

The impact of technical writing on accessibility

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Abstract

Accessibility addresses solutions offered for disabled people to have the same use of an object as an able person. Most people associate accessibility with physical objects that physically disabled people cannot use. However, accessibility actually accommodates a much larger group of users and is relevant for any product, including the web. Anyone at any point in their lives can become disabled, even temporarily. Furthermore, accessibility improves usability. Accessibility aims to make web content usable by as many people as possible.

Over the past decades, accessibility has become a matter of law in many different countries such as the United States, France, China, India, or Germany for example. Accessibility has also become a way for companies to improve their brand image while it allows people with disabilities to access web content. In the end, everybody wins.

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Introduction

Accessibility has become a part of the standards any product needs to meet. This has become a legal matter since it is regulated by the law. That is why the writing process should include a questioning and researching phase to ensure that everyone has equal access to information, functionality, and experience on digital platforms.

Also, web accessibility has become a way for companies to extend their market reach and enhance their brand. While sharing our experiences in different companies, we realized that some of us were working with accessibility norms, and some others did not.

We wanted to see how technical writers intervened and implemented accessibility in a company setting. Especially because we often work in teams made up of designers, who are making the decisions in terms of interface, and developers, who execute the design. We reached out to designers and technical writers to understand how we could matter.

A UX writer's goal is to help people use your product and provide solutions to users' problems. Each user reads and understands differently, but all of them must have a good user experience. That is why the writing process should include a questioning and researching phase to ensure that everyone has equal access to information, functionality, and experience on digital platforms.

One may wonder, how can we build the foundation needed to integrate accessibility in every facet of corporate culture? Everyone's work has an impact on the accessibility level of a product: the design, content, development, and testing teams.

In general, "accessibility" defines how easy it is to access or use something.

If a software program is easy to use, if a text is easy to read and comprehend, or if a staircase is easy to climb, then they are described as accessible.

Of course, accessibility will not be perceived the same by everyone. Cultural differences, handicaps - whether temporary or permanent - and other factors can create shifts in how the accessibility of a product will be perceived by different people.

Accessibility is at the core of technical writing. We convey information as naturally as possible to provide users with the tools to carry out their tasks. Accessibility manifests itself in many different aspects.

When writing, accessibility can refer to the color contrast of the text and the background. There exist many forms of daltonism. Sometimes, a certain color scheme will be readable by some people, but not all.

Whether the user has a visual impairment or not, they should be able to read your documentation easily. Well-structured paragraphs and sentences will also make the information more accessible.

When creating the interface of a software program, one should keep in mind the rules and conventions that people are used to. For instance, it would be unimaginable to put the hamburger button of a website at the bottom of the interface, or to name the login page "connection to your account". While this does not sound unreasonable by itself, it would go against decades of conventions, and would simply confuse the user.

We can answer that question with two main categories: the laws and the curiosity. Since 1999, there has been a stronger interest in web accessibility. The first Web Content Accessibility Guidelines (WCAG) were released. They are a list of guidelines that help designing web content accessible to people with permanent, temporary, or situational disabilities. The issue was that published guides cannot be perfectly followed because of different complaints (too descriptive, too aspirational, too charity-driven, and aimed for business only).

And that is why curiosity from technical writers is needed. By following the WCAG rules, writers understand how to have a clear and understandable document for all. But it is only with curiosity (asking questions and looking for feedback) that writers will create content that is truly accessible and ergonomic.

In the end, is accessibility an obligation, or do technical writers willingly improve the accessibility of their products? Through the writing process, it is important to follow the different rules of the WCAG, but also to have the point of view of disabled people. With this

method, the outcome will be accessible and usable to all. Usability is about making the functions easy and pleasant to use. In 2001, Whitney Quesenbery, the UX and Usability Expert and former President of the Usability Professionals' Association (UXPA), offered five criteria that a product must meet to be usable: Effectiveness, Efficiency, Engagingness, Error Tolerance, Ease of Learning.

Methods

Research

We looked into the current and past state of accessibility to find relevant issues to explore. We also used this research to create a survey and to lead interviews with technical writers.

To find a starting point on the subject, we split our team to perform some global research. It allowed us to collect different reliable documentation such as research articles or websites about web accessibility. We then filtered them to create a bibliography with the documentations that were useful for the article based on the keywords and subjects.

