

# Exploring the Impact of Technical Writing on Accessibility: A Linguistic and Information Architecture Perspective

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*The purpose of this article is to explore the impact of technical writing on accessibility, with a focus on the linguistic and structural aspects of technical communication. While much-existing research on accessibility emphasizes visual elements, this study addresses a critical gap by examining how the language and structure of technical documentation influence accessibility.*

*To examine this impact, we explored the current writing practices used in software engineering companies by conducting interviews with technical writers while drawing on interdisciplinary insights from linguistics, terminology, technical writing, and information architecture.*

*The findings reveal that effective technical writing for accessibility involves the strategic use of plain language, thoughtful Information Architecture, and a deep understanding of user needs. Interviewees highlight various techniques and best practices, such as simplifying complex language, organizing information logically, and following strict writing guidelines.*

*Keywords: Accessibility, Documentation, Plain English, Information Architecture, Technical writing, Linguistics, Terminology*

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## Introduction

Accessibility has increasingly become a central focus in various domains, driven by evolving societal values and legislative mandates. In France, accessibility has been a significant concern, particularly with the implementation of laws aimed at ensuring that digital content is accessible to all users. Created in 2005, the law N° 2005-102 mandates public institutions to be accessible. To be accessible, they must follow the French Digital Accessibility Act (Référentiel Général d'Amélioration de l'Accessibilité, RGAA). This legislation is part of a broader European effort to promote digital inclusion, as seen in the Web Accessibility Directive adopted by the European Union in 2016.

These legal frameworks underscore the importance of accessibility not only as a regulatory mandate but also as a necessary component of digital communication and user experience. Ensuring that content is accessible to everyone fosters inclusivity and equal access to information. This emphasis on accessibility extends beyond visual elements, to include accessibility through linguistic and Information Architecture. Technical writing plays a critical role in this broader understanding of accessibility, as the clarity, consistency, and organization of written content are essential for making technical information understandable for users. This growing recognition of linguistic and structural accessibility highlights the need for technical writers to adopt inclusive practices that address the diverse needs of their audience.

## Literature review

Linguistics plays a pivotal role in making technical writing accessible. The way language is used can significantly impact a user's ability to understand and interact with the content. Research in this area has shown that clear, concise, and well-structured language can enhance comprehension, particularly for users with cognitive disabilities or those who are non-native speakers (Redish, 2012).

One of the key principles in making technical writing accessible is the use of plain language, in our case plain English (Burnett, 1990). It involves writing in a way that is simple and without jargon, making the content easier to read and understand. It also involves the use of direct words and positive phrasing. While sentence structure has an impact on the readability of the documentation, relying solely on independent clauses will not necessarily ensure the accessibility of your text. Studies have demonstrated that plain language can improve user comprehension and reduce cognitive load (Kimble, 1996). This approach is not only beneficial

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for individuals with disabilities but also for a general audience who would struggle with complex technical jargon.

Moreover, the field of terminology management is crucial in technical writing. Consistent use of terms and clear definitions can prevent misunderstandings and make documents more user-friendly. Having a furnished glossary or knowledge base with clear and structured defined terms ensures consistent use across different documents and contexts. This is particularly important in technical fields where precise language is critical.

Information architecture is a crucial discipline in technical writing, especially for improving accessibility. It involves organizing, structuring, and labeling content to support usability and findability while ensuring that all users, including those with disabilities, can access and comprehend technical documents. This section discusses the evolution of information architecture, its principles, and the impact of accessibility on technical writing.

In the 1970s, Richard Saul Wurman coined the term "information architecture" to describe organizing information to make it clear, and this concept began gaining recognition during that time (Resmini, 2011). Initially, Information Architecture focused on creating static, visually appealing designs to efficiently organize large volumes of information in easily understandable formats. In the 1980s, Information Architecture became associated with information systems, focusing on data management within business environments. The aim was to avoid duplication and ensure effective support for organizational needs.

A significant milestone was the publication of "Information Architecture for the World Wide Web" by Louis Rosenfeld and Peter Morville in 1998. This work integrated Information Architecture into web design, emphasizing user experience and marking a shift towards dynamic, user-centered design.

Information Architecture is based on four core principles: organization systems, labeling systems, navigation systems, and search systems. Effective organization involves intuitively categorizing information, while clear and consistent labeling helps users easily identify and understand content. With the help of navigation systems, users can effortlessly navigate content. Robust search functions also improve search accuracy, assisting users to find relevant information efficiently.

Accessibility in technical writing ensures information is usable by people with various disabilities. Integrating Information Architecture principles

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into accessible design involves using a clear structure and hierarchy, allowing screen readers to correctly navigate documents. Moreover sufficient color contrast, legible fonts, and appropriate use of white space enhance readability for users with visual impairments. Providing alternative text for images ensures that all users, regardless of their ability to see the images, can access the same information.

The evolution of Information Architecture has significantly impacted technical writing, especially in enhancing accessibility. By following Information Architecture principles and integrating accessibility strategies, technical documents can be made comprehensible and usable for all users. Ongoing research and practical implementations continue to tackle challenges, ensuring that Information Architecture remains vital for accessible technical writing.

## **Methodology**

### **Research**

The first step was to review published research articles to identify thoroughly researched areas and gaps in the literature. We found extensive discussions on basic accessibility standards, such as sans-serif fonts and high-contrast colors. While we did find a few articles that discussed the applications of technical writing principles to make documentation accessible, there was a lack of in-depth research on broader principles beyond visual criteria to enhance documentation accessibility. We thus decided to focus on what we first called “Written accessibility”. This led us to study how linguistics and Information Architecture could be used to improve accessibility in documentation. We had studied both subjects during our courses, and we had found some albeit few articles written on how those principles could be used to make documentation more accessible.

We conducted a state-of-the-art review of both disciplines to deepen our understanding and to compare theoretical principles with their practical application by documentation teams.

To investigate the role of linguistics in enhancing the accessibility of technical writing, we have conducted a comprehensive literature review analyzing foundational texts, research articles, and established guidelines. The principles of plain language were examined to assess their impact on user comprehension, especially for individuals with cognitive disabilities and non-native speakers. Additionally, the importance of terminology management was evaluated to highlight how consistent use of terms and clear definitions can improve document usability. This methodology facilitated the identification of key challenges and future research directions in making technical writing more accessible.

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For Information Architecture, a comprehensive literature review was conducted, analyzing seminal works, recent research papers, and industry best practices. The evolution of Information Architecture was traced through historical context. The main principles and their application with accessibility were also examined.

### **Interview**

We decided to take a qualitative approach rather than a quantitative one when it came to interviewing technical documentation specialists. Our research aim was to go beyond the preconceived notion of what accessibility was. We therefore needed an in-depth approach to see what laid beyond stereotypes. We therefore decided to conduct 5 interviews with technical writers.

### Questions

We prepared a list of eight open questions. We wanted the respondent to be able to elaborate freely on the topic at hand so we might have more data to work with than if we had yes or no questions which leave little space for subtle answers.

The goal of the questions was to understand the mindset of technical writers regarding accessibility. We aimed to identify their primary criteria and compare them with the standards of their company. Additionally, we wanted to compare the standards of different companies and see their evolution over time.

### Respondents criteria

To select our respondents we established a list of criteria they had to fulfill to be eligible for our research.

The first criterion we settled on was to interview only technical writers in the field of software engineering. Our goal was to narrow down the spectrum of fields our respondents worked in. We made this decision since the user pool of a physical product such as a car which some disabled users may not be able to use can greatly differ from the user pool of an IT software. This difference in targeted users necessarily has an impact on how the documentation for the product is written depending on who the target audience is.

Our second criterion was to interview subject matter experts who had worked on the topic of accessibility in their company. We wanted to have experts in the field who had first-hand experience of how accessibility standards are defined within a company, who has the decisional power, and why certain choices are made. This could only be achieved by interviewing people with enough experience on the topic.

