QualityLogic

Digital Accessibility Starter Kit

Before investing time and money into tools and services, learn the basics about digital accessibility and how you can get your teams started on making an immediate impact. This guide covers what digital accessibility is all about, applicable standards, and resources that you can start leveraging immediately.

What is Digital Accessibility?

Everything we do these days seems to be online. We are working, shopping, learning, banking, accessing healthcare, getting our news and entertainment, and doing many other activities digitally. We also interact with each other in a wide variety of ways, whether that be on desktops and laptops or on-the-go with mobile devices and tablets. Regardless of the activity or device, a company's ability to provide customers with a seamless user experience has become more important than ever. A critical part of this experience is truly understanding the word "user" and the inclusivity it encompasses.

Digital accessibility extends our consideration of users to include people with physical or cognitive impairments and the types of technology or methods they use to interact with our products. Fundamentally, it is about designing and developing digital products, whether it be websites, web and mobile applications, tools, or other technologies, so that everyone has equal access.

Digital accessibility encompasses all the possible conditions that affect the way we access digital technology, including:

Visual

Hearing

Learning, Cognitive, & Neurological

Physical & Motor-Control

Aging-Related

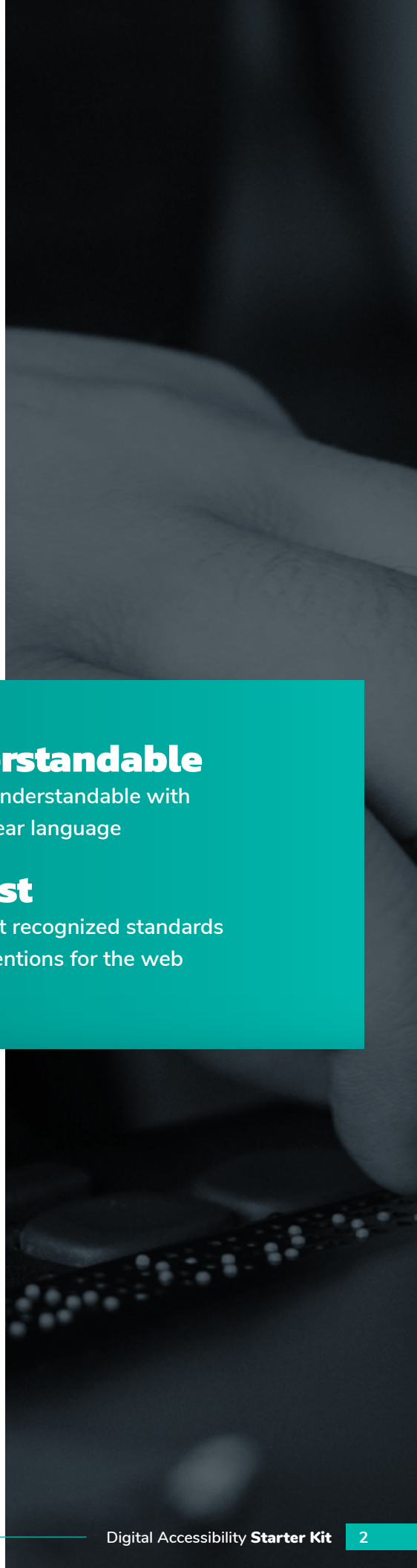
Accessibility is a Basic Human Right

Access to information and communications technologies, including the Web, is defined as a basic human right in the United Nations Convention on the Rights of Persons with Disabilities and in many countries, it is a legal requirement.

To address the needs of individuals of all abilities, the World Wide Web Consortium (W3C) developed the Web Content Accessibility Guidelines (WCAG), which is a set of technical specifications, techniques, and supporting resources that help businesses and users create an inclusive experience without barriers.

These guidelines are based on four principles:

1. **Perceivable**
   Must be perceptible for users through sight, sound, and touch
2. **Operable**
   Content must work regardless of the technology used to access it
3. **Understandable**
   Must be understandable with simple, clear language
4. **Robust**
   Must meet recognized standards and conventions for the web



The mission of the WCAG is to create a single, common standard for digital accessibility that serves the needs of all individuals, organizations, and governments. It is currently widely accepted as an international standard for digital accessibility and one of the best resources to start learning about what digital accessibility is all about.

What is Assistive Technology?

Assistive technology is any product, product system, or software program that is used to increase, maintain, or improve the functional capabilities of anyone with a physical or cognitive impairment. Assistive technology is designed to support a wide range of capabilities and helps people who have difficulty seeing, hearing, remembering, learning, and more.

