

Compelling documentation: a way to improve the user experience?

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Abstract

Most people do not read user guides on their own initiative. When they do, it is often because they have no choice, or when they encounter a problem and need a solution. According to the general public composed of a representative sample of 105 people surveyed for our research purpose, guides are deemed plain, unattractive and people usually feel compelled to read them. Indeed, reading user manuals require a certain effort that people are not always ready or willing to make. Hence, they already have a somewhat biased view of the guide even before opening it. Thus, it might be interesting to wonder if a compelling documentation can improve user experience.

User Experience implies not only the use of the product, but also the quality of documentation, if it answers questions and solves potential problems in the best, quickest, and most fluent way. User Experience is a cause-and-effect relationship between documentation and the product: the better the information, the better the use will be. However, is it possible to make documentation more compelling in the first place? How can technical writers alleviate the global reluctance to user guides? This paper provides possible solutions in order to make user manuals more compelling to users.

Keywords: user experience, user manuals, enjoyability, minimalism, contextualization, cognitive demand, reinforcement

Introduction

“Most people do not read user guides” is the very first assumption we made when we started to discuss our research theme. To begin with, we wanted to work on the inclusion of fun in technical writing, especially in user manuals. Why not making user manuals interactive, game-like readings by adding colors, images, even humor?

After asking a few technical documentation professionals, we eventually realized that we could not focus on fun, as all of them agreed on the fact that technique and fun could in no way go together.

That lead us to think “fun” was perhaps a too extreme or vague term, so we opted for “enjoyment” instead, as in making the reading experience less painful for the reader, or pleasant at best. Upon our second attempt to bring out the main ideas, we soon came to understand that we would inevitably return to our primary concept of fun in the end.

We did not give up on our premise for all that. Only, we had to address the issue from another angle. All four of us granted we had never seen anyone reading user guides with enthusiasm, nor had we heard anyone saying they ever had. However, we conducted a survey in order to support our claims and help us determine a new angle of approach.

According to the general public (a representative sample of 105 people surveyed for our research purpose), guides are often plain and unattractive and people usually feel forced to read them. Indeed, reading user guides requires a certain effort that people are not always ready or willing to make. Hence, they already have a somewhat biased view of the guide even before opening it.

As for the plainness and unattractiveness, it can be explained by the fact that since technical writers deal with technical and complex information, they must make it clear, structured and consistent. Therefore, they prioritize clarity of information over entertainment and engagement, especially as users do not seek entertainment when they want to solve a problem.

When we talked about our project with information professionals Andy McDonald and Ray Gallon, and the trouble we had drawing a research question, they suggested a few topics and interesting guidelines. Combined with what we brought out from the survey results, they would soon become the article outline.

At this stage, we could establish the final problem statement: “Compelling documentation - a way to improve the user experience?”. What is meant by “compelling” here is stimulating, attractive, incentive.

User experience is a cause-and-effect relationship between documentation and the product: the better the information, the better the use will be. How to make documentation compelling in the first place, then? How can we, technical writers, alleviate the global reluctance to user guides?

As mentioned earlier, we conducted a survey intended for a panel of users to get a sense of how they perceive user guides, and how, in what circumstances they read them. We will present the survey in more depth together with an analysis of the answers in the next two parts.

Following this, we will discuss the importance of contextualization and building cognitive demand.

We will then explore the concept of minimalism.

In a third part, we will try to determine whether user guides can be made enjoyable in any way.

Finally, we will examine the concept of reinforcement as a way to make the user want to repeat the experience - and ultimately, build cognitive demand.

Method

In order to get a better understanding of users' relationships with user manuals and evaluate their feelings about them, we conducted a survey with a quantitative and qualitative approach in our professional and personal environments.

Our sample of 105 people is representative of French users and gives us a relevant and insightful overview of current habits towards user manuals in France in 2017.

The survey took place in May 2017 and was shared through several social medias. It consisted of five questions.

In the first part of the survey, we inquired about the users' habits: do they read user manuals, and if yes, how often and when do they read them.

In the second part, we tried to determine the reasons why users read or do not read the manuals.