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A criterion we considered but did not retain was the size of the company we worked in. Our initial thought was that it could be unfair to compare a large company with more means to implement and finance accessibility against smaller companies with limited means that might not have the necessary budget to make their documentation accessible. However, that criterion was not necessary since we were already only interviewing people who had worked on the topic of accessibility within their company. Meaning regardless of the size the company had to make a conscious effort to be accessible and therefore had to have standards and policies we could study. In addition to this, we were interested in comparing how companies of different sizes, means, and legal obligations handled the topic. Indeed large companies with a turnover of 250 million euros or more have a legal obligation to follow the RGAA standards (the French equivalent of the WCAG) or they will be faced with financial sanctions. Our pool of respondents thusly consisted of technical writers in small, medium, and large companies.

### Results

Our results are organized into three main parts based on what emerged during the interviews. First the rise in awareness concerning accessibility in technical writing. Then, the correlation between writing technical content and writing accessible content. Finally, leveraging structural consistency and navigation to enhance accessibility in technical writing.

#### **Accessibility, a rising concern in technical writing**

We saw above that accessibility has been a discussed topic at an international level since 2005. However, in technical writing, this topic is still recent. Our research shows that this field is adapting to these changes and that it has shifted beyond mere accessible content to encompass tools, evolving standards, and community efforts.

The rise of awareness first transpires through the tools used by the different companies. The technologies are now designed to make content more accessible. The interviewees emphasized the importance of alternative text for images and that it was enforced directly through the tools used: "With Oxygen, the alt attribute for images was mandatory" - Interview 5. Ensuring that visual content is accessible to all users is a necessity as some users can be using screen readers for example.

More than tools, these interviews show how accessibility standards have evolved in the past few years.

"We've been taking more of an interest recently, redesigning the doc site" - Interview 4

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"We now introduce tables with phrases like 'this is a table' or 'in the table below.' This is a recent practice, as we didn't think about it much before" - Interview 5

Moreover, the sensibilization around this theme comes from individuals' will to make practices change. In some companies, it comes from a single technical writer taking things into their own hands:

"Honestly, we didn't have specific standards until May 2024, when G conducted research to establish them. Her research helped us identify some straightforward points to implement [...]" - Interview 5

However, in some companies, there is a real community and corporate initiatives that play the role of promoting awareness on this subject: "There's also a Slack channel where a few of us share information. And there's also a group we call a community of practice (COP) on accessibility. There are several of us and we try to meet regularly as much as possible to talk about this, each with our interests and sensitivities. We also try to raise awareness within the company. [...] we have to regularly train or share things or make in-house presentations, etc, and take part in conferences" - Interview 4.

### **The correlation between writing technical content and writing accessible content**

The rise of awareness toward accessibility is noticed secondly through the lens of linguistic choices. For most interviews, when we talked about some processes and ways they used to improve accessibility while writing technical documentation, most interviewees were hesitant. But when we gave examples of plain English or a choice of terminology, they were able to elaborate much more. In that sense, we decided to further analyze some elements of their answers that did match our findings in the literature review.

Our interviews revealed that technical writers frequently consider the accessibility of their content and recognize the importance of using plain language to make documentation clearer and more user-friendly.

"Plain English comes in, in that the simpler the words you use, the easier it will be to understand without having to ask questions about the language. Whether it's simple sentence structures or simple words, it also avoids confusion for users who aren't native speakers of the language, because inevitably the more you use sophisticated vocabulary, the more difficult it is for them." - Interview 3

However, the practical application of plain language principles often emerges as an unconscious process.



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"In terms of content, we use simple and short sentences, which is more practical and accessible for everyone, especially for people with dyslexia or similar needs." - Interview 5

Terminology is another element that has an impact on accessibility. More than terminology itself, its consistency is essential to creating accessible technical documentation. "Consistency in terminology is another key criterion" - Interview 5. Consistent terminology means using the same word or phrase to describe the same concept throughout the document. It helps prevent confusion and ensures that all users, regardless of their expertise, can follow the text without misinterpretation. Using different terms to refer to the same concept can create uncertainty and lead the user to spend additional time and effort to figure out the meaning. This can be particularly challenging for non-native speakers or individuals with cognitive disabilities.

"For example, sometimes Nodes are servers, sometimes they're disks, sometimes they're clusters, they're not the same thing, and it's very, very, very difficult for users when they go from one section to another to realize that in fact behind Node we're not putting the same thing at all" - Interview 3

With terminology, interviewees also talked about jargon. It refers to a term or expression used within a particular field, company, or a team. It can become a significant barrier to accessibility if used throughout the entire documentation while not being defined in a glossary. The use of jargon makes the task of understanding even more difficult for users.

"[...]the simpler the words you use, the easier it will be to understand without having to ask questions about the language" - Interview 3

Another important aspect to consider that was mentioned in the interviews was the cultural and moral consideration of terminology. Selecting and using culturally sensitive and non-offensive terminology should be a worry for technical writers. This includes avoiding terms with negative connotations or historical baggage, as well as using inclusive language that respects all individuals.

"Recently, we replaced "dummy text" with "fake text" because the former could be poorly received. Similarly, we prefer "de-activate" over "disable" to avoid potentially offending anyone." - Interview 5

### **Leveraging structural consistency and navigation to enhance accessibility in technical writing**

Structural consistency and user navigation stand out from the interview as crucial elements in making technical documentation accessible. "From a technical point of view, the first thing is to make it easy to find information. This is the first stage in accessibility." - Interview 3. It shows the importance of a clear visual layout, and systematic use of headers and titles to guide the reader from the first glance. This approach eases user navigation and helps users find the information they need efficiently. Similarly, in Interviews 1 and 5, the interviewees said that screen readers rely heavily on correctly coded headers to navigate documents, making the structure of the page more critical than any other visual aspect.

However, the integration of Information Architecture principles with accessibility still presents challenges. One major obstacle is organizational reluctance to change. For example, Interviewee B mentioned that advocating for accessibility improvements is often met with resistance and it is not seen as a priority in their company. Most of the interviewees noted that the structure and layout of the page were the starting points for making documentation accessible. "And it is really at the level of structure, when writing content, that we can play a part [in making documentation accessible], but it is also the way in which we guide users." - Interview 4. This shows that they understand it is the role of technical writers to ensure a good Information Architecture.

A critical insight from the interviews is the importance of consistent and logical information structuring.

"[...] page structure is more important because you need to have a correct page structure to navigate when you cannot use a keyboard, or a mouse or to use screen readers too. Because screen readers only follow the titles and the headers of the page. and the code of the HTML. Page." - Interview 2.

The interviewees pressed the importance of properly categorized information, intuitive labels, and well-structured navigation systems are fundamental to Information Architecture and essential for accessibility. For example, using clear headings and subheadings helps users, including those with cognitive disabilities, understand and navigate the content more easily. This practice not only helps comprehension but also

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enhances the overall user experience by ensuring that users do not have to repeatedly search for information.

## Discussion

Our research highlights the multifaceted aspects of “written” accessibility, focusing on the importance of linguistics and Information Architecture, which also underscores the recent regain of interest in this subject by technical writers. Through a comprehensive and extensive literature review and interviews with subject matter experts, we have extracted several key insights and best practices.

Accessibility in technical writing is shifting towards new heights, with the field adapting through new tools, evolving standards, and community efforts, driven by legislation such as the European Accessibility Act of 2019. Companies are proactively improving accessibility features. It is reflected in approaches integrating accessibility into documentation, such as the Content Management System for example. We notice that the discussion about implementing new and specific standards and practices to the documentation is an ongoing process that is different depending on the company. It is also interesting to see how experts are sensible and want to do better in this matter. For example, the idea about creating communities and COP. People from different departments and backgrounds work together as a community. They bring different perspectives and new solutions and further enhance accessibility as a whole. These communities led efforts to push for necessary changes in policy and practice, ensuring that accessibility is not only included in some basic company standards but also prioritized in project planning and execution. All of these efforts facilitate knowledge sharing and continuous learning among employees, underscoring the importance of community in advancing accessibility.

Linguistics as a means to make documentation accessible was vastly discussed in the interviews with the use of plain language and the importance of terminology.

Plain language, or plain English in our case, consists of the use of clear and straightforward expressions avoiding jargon and complex grammar that can be a barrier to understanding. Using plain language principles is important in technical writing as it ensures that the content is accessible to the audience, including individuals with varying levels of expertise and those with cognitive impairments. It is not just about simplifying words, it involves a comprehensive approach to making content clear and comprehensible.