We found through official accessibility websites (for instance: w3.org, WCGA.org) that many rules and norms existed. The issue is that they are sometimes badly or not followed. That led us to filter the questions that we wanted to ask on the survey and interviews with technical writers.

Surveys

The opinion of professionals was key to answering our questions. We created a survey to gather information from as many professionals as possible. That allowed us to have a broader idea of the state of accessibility in the technical writing field.

We received answers from technical writers of varying profiles and backgrounds. We compared and analyzed those answers to draw generalized conclusions.

First, we shared a survey in French, with people closer to our working environments, such as classmates and French colleagues. Then, we broadened our reach by translating the survey into English, so we could share it with our English-speaking colleagues.

Our previous research helped us find the right questions to ask.

First, we wanted to know more about the person answering the survey. This data would help us determine potential trends depending on the age, country of residence, or experience of the respondents.

We also asked them about their relationship to accessibility: whether they felt it was a constraint, whether they were actively making suggestions regarding the accessibility of their company's products, etc.

Finally, we asked them to specify what accessibility meant to them. Determining that was crucial because not everyone has the same notion of accessibility: what part of the population did they think was more concerned by accessibility? What impairments are more linked to it? These questions helped us define accessibility as professionals see it.

Interviews

In addition to the surveys, we led one-on-one interviews with a few select colleagues of ours. We chose them because we knew their experience would help us understand more how accessibility is perceived in the technical writing community.

The questions we asked in the interviews were based on the ones we chose for the survey. However, due to the nature of the interview, we were also able to ask more specific questions and develop our thoughts depending on our interviewee's answers.

These interviews helped us gather insightful data. They brought depth to the broad reach of the survey.

Results

Survey results

fig.1 - What is your job title?

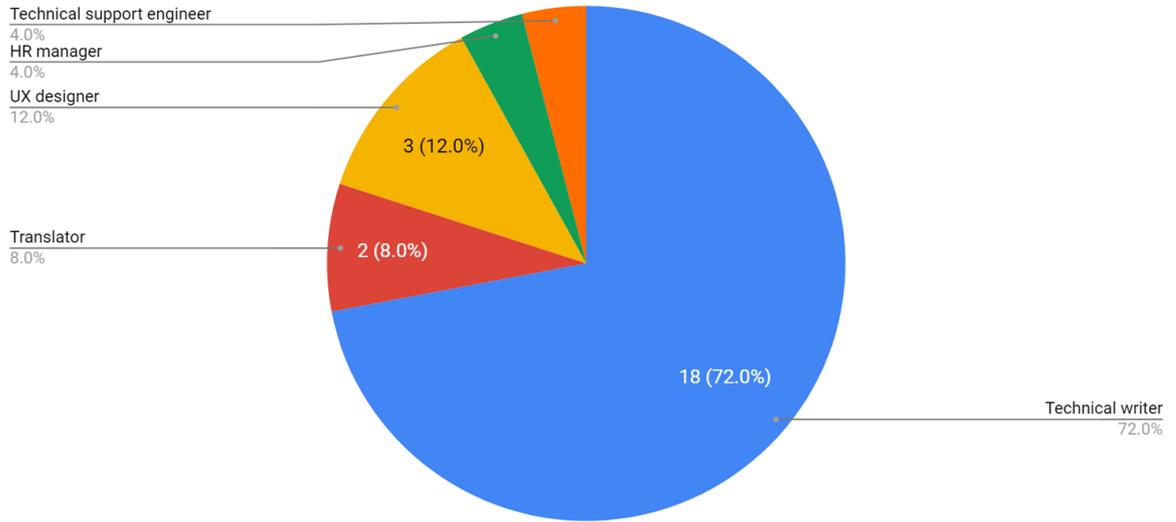


fig.2 - "Accessibility is important in my daily work"

