit. In terms of, it is an infraction. It doesn't meet the WCAG guidelines, but it's not like a blocker. So it doesn't have, it doesn't have a blockers where someone couldn't access the information or complete the service. The bigger ones you'll find are sites that don't have, like, the keyboard access. So then there's, you know, screen reader users, you have, you know, all sorts of other disabilities play into people who just secure your screen readers. You know, whether it's mobility, you know, any type of really disability that could deal with, you know, simply down arthritis, the amputees, anything like that, kind of affects like keyboard access, sure.

Teddy Maiorca

So I'm curious, you know, we talked kind of about the tools that you're using, like color contrast and voiceover screen readers, all that kind of thing. Are there any other tools that you use, whether for, for web browsing or for, for, you know, text assistance, anything like that.

Ian Guendry

You know, it really depends on how lazy I am and how much information I need to digest. You know, I can use I use talk to text or like a narrator, to read an email. I even use AI stuff to summarize emails and Word docs and stuff like that. So I find that super helpful, even from assistive technology standpoint, it makes it a lot easier than just going through something with a screen reader. Yeah, totally.

Teddy Maiorca

What kind of, what kind of AI tools do you use for that kind of stuff?

Ian Guendry

Just co pilot,

Teddy Maiorca

another thing that I've kind of heard in some of these interviews is that there's been a rise of AI tools, particularly, particularly for visual accessibility, any of those that you've even if you don't use them that you've heard of or have experience with.

Ian Guendry

Yeah, I've been in some seminars on some training, and there's the things like the Be My Eyes. There's another one that Aria or something, but it's similar in terms of just like directions and geo fencing of where you are, and helping you, helping, like blind users get around and stuff like that. That's like an up and coming thing that's super helpful.

Teddy Maiorca

Do you think that, you know, just a personal level, you think those AI, things are only going to increase, or any effectiveness will be, you know, good enough?

Ian Guendry

Yeah, certainly. I mean, everything is so accessible now. I mean, think of like a user who's sighted and could use Google Maps fine, like for directions or ways, or something like that, once that's all integrated and the proper fencing and tagging is in there that a black person could, in theory, get around, you know, with the same ease. So it's definitely got high potential,

Teddy Maiorca

sure, and outside of just to all the quality of accessibility, of accessibility tools, generally, like thinking about that, you know outside of kind of screen readers. Are there any challenges or challenges or specific shortcomings that you think those have

Ian Guendry

for some folks, a lot of it is like actual training. Just, you know, if you're not by a facility who offers installation training, it could be, yeah, you can get training online, but, you know, folks have trouble getting their machine set up. You kind of find that to be a blocker. But outside of that, like the training and the use of it is all that's got a lot better with the use of everything, kind of being online. Okay,

Teddy Maiorca

thank you. So I'm curious to shift to news now, a little bit like I said, that's kind of a the backbone of my project, specifically. And and to just give some more preface, a lot of what I'm totally what I'm interested in on the very granular side of things, is, like infographics. So you know, charts, maps, that kind of a thing, and the accessibility of those in digital news, just to use the background, but, but to start, I'm interested in the ways that you be your name. Specifically

Ian Guendry

for me, it's, you know, it's day, sometimes in the morning, just local news, and then just from my phone, news sources on air as reading stuff at hot magnification, or turn it on the voiceover to listen articles and then streaming podcast. Type stuff,

Teddy Maiorca

nice. And you know, any would you say, you know, when comparing the the accessibility of local or national news, any differences you see there.

Ian Guendry

It really just depends on, you know, what, what content you're kind of concerned, like, how you're consuming it. I would say it kind of goes back to you saying about infographics and maps and everything it's like, if you can get a good enough audio description of that, you know, from an auditory standpoint, then you don't need to it. Doesn't need to see it. But it really depends on kind of, like, what you're consuming and how you're doing it, sure,

Teddy Maiorca

and with those, you know, with audio descriptions and stuff, do you think that it's more often than not you're getting something like that? Or is it like, you know, almost close to never, that you see an audio description or, you know, an accessibility tool, but that provides some sort of alternate way?

Ian Guendry

Yeah, not enough. Unfortunately, it's often overlooked, because a lot of these embedded media players have the functionality in there, like you can whether it's just publishing your transcripts, having the closed captions on, creating, you know, audio descriptions from like the track that's in there there, that's often not turned on, kind of, you'd really, you don't necessarily see it some sort of alternate form of media, if it's a video or, like an audio file

Teddy Maiorca

Yeah. And that can be a problem, you know, just that's kind of at that point where, you know, the website's accessible, But the content on it is kind of blocked

Ian Guendry

yeah, and then with, you know, with media, it's never, it's not stagnating, so it's always changing and updating. And so the biggest thing is like, like, the back end componentry has to be properly set up in order for you to always, once you upload an article or a video, it should just automatically get, you know, dubbed with titles and captions and audio description,

Teddy Maiorca

yeah, right, which, you know, just really, really, just not happen near as much as it really should.

Ian Guendry

it's there. That's the issue. It's just, it's dependent on what you know they're using. It takes a couple bucks more here and there, but you know, it does give you a much wider audience.

Teddy Maiorca

When you say a couple bucks more in there, what do you mean?

Ian Guendry

relative to whoever's creating the content of say, what your embedded media player is, you have to pay a higher subscription fee, monthly or annually to get those services, but they're often overlooked due to the cost, or they're not sure what the cost is justified, or what's gonna provide.

Teddy Maiorca

Gotcha, yeah, I totally know what you're saying. Thanks for elaborating on that. I'm interested in how your news consumption, and you know where you go for news, in terms of, like, you know, podcast, TV, newspaper, websites, all that kind of thing. How would that change over time?

Ian Guendry

I feel like a "suggested reads" that's probably, like, the biggest thing you see, kind of get pigeonholed into your algorithms. That's probably, I think I'd say, the biggest thing. But as far as getting the work where we're getting them, it'd be like, you know, just if it's the Amazon or it's Spotify different news followings, but again, it's all kind of, it just gets tailored to you. So that's what I feel like it's been the biggest change I've noticed is, yeah, it's a little harder to discover something once you're getting fed certain avenues of news.

Teddy Maiorca

Yeah, yeah. From an accessibility standpoint, has that, you know, change is that, you know, brought up more issues or less or really, kind of just sustain the same.

Ian Guendry

think it's the same. I mean, if you want something, you can find it. But if, often times you're just looking for updates, it's gonna it tends to be geared to what you're looking for. And then you'll see, like, preferred ads and everything like that. So that's, I feel like that's kind of the biggest change outlets to get whatever size you want. But, you know, it's hard to get much deviation once that's all you look at.

Teddy Maiorca

Totally, totally. So digging into a little bit more of the infographics side that I mentioned a few minutes ago. You know, have you engaged with with trucks and infographics when you know you're consuming the news, and if so, could you just kind of tell me about about those times?

Ian Guendry

Yeah, those can be tricky, depending on how complex they are and how interactive they are, but it just if you have infographics and charts and there's alt text or an image description, it's it's usually fine and easy to interact with. It's the maps that tend to be the biggest issue, I would say.

Teddy Maiorca

And and with the maps specifically like, what? What more you know, what specific issues are you finding with those maps?

Ian Guendry

You run into just how interactive they are, whether it's with keyboard SS, if it just has hover focus, if you're you know, there's sliders that those type of things can be super inaccessible. So then, kind of you miss out on a lot of information, if that information isn't provided below in a table or an accordion or some sort of alternate media

Teddy Maiorca

Gotcha. And is there, you know, other than providing information in some kind of a table or something like that, you know any other ways that those can be made to be more accessible? You think

Ian Guendry

it depends on the elements, like if a screen reader can get inside of the infographic or the map or just charts, they're there, but it just depends on the index. There's user input that you can put into, it's adjusted.

Teddy Maiorca

And I'm sure that those are, there's a screen reader, like, often miss on those kind of things, like a zoom feature, or, you know, click, right, yeah.

Ian Guendry

sometimes they're hidden or, and then say, if you see zoom out, you get like, you see like eight cities in a state, but if you zoom in so it shows, like, every county and everything like that, that you won't get inside of a screen reader totally.

Teddy Maiorca

And you know, you mentioned that with other kinds of infographics, other than maps. You know, oftentimes, if there's good enough alt text or image description, you know, you can get by. But do you think, like in your experience with the news, when you come across those charts and graphics and whatnot. More often than not, do they have satisfactory image descriptions, if they have image image district descriptions at all, or is it kind of one of those things that's like, you know, that's, that's one of the places that the news is really struggling to be accessible.

Ian Guendry

think it gets missed, and then it just depends on, I mean, every screen reader person is going to really give you something different. But it's like, what it's trying to consume and what way and a standard for all Texas you like, you know, 150 characters. It's like, could you convey that for, like, a, you know, an image of a campaign rally, or something like that, or if it's just one, one static image of one person. So there's just so much interpretation to it, but oftentimes, yeah, it kind of kind of gets missed. But then some folks don't even look at images with the expectation they can get it from the content itself, right? And that's another differentiation. If you could just maybe mark it as decorative and it's not really providing any context to the article, then that's also super helpful too, because you can just bypass it and go straight to the content, instead of saying, like, if

Teddy Maiorca

it is a decorative image, but it's not as such. You know, would you say that sometimes, using a screen reader, you might interact with it and try to figure it out. Try to figure out what you know, what behind it, even though there's nothing there.

Ian Guendry

Exactly. And if it's like, it's news that you're going for. Then, you know, if you just hear decorative image, it's going to often be like, okay, cool. I don't need to know image, but I want to find the information and the title, like the heading, gotcha interesting. So, so just like, what's trying to be consumed. You know, if someone's kind of plan a vacation, they may want more descriptive politics, but if they're getting local news or national news, decorative image of the White House, then they can kind of pop into the article.