We also asked them whether they can recall any manuals that stroke them by a better quality than usual.

This survey led us to find out that all the 105 people do read user manuals. Some are thorough readers while others merely consult them.

Results

As can be seen in *Figure 1*, our first result was that out of 105 surveyed people, only **18% always** read user manuals.

However nearly half the surveyed population (**46%**) **sometimes** read the user manuals, and **36%** **seldom** read them.

These results support our statement about many people not systematically reading user manuals.

Do you read the user manual when you buy a new item?

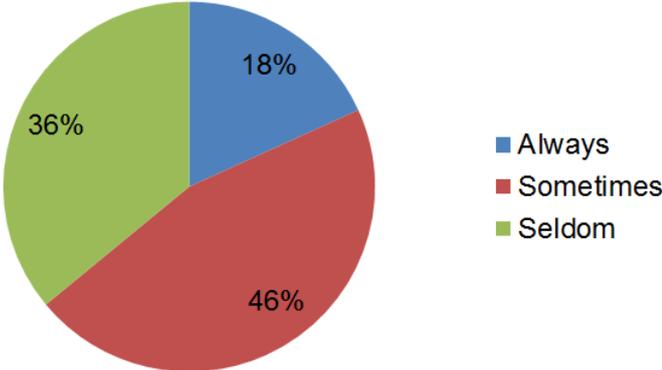


Figure 1

In order to make it more clear, we asked them for more details and wanted to know **which parts** of the manuals they tend to read whenever they do.

When you open a manual, what part.s of it do you read?

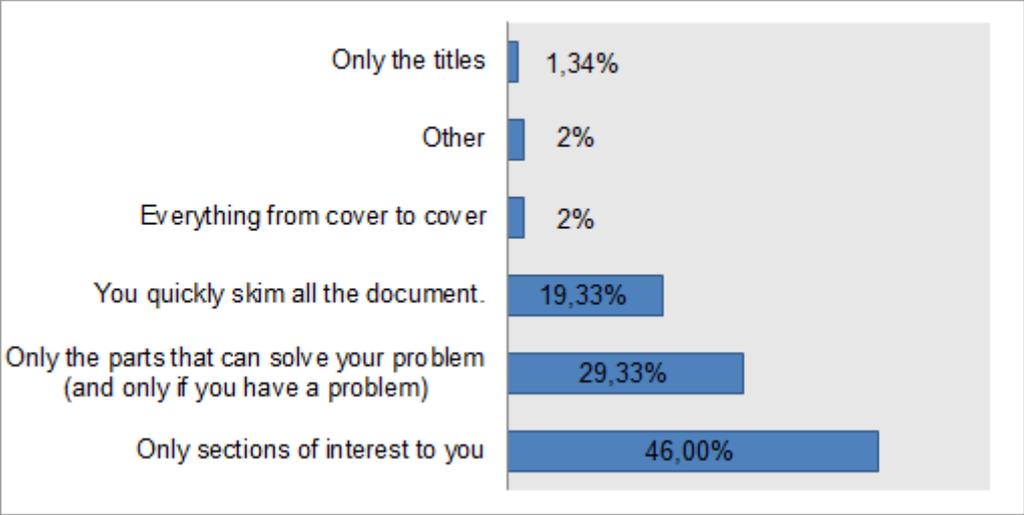


Figure 2

What is interesting to note in *Figure 2* is that out of 105 interviewees, more than 70% only read the chapters they are interested in. 19% only skim through and 43% read them when they encounter a problem with their product.