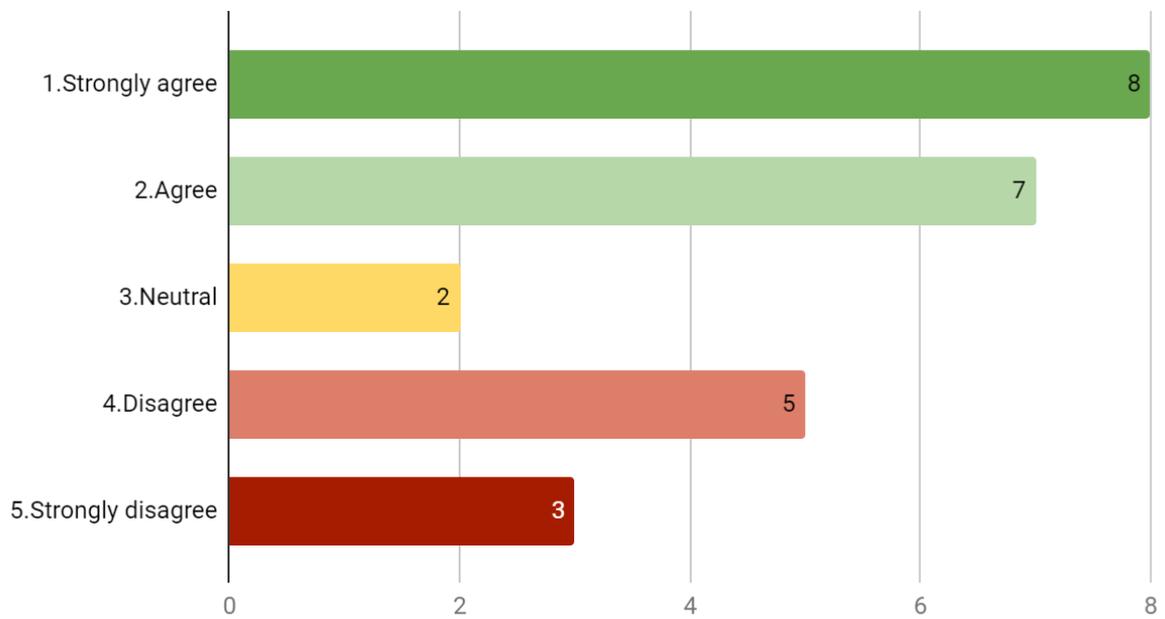


fig.3 - "Accessibility is everyone's responsibility"

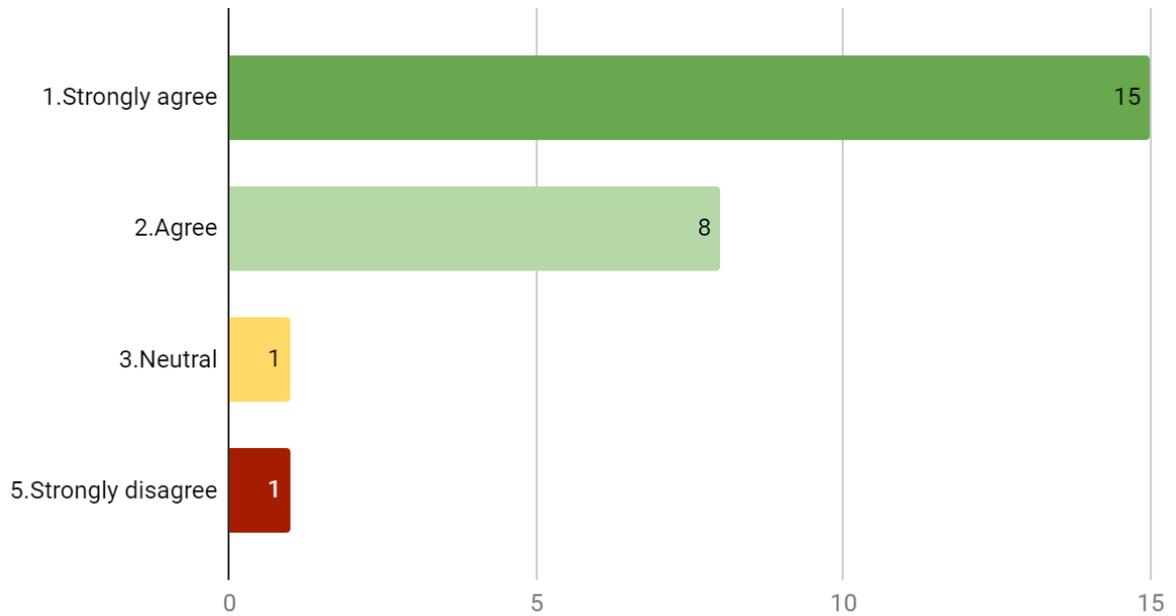


fig.4 - "To me, respecting accessibility guidelines is a constraint"