Teddy Maiorca

Sure, that makes a lot of sense. Ultimately. Do you think that you know the lack of image descriptions on these charts and infographics, and the inaccessibility of these maps, all these issues around infographics, you know? How do you think that that affects the news consumption experience?

Ian Guendry

Probably limits it. For sure, because it also depends on think of a broadcast of someone watching a video. They're speaking about a video that's happening in the background. You're not going to get full if there's an audio description there, you're not going to know what the person's reporting on. So that's kind of there's some context that gets missed there, you know, some reporting on traffic accidents, not just saying where it is or what's happening or how many lanes are blocked. It's kind of that's some of that context that definitely gets lost.

Teddy Maiorca

makes sense. Interesting. Any tools out there, besides screen readers that help with this kind of thing, with image descriptions or things like that that could provide, like an alternative for users.

Ian Guendry

I mean, there are there's Jaws, the screen reader has like a beta program of, like an AI tool that actually will take an image and, like, try and generate a higher level, like alt text. So there's some stuff out there, but it's not like, widely used like at this time, and not like the most effective thing

Teddy Maiorca

Gotcha. You know, any way that the news should be improving on the accessibility of these kind of products, you know, just just media members, other than right, like just a decorative text, any recommendations, best practices that you would recommend

Ian Guendry

Just alternate forms of video, like, if you want to consume its video, you know, having audio descriptions and transcripts, that's really Like, just different, different different ways to consume the same thing and get the same meaning totally, because a lot of it's there. Like I said, it's all built into things. Like YouTube has it just different media players. There's able players, one that's really good. Can also generate sign language. There's getting the muse, getting it initiated, and then having it be put into the processes of publishing is having it in there, which is just from a business standpoint, it should be already in your commit process of if you're gonna publish something that needs to be a checkbox that you have on your description, your alt text, your transcript. Texture transcripts, sure, totally,

Teddy Maiorca

ultimately, the state, current state of digital news sites and the content and the different tools that they have. Do you think that overall, you know it meets your needs specifically

Ian Guendry

for me now, yeah, but my work, unfortunately, makes me look beyond that to see that a lot of audiences get missed Gotcha.

Teddy Maiorca

So, you know, for you, the answer is yes, but just generally, you know, it's totally missing the mark on the whole for accessibility.

Ian Guendry

Yeah, there's definitely some, some people get left out for stuff Gotcha.

Teddy Maiorca

Do you think that an improvement in the tools were made? You know, would kind of encourage more invest, investment, you know, time, investment in you or, you know, like, going to the news more often for folks,

Ian Guendry

as far as, like, if it were better, they could get more traction. Yeah, basically, I think so, yeah, if it's there, if it is consistent, you know, you can't do it once and then it not be done again. So if it's consistent, and it gets a little bit of traction, of traction, and you know, a big thing is helpful is that some of these news media outlets have accessibility statements on a page that kind of says what they're doing, what they recommend to use with their ways of consuming, like, what's the feedback mechanism if someone gets lost and what, you know, what's their recommendation if they have, like, shortcuts, hotkeys, like short college hockey's like, that type of stuff built into their into their sites. Gotcha, you'll see a lot of that, and that's something that a lot of disabled folks or streamer users will look to find accessibility page that says, kind of like, what's native? What are they using? What can I do to help navigate this? Like, what kind of features do they

deploy the videos with? So they kind of get, like, a preliminary look at it before they start trying to dig into it.

Teddy Maiorca

So a couple more questions before we close. And these are just a little bit more like open ended, and less less less black and white, but if you had complete control, right? Like, kind of, you know, could snap your fingers and have, have these, these things be fixed and real. You know, solutions appear. What do you think? Like, the number one most important thing would be, you would, you would first, you know, like, this is the most important thing. Digital news needs to be more accessible.

Ian Guendry

I interesting, just like it being transcribed in a way that it could be consumed, you know, in any manner, like whether it's a video has the transcripts, you know, proper captioning, catch your biggest audience with people just being able to control how to receive it.

Teddy Maiorca

Gotcha, you think in the captions that do exist, like, do you ever come across transcripts that are, like, inaccurate things like that?

Ian Guendry

That's one of the caveats to the AI is, like, you know, it can be 95% accurate by AI, but doesn't get reviewed by a human. And, like, proper spaces or invitations aren't corrected, then come off the screen reader, as you know, not legible. Gotcha.

Teddy Maiorca

And finally, you know, if you could kind of speak to the people behind accessibility, at news media and or like accessibility tool designers, right? Like, what are, what are the top priorities for accessibility as a whole, for visual accessibility, particularly, accessibility in particular, for what should be the top priorities,

Ian Guendry

just like grouping and like finding ways to often get designer developers these huge list of things that are seeing that are inaccessible. And it just it seems daunting at first to fix, but it's like a little better grouping and definition of what it is to fix it and how to fix it, and finding some ways to fix it and hold like batches. And also speaking to, you know, comes down to the design phase, and poor design and, you know, being able to create things accessible at first, and then kind of templatzize all your pages, they're accessible. So when content gets put into them that, you know, it's going to be, you know, almost there, we're just a little bit of checking at the end.

Teddy Maiorca

Gotcha, you know, is there a lot of engagement, you know, with with nonprofits, or whatever, you know, with folks who do have visual impairments? Do you think that there's enough engagement going on, you know, in those design phases, in the developing phases with those communities to make sure that things are actually, you know, working.

Ian Guendry

It's starting to pick up. Now, for sure, a lot of like design tools like figma, have accessibility plans and accessibility annotations you can start to add in there. So it's starting to be, you know, a lot more well thought out in in the design phases.

Teddy Maiorca

Gotcha. Well, I'm glad to hear that and hope it, hope it continues to improve, really, but thank you so much for answering my questions today and for taking the time out today to speak with me. I'm really appreciative.

Ian Guendry

Of course

Teddy Maiorca

Well, take care and thank you. Thanks again. It was, it was great to hear your perspectives and insights. Take care.

Interview 6: Kendal Lyssy

Bio – Kendal Lyssy is a 28-year-old Ph.D student at the University of Missouri. She is located in Columbia, Missouri and is completely blind, which she has been dealing with since birth.

Teddy Maiorca

wonderful, awesome. All right, let me just get us started here. Okay, I think we should be off and going. So I'll start off with some just more easy questions. So first of all, could you just tell me your name and spell it for me?

Kendal Lyssy

Yeah, absolutely. So my name is Kendall, k, e, n, d, a, l, and then my last name is Lyssy, l, y, s, s, y,

Teddy Maiorca

wonderful. Thank you so much. And could you tell me how old you are?

Kendal Lyssy

absolutely, I'm 28 years old.

Teddy Maiorca

Wonderful. And could you tell me where you're from?

Kendal Lyssy

So originally, I from Austin, Texas, and I am now here receiving my PhD. But yeah, I'm from Austin. Wonderful.

Teddy Maiorca

Well, congratulations and, and just, just briefly, a brief aside, what I know that you have, you had your oral defense, what comes next for you?

Kendal Lyssy

So I will be looking at, so I'm going to be working on my dissertation proposal, and then all next year will be my job market year and dissertation. So my goal is to hopefully be at, I think I'm going to be at an r2 university where I can research, but the pressure isn't so intensive and hard to as it is somewhere like an r1 where you're expected to produce research, you know, for tenure purposes. And of course, I would love to be tenured one day. But honestly, at this point, I think Mizzou does a really good job at setting students up for really any sort of job. And so definitely, academia for sure, I love teaching. I love research. So academia for sure, I would love to be a professor

Teddy Maiorca

That's amazing, and your passion, just talking about it, clearly shines through. So I know you'll be fantastic professor, Teddy and good luck to you in your next year. I'm sure it's a big year ahead.

Kendal Lyssy

Thank you. It is a big year ahead. And so I'm also trying to just remember that it's not a race and gonna be, you know, I can't control the job market the way I can is what I do now to set myself up for success.

Teddy Maiorca

That's, that's a brilliant mindset, it really is, and and one that will serve you well, for sure, for sure. So best of luck.

Teddy Maiorca

But moving forward, I'm curious, Kendall, could you tell me the level of your visual impairment?

Kendal Lyssy

Yeah, absolutely. So I see light and dark, however, I can't see colors. I cannot see shapes. I can't see because of a condition called retinopathy of prematurity, which is where, in my case, my retina detached when I was, I believe three days old after I was born. Was born prematurely because of it, and so, you know, my retina is detached, and for that reason, I'm blind, and so I can't see anything except for light and dark and so honestly, when it gets dark outside at five o'clock at night these days, like, oh man, it seems like night time because it's so it's so weird. Yeah,

Teddy Maiorca

Gotcha. Okay, well, thank you for sharing that with me. And in my next question, I think you really already answered, but just to confirm, you've been dealing with this since birth,

Kendal Lyssy

yes, I've been dealing with this since birth. Okay, gotcha.

Teddy Maiorca

Thank you for sharing that with me. So out of the you know, more intro questions, I'm curious on a daily basis, what kind of tools or apps or things like that do you use to help you in reading text?

Kendal Lyssy

So in reading depends on how you would like to define text. So reading books and stuff through Okay, so if I'm reading journal articles to the museum library, then I'm using a computer which is a PC. I'm using my computer which has a software on it called JAWS for Windows. Basically, JAWS for Windows is a screen reader that enables individuals who are blind or visually impaired to be able to independently use a computer. It talks, it reads everything on the screen. And so databases are very accessible, so I use the Mizzou databases to read a lot of research articles. Additionally, I also use Google Scholar. But when it comes to reading the news, oftentimes it depends on the website. However, if I'm reading NPR, then my iPhone, which I use to read the news multiple times a day. So I'll use my iPhone. And basically, my iPhone has a software called VoiceOver, which Apple Incorporated, I think, when they invented the iPhone. And so basically what VoiceOver is is it's similar to Jaws, in the aspect that voiceover allows me to use an iPhone and to touch the screen and then hear it talk. Okay, gotcha,

Teddy Maiorca

that's really helpful. Thank you for that.