Examples of Assistive Technology

While assistive technology can take a variety of forms, Digital Assistive Technology is all about devices and software. These solutions are based on specific physical or cognitive impairments and can be vital in the everyday lives of your users. For the purposes of this guide, we've broken the technology into four categories.

Visual

- Screen reading software
- Text-to-speech systems
- Optical Character Recognition (OCR) for converting images of text into written equivalents
- Specialized software such as screen magnification software for people with low vision
- Alternative keyboards and input devices
- Voice recognition

Hearing

- Mobile devices with texting or specialized apps
- Personal amplification systems
- Portable closed captioning systems
- Face-to-face dual keyboard communication systems

Speech Communication

- Fluency assistance devices
- Speech output software
- Symbol-making software
- Speech generating devices

Learning, Cognition, and Neurological

- Text-to-speech systems to support learning (not related to vision needs)
- Notetaking systems
- Mobile devices with specialized apps

It can often be helpful to understand the types of technology your users are utilizing or the different assistive technology that may be relevant depending on your content (for example, captions for video). One great resource for screen readers is the screen reader user survey, produced periodically by WebAIM. This survey includes usage statistics that can help inform technologies to prioritize during testing or supporting during the design and development process.

Considering the numerous types of tools used to navigate technology effectively, it has become vital to make sure your websites and applications work across a range of technologies that individuals may use for accessing your content.

- **Shopping sites remain among the least accessible, with 46.4% more errors than the average home page.**
- **On average, there are 51.4 accessibility errors on the home pages of the top one million websites.**

~WebAIM.org

How Digital Accessibility Will Benefit Your Business

One aspect worth exploring is why you and your team should care about making your product accessible. Aside from the fact that it's the right thing to do and we all want to be fair and inclusive, there are also many compelling business advantages to be gained from accessibility practices, including some unexpected ones.

For context, the CDC estimates that 26% of U.S. adults have some type of physical or cognitive impairment, impacting how people interact with digital content. Globally, the World Health Organization estimates that over 1 billion people live with a physical or cognitive impairment and that the majority of people will experience an impairment at some point in their life, either permanent or temporary. Although accessibility is often portrayed as a minor concern, making your product digitally accessible impacts a significant percentage of the populace.

Based on our experience and work with clients, we believe investing in your organization's digital accessibility has significant benefits, the following being the most impactful:

Increased Revenue and Market Share

With the sheer number of individuals who use assistive technology or who experience a physical or cognitive condition, a significant percentage of your userbase can't use your business's services or products if they're inaccessible. By embracing digital accessibility, you have the opportunity to provide your services or products to a previously unavailable market and grow your business.

Additionally, accessibility compliance is often required in order to do business with large enterprises, governments, and other organizations. By neglecting digital accessibility, you risk missing major opportunities for your company. By embracing it upfront, you position your organization to seize those opportunities.

Differentiation

Digital accessibility can be a great way for your business or organization to be distinctive. With accessibility becoming a requirement for the operations of many different organizations and governments, making accessibility part of your core competence can be a strong differentiator against competitors. These days, many businesses are making decisions about products and services and using accessibility to limit or drive choices.

Improved SEO and Web Traffic

Implementing digital accessibility principles align strongly with SEO best practices. The inclusion of alt text, for example, also boosts your page ranking on Google. Having clearly identified and labeled information is great for accessibility and for SEO. What is often good for accessibility is good for SEO and vice versa.

Avoid Lawsuits

It is reality that accessibility is a legal requirement in many regions. Avoid costly and time-consuming litigation by appropriately addressing accessibility and accommodating assistive technology users.

Brand Reputation

Users are increasingly expecting and demanding more of the companies they work for and purchase from. Is your organization socially responsible? By making digital accessibility a priority, you show that you care. This sends a great message on inclusivity to your customers.

Better User Experience

Digital accessibility requires simple, intuitive designs and workflows which inherently creates a more engaging and easy experience for all users, not only those using assistive technology.

Automation Readiness

From a quality assurance perspective, many of the best practices needed to create an accessible experience also lend themselves to test automation. This includes aspects like adding unique identifiers or logically structuring page elements and content. By building a path for accessibility, automation becomes easier. If your team already has test automation programs, chances are that accessibility will be far more efficient to implement.

Situational or Temporary Conditions

Users interact with your digital property in a variety of settings, such as in bright sunlight which reduces visibility, in a noisy atmosphere where listening is not an option, and so forth. Designing your product so that people can fully interact with it under a wide variety of conditions benefits everyone.