Alongside plain language, we found that another element of syntax that is important for accessibility is sentence structure. Complex sentences can confuse readers and hinder the message, whereas clear and concise

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sentences enhance understanding making the information more accessible. Effective sentence structure involves using the active voice, limiting sentence length, and organizing information logically. For example, "The technician installed the software" is more direct and easier to understand than "The software was installed by the technician." It is also beneficial for readers, especially those using screen readers.

We also noticed the importance of consistent terminology through our interviews. It ensures that users read documentation without confusion or misinterpretation. Having consistent terminology helps users build familiarity with the terms and reduces the cognitive load required to understand the content. Inconsistent terminology can significantly hinder the user's ability to understand and use the information. The creation and maintenance of glossaries and term bases are essential to address these challenges. Avoiding jargon and using culturally sensitive terminology is also important to make technical documentation accessible and inclusive. We can also take for example standardized terms used in the software development industry that are widely used in documentation such as "blacklist" or "slave/master component". By using inclusive language, writers can ensure that their documentation is accessible and welcoming to all users. Interviewees talked about their efforts to minimize jargon and provide clear definitions, aligning with plain language principles to make content user-friendly.

Structural consistency and user navigation are the other important elements that stand out from our research to make technical documentation accessible.

Information architecture principles, such as a clear visual layout and systematic use of headers and titles, are essential to guide users efficiently through documentation. These principles are not only aesthetic; they facilitate user navigation and help users locate the information they need rapidly and accurately. Correctly coded headers are particularly important for users relying on screen readers, as these tools depend on well-structured HTML to navigate through the page.

We noticed that despite advancements in evolving accessibility standards, the integration of Information Architecture principles with accessibility continues to face challenges. Organizational reluctance to change can slow down the adoption of new accessibility measures as it is often seen as non-priority. However, the structure and layout of documentation remain fundamental starting points for making content accessible. Technical writers play a crucial role in this process by ensuring that information is well-organized and presented clearly, facilitating better user guidance and understanding.

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Consistent and logical information structuring is critical for accessibility. Properly categorized information, intuitive labels, and well-structured navigation systems are foundational to effective Information Architecture and are essential for accessibility. Clear headings and subheadings help all users, including those with cognitive disabilities, to comprehend and navigate the content more easily. This practice not only aids in understanding but also enhances the overall user experience by reducing the need to search repeatedly for information. Ensuring that content is easy to find and navigate significantly lowers the energy put by users, making documentation more user-friendly and accessible.

Something that came out of our research that was not anticipated was that technical writers can have little to no control over the topic of accessibility. Our initial thought was that due to their training, they would be more aware of the issue and be the driving force behind the accessibility effort of their company. However, their sphere of influence often extends only to the documentation. While they can make their documentation follow all the standards and be as accessible as possible, they are often hindered by the accessibility of the product itself. We initially failed to consider that documentation does not exist in a vacuum. If the product itself is not accessible, then the documentation becomes useless to disabled users. In software engineering, developers are less trained on the subject of accessibility beyond adding alternative text to images. As a result, many software products such as virtual twins are not accessible to people with visual disabilities. The inaccessibility of a product cannot be fixed by adding a screen reader functionality to the documentation or by adjusting the text contrast. While making documentation accessible can be doable at a relatively low cost, changing an entire software program is extremely expensive and companies are seldom willing to invest in the change.

Even more worrying, we found that smaller companies, despite having no legal obligation to do so, were often better at making their documentation and products accessible. This can be explained by the fact that in smaller companies ideas between higher-ups and employees can flow more freely, allowing employees to bring up accessibility concerns and be taken seriously. While in big companies any concerns have to go through the proper channels and paperwork and are often answered with a simple "it's too costly to implement." Despite their legal and even ethical obligation to be accessible, large companies seem to consider the fines they have to pay a small price compared to the financial cost of making their product accessible.

## Conclusion

To conclude, accessibility in technical writing is a fundamental principle that needs to be a core competence for writers. Driven by evolving societal values and legislation, we, as technical writers, ought to be the one accompanying this evolution. Our research shows the important role of linguistics and information architecture in achieving accessibility and making documentation user-friendly. Despite advancements, challenges such as organizational resistance and the need for continuous sensibilization remain. By fostering a culture of inclusivity and adopting best practices, technical writers will be able to create documentation that is comprehensible and accessible to all users.

Here are a few key guidelines that all technical writers shall keep in mind when writing documentation:

Use plain language:

- Write clearly and concisely, avoiding jargon and complex language following plain language guidelines.

Adopt clear sentence structure:

- Break down complex ideas into simple, standalone sentences or bulleted lists.
- Structure sentences logically, placing the main idea at the beginning.

Ensure consistent terminology:

- Use the same terms consistently throughout the document to avoid confusion and avoid using synonyms.
- Have an up-to-date glossary.

Use inclusive and culturally sensitive language:

- Avoid terms with negative connotations or historical baggage.
- Use gender-neutral language.

Organize information intuitively:

- Use headings and subheadings to create a clear hierarchy of information with descriptive titles. It also ensures that screen readers work properly.
- Ensure that each section of the document is logically organized and easy to navigate.

Provide robust navigation aids:

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- Include a table of contents for longer documents with links to major sections.
- Incorporate hyperlinks where appropriate, ensuring they are descriptive and indicate where the link leads.

Continuous learning and improvement:

- Stay informed about the latest accessibility standards and best practices.
- Collaborate with colleagues and experts to share knowledge and improve accessibility in documentation.



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## **Appendices**

## Interview 1

### Interview - A

#### **How applying plain language and Information Architecture principles can help make information more accessible in the field of technical writing.**

1. What do you think of when we talk of accessibility in the context of technical writing?

A: Accessibility for technical writing for me is to provide information to everyone. Whether it be someone with a visual or auditory disability. Everyone should have access to the same information no matter their condition.

Researcher: What criteria do you think of when it comes to meeting accessibility guidelines? Do you think of visual guidelines, like font size colors of the text, or do you think more in terms of the type of language you use, or how you structure the information?

A: I'll say both actually. First, the way you present things. It's really important. The structure of a topic, the way it's presented. It affects the way you understand it. Sometimes information can be more understandable than if you had, for example, you chosen another structure. The structure is really important. And it's also true that you need to provide tools for people with vision problems. You must be able to provide tools to be sure that these people can understand can see and have access to your content. So for me, the structure, but also the tools that you provide are both very important.

Researcher: So you think mainly of providing tools for disabled people to access documentation?

A: Yeah, well, basically, this is what we did here with the documentation, we mainly provided tools to give access to our documentation to everyone.

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2. For you, what are the criteria a documentation has to follow to be accessible?

A: Well, I'm not the one who created these criteria. We are using the standards set by the W3 C. In terms of accessibility, we have used these standards to say, Okay, what do we have here? And what needs to be improved in our documentation, based on these standards.

Researcher: Okay. So you rely on and follow the standards of the W3 C.

A: Yes.

3. How have those standards evolved over the years?

A: That's a tricky question here. Do you mean in general or in our industry specifically?

Researcher: I would say in your industry specifically. But if you've noticed a more general pattern in technical writing, I would also like to hear about it.

A: Okay, I can tell you what was done on our side. First, we wrote guidelines to guide a user assistance developer in the way they were writing to make their content more accessible in the way they presented the structure. And we also work with the UX designers to provide a tool that allows the user to change the contrast, the font, that kind of thing.

Researcher: Allow me to reformulate, have you noticed in the past few years a change in how accessibility is being treated and viewed in your company?

A: I would say that most and most people are now interested in the topic. I know that there was a kind of conference here and many people were participating in this meeting. There were developers, and not just UA

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developers, but also developers from UX design. So I'll say that more and more people are interested in this topic.

Researcher: As a follow-up, you mentioned, there were two things. First that you provided new guidelines for technical writers specifically on the structure. And then you provided tools for the user. Which one came first in the project? Were both of them developed at the same time as an answer to accessibility issues?