Kendal Lyssy

and also, I used a refreshable Braille display, which I'll connect with my computer. I don't connect it with my phone, but I do connect it with my computer. That's also how I'm able to read articles.

Teddy Maiorca

Gotcha, okay, you said you just use it on your computer, but not your phone.

Kendal Lyssy

I do. Yes, that's correct. Gotcha. In terms of reading the news, the way that I read the news is mostly through my phone, because it's really easy. I mean, it's a blessing in the case that it's so easy to access the news and today's digital age, it's a blessing because it's right there. You always know what's going on. There's no reason for you not to know what's going on in the world, because it's right there. And helpful news does a really good job of keeping updated. However, to that same token, it's all because all day long, and sometimes you need a break of it, because the news isn't always positive. And so through those ends, I mean, I use, and I think the news app became available in 2017 and honestly, I love it because it keeps me very informed about what's going on around the country, around the world, even in my own community.

Teddy Maiorca

Gotcha wonderful. Yeah. Apple news really is an awesome service, helpful to come right, put it all in one place. And I totally hear you on, you know, we're really inundated with news. And to your point, so much of it is not necessarily news that you want to be just barraged with all day long. So totally understand, totally understand that point. But you you mentioned using JAWS, using voice over these kinds of screen readers. You know, I'm interested in your experience with those when you come across images or charts or maps, things like that, if you do, could you tell me about those experiences when you're using JAWS and voiceover, absolutely.

Kendal Lyssy

So when I'm using the most productive thing for you to know is when I'm using JAWS and there's an image on a website and that image has no alt text description, then it disadvantages me

in that I can't see what that image is of. And so oftentimes it skim, bypass it, because I'm like, well, it doesn't involve text. I'm not going to be able to see what it is. And so I ultimately just skim, bypass it to find some text. So the best thing that content creators and others producing news do is they could add text descriptions, even if it's just a sentence saying, this has died as of the 2004 presidential election. Here's where the race is at right now, if that's an image, that's great, they can just add a little label stating what enough information, like, what information needs to be there, it needs to be enough information to where this, where the blind user knows what's going on, but also not inundated with so much information, to where it's overwhelming. And so there's a fine line between these things,

Teddy Maiorca

gotcha. Gotcha, yeah. You know, that makes a lot of sense. And I'm curious, because, especially in the sense of infographics and and for maps and charts, for alt text, for those, you know, giving a description that actually tells you what you're looking at can sometimes be, you know, really complicated. And

Kendal Lyssy

yeah, I would even say in terms of, okay, so for example, if it's a bar graph, I would even say, just making sure on that alt text to have a label saying, this is a bar graph. This is a bar graph indicating X, Y and Z. So I would say, maybe on one side of the bar graph, it shows the numbers going higher, and on the other side, it shows the numbers going in the middle, or whatever that photograph might be indicating with math, something very similar to me, come to think of it, Teddy I've never really seen, I've never really noticed a map on A website,

Teddy Maiorca

gotcha. Gotcha, not that you've interacted with Oh, gotcha Okay, well, thank you for sharing that with me. You know, I have to say, Kendall, speaking with you has been just so far, has been a joy, because you are I'm asking you questions, and you're answering like that question, and then another one down my list, and then one at the very end. It is amazing.

Kendal Lyssy

Thank you. I mean, I've been on the as I've said, I mean, I've I've been dealing with text and inaccessibility, but also the joys and making these websites more accessible. It's kind of something I do on the side. And so I've been going with all this for quite some time. And so I'm really glad it was such an honor for you to ask me to do this interview with you, because I was so excited. First off, whenever I get a chance to help a fellow researcher, I jump at it, because so many this is kind of an aside, so many researchers, so many participants, are motivated by compensation, and for me, it gets really difficult to find personal, pensive order motivated by is the money. And so for me, personally, I get an opportunity to help a researcher, because I know what it's like to recruit. It's tough. I'm gonna always help.

Teddy Maiorca

Thank you. I really do appreciate that. Yeah, and and the passion that you bring to it is amazing. I really, you know, it's great info. And I have to say, this project has been especially enjoyable for me, just because the folks that have participated have kind of shared that motivation of like this is something that I really do want to participate in, because I think that there can be some good information that comes out of it. And so I've been, you know, honored to have people think that. And really, you know, I'm trying to do my best to make sure that that really is the case, that

I'm following through, to make sure that that some good does come of it, and that the, you know, news media can really kind of follow those best practices that you've already started to tell me about. Of you know, here's how to really, truly do alt text in the most helpful manner. But you mentioned when you were kind of talking about when you come across images and you just really bypass them, because so many times there is no alt text attached to it, you know, I'm sure it's really, I'm sure it's tough to come up with a number or anything, you know, but, but if you could ballpark it, say of how many, how often, when you come across images, there is no alt text or insufficient alt text, if you could put a percentage by that, what would you say?

Kendal Lyssy

I would say about 50% of the time they do not have alt text, and it's sufficient for me to understand what's going on Gotcha. And

Teddy Maiorca

would you say that's just generally across all web browsing? And

Kendal Lyssy

yes, yeah, I would say yes, across all web browsing,

Teddy Maiorca

gotcha. Okay, well, thanks for sharing that with me. So pivoting just slightly, I'm curious, aside from Voiceover And aside from Jaws, are there any types of other tools or applications that you use just day to day?

Kendal Lyssy

Do also use an Apple Watch, but that also has voiceover? Honestly, not

Teddy Maiorca

really cool.

Kendal Lyssy

I would say jaws and voiceover are my primary modes of communication in the digital world,

Teddy Maiorca

and for varying by by device, you already really told me, you know, you answered this question, but just to confirm Jaws you're using on your PC and then VoiceOver is iPhone and Apple Correct. Great, that is correct. Careful. Do you find one to be easier to use or more effective than the other?

Kendal Lyssy

Yes. So when looking at digital news, I find voiceover to be way easier to use than just in the aspect that it's right there you can just scroll through most websites, especially because Apple news is compatible with Apple, meaning that it's going to be more accessible, therefore it would follow then that it's over. I would say it's just a bit easier to use in terms of scrolling for digital news, especially because it's over. Oftentimes there are not really a lot of advertisements that I would have to deal with with JAWS. And so when I'm scrolling like the NYT The New York Times opinion section, sometimes there are these advertisements of pop up blockers that come up, which then can cause difficulty in losing jobs. Gotcha, I've

Teddy Maiorca

heard from some other folks experiences that advertisements, especially when using JAWS, you can get almost trapped inside of an advertisement. Is that an experience that you've had? Yeah,

Kendal Lyssy

you can and yes, I have had that experience. It is very, very frustrating. Oftentimes, it actually makes me so frustrated that I end up just in the key stroke to quit because I don't want to deal with the advertisement. Yeah, gotcha, especially as I'm reading or said, or the new thing that it will do is it said, this ad will end in one, this ad will end in two, this ad will end in three. So it will kind of count, and it counts backwards. So it's like, this ad one did four, this ad one did three. And I'm like, I just want to read the news. Let me just read the news without those advertisements and without you cutting down how many pins or minutes it is till the advertisement is over.

Teddy Maiorca

Yeah, absolutely. I'm interested. Kendall, do you ever, or have you ever confirmed a news organization's accessibility statement on their website,

Kendal Lyssy

if not, and I think that we need to do better at making accessibility statements more invisible. Yeah, for me, looks like having kind of like when you face it in excessive when you face inaccessibility on a website, kind of putting something that goes along the lines of, please contact XYZ if you're experiencing accessibility issues reading this website, yeah. And so not because a blanket statement to accessibility often says we are committed to the principles of Diversity Equity, excellent, yeah, diversity equity, inclusion, excellence and accessibility. But it doesn't the blanket statement promising to do better, but oftentimes the actual doing better part gets lost, yeah,

Teddy Maiorca

which is, you know, at that point it's just truly performative. It's not there's nothing actually happening, exactly. Gotcha? Yeah, that makes a lot of sense. You know, is there somewhere that in your experience, using a screen reader that, like, you know, should that accessibility statement kind of and like, a contact part as well feedback, some kind of feedback mechanism. You know, would it be helpful for that to be right at the top of a new site for the screen reader?

Kendal Lyssy

I think right at the top would be incredibly helpful and useful, because then I would know I didn't know where to go, because I would just control home to get to the top of the website and then be like, Okay, this is where I can go to contact this organization for accessibility issues right at the top, or even a button that says accessibility help call this number or email this address. Cool.

Teddy Maiorca

Thank you. I'm interested. Just on another Jaws note, have you had any experience using JAWS? I'm aware that they have some sort of beta technology that helps to generate alt text descriptions for images that don't have alt text. Have you used this or experienced this at all?

Kendal Lyssy

I get that Jaws 2025. Just came out. And so I'll be really curious to see what updates Freedom Scientific. Who's the company that makes jaws? I will be really curious to see what kind of updates they've made to this AI generated data technology, because it is out there.

Teddy Maiorca

Yeah, have you used it and use this kind of AI generative technology in any other context? For, you know, for for help with with image descriptions things like that.

Kendal Lyssy

There is an app on a phone called Be My Eyes, and this app has an AI generated tool called Be my AI. Essentially what this does is it makes so you can take a picture of something, and then it describes the image. And so yes, I actually have and I use be my AI all the time for reading food labels, especially because, you know, that's for me. I'm dying, but I also have celiac disease, and so I eat gluten free. So I use be my AI to help me read food labels to make sure that I'm eating gluten free. So that's one. However, I've also put be my AI up to my computer screen, and I've taken it to my computer screen, and then it describes the image to me, gotcha?

Teddy Maiorca

And do you find that, you know, especially when you put it up to your computer screen? Can it be effective? Does it, you know, does that work?