Digital accessibility makes for a better user experience for everyone and provides a foundation for greater success and efficiency. Digital accessibility isn't just a requirement, it's an opportunity. With expert guidance and support, accessibility can be another area that will help propel your business forward.

How to Get Started With Digital Accessibility

Before you can start effectively implementing the right digital accessibility program, it is important to understand the basics of accessibility standards, tools, and what resources are available to you and your team. With this context, you can then determine the best path forward.

Understanding the Standards

Standards, laws, and other requirements or guidelines can be thought of in terms of three categories: regional, product based, or transaction based. The most important standard to be familiar with is WCAG, which is the basis for most other requirements.

Beyond that, regional requirements are generally driven by legislation within your country or state/province. Most regional requirements take the form of disability or accessibility acts and point to one version or another of WCAG. Current regional requirements that are prominent include Americans with Disabilities Act or ADA (United States), Accessibility for Ontarians with Disabilities Act or AODA (Ontario, Canada), Accessibility for Manitobans Act or AMA (Manitoba, Canada), the Accessible British Columbia Act (British Columbia, Canada), EN 301 549 (European Union), and others.

Product-based guidelines are typically useful specifications for making certain kinds of products accessible. They may include Web Accessibility Initiative – Accessible Rich Internet Applications or WAI-ARIA (specifications for rich internet applications), Authoring Tool Accessibility Guidelines or ATAG (specifications for web content authoring tools), User Agent Accessibility Guidelines or UAAG (specifications for user agents like browsers), and others. These are generally not required but help guide usability depending on the type of content or product you are providing to users.

Finally, transaction-based requirements have more to do with the type of interaction or agreement you have with potential users. A common and public standard in this category is Section 508, which requires that information technology or electronic content to be digitally accessible when providing it to the US Federal Government. If you intend to provide your product to the US Federal Government, these requirements will come into play. Beyond that, many businesses and organizations are now requiring compliance to various accessibility standards (generally one version or another of WCAG), so you will typically encounter this based on your transactions with other organizations.

You will want to first understand WCAG, then the regional accessibility laws that may apply to you, and finally the specifics of any product-based guidelines or transaction-based requirements depending on your business. These all address compliance, not total usability, so it is worth noting that these are only a starting point for your digital accessibility foundation.

A Deeper Look at WCAG

You now know that WCAG is generally treated as the international standard for Digital Accessibility, but what does it actually say, when is it used, and to whom does it apply? It's also important to understand the advantages of WCAG but also the limitations.

Content accessibility pertains to text, images, and sounds as well as source code that defines the structure, presentation, and functionality of the digital product. WCAG is updated over time and has incremental releases such as WCAG 2.0, WCAG 2.1, and the latest WCAG 2.2 with each version adding additional guidelines and success criteria to improve overall accessibility. Within each WCAG version, individual success criteria are also categorized into three levels of conformance to meet the needs of different groups and different situations: A (lowest), AA (mid-range), and AAA (highest).

Level A addresses the minimum requirements to reduce clear barriers for individuals using your product with assistive technology. Level AA is more comprehensive and focuses on making your product reasonably accessible to a broader audience including both desktop and mobile interactions. Level AAA is the highest conformance objective and hopes to accommodate the greatest number of users and situations, however it is only applicable to certain kinds of content (such as animation or prerecorded audio) and is generally not required across the board. In order to meet a given conformance level, you must also meet all levels below the target. For example, level AAA requires compliance with Level A, Level AA, and Level AAA success criteria.

AA is and has always been the most common conformance level to strive for. Specifically, most laws now point to WCAG 2.1 AA as the minimum standard to comply with and WCAG 2.2 AA is generally regarded as the industry standard.

Guidelines are regularly evolving to account for new assistive technology and practices. It wasn't long ago that WCAG 2.0 level AA was considered proactive, for example. This is why accessibility can't be thought of as a one and done.

Due to the recent release of WCAG 2.2 on October 5 of 2023, many businesses will be forced into playing a game of gradual catch up factoring for the new success criteria.

Digital Accessibility in the United States

There are two critical acts within the US context to be aware of: Rehabilitation Act of 1973 (specifically Section 508) and Americans with Disabilities Act (ADA). These two acts formed the foundation for what later drove the current framework for digital accessibility.