A: No. I said that both were developed at the same time. So well, it's true that the guidelines were easier to provide. Because we were not depending on other people. The tools took more time to develop. Because we didn't have the knowledge, we only had user assistance developers. So we needed people to develop our specification.

Researcher: So the focus was always on both.

4. How do those standards compare to the standards of your previous jobs?

N/A

5. Which one of those standards do you find to be the most efficient to ensure documentation accessibility?

A: That's a tricky one. Honestly, I'm not sure I have the answer to that question. Maybe the improvement made to the user interface.

Researcher: Would it be fair to say that for you both are important and one cannot go without the other?

A: Yeah, because when we conceived the project like, I told you, we didn't say, Okay, we work on this element first and then the other will come. You know, it was really a global project. There were many people and everyone had to choose a topic they wanted to work on. For example, me, it was the video accessibility. Other people worked on screen, readers, that kind of thing. At that point, for example, we had to ask ourselves, okay, is the structure of our documentation suitable to work with any screen reader? We were also working on alternative text and that took a long time. Alternative text for images was a huge topic, and not everyone

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was open to the idea of inserting alternative text. So we also had to convince people that this was a necessity. So yeah, everybody took a small piece of the accessibility problem and tried to work on it.

Researcher: I see it. Did you get any user feedback on what they appreciate the most in those improvements?

A: No, no, we didn't have this chance.

6. What other actions or standards would you like your company to implement?

A: I would like our company to go beyond making the documentation accessible and make the software in itself accessible. To try to take accessibility into account as they work on our product. It would be nice to have accessibility being taken into account when they are developing the UX design. As of now, this is not the case. There are many things when you, working with our software that are clearly not accessible, and it would be a good thing to to work on that.

Researcher: Okay, that's pretty interesting. So the documentation is becoming more and more accessible. But the actual product isn't?

A: Yes. That's why, when, for example, we talked about screen readers we came to the conclusion that there was no point to working with screen readers in our documentation, knowing that someone with vision problems won't be able to use the software itself. That's how we made our choice about which topic to work on first, or which topic we thought wasn't necessary. but to work on it.

Researcher: That's really interesting. I never really thought about that. I kind of thought of accessibility in a vacuum in the context of documentation. But I never really thought that if the actual product isn't accessible, there's no point in the documentation being accessible.

A: Yes, it's clear that if you're blind or visually impaired and can't see the model you're working on in the software it's gonna be a real problem and you won't be able to use the product.



## Interview 2

### Interview - B

#### **How applying plain language and Information Architecture principles can help make information more accessible in the field of technical writing.**

1. What do you think of when we talk of accessibility in the context of technical writing?

B: Oh, I think of easy access to information and customization, because for me, someone who has special needs needs to be able to use a screen reader, for instance. or to change the background color or to increase the text size. So that's that's what I mean with customization.

Researcher: Okay. So you think of customizing the visual of the documentation?

B: Yes.

2. For you, what are the criteria a documentation has to follow to be accessible?

B: The main criteria for me is the page's structure. I think we regularly focus on color contrast or alt text. This is very important, but page structure is more important because you need to have a correct page structure to navigate when you cannot use a keyboard, or a mouse or to use screen readers too. Because screen readers only follow the titles and the headers of the page. and the code of the HTML. Page. So that's why, it's in my opinion, more important than anything else.

Researcher: Okay. So the first and most important criteria for you would be the way the information is organized, so Information Architecture, and the second would be the visuals.

B: Yes. I will say the code structure, I mean h one h1, h2 all that we have seen in the course. That's very important. Because screen readers rely on the codes to identify the headers

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### 3. What are the standards of accessibility in your company?

B: Accessibility is absolutely not an issue we discuss. We struggle to make documentation more accessible, and I don't know if maybe F already told you that our website is quite accessible now, but it's very recent. It was done in September 2023, and it is just a panel that has been added to the site to disable and customize some things. I think you can customize color settings, text size, etc. But that's not accessibility. It's like putting a band-aid on a broken leg. It's absolutely not accessible. So that's very representative of the way accessibility is seen and perceived at our company. It's not a priority. It's not the priority in the software that we deliver or in the User interface. It costs too much time, too much developer's time. So we cannot say that we have standards of acceptability in our company. 'm very.

Researcher: So the company pretends to be accessible with the accessibility panel but the content is not accessible?

B: Yes, our software is absolutely not accessible. We had complaints about the difficulties of visually impaired people. Because they absolutely cannot use our platform. It's absolutely not accessible. It's not done for people with this kind of issue. So it's a major issue because, in the United States, they are very strong with accessibility issues and topics and software. And here in France we are not. We have been contacted by one of our most important customers, and they were complaining about the accessibility of our product and the software we deliver. But nothing has been done yet on this topic.

Researcher: But you have worked on the subject of accessibility in your company?

B: Yes, yes, I do.

Researcher: You led a Mini group. Is that correct?

B: Yes I'm a part of a mini-group focused on accessibility. I did several training sessions on the topic so often people come to me when they have questions about accessibility. But it's tragic, really, it's really difficult.

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People don't like to hear my voice. because it's absolutely not an issue for them. Documentation and products are not accessible. And that's not considered an issue. But we continue, we keep on trying to improve the documentation, and it takes so much time because we want to change small things, and we are told that it will be done in 2 years. It's difficult, really.

Researcher: And it's pointless to have documentation be perfectly accessible if the product itself was not accessible?

B: Yeah, exactly. Our product is absolutely not usable for now. And we can do the best documentation we can, if the product is not accessible then it's for nothing.

4. How have those standards evolved over the years?

Researcher: Okay, so the fourth question is, gonna be kind of tricky because it's about how those standards have evolved over the years in your company. But you just said you didn't really have standards. But have you noticed any change in recent years?

B: Yes, yes, because I would say I was hired as an assistant 10 years ago, and accessibility was not a topic I mean, nobody talked about it. And now I think it has been 2 years now. We are beginning to see people like us trying to make things evolve like the company website. It's not the best, but they did what they could. Before, It was absolutely not a not a subject, not an issue. People are slowly realizing that it should be taken into account when building websites and when building software. So maybe in 5 years, more people will be involved and willing to make things evolve. But for now, it's slow, it's very, very slow, and I don't know if you remember. But a company like mine should pay fines if they are not accessible. Because the rule is public institutions should be accessible. Website for public institutions and also website of companies who benefit from public institutions. They must have accessible sites and software, etcetera. So I mean, maybe the way we will have things evolve is that the company will pay the fines and one day they will say, Okay, it's enough. We will do something because it's too much money.

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Researcher: Okay. But at the moment the company is paying fines.

Researcher: Alright, interesting, interesting. So, okay, okay, so at some point they will decide that the economy is worth making things accessible instead of paying fines.

B: Yes, I hope, and there are also initiatives from the MP. MP is a company in the company. They are defending the rights of people with disabilities in the company. For instance, they are helping with workstations. For people who have low vision, they have bigger screens. So all kinds of issues, and they are trying because we want to do better. In the coming months, there will be an event to make people aware of accessibility in the workplace. There will also be employees with disabilities there so we can test what we think will be good for the accessibility of our products with people from the company and use their feedback. So we have everything in our hands. I would say, to make things better and accessible.

Researcher: I hope it comes to fruition, and that the company becomes more accessible in the upcoming years.

B: Yeah, that would be great.

5. How do those standards compare to the standards of your previous jobs?

B: Accessibility was absolutely not an issue we discussed. It was not a word that existed. I think we never spoke about accessibility before I went to my current company.

Researcher: So, in your previous jobs, there was no discussion about accessibility whatsoever?

B: Absolutely, the term accessibility was not pronounced. I was in 2 or 3 companies before my current one. In big companies, in small companies, in all different sizes of companies. it was never discussed? I don't know if, maybe it was because I was also working on products that were not online. So maybe they were not aware of this need for many people to

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connect. That was not the same way of working too. I don't know, but the word accessibility was not pronounced, never.

6. Which one of those standards do you find to be the most efficient to ensure documentation accessibility?

B: So: we have been mainly working on the WCAG accessibility guidelines. I don't know if there are specific accessibility standards for documentation. But we are applying their standards.