Kendal Lyssy

It actually can be really, yeah, it does. It actually can be very effective in telling me kind of what is on my screen, what image is on my screen. Sometimes it depends on if the image is really blue or not. And so when it's a blurry image, it says that. But sometimes it's a really clear image, gotcha,

Teddy Maiorca

gotcha. And have you, you know, just really honestly, anecdotally, have you used that be my AI on any kind of images when you're looking at the news or anything like that?

Kendal Lyssy

No, I really haven't. And honestly, maybe I should, because I think that that would actually solve a lot of these kind of frustrations I have with images, and so maybe I should that might be a really good starting point.

Teddy Maiorca

Sure, yeah, it's unfortunate. You know, you don't want to have to need a workaround like that, right? But right, but yeah, I've, actually, I've heard a couple of my participants do that sometimes, you know, in the absence of image descriptions or stuff like that to use be my AI, which, you know, I hope, I hope can, can help in some way. But I think, at the end of the day, you know, proper image descriptions would be ideal, right over having, yes,

Kendal Lyssy

I agree. I think that I often think that reporters aren't thinking about image descriptions when they are reporting on the news. And they, I mean, honestly, in a reporter's defense, they're probably thinking, we need to get this news out as soon as possible to the masses. And let's just

be honest, majority of the world is cited, and so they supporters are talking, not thinking about image descriptions when they're trying to get the news out. Totally,

Teddy Maiorca

totally. And I you know, as someone who has worked in in news and with graphics, it is totally a mindset. But I think, you know, ultimately, the 1000 level journalism classes for all the journalism undergrads. The biggest message is, journalism serves the entire public and and, you know, I think it's, it's the duty of journalism, of journalists, you know, to really carry that. That out and started effort to reach and leave anybody out, because a lot of times these, the graphics or images, a lot of work goes into that, you know, and to just like, make them totally inaccessible is, is really a disservice to the people who make them, you know, they're leaving people out.

Kendal Lyssy

And it's also interesting, because as I'm submitting more and more articles for publication consideration. There's an expectation that I will include an infographic, and it's like, well, not necessarily. What like, you know, how would I do that's something that I also have to negotiate,

Teddy Maiorca

huh? Man, that's really interesting. Wow. So I'm interested, you know, we've kind of talked about, at some points, you really will almost just, you know, hit that, quit, keep a shortcut. You know, sometimes just getting frustrated, getting trapped in an ad or whatnot, if the news were more accessible, if these images and potentially graphics, had better image descriptions. Do you think that your overall experience with the news would be better? Would you engage more?

Kendal Lyssy

I think that I would engage more with the news if the alt text was more readily accessible. However, I engage honestly, a little too much with the news, especially given the current election moment, I ate a little too much, as it is on my phone, and so yes, but also, I already engaged a pretty fair amount in reading the news, because it's right there. Literally, I can pick up my phone, scroll right to the news app, and I have a cacophony of different headlines jumping out from pop culture to politics to world news. So as it stands right now, I do think all text descriptions would be immensely helpful, and I hope that they'll become more prioritized. Sure,

Teddy Maiorca

sure. I totally understand and I totally hear you about we

Kendal Lyssy

can use more on that computer if all text images were more readily available.

Teddy Maiorca

Gotcha, yeah, that makes a lot of sense, especially

Kendal Lyssy

because it takes a little more effort to hog onto a computer than it does, which is in your hand at all times, right? Totally, totally, totally.

Teddy Maiorca

So this is kind of brings me to my questions that sort of start to wrap us up, but I'm interested, you know, and I don't know if this answered this question to the best, the best that you can but ultimately, would you say that the current state of digital news sites, considering their content, their tools, does it meet your needs?

Kendal Lyssy

I would say it does, because I am able to, for the most part, go on to whatever website I'm reading the news on and read it like anyone else without a payroll. And so I would say for the most part right now, it does meet my needs. However, of course, I think that alt text descriptions should be prioritized, because if they're not, then it's going to turn a lot of people away from getting really important news that they need to make informed decisions.

Teddy Maiorca

Sure, yeah, that's a really eloquent way of saying that. Thank you. And then a couple more, if, you know, if you had, if you had control, to really, you know, have the, have the perfect format for digital news to suit you and your habits and your needs. What would be that ideal format for news for you? Kendall,

Kendal Lyssy

I would honestly say that the ideal format of news for me, I really think would be, honestly Apple news, without Apple news. Plus. So I don't, I don't subscribe to Apple news plus, because I don't, however, and I know that journalists seem to make money, and I totally understand that, but Apple news plus also serves as a bit of a barrier, because it's like, well, if you want to subscribe for whatever, whatever government, whatever said, then you can read this article. But it's like, what if I want to read that article sooner than that? And so I would say the most ideal format, I think, will be a situation where there are pictures embedded in the news stories with alt text descriptions. Actually, BuzzFeed does a really, really good job at ALT text descriptions. I'll read stories and not I mean, I'll read stories from BuzzFeed to kind of have some comment relief from the serious nature of the news. And oftentimes, I'll read these stories about whatever it might be BuzzFeed will say, BuzzFeed will have these descriptions, like the author with their dog, or the author with the kids, or whatever it might be.

Teddy Maiorca

Gotcha cool and good to know that they're doing a good job. I'm glad to hear that. I'm glad

Kendal Lyssy

it's doing great, wonderful.

Teddy Maiorca

So my last one for you, Kendall, if you could speak to accessibility tool designers, to news content creators, what would you want them to know? What should be the top priority in terms of accessibility?

Kendal Lyssy

For me, I would say the top priority for accessibility in terms of content creation and views should be having someone test the beta of that website and make sure that it meets the standards for accessibility. They rush it out.

Teddy Maiorca

Gotcha, yeah, that makes sense to just really have someone do that test run so that it doesn't have to be people coming back with feedback. Rather, you know, be much more proactive.

Kendal Lyssy

So rather they can, rather they can proactively implement the feedback that we as testers give to people. They could then proactively engage in these kind of social conversations about digital accessibility in the news,

Teddy Maiorca

sure, wonderful. Well, Kendall, thank you so much that has our call is really flown by, but I really appreciate your insights, and you really, you know, your thoughtful, thoughtful answers, and I'm really excited to add all this to to my thesis. I really, really do appreciate it.

Kendal Lyssy

Yes, absolutely. And I mean, I am so grateful that you interviewed me today, it was such a joy to provide you with at least some helpful information, hopefully. But yeah, thank you, honestly, so much, Teddy. And I was so when Dr Kim Louise put us in touch, I was so excited, because I think that the research you're doing is incredibly valuable and important.

Teddy Maiorca

Well, thank you. I really, I think so too, and truly been an honor to speak with you today and to hear your perspectives.

Kendal Lyssy

It totally has. what is your internship? will you still be in Columbia?

Teddy Maiorca

So I will be in Columbia until the summer, but the internship is actually a remote gig, so I'm in Columbia until the summer, but all my family's from around Chicago, so I'll be headed back that way. Yes, I've been in Columbia now for almost seven years, so you know, ready for what's next for sure,

Kendal Lyssy

absolutely, absolutely. Well, that's great. Well, thank you so much, Teddy. This was so great. I really, really enjoyed talking to you. And please let me know if you need clarification on anything I said, or just anything in terms of digital accessibility. Just let me know if you need to do a follow up interview with me. I'm happy to do anything.

Teddy Maiorca

Well, that's so wonderful with you. Thank you. I absolutely will be in touch on any of those things, and I'll again. Thank you so much, and best of luck to you and your next big year.

Kendal Lyssy

Thank you so much, Teddy, I hope you have a great day. Thank you.

Teddy Maiorca

You too. Take care. Bye bye.

Appendix II: Weekly Field Notes

8/19/24

Dr. Luisi and Prof. Herzog,

I've just finished up my first week with Men in Blazers, and it really was a whirlwind. I got immediately to work on a massive infographic that sprung from an idea in one of my first meetings getting to know the team. The graphic turned out truly fantastic and was the perfect start to my internship. I'm feeling great about it.

I'm still figuring out the workflow, but clearly the team at MiB is really pleased with the work I've done. I wasn't sure how it would all turn out, given the fact that I reached out cold to the company and pitched myself and my graphics ability to them, but after just one week I can tell we are going to do some cool things this fall.

I have been in a lot of meetings trying to meet different members of the team and different sides of the operation. It seems I'll be able to do some more data-driven work with the partnerships team, as they handle the audience analysis and marketing sides of the business. I'm really interested to see how that turns out and am excited for my next graphics project.

Best,

Teddy Maiorca

8/26/24

Dr. Luisi and Prof. Herzog,

I had a good second week and have finished another project, but it was certainly a quieter week than the first. I got to meet the publisher and the executive editor this week, which was cool, but my focus is now on trying to understand the specific tone of Men in Blazers content. I've had some good pitches, but my biggest learning from the first two weeks is that the MiB audience isn't looking for traditional data journalism.

Instead, they're looking for graphics that illustrate crazy, shocking facts, statistics, and moments in soccer. Rather than just make regular charts, I'm having to integrate some graphic design skills alongside some of my data skills into my overall product. While doing this, the whole project has to resonate with the MiB audience. This will definitely take some time to adjust to, but I'm certainly still feeling good and have been productive and busy since I started.

I'll check back in with you next week!

Best,

Teddy

9/2/24

Dr. Luisi and Prof. Herzog,

The past week was a fun one –I finally nailed the tone with one of my projects, but it did take a ton of different drafts and working directly with the publisher to pull it off. The final graphics took a small amount of data analysis, a TON of Adobe Photoshop and Indesign work, and many different versions. Finally, though, it was posted, and the audience loved the graphic. It has been nice to have some successes.

One of the more unexpected things that I've learned in this internship has been how to function in both a small organization and a remote one. While I worked a remote internship for USA Today before, this is a much different company because rather than a massive corporate network of newspapers, it's a 30-person operation. That said, my superiors have been super impressed with my level of communication and transparency. I will certainly keep it up, as it's just how I've learned to operate, but I have found that it's integral to success and operating at a high level in a remote organization.