The US Federal Government passed the Rehabilitation Act of 1973 which prohibited discrimination based on disability in programs conducted by federal agencies. To extend this, Congress in 1998 amended the Rehabilitation Act with Section 508 which required that Federal agencies make their electronic content or information technology accessible to individuals with disabilities. The most current version (January 2018) of Section 508 requires that electronic content and information technology comply with WCAG 2.0 AA. Compliance is only required by Federal agencies or if a business or other entity is supplying electronic content or information technology to a federal agency.

The other critical piece of legislation in the United States is the Americans with Disabilities Act (ADA) of 1990 which prohibits discrimination against anyone with disabilities in public life. This law was enacted prior to the

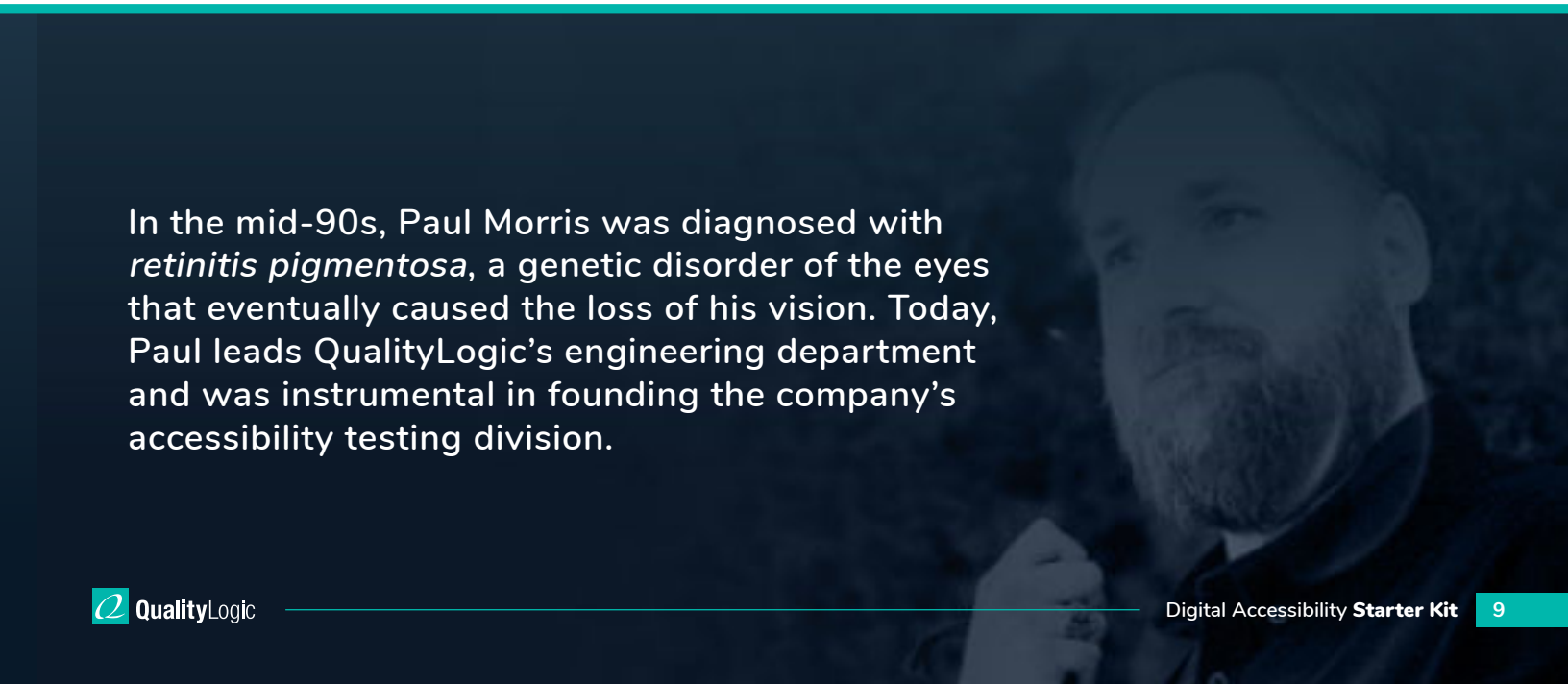
internet as we know it and so does not address the digital space. This act was originally understood to apply to physical places such as brick-and-mortar businesses, but this changed with a lawsuit against Domino's Pizza in 2019. Dominos was sued under the ADA for not making their website accessible. After appealing to the Supreme Court, the Court declined the appeal and let stand the ruling of the U.S. 9th Circuit Court of Appeals ruling which maintains that the ADA applies not only to brick-and-mortar places of business but websites as well. This ruling is what brought digital accessibility widely into law in the United States and the standard pointed to by this ruling is WCAG 2.0 AA. Since then, accessibility litigation has consistently been on the rise, and most of these lawsuits within the United States now reference WCAG 2.0 AA as the standard to comply with.