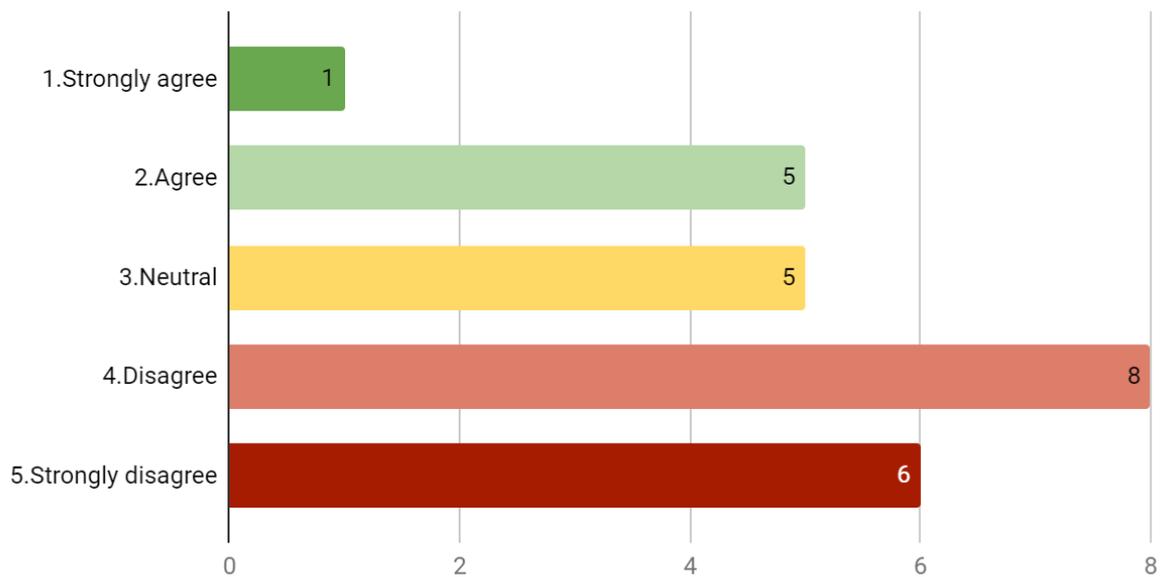


fig.5 - "The accessibility of our products and documentation is satisfactory"