To more successful projects and continuing my good communication. I'll check back in next week with another update.

Best,

Teddy

9/9/24

Dr. Luisi and Prof. Herzog,

This week was a fun one. I finally got to work with the partnerships and marketing team on some more data-driven graphics, and I got to my fun bag of data analysis tricks I learned at the J-School for the first time at my internship. I made 5 different graphics visualizing both Men in Blazers audience demographic data from an audience survey and the company's social media impressions/engagement data across all platforms. I had to do some data normalization for the impressions data, and it really was a challenge. The partnerships team will end up using my graphics as part of their slide decks to present to companies who are potential sponsorship partners.

I also got to work on some projects that are more "odds and ends," so to speak. These are graphics that will not be for immediate release. One of the graphics is a remake of a poorly created photoshop graphic that I made much more readable and visually appealing, in addition to making sure it truly adhered to Men in Blazers's style guide.

The other graphic I made was more of a collage of reporting and photos to tell the story of the new US Men's National Soccer Team coach. It was fun to do some original reporting to accompany this one, and I think it turned out great.

I'll check back in next week with another update.

Best,

Teddy

9/16/24

Dr. Luisi and Prof. Herzog,

This week was great – my graphic about the USMNT coach with original reporting was posted and was a success with the audience. I'm proud of the work that went into it, as I really ran into some difficulties with super tiny details in the export process.

I also ran into a challenge this week with a graphic I was assigned. I wasn't given much guidance for the graphic, and my first draft wasn't exactly what my editors were looking for. On my second attempt, I really let my creativity let loose and learned how to create 8-bit graphics in Adobe Illustrator for a pac-man themed graphic. I spent a lot of time on this project, and my editors loved it, but when we eventually published it the graphic really fell flat with the audience. This is one of those times where I realize how hard it is to nail the tone and voice of Men in Blazers content for our audience.

I'm certainly still proud of the work I did, and ultimately, my superiors were really pleased with the work I did, but this is still a work in progress. It was humbling to realize that again.

I'll check back in next week with another update! Thank you both.

Best,

Teddy Maiorca

9/23/24

Dr. Luisi and Prof. Herzog,

Again, thank you so much for working with me on my project! I'm honored to have you both on my committee.

I'd also like to thank you for your patience with me as I've begun the semester. I recognize that this first weekly update is late, but I'll do my best to summarize my semester's work so far. After this, I'll send weekly updates each Monday reflecting on the previous week's work.

As I've told Dr. Luisi, due to conflicting demands from USA Today's hiring department and Journalism Graduate Studies, my USA Today graphics desk internship was called off after I'd been hired onto the team. While it was unfortunate news, I pivoted and began searching for a different professional placement.

I landed at Men in Blazers, the largest soccer-focused media company in North America, with a role as their graphics intern. While it's a very different role than USA Today, I've enjoyed my time working with MiB over the past few weeks, and I've been challenged to learn new skills and work on tight deadlines.

So far, my work at Men in Blazers has consisted of creating timelines of player signings, doing reporting on the background of the US Men's National Team's new coach and creating graphics to accompany that reporting, learning how to illustrate graphics in 8-bit for a Pac-Man themed

celebration of soccer's new fastest player to 100 goals, and more.

In addition to my contributions to the editorial and social media sides of the Men in Blazers operation, I've also put my data skills to the test by helping to analyze and visualize data for the partnerships/marketing team. I helped to create sleek charts and design slides for the slideshows they use to pitch brands for potential sponsorships.

After 6 weeks, I've created 16 different graphics for Men in Blazers.

In terms of challenges, it was initially (and still is a little bit) difficult to adjust to the Men in Blazers "tone." The organization takes a different approach to sports journalism by focusing on the less serious side of soccer – using humor and the more human side of sport to cover the game rather than using more traditional methods to analyze stats and report soccer news.

I know I'm succeeding, though, as just today I had a graphic posted that has in just a few hours has become my most successful work in terms of social media engagement. I'll have to continue to work at this, though, because a graphic I worked on last week posted to hardly any engagement at all. Ultimately, understanding the MiB audience and hitting the "tone" on the head with my graphics is still a work in progress, but I'm absolutely improving with my pitches.

On the project front, I've already begun to reach out to potential interview subjects so that I can get started with my semi-structured interviews. Thank you both for your help getting my questions together. I'm excited to start the interview journey!

I'll report back with more next Monday, but until then – have a wonderful first week of fall.

Regards,

Teddy Maiorca

9/30/24

Dr. Luisi and Prof. Herzog,

I'm writing to you today with my weekly check-in.

Last week was a fun one. I was tasked with recreating the "Premier League table" (an image of the standings for the English soccer league) for a social post, with the idea of replacing each team's name with the team's vibe of the week.

While the premise is a goofy one, the task was tall, as I wasn't quite sure how I'd actually recreate the image file in an editable format. After trying a few different methods in Photoshop, I moved to Adobe Illustrator to build on some skills I'd learned at the Missourian, and eventually came up with a perfect, editable copy. Not only did the team at Men in Blazers like it, but the post performed so well that it's become the most interacted with non-video in the 12-year history of the company.

Needless to say, this is now a weekly staple in Men in Blazers content that I am now spearheading for the time being.

Another way I've been challenged in the past week has been attempting to work with "batch processing" features on Adobe products. I'm working on a graphic that will need many headshots, and I'm attempting to use advanced features in Photoshop and Illustrator to make the exact edits I need for each headshot. It's certainly a work in progress, but I'm making some headway.

On the project side of things: I've completed the first two of my eight interviews for my research, and I another already on the calendar. My search for more participants is ongoing, and I'll keep you both updated. The first two interviews were very interesting – both of the individuals interviewed have some level of vision (even though they are considered blind), so while they had excellent insights and gave me lots to work with and think about for my analysis, some of the more nuanced questions about screen readers and alt-text. My next participant on the calendar has no vision at all, so I'm interested in what the differences between his digital news experience and the experiences of my two previous participants will be like.

My interviews have been excellent, though. The questions have been a perfect guide for the conversation, and I'm getting exactly the information I need for the project. In addition, the interviews I've conducted so far have been exactly in the target zone – about 42 minutes each. Thank you both for helping me to curate that question list.

I'll check back next week with a summary of how this one goes. Next week's update will be brief, though, as I'll be out of town Thursday–Sunday for a family wedding.

Have a wonderful week and weekend.

Best,

Teddy
10/7/24

Dr. Luisi and Prof. Herzog,

I'm writing to you this afternoon with another weekly check-in.

Last week was a quiet one, as I was away from my internship on Thursday and Friday for a family wedding. I'll do my best to sum up my short week below:

I again found success with the same type of social post that was so successful last week...one of those "if it's not broke don't fix it," type of things. The formula and template I created clearly works for the Men in Blazer's audience, as subscribers have sent in messages asking for it to be a weekly staple in increasing numbers. It certainly is fun to have found something that works so well, especially as I've noted that I have found difficulty adjusting to the "tone" of MiB content.

On that note of figuring out the tone, I was given a tad more responsibility within Men in Blazers and have been tasked with writing some copy that goes out with social posts/newsletters.

It has been fun to do more writing, as I hadn't been doing very much with the graphics work. For the graphics, most of the copy is written for me by an editorial producer I have been partnered with. I've enjoyed the new challenge.

On the project side of things: I reached out to more potential interview candidates and have also been put in touch with a very large non-profit organization for people with visual impairments based out of Chicago. One of my previous interviewees sits on the board of the organization and helped put me in touch with many more potential candidates, who I hope to start interviewing in the next couple of weeks.

I have an interview scheduled for this Wednesday, and, like I mentioned, am waiting on multiple responses. I'm excited to update you about this week's interview and any more I get on the calendar in next week's email. I'm also starting to batch together my notes from the interviews I have done in an attempt to start the analysis portion of my final draft. I'm already getting answers to the questions I've been researching and wondering about for over a year. It's super exciting.

I'll check back next week! I hope you are doing well. Thanks again for everything!

Until then,

Teddy

10/14/24

Dr. Luisi and Prof. Herzog,

Happy homecoming week! I'm writing to you today with another weekly check-in.

The past week was a fun one, as I got to participate in and create graphics for a livestream event the company hosted, centered around the US Men's National Soccer Team. This was a new challenge for me. While I've participated in breaking news events as on both the reporting and graphics side, this was unlike anything I experienced because I had deadlines throughout the event.

It was super fun to participate, and both my graphics and copy were used in the content rollout accompanying the live event. In certain instances, I'd have to react to something happening in the match itself and adjust accordingly. In this way, it was much like live event coverage and sports reporting coverage I've done at the Missourian. I was prepared to an extent, but definitely had to think on my feet!

In addition to the livestream coverage, I continued to learn more about the social media strategy side of the operation in addition to continuing my graphics work. This isn't something I got to learn while at the J-School, but it has been fun, interesting, and demanding all at the same time. It helps to have a great manager helping me to learn the ropes (who is also a Mizzou Journalism grad).

On the project side of things:

I have scheduled a couple more interviews and am continuing to reach out to potential

participants. My interview last week was one of my most interesting interviews yet, and I learned a ton from this particular participant. He had really fascinating insights on screen readers and the real difficulties that they present. Ultimately, he told me that AI-based technology is what he sees as the future of accessibility – and pointed to the emerging partnership between Meta and a nonprofit called Be My Eyes that aims to improve on existing technology and eventually release an updated version of the Ray Ban x Meta sunglasses for people with visual impairments.

I'll keep you posted with another update next week as I continue to get interviews on the calendar and completed! Please let me know if there's anything you need for me in the meantime.

Best,
Teddy

10/21/24

Dr. Luisi and Prof. Herzog,

I'm writing to you today with another weekly check-in.