The Limitations of Standards and Importance of Usability

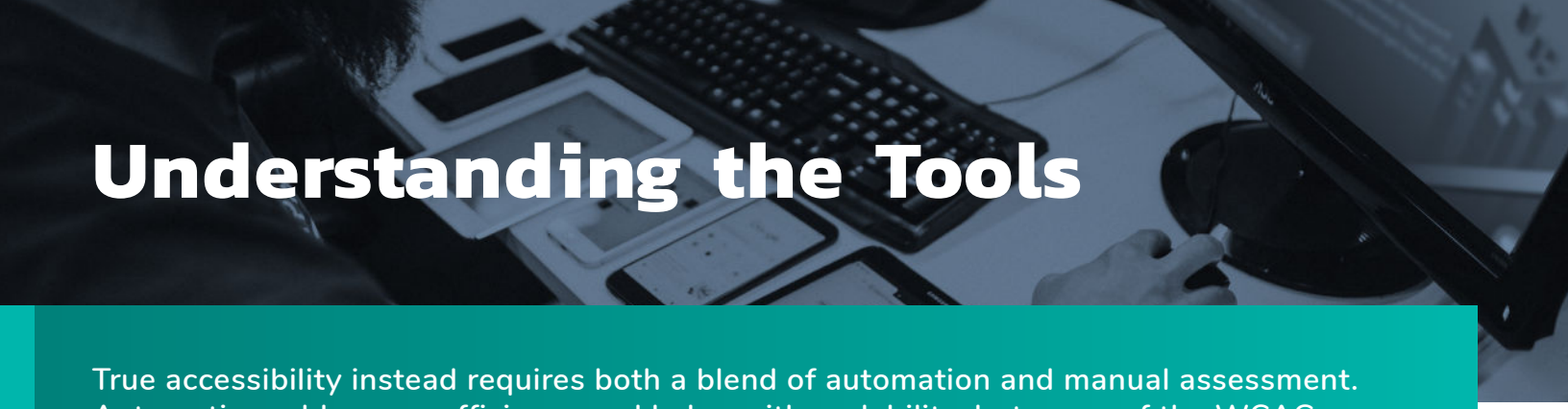
Standards are great in providing a common and consistent path toward digital accessibility, but where do they come from? The reality is that standards are constantly evolving based on our understanding of users and their experiences, advancements in technology, and changes in the way we use digital technology in our lives.

In this sense, the best way to create a truly accessible experience is to use the referenced standards to build a foundation, then focus on usability by engaging real users in testing and providing avenues for feedback and change. It is also imperative to include individuals with physical or cognitive impairments or real users of assistive technology across design, development, testing, and other teams responsible for creating an accessible experience. By proactively including these individuals across your organization, you create a diverse team and system where accessibility is built-in from the very beginning.

Inclusion for all digital users is rapidly taking hold in all markets across the globe. The opportunities digital accessibility offers are being recognized and embraced. There is no better time than now to start implementing digital accessibility practices, or to work with a partner that can help.



In the mid-90s, Paul Morris was diagnosed with *retinitis pigmentosa*, a genetic disorder of the eyes that eventually caused the loss of his vision. Today, Paul leads QualityLogic's engineering department and was instrumental in founding the company's accessibility testing division.



Understanding the Tools

True accessibility instead requires both a blend of automation and manual assessment. Automation adds some efficiency and helps with scalability, but many of the WCAG guidelines are subjective and impossible to assess using a tool.

For this reason, manual assessment should also be performed by real users with physical or cognitive limitations as well as users without. There are also many areas of a product which users of assistive technology can find challenging, even if they are technically compliant. With a blended approach that considers the real experience of users, you gain the most accurate view of your product's usability.

The Advantages of Tools

Tools identify issues that are hard for humans to catch. A good example is a contrast in color. When using color in a digital asset, you need enough contrast to allow all users to easily distinguish page elements like text from the background or differences in images or other visuals. Automation tools can capture these issues better than the human eye.

The Limitations of Tools

Many guidelines are subjective and require human judgment or assessment. In addition to the requirement on including alt text on images, another requirement states that images that are purely decorative and do not communicate value to the user should be tagged as null (alt text is added with nothing inside). This causes a screen reader to completely skip over it. A tool can easily determine if an image has alt text or not, but it cannot determine whether that image truly communicates value to a user and needs to be described. That requires human judgment.