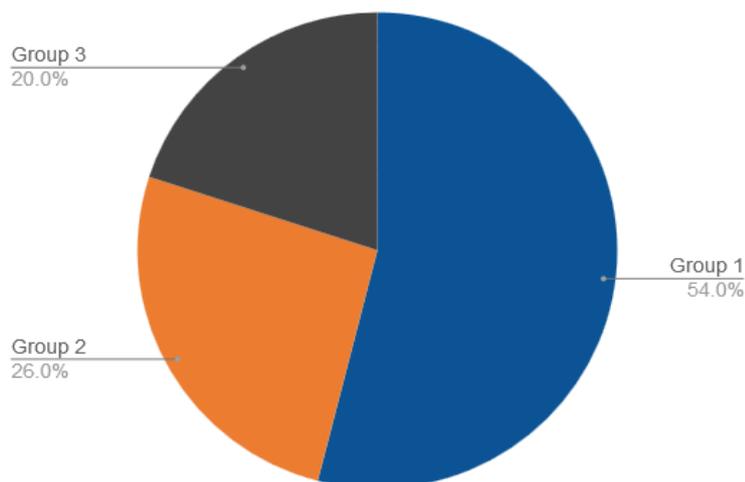
When we asked people to tell us what they were searching for when skimming quickly, they largely answered they targeted what interested them specifically, or the table of contents beforehand.

Our first statement is that users do not read the manual if they reckon they do not need to (except for 2%).

We then asked the respondents to answer freely **at which exact moment(s)** they are likely to open and read the user manual.

Eighty-two people answered that question. This represents about 80% of the respondents.

These answers can be gathered in three groups:



- **Group 1:** People who read the manual **before** they **start to use the product**.

They are curious, they want to learn how to use it, they want to understand how it works, and some of them dread to break or damage it.

- **Group 2:** People who read the manual **after** they have **started to use the product** (over a short period).

They rely on their intuition first. There is a lack of interest from some of the users about manuals, they deliberately choose not to read a user manual before using a product.

- **Group 3:** People who read the manual **after** they have **bought the product and used it several times**.

They read the instructions when questions arise about advanced features, about locating and repairing breakdowns or about contacting customer service.

In the following question, we inquired about the reasons behind the a priori reluctance to read a manual that was already mentioned before.

The question asked was: “Why don’t you generally read user manuals?”

The purpose of this question was to give us an idea of what exactly bothers people when they read a user manual in order to determine where might be the problem and find possible solutions.

Answers	Number of people	Percentage
I don't have time.	10	12 %
It is useless.	4	4.8 %
I would rather look up the information on the internet.	17	20.5 %
It is boring.	31	37.3 %
The volume of the content is discouraging.	35	42.2 %
The content is too complex.	16	19.3 %
I prefer to use the product directly.	22	26.5 %
I cannot find the information I am looking for.	15	18.1 %
The language is too formal.	12	14.5 %
The design of the manual lacks originality and colors.	22	26.5 %
It is poorly written.	12	14.5 %
The blocks of text are too thick.	26	31.3 %
Too impatient to test the product quickly.	1	1.2 %
Sometimes the content is poorly translated.	1	1.2 %

Figure 4

As we can see in *Figure 4*, many aspects seem to bother people with user manuals, and those are the aspects we should probably focus on if we want to improve their user experience as a whole and make the manuals less painful to read.

It is important to note that the reasons in the **Answers** column are not the outcome of an open-ended question. It resulted from the respondents choice to pick from a long list of suggestions drafted from our own experience as ordinary users-readers.

If we take a closer look at the answers, we find that the most recurring problems are related to content.

It is interesting to note, and it might mean that what should change or at least evolve in user manuals, is the attention we give to content. Create content more compelling to people may be a way to facilitate/increase the reading of user manuals.

Therefore, based on the answers above, we could identify three main issues in the users - manuals relationship:

1. Lack of time:

- Users do not have time to read the manuals and are usually eager to test the product directly.

2. Limited attractiveness of the design:

- According to users, the design of the manual often lacks originality and colors.

3. Content and Language do not meet users' needs

- Users find the content of user manuals boring and too complex.
- They also find the content poorly written and translated.
- According to the users, the language is too formal.
- The contents volume is discouraging with too many blocks of text. As a result, users often cannot find the information they are looking for.

The goal of this article is to discuss and present possible solutions to these issues.

Finally, we asked the survey respondents to call upon their memories.

The last question was: “Have you ever read a good user manual?”

This question was supposed to give us solid and concrete information about what people enjoy when they must read a user manual.

The majority answered no. Only a very few (**12 out of 105 survey respondents**) gave us examples of what they considered to be a good manual.

The most recurring answers were the user manuals of Ikea or, more generally, household appliance manuals. According to these answers, it can be assumed that something in Ikea and household appliance documentation is actually making a difference.