Last week continued to ramp up in terms of my involvement in the content operation at Men in Blazers. I participated in the creation of content for and promotion of another livestream event similar to the one last week. I felt more comfortable and prepared for the event this past week, as I already had one under my belt. All went well.

I also have begun to experiment with different ways to make Men in Blazers content more accessible, an important tie-in to my project. While I won't be digging into their website for the finer details of accessibility, I am making a concerted effort to improve the accessibility of their social content, so far mostly with the addition of alt-text. Now that I have more of a direct hand in the social content side of things, I've been able to start doing this.

Another note from last week is my expansion my graphics work into the other side of the Men in Blazers business: The Women's Game. TWG is the side of the operation covering women's soccer, and while I've been excited to work with them on graphics, it never came to fruition until this past week. We are workshopping some fun infographics for social and The Women's Game's newsletter.

On the project side of things:

I have finally scheduled the remainder of my interviews and will be finished with 7 of the 8 of them by the end of October (should my current schedule of interviews stay the same). The final interview will be conducted the first Monday of November, when I will get my draft to Dr. Luisi for review and feedback.

My interviews have been incredibly insightful and truly fascinating, and I've scheduled with people of all demographics and ages. Perhaps the most interesting part of the interviews has been learning how people of different ages use technology differently to help aid their specific visual impairments. I've also been surprised by the different ways people cope with their

impairments based on how long it has been affecting them (i.e. Since childhood OR recently with age). I've been noting these in my analysis.

I'm also beginning to outline my deliverable part of the project: a best practices article for graphic journalists. When I pitched the article to you both, I thought it would be a very technical article with lots of tips for coding, but really, it'll be much simpler and ultimately more practical for all graphics journalists and designers. I'm excited with what I'm coming up with.

I'll check back with you both next week with more info about how my interviews are going and when I will be finished with my draft.

Best,

Teddy Maiorca

10/30/24

Dr. Luisi and Prof. Herzog,

Please pardon my delayed weekly update this week, it has been super busy!

I'll jump right in. The past week was my craziest and busiest at Men in Blazers. I got to be involved in the release and promotion of a Men in Blazers TV Show episode for the first time, we had another live event, and all that was on top of a regular week of graphics and writing.

The TV Show was a fun challenge, and it was very cool to work with NBC and Peacock on the project (even if I did so in a very limited capacity). I'm certainly learning a TON in my time with Men in Blazers. On the graphics front, I finally got to fully work with The Women's Game on a project, which is the side of the Men in Blazers business that focuses on women's soccer (as you may have guessed). It was a challenging project, but it was awesome to work with a whole new set of logos, styles, and color palettes.

The MiB team also has started to utilize my graphic abilities to experiment with their podcast release promotional posts. I'm still in the thick of it and working through mockups and drafts, but they've really appreciated my insights and ideas.

On the project side of things:

I have one more interview left to complete! I'm still on schedule to get my draft to Dr. Luisi for a first look this coming Tuesday. I hit one bump in the road, as one of the people I'd scheduled an interview with missed our interview slot and has since stopped responding to my emails, but I'm still working on tracking them down. In case that particular participant doesn't pan out, I've continued to reach out to some other folks who may be willing to be my final participant.

My analysis is moving along well, and as soon as I get the draft sent along next Tuesday, I'll begin work on my article deliverable.

I'm happy with how everything is turning out. I truly believe it'll be a really helpful and informative project that will contribute a lot to the current literature on news accessibility.

I'll check back in with you both next week!

Best,

Teddy

11/4/24

Dr. Luisi and Prof. Herzog,

I'm back with my weekly update, on time this week.

It was nice to have a bit of a slower week on the internship front, but I still certainly accomplished a good bit (and got to lead a meeting!).

I finished the graphic I mentioned was in the works last week, and officially published my first work with The Women's Game team. It was fun to work with them and get used to new people and a new workflow, and while I personally thought one of my mocked-up versions was better than the one they decided to publish, it was interesting to learn what works for their audience and why.

As I mentioned, I also got to lead a meeting discussing the successes and failures of the graphics front so far, and also give my input on the way that Men in Blazers runs their promotional content (I've been helping out with promo copy as I mentioned in a few previous emails). I had some good insights and one of my ideas was immediately put into action to great effect. I've certainly patted myself on the back for that one.

To more this week!

On the project side of things:

My final interview has rescheduled again from tomorrow (Tuesday) until Wednesday. Because of this, I'll be delaying delivery of my draft to Dr. Luisi until Wednesday 11/6, just so that I can include that interview. I apologize for the delay but am still very much on track...my whole document is nearly put together: Field notes, interview transcripts, and all. The entire project document is at over 100 pages, whew!

I'll be in touch later this week with my first draft. This is getting real!

Thanks again for the support from you both, I'm looking forward to getting this draft edited and ready for defense in a few weeks. I'll check back in next Monday with more updates.

Best,

Teddy

11/11/24

Dr. Luisi and Prof. Herzog,

Happy Monday! I'm back with another weekly update.

The past week was a productive one at the internship but was rather ordinary. I got to participate in the promotion of another TV Show episode release once again, writing copy and helping with some graphics, but since I already had one episode under my belt from a few weeks ago, this time was a piece of cake.

I did find out that the team will be doing a live show in Kansas City in a few weeks – I'm excited to be a part of it and meet my coworkers in-person.

On the project side of things:

I completed my final interview today, and it went extraordinarily well. I'll add the transcript to my project document and some of the information I learned/quotes I got into my analysis.

I also delivered the first draft of my project to Dr. Luisi last Wednesday. I'm looking forward to making edits to my analysis and document before sending it on to Prof. Herzog soon.

We're in the home stretch! I'll start gathering the necessary documents to add to my project folder, like my supervisor evaluation and personal evaluation. Thanks again for all the support throughout the semester. I'm excited to defend and am incredibly happy with how the project has been coming together.

I'll check back in next week with another update, which will be my last!

Best,

Teddy

11/18/24

Dr. Luisi and Prof. Herzog,

Happy Monday! I'm writing to you with my final weekly update – thanks for following along this semester.

The past week was a good one. It was a bit slow, as the world of soccer stood still for a scheduled break, but I got to participate in another livestream promotion, which was my 3rd as a member of the team. I was largely working on my own for the livestream event, as my supervisor was away for a couple of days, and it really went well. I've totally got the order of operations/workflow down and am feeling really comfortable with my work at Men in Blazers. I'm looking forward to meeting my coworkers for the first time in-person at a live event this week, which will be a really fun cap to my internship.

On the project side of things:

This week, I'll get the final aspects of my project into the document, like acknowledgements, self-evaluation, and supervisor evaluation. Those are the final bits to make the project 100% ready for defense.

Once I get edits from Dr. Luisi on my draft, I'll immediately revise and send the document to Prof. Herzog to review before my defense this Thursday, 11/21, at 3:00 p.m. In the Journalism Library on campus.

Thank you both for your support this semester. I'm really looking forward to presenting you with my analysis and sharing such a cool, valuable project with you both.

I'll see you both on Thursday!

Until then,

Teddy

Appendix III: Project Proposal

FORM, BUT NO FUNCTION:

EXPLORING THE ACCESSIBILITY OF INFOGRAPHICS TO PEOPLE WITH
VISUAL IMPAIRMENTS, AND WAYS TO EXPAND ACCESS

A Project

presented to

the Faculty of the Graduate School at

the University of Missouri-Columbia

In Partial Fulfillment of the

Requirements for the Degree

Master of Arts

by

TEDDY MAIORCA

Dr. Monique Luisi, Project Supervisor

Professor David Herzog

DECEMBER 2024

CHAPTER 1: INTRODUCTION

The research presented will explore the visual accessibility of news media with a focus on infographics and the accessibility of graphics to members of the news media's audience who have limited vision. Specifically, this study will compare infographics against alternative forms of delivering news information like text and alt-text. Through qualitative interviews with people who have low or no vision, I will use the data to assess the effectiveness of the news graphic and to create a best practice guide in making accessible news infographics for graphic/data journalists.

The infographic is an effective way to disseminate the news, particularly when data or numbers are involved (Yael De Haan, et al., 2017). However, a graphic loses its effectiveness if an audience member is unable to see it. Even if using a screen reader, a person with low or no vision would only be able to hear a description of the graphic, provided the graphic journalist added adequate alt-text (see "*Definitions*") to their graphic.

A brief review of recent improvements for accessibility, at least in the United States, provides context. The 1968 Architectural Barriers Act, the first federal law that sought to enact change on behalf of people with disabilities, WHICH DID THIS (U.S. Access Board, 2023). This legislation was followed up with the first minimum guidelines for accessible design in 1982, and, more notably, the American Disabilities Act of 1990, which protected people with disabilities against discrimination because of their disability (U.S. Access Board, 2023). In 1999, the World Wide Web Consortium (W3C) was the first edition of the Web Content Accessibility Guidelines (WCAG), commonly known as WCAG 1.0. The first edition of the WCAG, since updated with a second edition in 2001,

was a list of best practices for web developers when creating websites accessible to anyone, regardless of ability and device used to access a website (W3C, 2021).

The evolving nature of digital media, especially digital news media, has left behind many who are not able to fully participate in an online environment because of visual impairments, among other disabilities. While the updated guidelines, WCAG 2.0, have been helpful to developers and journalists alike, there is likely more to be done to provide for adequate access to infographics and news media. Little available scholarship examines these needs from the standpoint of persons with low or no vision, and not all major news media websites fully adhere to the updated 2008 WCAG guidelines. Further, when there are attempts to follow guidelines, they are inconsistent across various news media sites. While the WCAG is well-intentioned, there need to be better standards for web development, particularly in digital news media.

In the following sections I will explore the history of accessibility in the United States – particularly web accessibility for people with visual impairments. Additionally, I will define relevant key terms in the research and relevant theories to news infographics accessibility research. Applicable theories, both Social Responsibility Theory of the Press and Critical Disability Theory, come from very different corners of the research world but come to an intersection as we examine news and journalism’s duty to the public – a public that includes all people, regardless of ability. These sections serve to provide context for the study and to point out the shortcomings of journalism in serving the *entire* public and meeting people with disabilities where they are.