Similarly, other requirements involve ordering or structuring page headers and regions in a logical manner. Tools can certainly determine what different header levels or regions exist on a page, but it requires a human to discern whether this is done in a manner that is connected and ordered to make sense, or in a way that makes navigation easy.

Tools are very impactful in addressing issues of scale or helping us with harder to detect issues, but also why tools alone are insufficient to reach true accessibility. The right approach blends tools and the advantages they lend with the human assessment integral to the product development process.

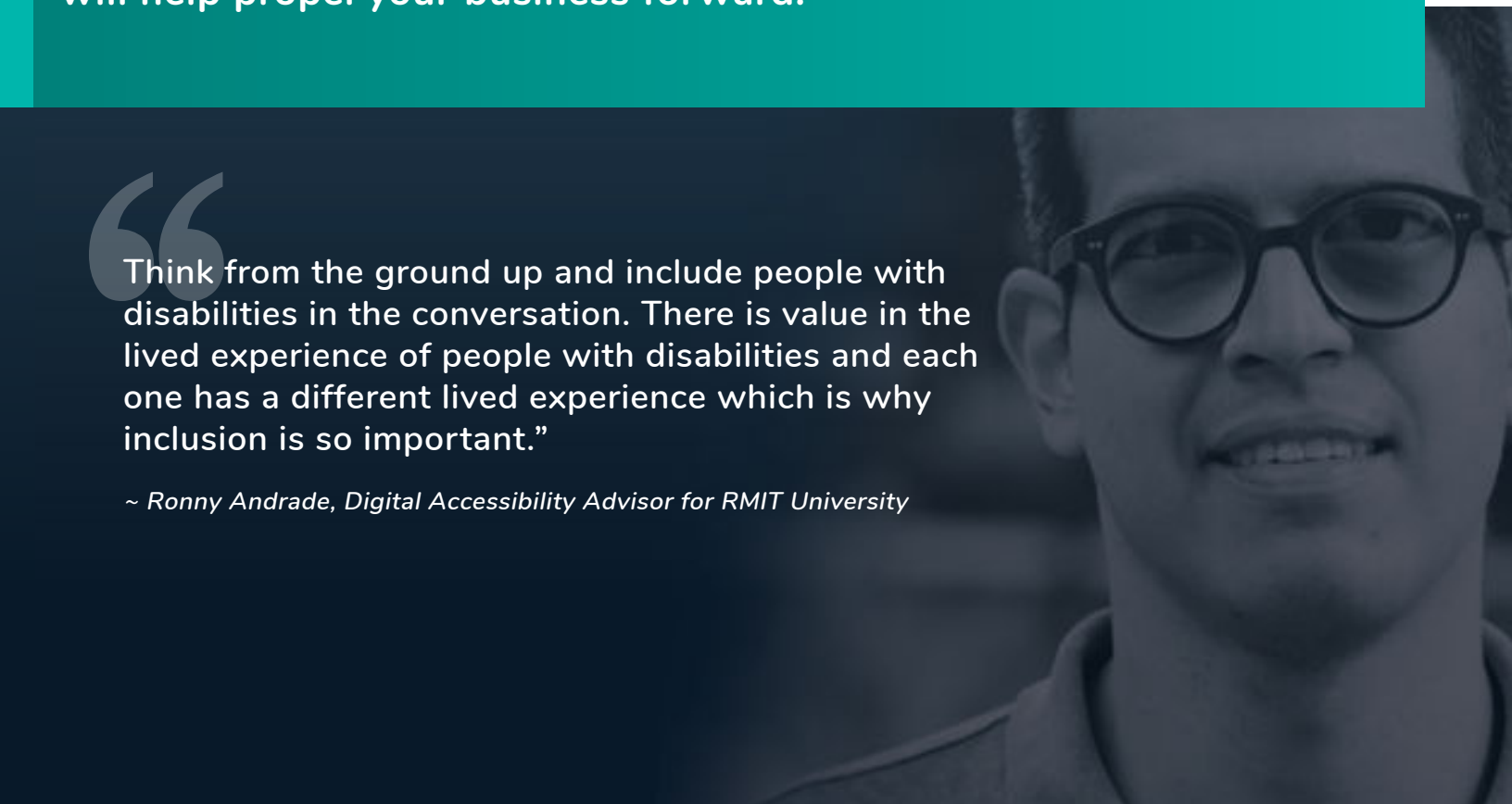
How to Get Started With Tools

Tools are great to begin testing with and one of the easiest aspects of digital accessibility to implement immediately. They help you, often for free, quickly identify issues which are impacting users and providing you with direction on what to fix.