Researcher: Okay, is that a part of the W3C?

B: Yes, in France we have another standard, which is, ERP. But it's merely a translation of the WCAG with small differences. So WCAG is a reference. Even in France, I was training in an agency called AC. You can find many materials on their websites. They are very proactive in the domain of accessibility; they translate the WCAG into French. And they use the W3C form for their project because they work on projects with companies that want to be accessible and to match the WCAG requirements.: It's very interesting you can read the article on their site or blog. They have many articles, or they send you to other sites. I mean good sites, good sources, talking about accessibility, because you can find everything and anything online, but their resources are very reliable.

Researcher: Okay. Let's try to narrow it down. Is there a specific: thing that you find to be really efficient in making documentation more accessible? If you had to pick one: thing to do for documentation to be more accessible. Which one would it be?

B: Page structure. We talked about it during the AC training, and they insisted on it. When we talk about accessibility, we think of colors and contrast In the first place but it's a mistake. It's a big mistake and an alt text. It's a big mistake. It's page structure which is a key to everything, well not everything but to navigation. If you don't have the navigation, anyway, users can't access your alt text. So that comes second on the list.

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7. What other actions or standards would you like your company to implement?

B: So, in the first place, they should have a dedicated accessibility team. Every big structure should. When we talk with our customers, for instance, about accessibility of the product. They have a dedicated team working on accessibility topics with developers, UX designers, and documentation. So they lead the accessibility in the company and the accessibility. politics, I would say, and that's what we miss here at my company. Many people like me are talking about accessibility or the people who did the work on our website. But we are alone in a big company. There are maybe 5 people in the world talking about accessibility, and if we had someone leading the way, it would be great. Having people with experience on it, on how to implement accessibility projects in the company, how to convince managers and top managers about the urgent need for accessibility. So we miss it. I mean.

Researcher: So a dedicated, task force accessibility that would have like the authority to make actual changes.

B: Yes. Just like you have, for instance, a sustainability team. It would be the same way. Someone who can talk to top management who can talk to little people like us, but someone has the power to convince top management. And who is heard by top management, because at our level we can do that much. At the moment they don't take us seriously. They always say, no time, no money for that kind of implementation. Yes, it would be a lot of work to redo everything, every platform, every screen, but maybe there are quick fixes that we could implement like we tried on the documentation portal and that could maybe make the things more accessible.

Researcher: Yeah. Can you give me an example of the quick fixes that could be implemented?

B: I would say, I would say the opposite of what I told you before. Page structure is the most important, but it involves more work. So maybe for now working on color contrast would be a good beginning. I mean, it's not

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that costly to change. It's a graphic chart to change. It's not that difficult. It's a very small visual thing but why not try with little steps?

Researcher: It could be a start. The company could start with the surface-level accessibility and then go to the overall page structure. Either way, it would be a step in the right direction.

B: Exactly.

### Interview 3

#### Interview - C

#### **How applying plain language and Information Architecture principles can help make information more accessible in the field of technical writing.**

Researcher: First of all, what comes to mind when we talk about accessibility in the field of technical writing? What comes to mind?

C: What comes to my mind spontaneously is two things:

1. Accessibility in a general way for general users, which means both finding information easily and understanding it easily, including for people who are going to be users and use documentation in English but whose mother tongue isn't English, but that's a specific issue.
2. The second thing that comes to mind is how to make information accessible to people with various disabilities.

Researcher: Can you think of guidelines or other things to help people understand directly? For example, could there be a particular font size, colors, etc.? This is more about visual accessibility, but also in terms of writing, with plain language which is fairly widespread, but also in terms of Information Architecture. When you think of 'accessibility', what comes to mind from a technical point of view?

C: From a technical point of view, the first thing is to make it easy to find information. This is the first stage in accessibility. So you've got the visual part, because when you're on a page the size of the fonts, the use of white space, the use of elements that make certain texts more visible, such as bold to make them stand out, bulleted lists or specialized warnings for certain types of information. All this comes under the purely visual aspect of the information, and then in the visual aspect you also have, and here it's not necessarily applicable to everything but it can be the page layout. In other words, how you organize the information on the page, and that's also important. I'd say that generally speaking, when it comes to the purely visual aspect, one of the really key elements for people to find information quickly is the systematic use of the codes that have been chosen. So it's very important to have visual and written style guidelines because the more things are repeated, the more users learn, not necessarily consciously but implicitly. So they can find information



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very quickly. That's a key element of accessibility. Then there's accessibility in terms of language, and that's where Plain English comes in, in that the simpler the words you use, the easier it will be to understand without having to ask questions about the language. Whether it's simple sentence structures or simple words, it also avoids confusion for users who aren't native speakers of the language, because inevitably the more you use sophisticated vocabulary, the more difficult it is for them. Let's just say that even if they manage to understand it, it's going to be a barrier to understanding the content when people are on the subject of the content but not on the subject of the container, and what we want in all our work is to make it easy to access the information beyond the means we use to convey it. So that's where Plain English comes in, and reusing sentence structure and recurring elements in the way sentences are presented and used will make things a lot smoother. For example, if you start all your procedures with "How to" and then you put the thing in, people will scan very quickly and they'll know that all the sentences starting with "How to" are procedures, so it's a use of simple language because it's very clear when you're on a How to setup system blablabla sentence. What I mean is at some point it's hard to get any simpler than that in terms of explanation, it's immediately understandable, and compared to "Setting up your system" where you weren't quite sure whether it was going to be about concepts, the approach, etc., it's much easier to understand what's going on. The How to system procedure is clearly a procedure, so it's part of the use of simple language to mark out the procedures, and if all your documentation or a whole series of documentation systematically starts with that, people will expect to find an introductory sentence plus 1, 2, 3, 4, 5 under it, so you're really going to work on accessibility.

Researcher: So, in your opinion, what makes a document accessible? What criteria do you use when you see a document like that? Apart from everything we've said, is there anything else you'd like to add?

C: When you take a document like this as a starting point, the thing that's going to make the documents as accessible as possible is the use of empty space, because ultimately it's the empty space that's going to highlight the content. The second big point, especially when it comes to using language, has to do with titles. There's always a tendency to want to make titles short and succinct, but in fact, that's a barrier to accessibility because sometimes you end up with titles that are so succinct they don't mean anything and so sometimes you really have to choose how far you're going to go in explaining what's in a section as opposed to trying to do something that's not three lines long. So that's really what's going to be strong. Then the last element in terms of rapid navigation and accessibility is going to be the use of visual information

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with diagrams, bearing in mind that this is a field which is no longer really purely technical writing, even if it does contribute because diagrams which work well are diagrams which are well done, so you're not always in the same league as a copywriter, because it's all about graphics, and not everyone has the same graphic talents when they're a writer, so it's not a tool that you've necessarily learnt to work with a lot. And then there's the whole accessibility of graphics, meaning that a graphic without accompanying text is worthless. So you really have to make the link between the graphic and the accompanying text, and the accompanying text has to be immediately visible. In other words, a graphic without a title is typically worthless because it makes it clear to people what they're looking at and when they're looking for information they can find it quickly, because, in the world of technical writing, we're essentially concerned with accessibility in the sense that people will find the information relevant or wanted. And finally, when people pick up a document, there are a number of ways of navigating: there's the table of contents, hence the importance of titles, there's the scroll, or if it's a paper document, I'm going to flip through the pages. In fact, very often when we're in a very fast indication mode and when we don't use accessibility by search or by the titles of a table of contents, people find the information much more quickly on paper than on screen. So you always have to think about this because there are always people who will print because it will make it easier for them to find the information. We'll look at the headlines and then we'll look at the graphics because graphics are also a way of finding out where you are in the information. So you don't want to overload yourself with graphics, but you do need them. After that, the world of graphics opens up a whole other dimension of accessibility, which is no longer based on text but on colours, shapes, trap shapes, which in some cultures have connotations, etc. However, I would say that the most important element of accessibility is the use of graphics. On the other hand, I'd say that the key element of accessibility in terms of graphics is the text beyond the title, it's going to be a matter of having a replacement text in the graphic if it's going to work so that people can always know what's been shown. That's why it's so important when you make links on graphs to make complete links and not just simplified links. Very often it's very tempting to put a link that will correspond to something, such as managing tools, whereas if you have `http:// blah blah blah blah` the person can find the way back. You have to think about all these little elements.