CHAPTER 2: LITERATURE REVIEW

Social Responsibility Theory

Despite the public service function of the press, the press' duty to the public was not widely appreciated until the Hutchins Commission, a group of scholars, was commissioned to delve into the function media should play in a modern democracy (Conti, 2017). Prior efforts to instill ethics into journalism included when in 1914, Walter Williams wrote the Journalists' Creed, which still today hangs in the National Press Club in the nation's capital (Nieman Reports, 2009), and The Pulitzer Prize was established in 1917 to award outstanding achievements in journalism and journalism public service (The Pulitzer Prize, 2023). The Hutchins Commission, however, introduced the concept of an overarching social responsibility, rather than an individual's commitment to being an upstanding journalist. The Commission's report provided a creed for journalism, rather than for journalists. The conclusions of the commission were that the press not only plays an important role in the future and future stability of society, but the press also has a moral obligation to consider the needs of society when carrying out journalism – instilling a pillar of service to the greater good in journalism. The commission described five requirements of a free and responsible press in modern society: “a truthful, comprehensive, and intelligent account of the day's events in a context which gives them meaning; a forum for the exchange of comment and criticism; the projection of a representative picture of the constituent groups in the society; the presentation and clarification of the goals and values of society; and finally, a full access to the day's intelligence” (Hutchins, et al., 1947, p. 28). In summary, news media is the way that people learn about the world around them, which is why the primary purpose of

news media and journalism is to provide people with the information they need to be free and self-governing (Kovach and Rosentiel, 2014).

The commission's report, written in 1947, could not have predicted the shape of media in today's modern society with its digital news media landscape, but its requirements are still relevant (Conti, 2017). While web development and design and computer programming have come a long way in addressing the needs of people with disabilities, many media organizations have struggled to keep up with the demands of an ever-changing online media world (Davis, 2003).

Social responsibility theory asserts that in a free society, there is an obligation to all people, and the press, specifically because of the privileges allowed under the First Amendment, is obligated to perform responsibilities and duties for the public (Conti, 2017). This theory is particularly relevant because accessibility falls under the umbrella of obligations and responsibilities of the press in the United States if the media are to meet their obligations to all people. While news organizations may fulfill some or many of their social obligations and duties for the public, there are key shortcomings among many when it comes to accessible design, especially concerning accessibility for those with visual impairments.

The press has a rocky past of systemic discrimination against various groups of people (Khan, 2016). Among those excluded are various people with disabilities, who make up just under 13% of the U.S. population (CDC, 2023). If receiving news allows citizens to be free and self-governing, being unable to access news media content has the potential implications to take those abilities away from people. In a full circle moment, the news is impeding itself from fulfilling its goals to the public, and in the process infringing on people's right to be free and self-governing. Here, critical social theory around disabilities comes into focus.

Critical Disability Theory, first developed in the late 1970s, counters the charity and medical models of disability that try to find a “cure” for disability or categorize people’s disabilities by how severe they are or to what extent they affect everyday life (Conti, 2017). Instead, critical disability theory seeks to involve people with disabilities in the conversation about inclusion and accessibility, casting aside the idea that disability is a medical issue or a compassion issue in favor of regarding disability as a question of politics and power over people (Hall, 2019). Because this study aims to explore accessibility, it is critical to understand the relevant theories that delve into the historic oppression, exclusion, and mishandling of people with disability and the issues they face in everyday life, especially through the lens of critical social theory.

The social responsibility at the core of journalism will aid in achieving the goals of the study, as the theory argues that journalism must adapt to serve the entire public, as it is obligated to do. That entire public includes people with limited vision, and

journalism absolutely includes news infographics and visuals. In this way, social responsibility theory of the press, created by Siebert, Peterson, and Schramm, will be integral to the both the research and creation of a best practices guide to accessibility infographics.

The duty of journalism then requires journalists to make their work available to all, which is especially relevant to members of the news audience who have disabilities that create barriers between them and content created by the news media. In order to understand how journalism can break down those barriers and meet audience members where they are with their impairment or disability, we must examine journalism and infographics through the lens of universal design theory.

Universal Design Theory

Universal design began as an idea coined by architect Ron Mace, who helped fight for legislation that would eventually pass as the Fair Housing Act of 1988 and the Americans with Disabilities Act of 1990. Mace, who spent most of his life in a wheelchair, developed the seven principles of universal design to help spur a revolution in architecture, engineering and design to make public and private buildings accessible to all people, regardless of ability (Burke, 2017). Universal design has grown into a more massive movement that is much larger than those initial seven principles of design created by Mace. Those principles have been extended in a variety of ways, particularly by the W3C to create the WCAG guidelines. In this research and study, universal design theory is key because it is part of the backbone of the research questions and explores some of the most basic, but most important, questions about accessibility and disability in the United States.

The seven principles of Universal Design are: ‘equitable use’; ‘flexibility in use’; ‘simple and intuitive’; ‘perceptible information’; ‘tolerance for error’; ‘low physical effort’; and ‘size and space for approach and use’ (Burgstahler, 2021).

Table 1
Seven Principles of Universal Design

Principle	Description/Example
Equitable Use	Desk can be raised or lowered to accommodate users of varying heights or an individual who uses a wheelchair.
Flexibility in Use	Video has an option to turn on closed captions.
Simple and Intuitive	Website that is clearly and simply organized for ease of use.
Perceptible Information	Video includes a voiceover to communicate information regardless of the user’s sensory ability.
Tolerance for Error	Drainage below curbs of sidewalks have grates over them so that people using wheelchairs or who have limited vision are unaffected.
Low Physical Effort	Automatic door openers can facilitate access to an office space or classroom.
Size and Space for Approach and Use	Desks in a lecture hall can be flipped from right-hand dominant to left-hand dominant.

(University of Buffalo, 2024)

While the roots of these principles are in architecture, barrier-free design is especially applicable to contemporary web design. The cornerstone philosophy of accessible, universal design, particularly in web development is that the user is

never the problem, the apparatus is (Riley-Huff, 2012). This pushes web developers to adjust.

While it takes some effort, the ability they have the ability to adjust. At the core of disability theory and accessibility research, then, is that those with the ability to meet people where they are must do so, pulling social responsibility theory back into focus. This research lives at the intersection of universal design theory and social responsibility theory.

Following universal design theory's principles, especially in the context of news media, infographics, and web design, will help to fulfill the social responsibility that the press – particularly graphics and visual journalists – have to their entire audience, which includes people with limited vision and other disabilities. To take a look at the reality of these shortcomings, we consider the functionality of a screen reader and ways in which the presentation of news media can get in the way of a reader's understanding of the news story, and sometimes get in the way of a reader's access to the story altogether.

Accessibility from an Audience Perspective

In a more practical, less theoretical aspect, accessibility is a an intensely difficult issue for people with limited vision navigating the digital world we live in –one that becomes ever more digital every day. From my own experience, using a screen reader heavily limits a website user's ability to scroll and click freely, as the screen reader restricts a user to accessing website elements in a chronological order. This order may be invisible to a fully abled user but is written into the code of the

website. Because the back-end code of simple websites is usually optimized for web browser efficiency, screen readers are often an afterthought (W3C, 2021).

Additionally, website elements like, for example, a video that automatically plays when the website loads, disproportionately affect users with limited vision who are accessing the site through a screen reader. A user without a screen reader can simply click the pause button to stop the auto-playing content. With a screen reader, the same action to pause the video may take over a minute, as the user must continually hit the tab key on their keyboard until they reach the pause button element in the code of the site. When viewing an infographic, a screen reader may read the chart of map like it's a paragraph, simply announcing the colors and labels rather than interpreting the message that the chart is trying to deliver through data driven graphs or illustrations. This not only completely misses the point of the infographic, but it leaves a reader more confused than if the graphic hadn't been there at all, utterly defeating the purpose of the infographic. Websites and coding languages are advanced, but unintelligent systems, and because of this millions of people are left behind. These are common experiences, too: having low or no vision is one of the top 10 disabilities among adults in the United States and is one of the most common disabilities affecting children (CDC, 2017). About 20 million people, or 6% of the US population, have limited vision defined as visual impairment (Georgetown Health Policy Institute, 2009). These common experiences must be addressed if the news media truly has an interest in fulfilling its duty to the public.

Conclusion

Accessibility, and particularly accessibility research, in the United States is a relatively new concept. Digital accessibility is an even newer concept. While journalism has made strong efforts to keep up with current web design conventions and standards, accessibility is an area where journalism has often fallen short. Because many journalists lack web design skills and training on accessibility, news content is not always available. Some organizations are ahead of others, but most organizations fall short. Even in large newsrooms, it often takes an individual to lead the charge on the importance of accessible content. I've seen this in my experience at both the Columbia Missourian newspaper and USA Today, where there has been one team member championing alt-text on graphics and social media posts. While previous research addresses accessibility in news, there is a gap in the research. Scholars have yet to address the accessibility of infographics and the effects that this lack of accessibility has on people with visual impairments. A select few studies have attempted to address infographics accessibility but have done so through the general lens of mass communication and have focused on cutting edge technology to solve this issue in a lab setting. This research aims to address the needs of individuals with visual impairments so that news, and news graphics in particular, can be more directly accessible. Given the gaps in research and the obligations of the press to the entire public, which includes all people regardless of ability, I believe this study will be an important addition to scholarly research and the field of journalism.

Definitions:

Alt-text

Short for alternative text. Text that is added to images and other non-text web content, like infographics and data visualizations, so that the content can be perceived and clearly understood by people who may not have the ability to see the content or otherwise grasp its meaning (W3C, 2021).