Thus, it is not surprising that people always give examples of household appliances manuals. These manuals often contain very little text content, and every step is explained with diagrams and illustrations. Short illustrated and light chapters with little but sufficient and clear content seem to be what people want when they read a manual.

Discussion

From these answers, we can draw a conclusion on how users feel about user manuals.

Users read manuals; that is a fact. Simply, not all read the same parts, nor spend the same amount of time reading them.

What users are expecting from user documentation varies from one to the other, this is why they usually read only the parts that matter to them, at a specific moment and towards specific objectives.

How to make documentation compelling

We relied on the survey results and literature to address these issues and suggest possible solutions.

Contextualization and cognitive demand

“The more you eat, the more you want”.

This advertising slogan was that of an American brand Cracker Jack snacks, back in the World War I period.

In the same way, advertising encourages the consumption of products would it be possible to create a craving for information?

In the particular case of technical documentation, the challenge is not so much to promote its related product as to make reading documentation instinctive. That is, in this context when users consider they do not need to read the manual, the objective would be to make them feel it is a mandatory step in the user journey, from the moment of the purchase up to the first use of the product.

If you take a look at a random user feedback section on a product's official website or a forum, you will probably notice most comments are negative - at least more than a half. Indeed, people do not usually bother to give feedback when they are fully satisfied with their new acquisition. Put aside malfunctioning that generally occurs when the product gets old, the problems users are confronted with are mostly due to a misuse. For negative comments' authors especially, the initial reflex after experiencing a problem is seldom to read documentation, but rather to blame the producer¹. After which, if advised to look up in the manual, displeased users raise more or less justified objections. The challenge is not only to change the way of considering problem solving, but also to make documentation a crucial part of a cycle of success, to anticipate misuse issues.

Cognitive demand and contextualization are widely thought over and exploited concepts in the field of education. Making the student an active participant in learning is an integral part of the demand-building process. User guides and technical communication in general are not so far from the educational frame, as they have a fundamental teaching-learning purpose.

The context here encompasses the whole user journey. Documentation should consequently have its rightful place in it. That is, not as a subsidiary unplanned ordeal when the user faces a problem.

In a research paper, author Dolores Perin alludes to the importance of linking information to an immediate application in the field concerned². The academic-related issue raised here seems to be the same affecting manuals today.

A manual is not truly separate from its content, as it falls under the law that documentation must accompany the product. Yet as seen in the survey results, 29,33% of users consult the manual only to solve a problem, if ever they have one. Here, the manual is a mere emergency crutch and comes down to fit only in a problem situation -which we could call a subcontext. In *Why Don't People Read*

¹ Canon camera manufacturer has bear the cost of people not reading manuals. According to its director of technical information department, "there's no question that people are averse to reading the full instruction manuals - that's a given these days," he said in an interview with the Washington Post. The article goes on with explaining that makes companies the victim of their customers' frustration.

² The author regrets the gap between skills taught and direct application in the field, as "technical aspects [...] are taught apart from content"

The Manual?, the authors point out that “[a] prior research repeatedly showed that usability problems cause frustration in users.” Nearly 30% of users supposedly associate manuals to problems and frustration, which immediately puts them in a wrong frame of mind.

The authors then refer to a study led on 108 students working on a task. The study revealed that “the usability problems [the students had] encountered [had] resulted in high levels of frustrations and large loss of time”. Paradoxically, 12% of the people we interviewed conjured up lack of time as the reason they generally do not read the manual.

However, a user’s personal aim is not to use the product just for the sake of it, but to get the most of all its features without experiencing any trouble and losing time and being accordingly frustrated. Only, the excitement of purchasing a new item causes a rush that prevails over such a rational account and step-by step handling of the item.

Contextualization and cognitive demand are intimately linked. The latter might have a key role to play here so that ultimately, the manual appears as a natural step in the context of new product acquisition, both to avoid and in response to a problem -should a problem come up. We said earlier that documentation was in almost 30% of cases an emergency solution. Like a student would use a crib sheet during an exam, losing time seeking the right information and solving the problem in haste to overcome frustration would not serve the user well. In both cases, the problem would better be anticipated.