Researcher: I don't know if you want us to focus only on C company or on the different companies you've worked for? For me, the best way would be through the different companies you've worked for. Were there any

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accessibility standards or guidelines that you had to follow? I'm thinking in particular of "Another company"

C: Well, at "Another company", we didn't really have any accessibility guidelines to speak of, as we had a style of guide that was very much focused on Plain English. So it's clear that accessibility is very important. What's more, we made extensive use of single sourcing, i.e. reusing bits and pieces of documentation. As a result, the titles were extremely codified, the way the information was broken down was extremely codified, and the way we wrote was extremely codified, which implicitly helps accessibility, because whatever manual people picked up, there was the same title logic, the same information structure logic, and as a result they were able to find the content extremely quickly. We had a site, a very old Website at "Another company" which was an older site, and here accessibility was in fact reinforced by two mechanisms: the first was that, in fact, all "Another company" training courses required people to use Online help. So in fact they were learning to use the online help at the same time as they were being trained on the product, which meant that in addition to being trained on the product, they were being taught how to find information in our systems, which wasn't necessarily linked to technical documentation, but it was still a strong element. The other key element was that, for each access to information, we multiplied the number of keywords. So the use of keywords is a derivative of information, I'd say of indexing, and the better it's done, the more it gives different ways of accessing the information, since beyond the structure, beyond the titles, beyond the visual aspect of the training on the page, the more well-marked keywords there are, the more successful search tools will be in finding the information. And that's really a strong element, so even if at the time there was no search, because it was before the use of search engines, access to help pages nevertheless began with HE, so that was access to help, and for example, for a page on lot train software, there was train, there was track, there was railway, there was trail, there was a whole bunch of there was a thing called Tchoutchou so we really tried to think of all the ways so we could call up the page and when we found new key terms were added so that means that even at the time when it was an extremely rudimentary system multiplication of keywords meant that customers always found the help pages and that now in today's context, access to keywords is different, so for example at C company we don't have any, it's a text search, but if we wanted to do things right, the ideal would be to add search tags to our files. Because just because a word isn't in a section, in a file, doesn't mean that this section doesn't refer very precisely to this subject. Since there's no referencing involved in these cases, it's worth thinking about inserting phrases that will use keywords and redundancy, which in general is

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something people are asked to avoid for the sake of beautiful language, in technical writing it's quite the opposite. The more redundant the better, because when you start trying not to use the same word ten times in a paragraph, you inevitably introduce an area of ambiguity, especially in English.

Researcher: If I'm not mistaken when you started technical writing, it was for a paper output at the time, but also online, and very often the online help actually gave access to a file that allowed you to print the documentation. So paper was the reference. So, how would you say these accessibility standards have evolved, particularly with this change in output or even with the 100% digital transition, with this paradigm shift?

C: Well, there are several of them, first of all a change in mentality, with awareness. When I started out, the tendency was for all software to be accompanied by a technical manual in the local language, even if the interface was in English. This practice has completely disappeared. In fact, the standard now is to provide technical instructions in English, with certain instructions in the language of the country when the software publisher's natural language is used, even for certain markets, even for certain large contracts. But it also raises a lot of questions about comprehension, because when you know that you're writing for people who may have an extremely limited understanding of English, you're not going to write in the same way as if you were writing for native English speakers, since vocabulary is inevitably reduced, and sentences are too complex or too long - especially in English, where as soon as you have a long sentence, there's basic ambiguity: so it inevitably raises a lot of questions about the way you write. We also had a major constraint at the time, which limited accessibility but also contributed to it, which was that all documentation, being by nature a paper document, was in fact laid out by printers. In other words, in the past, manuals weren't printed from a computer, they were printed by professional printers, so very often there was a whole consultation process with them for the page layout because there were constraints imposed by the printers' tools, because when you print paper professionally, it's not the same thing as when you print a page from your computer. So there was also a constraint, but they also had a good command of how to use the space on a page to highlight information, so they were also a source of advice. The whole transition to digital technology changed things a great deal, and then when we got more and more into online help, it called everything into question once again, because by definition, online help pages, especially in the early days, were small pages, as opposed to today, when we're able to produce online help in a floating text that can be moved around, we sometimes

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have two or three screens, so we can open the page next to it on another screen. Before, we couldn't, so in fact the help insert that opened on the screen was generally a small gap that physically had to be 10 cm by 10 cm, so this has had a huge impact on the way we write online help. When I started with a purely paper document, there were a lot of graphics, but when we moved on to online help, they all but disappeared. On the one hand because they don't display well, and on the other because we found ourselves in situations where there were no optimized graphics files, and so we found ourselves in a situation where the doc weighed more than the software. As a result, everything graphic had disappeared, so I'd say that was in the '90s and early 2000s, and little by little the optimizations we made at all levels enabled us to reinsert visual and graphic information, because page content and layout pages are also graphics, and they weigh just as much, so we started to see this. There's been a real explosion in the use of graphics to help understand content, and that really started when we moved to cloud solutions, where graphics were finally remote, so weight no longer mattered. So I'd say it was a double evolution. I've seen a lot of trends come and go in my career, but it's important to follow trends because people get used to them. So even if sometimes you think a trend is really stupid or you think it's ugly or you don't like it, it's still important to be interested in a document because people get used to it. Typically, over the last few years, we've seen a new trend towards dark backgrounds, which makes the information much less visible and harder to read on a dark screen, but it also limits what we can do in terms of graphics, so it has an impact, but we know that more and more people are going to use dark screens.

Researcher: So you're talking about trends, and we've been talking about various points that we've touched on since the beginning. Personally, which ones do you find the most effective for ensuring your documentation is accessible?

C: The first is clear language, plain English. It's the basis, because it gives access to the understanding of information, so it's the first tool we have.

The second, I'd say, is regularity, consistency, the reuse of the rules we've put in place, enabling people to find their way around much more easily.

The last one is the purely visual aspect, and that's the use of white space, because in fact, if we make good use of space with very basic means such as bold, bulleted lists, numbered lists, we can help people navigate very easily through the information with very basic means, so for me, these are the 3 best.

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Researcher: The last one is more a question about the future, especially for C company. Are there any actions, standards, or rules you'd like to see implemented?

C: At C company, I'd say the first one is the rules for titles. There are no rules today for titles in very, very different formats, but with similar information or vice versa, so that's really one of the first things I'd like to do in terms of content. Knowing that it's a big job inasmuch as it's going to call into question a lot of things, the rewriting of all the titles is no small task, and, on the other hand, it's also a question of the habits of users who know certain parts of the doc by heart, so that means we also have to shake up their habits, so it's not always as easy as it seems, so that's a big job I'd like to implement. Another big project I'd like to get underway is the use of terminology, which isn't necessarily as standard as it seems. For example, sometimes Nodes are servers, sometimes they're disks, sometimes they're clusters, they're not the same thing, and it's very, very, very difficult for users when they go from one section to another to realize that in fact behind Node we're not putting the same thing at all, so this is something I'd say vocabulary-wise that really needs to be worked on. The last major element I'd like to rework in C company's documentation is the cleaning up of all graphic aspects, since the style sheet today is a style sheet that isn't clean, the bias has been to make technical documentation, not technical marketing documentation. We're really working on technical documentation, which is a bias like any other, but on the other hand, today's graphics don't have graphic titles, so we don't know what we're looking at. Charts have graphic standards that are all different, and that's not for people to understand. A good graphic should be once you've got it and looked at it, you should understand. At C company today, you have to try and understand what you're looking at before you can understand what it means. So I'd say these are the first big areas I'll be working on.

Researcher: Is there anything you'd like to add, anything you'd like to talk about?