Alt-text is the “descriptive caption” for an infographic that is either written by the creator of the graphic or auto-generated by software to describe an infographic. Alt-text is what is read aloud by a screen-reader so that people can comprehend the information shown in a graphic. In photojournalism, alt-text is also used. In that application, alt-text is different from the photo’s caption, serving to describe the scene exactly as a person without visual impairments would see it, so that an accurate description of the image can be delivered to people with limited vision.

Infographic

Data visualizations (quantitative or qualitative data-driven charts, maps, etc.) or illustrations that convey information to an audience (Yael De Haan, et al., 2017).

Here, infographic specifically refers to any type of data visualization or illustration used to convey information in online news media.

Accessibility

The availability of content to people with disabilities, including but not limited to visual, auditory, physical, speech, cognitive, language, learning, and neurological

disabilities (W3C, 2008). This includes blindness, any type of visual impairment, colorblindness, etc.

The extent to which people with disabilities can interact with their environment, in this case, news media web content.

Screen reader

Software programs that allow users to listen to web content displayed on their computer screen. A screen reader reads the text on the screen and transmits the content via a speech synthesizer or braille display. It is the interface between the computer's operating system, its applications (specifically a web browser), and the user (AFB, 2023).

Text

Text is defined as words or characters on a physical or digital page that form part of a news story, infographic, or data visualization.

Research Questions

1. In what ways can infographics, infographics technology, and computer programming practices be improved to cater to people with limited vision?

CHAPTER 3: METHOD

To address the research question, I'll use the qualitative research method of semi-structured in-depth interviews. Specifically, I'll conduct semi-structured in-depth interviews with people with low or no vision. These interviews will help me to identify the pitfalls of digital news, especially digital news infographics and data visualizations and ways that graphics, graphics technology, and web development practices can be improved to better suit the needs of people with low or no vision who actively engage with news.

The method of in-depth interviews is the most effective method for my research topic due to the ability of well conducted in-depth interviews to explore the personal experiences and individual beliefs of interview subjects – this method is particularly effective in enabling interviewees to reveal desires, feelings, expectations, and other topics concerning the interviewee's own life (Pessoa et al., 2019). This is especially relevant for my research topic, as I'm precisely interested in what people with low or no vision expect from digital news and infographics, their experience with this form of content, their feelings about it, and their desires for change within this modality of news content delivery.

I plan to conduct seven to ten semi-structured interviews asking questions including but not limited to:

- To what extent has your experience engaging with news changed over time?
- Do you feel that digital news serves you and meets your needs?

- Tell me about your experiences using websites, especially news websites?
- What has your experience with alt-text been like? Do you feel it aids your understanding of content on the internet?
- How would you like digital news delivered to best suit your needs? What would an ideal news story online look like to most effectively give you the information you're looking for?
- Have you had any particularly bad experiences with digital news? On the flip side, have you had any particularly good experiences with digital news?
- Do you find there is a difference between national, regional, and local news outlets in the accessibility of their news content on digital platforms?

The participants in this study will entirely consist of people who: (1) have low or no vision and (2) regularly engage with news. Interviewees will consist of participants from various locations; however, they will be mostly concentrated in Missouri for convenience purposes.

Possible interview subjects will be primarily recruited through nonprofit organizations that serve people who have blindness, like the National Federation for the Blind of Missouri and the Missouri Council of the Blind. In addition to recruiting subjects by reaching out over the phone and email, I'll also implement the snowball sampling recruitment technique, when a qualified participant shares an invitation with

other subjects similar to them who fits the target population (Berg, 2006, as cited in Ward, 2022, p. 283).

A working list of potential interview subjects is provided here:

- Gary Wunder – President Emeritus, National Federation of the Blind of Missouri
- Jenny Carmack – President, National Federation of the Blind of Missouri, St. Louis Chapter
- Nate Freeman – Member, Missouri Council of the Blind
- Alicia Starner – President, Blind of Central Missouri

Interviews will be conducted during the fall, beginning in late August 2024.

Interviewees will be recruited during the late summer with recruitment continuing into the early fall. Data will be collected from the interviews over the course of the fall, and an analysis of the qualitative data and a completion of the project report's findings will take place in late October and early November 2024. Interviews will take place in-person when possible. In the event an in-person interview is not practical, interviews will take place via phone, or the interviewee's platform of choice. Interviews will be recorded on two different devices to ensure data is collected properly, and written notes will be taken during the interview and immediately after. The recordings of the interviews will be transcribed using Otter.ai software to convert the video/audio recordings to text. Follow-up interviews will be scheduled with participants if deemed necessary.

All participants will be guaranteed confidentiality.

Appendix IV: Deliverable Best Practices Article

Universal Design Theory is the Key to Solutions

At the end of every conversation with my interview participants, I asked a loaded question: “What should be the top priority for accessibility tool designers and news media to focus on...what would be the most helpful fixes to accessibility problems you experience?”

I received a wide range of answers to this question, and every participant’s answer was unique. Eric Boklage, though, gave a particularly unique answer to this question. When asked what the top focus should be for accessibility, he asked, “Are you familiar with universal design?” Boklage said that Universal Design should be the core value of web development in any form, but particularly in the news. But, he then pointed out that so much of the internet is not fully accessible because putting Universal Design into practice is not profitable – ultimately making “diverse populations, such as those who have visual impairments, an afterthought.” Boklage said that “Universal Design has proven over and over and over and over again that the masses benefit from the things they have put into Universal Design.” He argues that accessibility should not be something developers and journalists need to be compliant to, but rather it should be something that they want to do so that the largest amount of people can access their work. “I’m too much of a realist to think that’s possible,” Boklage said, but he affirmed that it should be the top priority of developers, accessibility tool designers, and journalists and the news media.

Boklage works with college students who have visual impairments and helps them to access their course material, and often he finds that public university’s websites

are not properly marked or identified in a way that a screen reader can navigate the site. Markings for “enrollment” and “class schedule” on a screen reader should be a necessity, but instead the lack of awareness has resulted in a lack of access, Boklage said.

Accessibility Consultant Ian Guendry echoed Boklage’s sentiment that Universal Design is necessary, but he had some action items to incorporate Universal Design into the news media ecosystem.

Accessibility Statements

Some media outlets, like the Associated Press, New York Times, Fox News, and CNN, include accessibility statements on their websites to help people using screen readers to understand the accessibility features of the news website and toggle on and off specific features added for accessibility. The New York Times, for example, includes five different features that can be enabled or adjusted for accessibility needs. Fox News, by contrast, simply provides a single paragraph about the company’s adherence to WCAG accessibility standards.

Guendry said that robust, detailed accessibility statements, when combined with a feedback mechanism, are incredibly important in helping people navigate news websites. These accessibility statements can help provide guidance on best practices if a user gets lost in the website with their screen reader, as Guendry mentioned often times advertisements can trap screen readers inside of them without a clear way to move on to other content, and ads are especially prominent on many news sites. In addition, these accessibility statements can provide different keyboard shortcuts that can also help with navigating the site more easily with a screen reader or other assistive technology. When

more news organizations put together detailed accessibility statements, users with visual impairments can navigate to these pages before even engaging with the site, so many questions can be answered before they arise. In the case of questions that remain unanswered after consulting the accessibility statement, a feedback mechanism that allows users to input issues with the site is incredibly important.

Alternate Forms of Media

Providing alternate forms of content is an incredibly useful tactic for journalists and news media organizations when trying to mitigate accessibility issues in news stories. Many news video clips are posted with no captions and/or no option to turn on captions. This is one form of incredibly helpful alternate media. Alternate media can also take the shape of an audio player that can read a news story to a user of a news site. Providing transcripts for videos in addition to captions can be incredibly helpful for screen readers, and above all, alt-text should be provided for images and infographics in all cases. Alt-text should be incredibly descriptive, and in the case where characters are limited for alt-text, Guendry suggested including an info box to provide the necessary information that the graphic or image portrays. Often times images attached to news stories are not original images taken to accompany the story and are stock photos or file photos attached for aesthetic or thematic purposes. In these cases, simply marking these images with the alt-text “decorative.” This often saves users with screen readers from spending time trying to investigate the image further or use generative technology to try and come up with a description for the image that is truly, just decorative.

Other helpful tips

Other best practices include templated websites for news organizations, so that

there is a consistent presentation, flow, and ease of use throughout the website.

Guendry emphasized that accessibility should be considered in the design phase of a site, because if it is left as an afterthought, the chances of inaccessible elements or an inconsistency throughout the site are much higher. When content is added to these pre-built, accessible templates, the underlying structure is already accessible and won't present a problem that needs to be fixed.

Finally, consulting accessibility specialists or running small focus groups or accessibility screenings with people who have visual impairments to test run websites or large pieces of content is a best practice that will help flag accessibility issues that could come up later in content rollouts.

Accessibility specialists are not only well-versed in accessibility guidelines and best practices, but also are on top of the new technologies and techniques that can ensure accessibility in often more affordable and easier ways. In addition to accessibility specialists and consultants, it is important to engage with the community of people who have visual impairments, as ultimately their experience will inform the creation of accessible practices in the most effective way possible.

Appendix V: Supervisor Evaluation

To Whom it May Concern,

This fall, Teddy joined us at Men in Blazers as a graphics intern, and he's been an absolute joy. From day one, Teddy jumped right in, showing creativity, professionalism, and enthusiasm for every project they worked on.

One thing that really set Teddy apart was his communication and ability to bring new ideas to the table. On top of this, he didn't hesitate to step up and support our promotional content team when asked, showing how versatile and eager he is to contribute wherever needed.

Teddy worked seamlessly with our team, communicated clearly, and approached challenges with a professional attitude. He consistently delivered great work and proved he could handle responsibility.

We were impressed with Teddy's work and have offered him a full-time position, and we're excited to have him stick around. He's been a pleasure to work with, and I'm ready to see what he'll continue to accomplish at Men in Blazers.

Sincerely,

Charles Kipp
Bachelor of Journalism, University of Missouri, 2017

Charles Kipp

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