As a reminder, “cognition is a mental process involved in knowing, learning, and understanding things”, as defined in the Robert and Collins. In learning process, a task involving cognitive demand requires students to think conceptually and stimulates students to make connections lead to a different set of opportunities for student thinking (Stein and Smith, 1998). Two main types of cognitive demand are identified: high and low³.

In academic education, high cognitive demand rests upon active connection between procedures and tasks, and includes the following properties (among others):

- Focus students’ attention on the use of procedures for the purpose of developing deeper levels of understanding.

³ Margaret Smith and Mary Kay Stein are professors In the University of Pittsburgh and scientists at the Learning Research and Development Center. They have identified two main categories of cognitive demands.

- Usually are represented in multiple ways (e.g., visual diagrams, manipulatives, symbols, problem situations). Making connections among multiple representations helps to develop meaning.⁴

So, what if a user reads the manual and manages the item simultaneously, all the while making an active effort to comprehend what problem a given manipulation would avoid? Alternatively, which purpose would a button serve?

Manuals and technical documentation in general has to be user-centered. To quote resources and contract provider HCl.com, user-centeredness requires documentation to determine “what [the users] already know” (prerequisites) inter alia. Yet the very common fault for users is most of them rely on what they already know, or what they think they already know. There is little, if any, implication of cognition.

Like any other task that is imposed on us, learning can be a chore, in the sense that it does not come as an immediate need (necessary) or desire (contingent but decided freely).

Think about a youngster who does not want to go to school. He or she would rather sleep, play or anything else related to pleasure, entertainment, and free time. Likewise, for someone who has recently acquired a brand new phone and is eager to start using it, the primary goal here is the mere action of using the phone. At this moment, allowing time for reading documentation in order to understand how to make the best out of the product use is not what the user has in mind. The manual is actually a hindrance, an obstacle between the moment the user purchases the product and the satisfaction and pleasure he or she will take from using it.

A usability problem that implicitly forces the user to consult the manual puts him or her in a passive-learning position, which makes it even harder to learn and alleviate frustration.

Active learning focusses on learning processes and favors communication, interactions and feedback. Instructions and activities are meaningful and then again, contextualized.

Active learning has been proven effective in knowledge retention and application. A study led on two groups of students has aimed to measure short and long-term retention⁵. The first group had a break time after a 45-minute lecture in order to clarify their notes and do workshops on the subject. The second group had no break allowed. The pause group was able to recall “108 correct facts compared to 80 correct facts in classes with straight lecture” (short-term). As for long-term retention, the groups were asked to pass a test one week and a half after the lecture. “Test scores were 89.4 with

⁴ An analysis made by teachers in a fifth-grade mathematics lesson writing protocol

⁵ In his article, author Michael Prince refers to the study led by Ruhl et al., (1987)

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the pause procedure compared to 80.9 without pause for one class, and 80.4 with the pause procedure compared to 72.6 with no pause in the other class”.

Technical writing would probably benefit from what has been proven successful pedagogical methods. Pedagogy could have ways to serve technical writing. What if, in the same way the group was given a break time for practical activities, technical documents included such a section to mobilize the user cognitive mechanisms?

Being able to test out their skills directly would put the users in a rewarding success position and positive state of mind, which eventually encourages to renew the reading manual experience.

Yet what we have just exposed here would happen in the best of all Technical Documentation worlds. We certainly cannot expect a radical change in users’ thoughts about manuals any more than everyone starting to read manuals overnight. Building cognitive demand is no doubt possible through improvement in manuals’ contents, both in terms of form and substance.

Minimalism: Reducing Content

Cory Lebson (2015) once stated that any type of content is as important as any other elements, such as the interface of a product or the structure of a document.⁶

If we take a closer look to household appliance manuals, we can decipher a certain pattern: there is a significant lack of text. Instead, these manuals are full of explanatory diagrams or simple illustrations. We have to be careful with this information, though.

What people are really looking for is a balance between quality of information and visual representation of tasks.