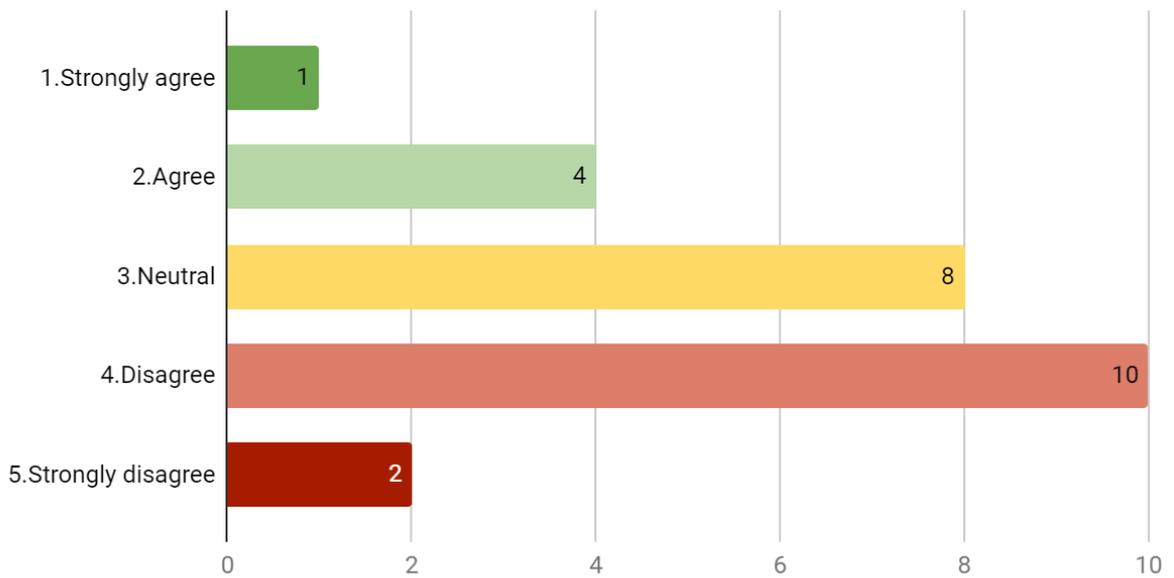


fig.6 - According to you, what impairments are more linked to accessibility?

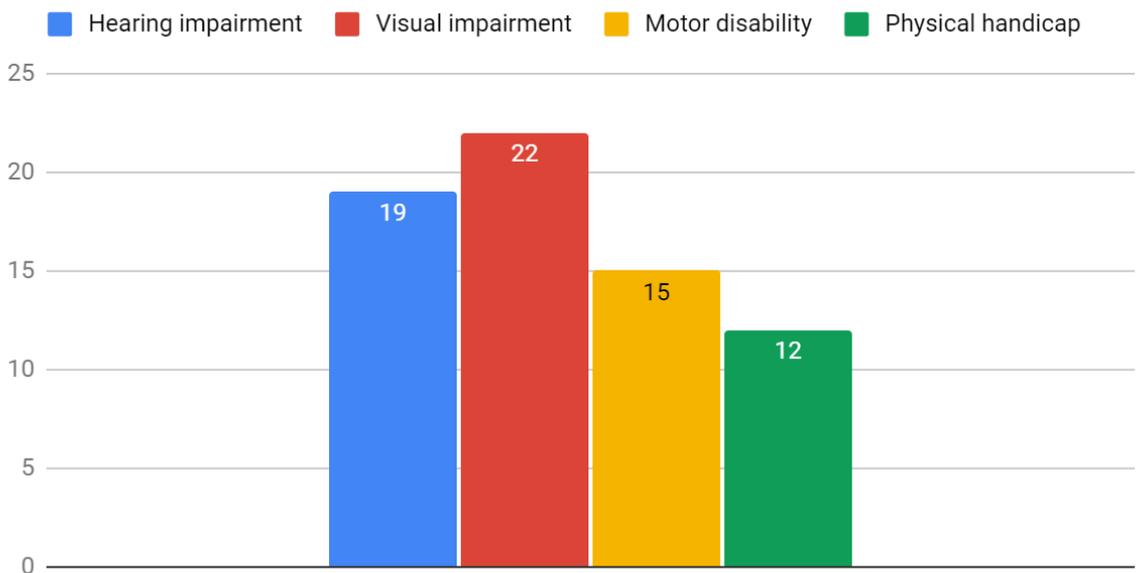
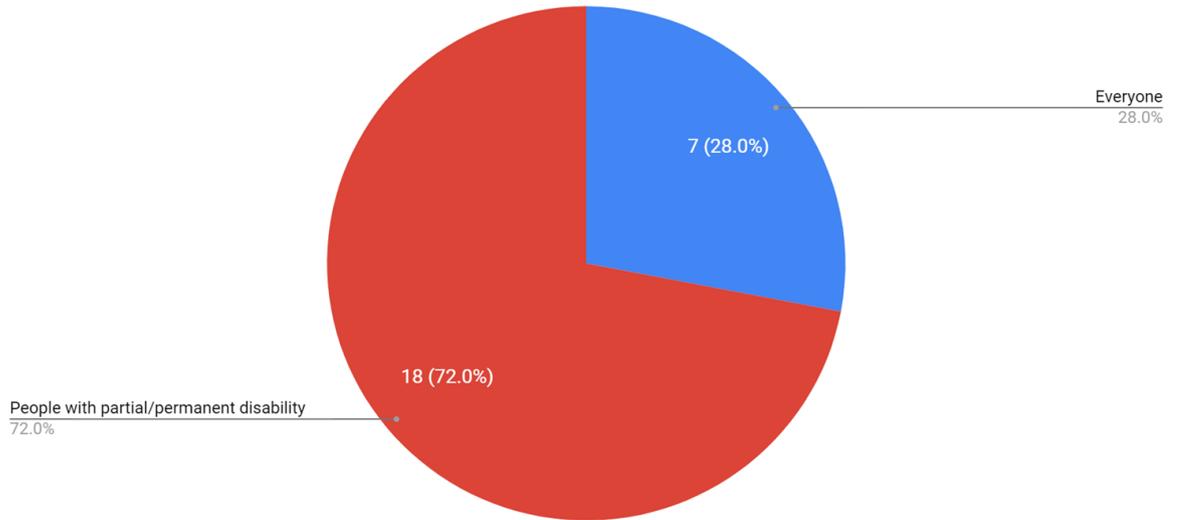