C: I'd say that today, accessibility is going to have to be thought through in a general way, especially in terms of integrating people with disabilities. In fact, today we're moving into a world where we're using screens, we're using things that are more and more visual, and we're not thinking about people with visual or comprehension difficulties, because typically if we don't use the right colors and shapes, people with visual problems won't be able to see. We also need to think about adding legible texts and comprehensible sentences, because there are also people who will use

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voice-over software to be able to hear, and this is something we don't use today, but these are things that I think will become more and more part of the lives of technical professions. Then it's also a question of how to integrate video so that it works with documentation, because at some point it's going to be another way of accessing information. And it's also about accessibility, because explaining something in steps gives you a reminder and allows you to scan your eyes very quickly, whereas in learning, a video is often the best way to explain to someone how to do something. On the other hand, the problem is that if what's shown in the video isn't aligned at all, is very different, or varies from the written part, people are bound to have doubts.

## Interview 4

### Interview - D and E

#### **How applying plain language and Information Architecture principles can help make information more accessible in the field of technical writing.**

Researcher: The first question we had was: What do you think of when we talk of accessibility in the context of technical writing? For example, visual guidelines (font, size, color process to ease the understanding (plain language/Information Architecture)).

D: I have to admit that as far as I'm concerned, I'm going to speak for the tech writing team. When you're writing, you don't necessarily have this type of audience in mind. It's often something that comes afterwards, or even not at all, because you see, we've got a huge amount to do, we've got tight deadlines. So it's really an aspect of our work that isn't particularly covered today. We've been taking more of an interest recently, redesigning the doc site, but we haven't been too interested in the editorial aspect, like we've been more interested, as you say, in the color contrast aspect, accessibility maybe of images or accessibility of fonts or things like that. But it's true that in terms of hierarchy, information, or organization of texts or structure, it's not really something we've focused on, we've dwelled on it for a long time, or we haven't even asked ourselves the question at all today on this subject, in all transparency.

E: As for me, I could answer on a more technical level. When we think about writing content, we can ask ourselves the question of thinking at the legislative level, are there any obligations to make it even more accessible? At the moment, this only applies to public and institutional institutions, but it will soon be extended to the private sector. And from then on, when we ask ourselves this question in order to achieve compliance and avoid paying fines, if ever there is a shortcoming in this area, we have to use reference systems, which we are going to come across, in fact, always on accessibility issues with lists of criteria that have to be taken into account. When it comes to writing content, these criteria essentially include the way in which content is structured, i.e. having a correct hierarchy of titles, lists, quotations, or paragraphs that are clearly identified and identifiable. Because you have to realize that some people with disabilities who use a website, for example, will be using assistance tools other than a browser. For example, someone who is blind will be



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using tools that will actually vocalise the page, and if the structure of the document is present, it becomes more technical and if the structure is poorly integrated by the integrator-developers, the person is going to be a bit lost when it comes to accessing this content and the fact that they do not have free access to content, as it is a discriminatory criterion that can lead to legal action, etc. So we really have to be careful here. And it is really at the level of structure, when writing content, that we can play a part, but it is also the way in which we guide users. For example on links, when we have Click here or Find out more. If we don't have the context around the link, people won't be able to know what will happen when they click on it. It is therefore recommended to use explicit links, to provide information that will enable them to mentally contextualize what is happening on the page, and what information we are trying to give them so that they can access the information and understand what we are trying to get them to read and what message we are trying to convey.

D: Great! To follow up on what Y was saying, I think that within the doc team, we do it, i.e. contextualize the links and be consistent in the sense that we always have our h1, h2, we don't leave any orphans or examples like that, but not so much in the sense of a technical writer's best practices, but we don't yet have the reflex to say we're doing it for accessibility.

E: At the same time, for several years now you've been providing a kind of ongoing training on these subjects with the aim of integrating them into your daily practices, so it's becoming natural for you. And you don't really have to ask yourself the question any more once it's already become natural in the way you work, and these little tricks put together mean that it actually becomes accessible because you do it on a daily basis.

Researcher: Great! When you see a document, what criteria do you think it has to meet to think that this page, this document, is accessible? Other than the elements mentioned earlier.

E: Well, perhaps I can answer D. Because when we look at a page, there's an audit process, that's what we want to say, is this page accessible and to do that, that's what I was talking about earlier, we use reference systems. In France, we use the RGAA (référentiel général d'accessibilité des administrations), but it will also be applied to the private sector. This list is a checklist of criteria that will ensure that all the criteria are valid and that the page complies with the accessibility criteria, to answer your

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question. It's what makes it possible to be certain that the accessibility is technically valid because it's based on this list of criteria and it's the only one that makes it possible to define whether the site is accessible. So it's pretty straightforward really, because all you have to do is follow the checklist.

Researcher: That's very clear. At X & Y company, do you have any specific standards that might be different, best practices, or things that you do on a daily basis that might be specific to Scaleway?

E: I've only recently taken on this role of reference. But we do workshops or little presentations very regularly to try and raise awareness.

There's also a Slack channel where a few of us share information. And there's also a group we call a community of practice (COP) on accessibility. There are several of us and we try to meet regularly as much as possible to talk about this, each with our own interests and sensitivities. We also try to raise awareness within the company. What's important at Scaleway is that there's quite a lot of staff turnover, so we have to be careful to maintain a certain level because it's easy to lose the expertise of people who have been trained, so we have to regularly train or share things or make in-house presentations, etc, and take part in conferences. As far as tools are concerned, we don't currently have the will to achieve compliance in order to obtain compliance labels, but these are processes that are underway, which will happen sooner or later.

Researcher: And I can imagine that it's not very easy to get these labels either, we've seen them in class and they were complicated to get and very expensive too I imagine.

E: It can be expensive. You have to have audits carried out by external companies, it's a lot safer, and then you have to take all the corrective action that the audit has identified as a failure to comply with the rules. And depending on the case, it can take a lot of dev work or site redesign, etc., to bring certain criteria into line. So it can be very complicated and there are fewer and fewer exemptions possible with the new European directives applied to French legislation.

Researcher: How would you say these standards have evolved over the years? And D in particular? I know you've been with X & Y company for some time now. Have you noticed any difference between when you arrived and now?

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D: Hmm. But even before that, I think that in the other companies I worked for. When I was at "other company" in 2015, it wasn't an issue at all. Then, when I worked at "other company" and we set up the doc, once again, it wasn't a subject, we were more concerned with how to improve our CSED processes, improve feedback, etc. than accessibility. And I think it's I don't know, tell me if I'm wrong Numa, but I have the impression that it became more of a subject, maybe two or three years ago, because at the beginning I know that it's something that's close to your heart and so we often discussed it and as we work a lot together, it's a fairly recurring subject between us. But I'd never heard of accessibility before I came to X & Y company in 2018, you know?

E: Yes, I can confirm that it's not a very strong tendency in France, unlike in Anglo-Saxon countries where it's really important. In France, we have a culture that's a bit out of touch with all that, but little by little it's making progress. And I'm making efforts in this area because, in my previous companies where I worked, these were subjects that were dealt with to some extent. So I brought it with me when I arrived at X & Y company and it's things that I've integrated into my day-to-day practices, so that I've been able to raise a few issues that I didn't think were acceptable, but without putting any pressure. And over the years, for the last two or three years and now more and more, we've been trying to spread this awareness throughout the company.

D: Just having an accessibility officer is something I've never seen in any of the companies I've worked for.

Researcher: It's already cool, it's important and it's nice to see that there are companies that are interested in this after all.

E: On the surface, it's a great potential turnover. And it's also a security in terms of the legislation because there are going to be reminders and control bodies that are going to check everything.

D: I think it's also going to be somewhat more widespread, because with everything that's going on at the moment. For a few years now, there have been a lot of eco-labels and things like that, and I think that accessibility is also going to come to the front of the line in the form of yes this company has accessible content, accessible web design, and this

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is going to be a subject on which companies are going to focus, whether it's for recruitment or for themselves, for access to information and so on.

E: It's true that it's a very interesting marketing argument.

Researcher: Great, thank you. I still have two short questions. One of them is your own best practice. If you had to pick just three things that you do on a daily basis. For example, I'm thinking primarily of Plain English.

