

How User Experience helps reshape technical documentation

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This article explains how the User eXperience (UX) reshapes technical documentation. The fundamental purpose of this research is to show how users' expectations have an impact on technical documentation. Indeed, technical writing is not only the presentation of information but also how it is designed to meet users' needs. The goal of the technical writer is to communicate the information in a clear and effective way so that the documentation audience understands it well and quickly. In this article, we will first explain the importance of user experience practices in the technical writing field to then analyze the methods used to satisfy users' needs in our companies while highlighting the UX impact on the effectiveness and efficiency of the documentation. Finally, we will identify some of the UX best practices and tools to create better documentation and ensure the product and company sustainability.

Keywords: UX, Usability, User needs, Information Architecture, Design, Ergonomics, Communication, Efficiency, Effectiveness, Expectation.

Many notions are subsumed under the umbrella of user experience. According to the ISO 9241-210 standard, covering the ergonomics of human-system interaction, UX is defined as a person's perceptions and responses that result from the use or anticipated use of a product, system or device. However, there is much more to User Experience than just giving the users what they say they want to see on a product or a manual. UX is not merely providing them with a checklist features but rather combining several

disciplines to deliver the users with the right information at the right time. User experience is a broad term used to describe any aspect of the end user's interaction with a company when using a product or service. These aspects can encompass his expectations, needs or experiences. In other words, the company should take into account the users' preferences in order to improve the product life cycle. In recent years, conferences, articles and workshops have been conducted aiming to a better and unified understanding of UX. One

obvious outcome of these activities is that the UX represents the level of satisfaction an average user gets from a product. That is, how the user likes, understands and uses the product. A product is not necessarily something the user can hold in its hand but it encompasses web sites, software's, hardware's, physical objects or even services. UX is not something you apply to a product but rather how you create that specific product.

According to Jesse James Garrett (2002), every aspect of a product happens with conscious and explicit intent, that is taking into account every possibility of every action the user is likely to take as well as understand the user's expectations at every step of the way through that process. Even though experience is completely subjective, how people who interact with a product, service or a company experience those interactions is what really matters. Experiences should be part of the company DNA.

Indeed, using experiences to create technical documentation is a way of telling the user that the company is taking their opinion into account. A

user will feel closer to a company, which wants to satisfy him. With this goal in mind, technical documentation is written with two points of view: the point of view of someone who creates information and the point of view of someone who uses the information. Technical writers can use all sorts of methods to be in the shoes of the user and have a better understanding of their needs and expectations. In order to start a technical document, they can create personas and scenarios. Thanks to those, they can define their favourite targets and how to please them according to their history as well as what they mostly expect. User interviews, forums and FAQs or surveys represent another direct way of collecting feedback from users. Competitive analysis, web analytics and other tools the Internet provides can also be relevant for a technical writer. This non-exhaustive list of tools and any other way to satisfy end users with technical documentation is very useful. Experiences are really important in a company, which wants to attract and retain customers. If the end user is satisfied, he will be more inclined to keep using the company's products and services. Thus, it has an

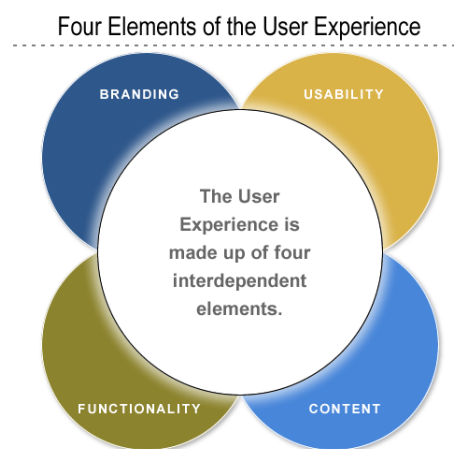
Mrs Ahrens

effect on the company's reputation and longevity.

Measuring and analyzing UX are some of the most complicated tasks to perform. Because our perception of a product or a website is skewed by our personal background and specialties in the industry, our opinion cannot be fully objective. The User Experience is primarily made up of four factors, which applied together, constitute the main ingredients for a successful product: usability, branding, functionality and content. These criteria gather the emotional, the technical, the statistical as well as ergonomic aspects that the product delivers at the end of the production chain. There are many procedures, methods and analyses with respect to assessing the overall User Experience of a product. Most UX assessment approaches require a heavy investment of time, analysis and effort (Horn, 2008). However, when using a product or visiting a website some fundamentals can show if the product or the website is adhering to the goal of UX. For instance, it can answer questions such as:

- “Can I use it?” (usability)
- “Should I use it?” (usefulness)
- “Do I want to use it?” (desirability)

According to the response of each question, it is quickly noticeable if the product meets the UX criterion such as: Accessibility, Consistency, Recognition, Errors (including handling, recovery, and prevention), Product Differentiation (including memorability), Findability (i.e. search engine friendliness), aesthetics and so on.



Because consumer satisfaction is at the heart of our concerns, UX plays an important role in our respective companies. In order to analyze and measure UX, we put into place customer satisfaction surveys, technical documentation and training audit, open forums and FAQs that are

updated and answered on a daily basis. That way, the company can meet and surpass the client expectations and insure loyalty. It also helps to fix problems and go after the right opportunities. Many other ways are consistent to get feedback from clients such as user activity, usability tests, feedback boxes or even reaching out the user directly.