fig.7 - According to you, who is concerned by accessibility ?



Interviews

Interview with M., Experience design manager, and G., Technical writer

We asked M. and G. to define accessibility. Both of them explained that accessibility represented equal access to information for everyone.

The next question we asked related to the way accessibility impacted their everyday work. M. explained that the impact was quite significant: there are norms in every country, and if your product does not follow these norms, then you might not be able to sell your product. M. even recalls that a change in the accessibility norms once forced the company to redesign all their products for the American market.

Moreover, a member of the team has a visual impairment. For that reason, the team is more aware of the importance of accessibility.

However, G. adds that accessibility has an impact on everyone's experience. She notes that people with a temporary disability will also greatly benefit from an accessible design. Accessibility should never be seen as an impediment.

When asked about the main stakeholders of accessibility at Company A., M. explained that the UX team would be in charge of staying up-to-date with the accessibility guidelines per country.

However, the guidelines are generally broad: it is up to every team (including the Translation and Documentation team) to make sure they adjust these guidelines to their everyday work.

People throughout the company carry out projects that have a direct impact on accessibility. A great example, in which the Translation and Documentation team plays an important part, is a glossary that covers the terminology across all products from the company. This project's goal is to harmonize the language and make the products and documentation easier to use for everyone.

Interview with C., UX designer, and O., Technical writer

C. explained that the standards come from w3, which the usability tests that are led are based on. These tests are really important to make sure the product is accessible, especially because public companies have become increasingly sensitive to it. They will not buy products that do not meet the standards, which means losing contracts.

To make sure these standards are respected, the company has integrated accessibility into the guidelines that designers and developers need to follow. As a UX designer, C. needs to deliver mockups for the product interface he works on. Part of their deliverables are specific to accessibility, like keyboard shortcuts or skip orders. But with developers outnumbering designers, these mockups often end up being sacrificed. That is when the sensitivity of developers is important. If accessibility matters to them, they can consult the guidelines created by designers and make sure they follow them. Though sometimes these guidelines aren't enough and developers can't figure it out themselves. When asked if UX designers are responsible for accessibility, C. says that everyone involved in development is responsible. During and after development, accessibility issues need to be reported to the product manager, who is in charge of development priorities.

O. was chosen as an “ambassador”, along with a UX colleague, to raise awareness and teach good practices to colleagues. This was part of a process by the company to push for accessibility and make sure products were compliant. Accessibility has become a product standard for the same reasons C. had mentioned. When asked if they felt like their presentations seemed to have an impact, O. was certain that they made a difference. Especially when they showed how accessibility matters not only to the minority of visibly disabled people, but to a much larger portion of the population. People can't necessarily realize these things if they're not affected and not shown the issues. O. has had more feedback from colleagues who didn't know how much accessibility mattered to their users. That is why they think raising awareness is a major step in implementing accessibility because ultimately, guidelines and standards only work when everyone cares enough to take them into consideration at their level.

Discussion

Usability vs accessibility

Accessibility usually refers to the use of electronic systems by people with special needs, particularly those with disabilities. The standard ISO 9241-171 (2008b) defines accessibility as: « The usability of a product, service, environment or facility by people with the widest range of capabilities ».