Furthermore, the blocks of text in most user manuals play an important role in people's dissatisfaction. The precise information they are looking for is buried in a flow of information they either do not care about or already know, and it takes more time and effort to eventually find what they want.

The issue is that people want to get things done quickly and do not want to spend their time on tasks they deem pointless. They want to find the content that is worth paying attention to.

⁶ Cory Lebson is a User Experience Consultant who wrote about the relationship between technical writing and user experience, among other things.

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According to Global Content Marketing and Leader Jason Miller (2016), we experience what we call a “dopamine hit” when we find something interesting. On the contrary, we do not feel that emotional hit when we find something boring and meaningless.

The difficulty, however, lies in the goal reaching process. Miller stressed the importance of making sure that *the content should be “substantial” and “rewarding”*.

How can technical writers address and resolve this fundamental problem?

Is it possible to have little text content in user manuals all the while providing relevant information?

According to Joann Hackos, the Minimalism principle might be a strategy⁷.

The Minimalism principle is defined as a task-oriented approach to technical documentation that stresses the importance of a minimalist content for an effective learning and a better knowledge seeking⁸.

Hackos (2012) distinguished four fundamental principles of Minimalism:

- First principle: Focus on an action-oriented approach.

People learn best how to use a product by doing meaningful tasks rather than reading. An action-oriented approach with concrete examples and tasks would be more convenient for people than just reading long descriptions, as users want to learn by performing tasks immediately and try the product they bought as soon as possible.

We also observed that many people find technical documentation “boring”. Long blocks of information are not interesting for users, as they do not read the manual to learn about their purchase history.

The purpose of minimalism is to write concise and short tasks that enable people to achieve real goals and complete real work in a short amount of time. Why is it important for users to perform a task rather than reading something? It provides instant results and most importantly, saves time.

According to Carroll, instructions should be task-oriented, context-sensitive, concrete, and short. For instance, Hackos recommends to eliminate unnecessary text and overabundance of information. A possible solution might be to remove background information about a product’s history, or to avoid long introductory material.

Finally, it is important to not doubt the user’s intelligence with unnecessary and meaningless instructions.

⁷ JoAnn Hackos is the director of the Center for Information-Development Management and author of numerous books about technical communication.

⁸ Minimalism was developed by John Carroll and his colleagues at IBM Watson Research Center in the late 1970s.

In this aspect, Minimalism truly shares similarities with the “Less is more” principle, used in the Agile environments and where it is required to label menus or commands in a clear and appropriate way. The purpose of the two principles is to ensure that the names of the options are intuitive and self-sufficient so that users can understand them right away.

- Second principle: Ensure you understand the users’ world.

The quality of language is another sore subject for users. Sometimes it is considered too formal, inadequate and poorly written.

These problems highlight the importance of using a simple register, avoid formal language, and be concise. However, what does it mean to speak the users’ language? According to Hackos (2012), technical writers, or “information developers”, should speak and use a language that users can understand, rather than the language used by product developers.

She adds that using understandable words enables us to understand the users’ world, and that we should not force the other way around.

Indeed, if we take the example of software technical documentation, we can see that some of the names given by software developers to commands or icons seem complex to users because they do not represent their own reality; the vision they have is different from the developers’.

To reflect the user’s goal or the task structure, it is better to use headings, to write in a clear and easy way with as little words as possible and to provide structured-content with no concept or references. As such, users will not have any concept or reference within their instructions, and will stay focus on the actions they need to perform. Nonetheless, they will be able to consult the background information if they want to learn more about the product they are using.

Finally, give users simple and basic tasks they recognize as real work.

As technical writers, it is important to think from the users’ point of view in order to change something complex into something easy to understand.

- Third principle: Recognize the importance of troubleshooting information.

Many people never consult the documentation unless they have a problem, hence a troubleshooting or a FAQ section are often consulted in order to help them solve their issues. It is also quite known that the majority of users tend to check directly this kind of sections before actually reading the different chapters of a manual.

So troubleshooting information is important for users and, just as the rest of the manual's content, should be explicitly labeled. Hackos recommends to identify the most reoccurring problems and provide solutions for each of them.