Nevertheless, at Parrot, Viaccess-Orca and other companies, some issues can appear and affect the process of reshaping technical documentation. When remodelling an existing document, it can be hard to retain all the information required and to adapt it so it can be more user-friendly. We have to think about the quantity of information, the visual design and the effect it has on end users, the organization and the consistency of the document and so on. When taking into account users needs and expectations, some other difficulties may appear. The main problem is the lack of information or no information at all. If a user consults a forum or FAQ, it implies that he is not satisfied. When answering satisfaction surveys, some users can see it as a way of

demonstrating their anger and therefore will not provide information about the reason why they came on the forum or FAQ. Sometimes, the lack of information comes from the fact that the answer of the end user is not explicit enough. The user wants to explain their problem but do not give enough details. In both cases the lack of information prevents the technical writer to provide an appropriate explanation and to modify the documentation accordingly.

Finally, with a great number of end users, creating a user guide that would fit everyone is barely possible. All end users do not have the same expectations and procedures that appear easy for some can appear difficult for other.

Was this answer helpful ? Yes No

Please tell us how we can make this answer more useful:

Confirm

As mentioned previously, collecting feedback is important to understand what users really want. That way, we can keep customers happy and unconsciously keep them engaged. Many new tools are emerging to collect user feedback

such as free websites that offer design critics or tools that conduct usability testing with real people. However, in order to make those feedbacks useful, some key points have to be respected. For example, it is very significant to know the context in which the user uses its products. Also people tend to give their opinion when they like something; for instance, if they do not like a website or cannot find the information easily, they will simply leave. Without being expressive, quick voting is a good way to collect feedback (e.g: YouTube or Facebook with the thumbs up). Giving our opinion should be easy and interactive; we should not be required to create an account for this and the design should engage the user to leave a comment. Finally, feedback should be read and used to improve the quality of any product it touches, even though not every user expectation can be implemented. When declining a comment, it is also important to explain why and not just leave it as such. As mentioned by Eric Von Hippel (2005) “users generally have a more accurate and more detailed model of their needs than manufacturers have, while

manufacturers have a better model of the solution approach in which they specialize than the user has”. If this balance is respected and this symmetry put into practice, the end product cannot be other than perfect.

In our companies, many aspects of the technical documentation have to be improved, starting with the visual design. Chunks of texts are not engaging which hurts the user experience. When remodelling the technical documentation, at Viaccess-Orca we put a strong emphasis on delivering an attractive documentation. Firstly, the company style guide was completely changed, from the colors to the logos. Then we tried to avoid as much as we could text to replace it by schemas and diagrams. We focused on minimizing the information while using a lot more bullet points. We also received many critics regarding the information architecture of our manuals. The content information was mixed up and many internal links were available to the user which appeared confusing. In our recent manuals, we tried to create a Document Type Definition (DTD) which reflects a certain consistency

and organization in a book. That way a manual structure is respected which encourages compliance and develops standards. Another advantage of this method can be that now manuals can be reusable according to one single source. We aimed at providing a consistent framework with reliable, concise and complete content which correlates with the user's expectations.

The way the end users feel when using a product also matters. At Parrot, testers will use a product during a certain period of time before the product is released. They report what they see, how they use it and how they feel with the product in hands. Beta-testers will use a product following some scenarios to test it and report bugs if any. Technical writers can also be testers. Having the product available for testing makes it easier for writing technical documentation. The interaction between the user and the product is clearly an element to take into account.

Studying this interaction is part of the user research as well as surveys conducted to get the end users'

opinions. Forums and FAQs presents on Parrot's website are also a way of identifying areas for improvements and innovation. User research allows the technical writer to know how users are accessing current products and documentation. Beyond that, new opportunities can be spotted for new products and new ways of improving technical documentation.

We also have to be careful with some other aspects of the technical documentation such as usability. For instance, the products we find at Parrot are products we can find in other stores or on other websites. If users do not find the information they want when interacting with the website of a company or in the documentation, they will look for another company. The end user must be able to find this information easily and quickly. Usability encompasses learnability, memorability, efficiency and errors. The website of a company must be enjoyable to visit and the users have to remember it. They must be able to complete tasks easily, enjoy the design and be able to recover from any error they make on the website. Technical writers at Parrot work on

the support website to make sure these elements are taken into account.

Last but not least, content strategy is a major aspect of technical documentation. In any company, technical writers plan, design, develop and deploy content according to the audience and the information to put forward. At Parrot and Viaccess-Orca, a quick start guide and a user guide exist for each product or each interface. The elements presents in the quick start guide must be concise and the technical writer has to select which information is required. Content is evolving and technical writers constantly repeat the following steps: analyzing the content and the users, collecting information, writing and publishing the content, and looking back to plan for the future.

All these aspects show the importance of technical writers in companies such as Parrot and Viaccess-Orca. Indeed, they represent a communicating bridge between developers and end users. They have to understand every

pieces of information the developers share and popularize these so the user can easily perform any. Technical writers have to evolve with the tools and user's expectations, which can change over time.

As we could see throughout this article, UX is complex and comprises of many different elements, which represent themselves wide fields of research. It is a complete process which has a significant role in the (re)shaping of technical documentation. Using the experiences of end users with different backgrounds and specialties and study them in regard to a specific product can help technical writers to improve users' level of satisfaction with that same product. A lot of evolving tools and methods can be used to have a better understanding of users' needs and expectations as well as to deliver a more attractive documentation. UX is a way of satisfying end users, which is the goal of any company who wants to prosper.

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Figure 1: "The four elements of the User Experience" by Robert Rubinoff (2004) in his article "How to quantify the User Experience". Last accessed on the 22nd/08/13.

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Figure 2: One of the ways to get users' feedback. Present on Parrot's website (support pages).