However, accessibility is also used to refer to electronic systems that are specifically usable by people with disabilities. For example, the Web Accessibility Initiative (WAI) defines web accessibility as: « That people with disabilities can use the Web. More specifically, Web accessibility means that people with disabilities can perceive, understand, navigate, and interact with the Web (WAI 2006). »

The Web Accessibility Initiative (WAI) was founded by the World Wide Web Consortium (W3C) to promote the accessibility of the Web.

Usability is the term used to refer to the problems that mainstream users can have with electronic systems. By mainstream users, we mean non-disabled and younger people. Whereas accessibility is the term used to the problems that disabled and older users can have by using electronic systems.

The aim of web accessibility is to ensure that websites, tools, and technologies are designed and developed to include people with different disabilities such as :

- Visual
- Neurological
- Physical
- Auditory
- Speech
- Cognitive
- Intellectual

Web accessibility also benefits people without disabilities. Indeed, abilities can change due to aging, people may have a broken finger which will be a temporary disability, people can also use different screen sizes, and so on.

The dynamics (laws vs voluntary effort)

Companies are obligated to follow certain standards of accessibility

Nowadays, companies are making accessibility a central part of the conception of their products. That is mostly because, depending on the countries they are present in, they are required to deliver products meeting the accessibility criteria set by the law. However, money is often the primary factor in a company's decisions. If businesses do not adhere to accessibility norms, they risk losing contracts.

But the implementation of accessibility is only really effective at the individual level of each employee who will keep disabilities in mind while creating. And at the level of employees, money becomes much less of a motivator. That is where raising awareness matters.

User experience designers focus on providing efficient and satisfying interfaces for users and if they're not taking accessibility into account, a bias is present where they'll deem

certain tools able to provide a great user experience while it might be a hassle in terms of accessibility.

The implementation of accessibility relies on the willingness of the developers and designers to include it and dedicate themselves to it. Because if accessibility should ideally be included in the design process from the start, it sometimes becomes an afterthought or even a bonus. Designers need to deliver mock-ups specific to accessibility but as said earlier, certain design items are bonuses for usability, but requirements for accessibility (ex: skips and shortcuts). One of the consequences is accessibility being sacrificed in case of resource shortage.

Technical writers are user advocates alongside UX designers.

Another input technical writers can have is testing, due to the nature of the job. Because when user experience designers are done with the design and developers are finished developing a feature, technical writers start to write documentation and that's where they can pinpoint issues that might have escaped developers. Therefore technical writers are good testers and can bring improvements to the product, including accessibility.

What our survey says about those dynamics

Our survey was mostly answered by Technical writers (fig. 1).

Most participants (15 out of 25) agree or strongly agree that accessibility is important in their daily work (fig. 2). Even more of them (23 out of 25) agree or strongly agree that accessibility is everyone's responsibility. What this tells us is that most people realize the role they have regarding accessibility, even on an individual level.

Furthermore, most participants (14 out of 25) disagreed or strongly disagreed that respecting accessibility guidelines felt like a constraint to them.

Finally, only 20% of respondents thought that the accessibility of their company's products was satisfactory. 8 people were neutral on that aspect, and almost half of them (12 out of 25) either disagreed or strongly disagreed.

These results say a lot about how these professionals feel regarding accessibility and its stakeholders. Most people affirm that accessibility is a daily effort for them and that everyone should be involved in it. However, they do not feel forced to respect the accessibility guidelines that their company has to fulfill.

Despite this voluntary endeavor from them, most people recognize that their company's products are not as accessible as they should be, despite respecting the regulation. Thus, we have to acknowledge that there is a shift between the regulation's standards and the people's standards.

This is an important realization that also resonates with the experiences we had during our apprenticeships, and that also transpired in the interviews we led for this article.

We realized that there was a clear distinction between accessibility as seen by individuals, and by companies.

Our survey's results suggest the following: even if a product passes the country's accessibility standard norms, and even if that product is sold on the market, does not necessarily mean that its accessibility is sufficient for its users. After all, such norms are ambitious: they aim at providing a one-size-fits-all solution to assess the accessibility of a wide range of products. It is easy to understand why doing so is not possible.

Regulations still have an important part to play: they make companies aware of accessibility issues. But this is only the first step. From there, it is the role of individuals to improve the accessibility of their company's products. They will do so with user feedback, testing, and researching; and it has to come from their own motivation. No regulation can force them to do so genuinely.

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