D: Yes, I think that's a good thing. I think that already in the context of the ecosystem in which we work, it's a very complicated field. So already the context itself is complicated, so if we start using jargon, hyper-complicated vocabulary, etc. We're careful to use simple, concise English that can be understood by more or less everyone. I'm a very procedural person, so we have quite strict guidelines in terms of content writing here, and we make sure that all these guidelines are followed before we put any content into production. We have several proofreading systems. So all these guidelines, you see, plus what we were talking about earlier, we're careful to use the titles, the numbered lists, we're careful to use tables when necessary, etc, etc. And also, I think that what's most important is to make sure that the content is easy to read and understand. I also think it's important to have a feedback system. You see, to allow the user to say ah this, this suits me, this, this doesn't suit me, why doesn't this suit me? And then, what else could I say? I think the fact that it's responsive is also important because a lot of people use their desktop, but more and more people also use tablets, and having information that's responsive on all devices.

E: What I do in terms of code is revise my colleagues' code and I pay attention to what you can use in terms of wording. The complex stuff comes up regularly and I try to get back to the copyright holders of the doc sites instead of clicking here rather than finding out more, I look to see if the context is well defined. Otherwise, I'm not going to bother them because there's a description and a click here and just below. So as far as the context is concerned, it's OK to understand what the link is for, but I'm careful about that. Little details like that. And um, what did I want to say?

D: Recently, we had a chat. Go on.

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E: Just on the way of expressing caution, this is not good, I'm not saying it's not good, this criteria is not all covered. I'm trying to put it in context or let's say that the user who's going to have difficulty with this, this lack that we might have and who, for example, imagines a dyslexic user, is going to have difficulty understanding this text because it's split up, because visually they're not going to know where it is, etc. They have difficulty mentally linking the two because they don't know where they are. They have difficulty mentally linking the two parts of the text because they're not necessarily in the right place, so bringing it to them will raise awareness and put them in the user's shoes so that they can better empathize with the problem.

Researcher: And finally, the last question is more about the future. What actions or standards would you like to see put in place and what does the future hold for Scaleway in terms of accessibility?

E: Well, maybe I can answer as the referee. I'm going to have to meet my legal obligations. The next concrete steps are to create a dedicated web page with a contact email for feedback. The email was created recently. The page will be set up at the beginning of the school year for them normally and to set up a multi-year plan? Yes, on this page, we explain what actions are underway, what the problems are, the accessibility problems we're encountering, which we'll identify with the audits and in fact pass on all this information publicly to explain the action plans that are going to be made for it, to achieve 100% coverage of the criteria. So that's exactly what we're doing.

On the other hand, that's for the public and for us, internally, to increase awareness and training. For example, I'm thinking of a training tool we have called 360 planning. We can create tutorials for in-house use, for employees, and so it would be to create mini-modules of good practice, in inverted commas, hitting without too much thought mini-modules where people can go and train themselves on MCQs, that sort of thing.

## Interview 5

### Interview - F and G

#### **How applying plain language and Information Architecture principles can help make information more accessible in the field of technical writing.**

Researcher: Hello, thank you for agreeing to this interview. First, let me explain the context again. We are writing an article as part of the M2 CTM program. We have chosen to work on accessibility around the question: "How applying plain language and Information Architecture principles can help make information more accessible in the field of technical writing?"

The first question I have for you is: What do you think of when we talk about accessibility in the context of technical writing?

F: For context, I have also included G because she has worked on this topic internally for us, both in terms of form and writing style. Interviewee 2, you know the subject better than I do, so feel free to jump in if you have an answer.

Researcher: Okay, thank you. Second question: For you, what criteria must documentation meet to be accessible?

G: The first criterion to follow is the existing accessibility guidelines, which are principles in technical writing that facilitate understanding and contribute to creating accessible documentation. For example, Information Architecture involves structuring an article and the documentation overall. In our Help Center, we have different categories corresponding to categories in our company, such as various applications or business-related topics. Within articles themselves, titles help facilitate reading and navigation, which is practical for everyone and especially useful for people with specific needs, like those using screen readers. Screen readers don't see the page layout and rely on the tool to announce, for instance, that something is a title, making it easier to jump to the relevant section.

In terms of content, we use simple and short sentences, which is more practical and accessible for everyone, especially for people with dyslexia or similar needs. Consistency in terminology is another key criterion; changing terms can cause confusion. For instance, consistently using the same term avoids people wondering if different terms refer to the same thing.

Another aspect is moral accessibility, using terms that are not offensive. Recently, we replaced "dummy text" with "fake text" because the former could be poorly received. Similarly, we prefer "de-activate" over "disable"

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to avoid potentially offending anyone. We also avoid using gender-specific pronouns like "he" or "she" in our documentation, opting for "you" or "the user" instead.

F: To add to what G said, we now introduce tables with phrases like "this is a table" or "in the table below." This is a recent practice, as we didn't think about it much before. Handling images is more complicated, even though we try to use clear names and alt text, which are essential for screen readers. Adding alt text throughout the documentation is challenging due to the volume and the fact that our documentation is translated into six languages, which would involve a significant translation effort. We aim to implement daily practices that are neither too time-consuming nor costly.

Researcher: Okay, thank you. Even though you've partially answered this, my next question is: What are the standards of accessibility in your company?

F: Honestly, we didn't have specific standards until May 2024, when G conducted research to establish them. Her research helped us identify some straightforward points to implement, such as avoiding certain terms like "disable" and better-introducing images, tables, and tabs for improved readability, even without a screen reader.

Researcher: Okay, thank you. The next question is similar, and you have partly answered it: How have those standards evolved over the years? You mentioned that it's very recent, so before there were no standards, and some documents were accessible while others were not.

G: I would say the standards were more related to technical writing itself. Technical writing already incorporates principles that align with accessibility, like plain language and Information Architecture. For specific needs, yes, it's very recent.

F: We hadn't really addressed this before. It was G's initiative to research and improve our documentation. We didn't have any official standards; we followed implicit rules like short numbering and simple sentences, but not specifically for accessibility.

Researcher: Okay, and regarding: How do those standards compare to the standards of your previous jobs?

F: Before joining this company, I didn't work much in documentation; I was more on the support side. I did some documentation, but it wasn't very developed, so accessibility considerations were not really on the radar, making it hard to compare.

G: At my previous job, we used Oxygen and worked in XML, while at this company, we use Zendesk, which is less structured. With Oxygen, the alt attribute for images was mandatory, unlike with Zendesk. There was also

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an accessibility project due to many help center videos. At this company, we only recently started producing videos in limited quantities. I briefly worked on a video subtitling project there.

Researcher: Okay, and which of those standards do you find the most efficient for ensuring documentation accessibility?

G: It's hard to choose. I think it's the combination of standards that makes documentation accessible. Even with a great structure, excessively long sentences make comprehension difficult. The information structure alone isn't enough; it's the whole set of standards that ensures accessibility. Information architecture and plain language are crucial, as lacking video subtitles has less impact.

Researcher: Alright, and what other actions or standards would you like your company to implement?

G: We would like to conduct user testing. Even if we establish and follow standards, they might not meet all our clients' needs. Users might have requirements we hadn't considered, which user testing could reveal and address.

Researcher: Do you think user testing could realistically be implemented within your company?

F: We already conduct user tests on the application's accessibility, so I think it's feasible. However, the challenge is finding the right people, as our audience might be more limited. We often struggle to find people to discuss the product itself, so finding individuals for the Help Center, which is an ancillary service, might be even more difficult.

Finding the right people with specific accessibility needs will be even harder. We receive feedback directly on articles, and users can leave comments. We try to review them regularly, though we can't monitor everything. If a specific accessibility issue is raised, we might get feedback and contact the person concerned. To my knowledge, we haven't received such feedback yet. Interviewee 2 and I are discussing how many of our clients have these accessibility needs.

Implementing complete accessibility measures can be complex and costly. We try to find a balance. Interviewee 2 has conducted screen reader tests, which work well. We can't go further due to costs, but we're doing our best.

Researcher: Alright, given that your documentation is only online, are there tools to quantify and see how many people use a screen reader on the Help Center page, etc.?

F: Ah, maybe. I hadn't thought about that. I'm not sure; we'd need to check. It's interesting. Yes, I don't know if we have a way to measure that, but it's possible.



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Researcher: Okay. Thank you for this interview.