One very popular free tool that we recommend is WAVE produced by WebAIM, which can be used to scan webpages for common accessibility issues. Additionally, W3C provides a directory of tools based on type and compliance standard which can be another great resource.

After getting started with digital accessibility testing tools, it then becomes critical to ensure individuals (especially those with physical or cognitive impairments) are engaged in designing and assessing your product for accessibility. The combination of technology and people is what gets your product or service compliant and usable.

Digital accessibility makes for a better user experience for everyone and provides a foundation for greater success and efficiency. With expert guidance and support, accessibility can be another area that will help propel your business forward.



> Think from the ground up and include people with disabilities in the conversation. There is value in the lived experience of people with disabilities and each one has a different lived experience which is why inclusion is so important."
>
> *~ Ronny Andrade, Digital Accessibility Advisor for RMIT University*

Your Digital Accessibility Road Map

We've covered a lot in this starter kit, but these four steps can guide you on the path toward digital accessibility.

Understand Where You Are

Use tools upfront to quickly identify and solve issues. Then get a professional accessibility compliance audit to minimize the chances of something being overlooked.

Get Compliant

Remediate issues identified from self-assessment tools and a professional audit, either yourself or by leveraging a third-party like QualityLogic for assistance. Prepare documentation such as an Accessibility Statement, VPAT, Accessibility Commitment Letter, or Certification.

Maintain Compliance and Usability

Set up a process for regular digital accessibility audits and testing practices as well as a plan to fix any issues that are found before they are released.

Make It Sustainable

Train your teams, get the right technology in place, and build processes for digital accessibility at all stages of the software development lifecycle so issues are caught before they become a real problem. Audit core design systems and code libraries to ensure components and modules are inherently accessible and do not continue to create issues. If you haven't already started designing or building your product, this should be your first and most important focus.

We Are Always Committed

We are committed to helping you succeed with digital accessibility and hope you have found this guide to be useful in getting started. Beyond this guide, QualityLogic is able to help with every stage of your Digital Accessibility journey and can provide the following support to help you build the right foundation:

Compliance Audit

A digital accessibility compliance audit is a thorough assessment of how accessible your website, web application, or mobile application is to individuals with physical or cognitive impairments. The audit is measured specifically against standards like WCAG, ADA, Section 508, AODA, or others. Compliance audits serve to establish a baseline for where you are today but include advice and guidance on how to become compliant or maintain compliance.

Audits are a starting point in any digital accessibility program because they identify all the issues that need to be remediated to become compliant. Testing is performed with automated tools and manually by a blend of QA professionals with and without physical or cognitive impairments. This approach gives you the most accurate information on your current state of compliance and where to go next.

Early-Stage Consulting

Starting an accessibility program from scratch can be daunting. There is a lot of mixed information online about how to approach accessibility, what standards you need to apply, what reports or tools you need, and more. Our accessibility consultants are subject matter experts and are here to help you navigate the territory. They'll work with your team to educate you on industry best practices, what applies to you, and what paths you can take to achieve your accessibility objectives or determine what those objectives should be. Let us make digital accessibility easy.

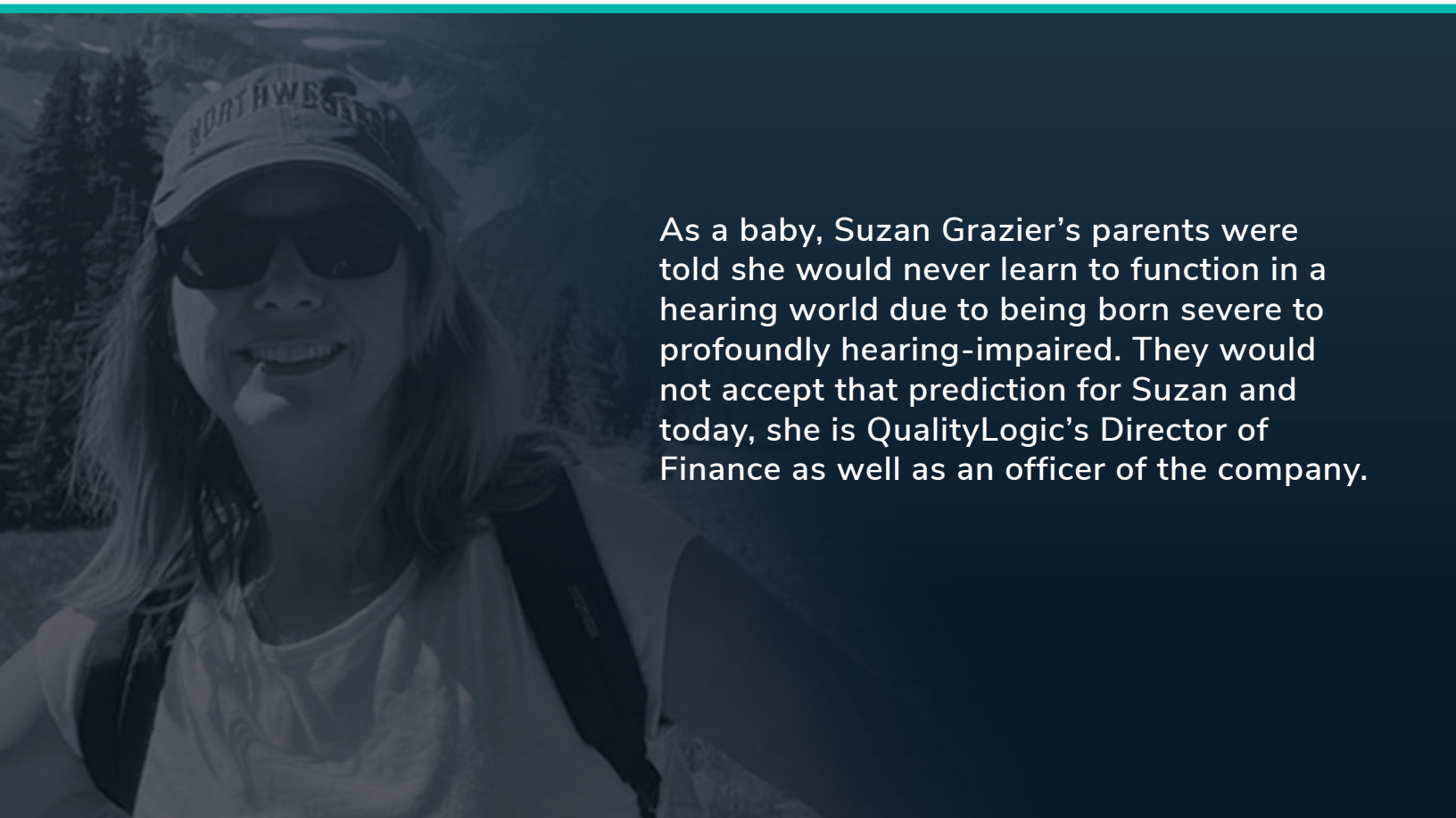
Embedded Accessibility Team

Enjoy onshore digital accessibility services provided by a full-service team. Rather than relying on a single generalist, your team gains immediate access to a range of deeply experienced accessibility practitioners to help with all aspects of the software development lifecycle including design, development, and testing. Each team includes individuals with physical or cognitive impairments, so you gain invaluable firsthand feedback from real users of assistive technology and those who benefit most from accessible design.

Training

Impower teams across all levels of your organization (from junior to C-level) with the support they need to understand the importance behind accessibility and how to do it right. Save money and time by avoiding pitfalls that your competitors are making, and embrace tried-and-true techniques that have been proven effective.

Whether you're forming your own digital accessibility program or accelerating an existing one, let us find and fill any gaps that might exist. Integrate our predeveloped, modular accessibility excellence courses into any LMS of your choosing or let us build a curriculum custom tailored to you and your needs. Whatever you prefer, an experienced accessibility subject matter expert and trainer will be there every step of the way with a vested interest in seeing you succeed.



As a baby, Suzan Grazier's parents were told she would never learn to function in a hearing world due to being born severe to profoundly hearing-impaired. They would not accept that prediction for Suzan and today, she is QualityLogic's Director of Finance as well as an officer of the company.

Get Ready,
Get Set, Go!

Your success is our priority. Our team consists of subject matter experts who are passionate about helping businesses like yours meet accessibility goals. We enjoy sharing what we know, demystifying digital accessibility, and providing you with the services needed to make a difference right from the start.

Schedule a conversation with our team of digital accessibility experts and let us know what questions you have or how we can help you.

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CLIENT SATISFACTION RATE

98%

★★★★★

Based on independent reviews from Clutch and GoodFirms

WHAT OUR CLIENTS ARE SAYING

"Their entire team is professional, knowledgeable, and willing to go the extra mile—we consider them a partner. We rely on them heavily, and they've never let us down."

MATT DEE
CTO, DIRECT CARE INNOVATIONS