According to Hackos, if we can anticipate and give possible solutions to the errors commonly made by users, we will be able to help them avoid those mistakes that disrupt their learning and make them more successful while performing a task.

- Fourth principle: Ensure that users can find the information they need.

People want to find the content that is worth paying attention to.

In order to do so, and by using minimalism, making the navigation, and more generally the access to content much more intuitive might be a good start. For instance, writing short and relevant topic titles. After the titles, adding a short description that explains why the user would want to read this topic might help. Users should know right away if they are at the right place and what they are going to find in one topic or another.

Tables of Contents and indexes can be very useful to users if they are well structured, in order to match people's expectations.

A good way of structuring and organizing these sections in a practical way for users can be done by only putting heading levels that are sufficient enough to provide the necessary information without drowning users in a flood of information. Long Tables of Contents tend to have the same effect as blocks of text on people, and as a result, it discourage them from reading further.

Finally, only information that can help users achieve their goal should be provided. It is not necessary to add blocks of text that describe the task, or obvious information such as "a dialog box appears" after clicking on a command. Only useful information and instructions should be provided.

As a conclusion, using the four principles of Minimalism developed by Carroll and later analyzed by Hackos might help technical writers improve content in order to improve the whole user experience. A good documentation can indeed play an important role in a product success.

However, it is important to avoid over simplification for the sake of Minimalism, as content can become even more complex afterwards for the users.

If we want to make the documentation more compelling, making the content itself more compelling might be a good start. Because the content is a key element of user manuals.

Enjoyability

In this part, we try to determine whether user guides can be made enjoyable in any way, and if they can help to improve user experience consequently.

First, we asked ourselves if technical writing is part of User Experience.

Technical communication should be “considered as an inherent part of user experience”. Anything that involves “people interacting with something should also be considered inherently part of the user experience”.⁹

In addition, some User Experience experts consider that user manuals “play a crucial role in user experience—not just with the manual itself, but also with the product. Unfortunately, manuals are often a source of frustration rather than assistance”.¹⁰ Does enjoyment really matter in technical documentation?

Being considered as part of the User Experience process, user manuals’ objectives have to evolve. Readers of user manuals are clients. They are likely to change provider or to give good feedback if they can get a more enjoyable experience with a specific company.

Beyond historical objectives such as making information easy to find or making explanations easy to understand, even the most complex user guides should become enjoyable to read.

Of course, they will never become as pleasing to read as a novel, but there could be a first step towards making this experience less painful.

The point is to catch the attention of the reader, to maintain interest and to make the overall experience less frustrating.

So what can be done to achieve this goal?

- Simplicity is always appreciated: the right amount of information is needed, not too much but not too little. As mentioned before, minimalism does not mean shorter texts or less pages, it means that only the relevant information is in the document.

⁹ Mentioned by Janet M. Six in her article “Is Technical Writing Part of UX” (2015).

¹⁰ Anastasios Karafillis covered the topics of instruction manuals and User Experience in his article “Improving User Experience in Manuals” (2013).

- Nothing is more efficient than an illustration to make a concept or a process clear. Many of our respondents mentioned graphical manuals, such as Ikea instruction manuals, when we asked them if they had kept good memories of a manual.
- However, illustrations may not always be the best way to communicate information, [there are times when a striking image expresses something in a more powerful or accurate way, but there are also countless occasions when words are an extraordinarily moving or precise media, when words can do more, say more, show more or achieve more].¹¹

A well-written document has a great value. Therefore, the combination of both illustrations (pictures, tables, icons, diagrams ...) and a well-written text (unlike Ikea instruction manuals) seems to be the balance needed to keep the user's attention.

- Nice designs, colors and quality of paper are also important. While marketing brochures are usually printed on beautiful paper and carefully designed by graphic talents, manuals are mostly printed in black and white on regular paper.

In our survey, 22 respondents said that *"the design of the manual lacks originality and colors."* Therefore, it is an evidence that to create motivated and inspired readers, manuals need to be more attractive visually.

- Readers are more engaged when they are told stories. Stories typically have a beginning, a middle, and an end. Writers should involve, as much as they can, the readers in the story they are telling, even if it is in a technical document.
- Using active voice throughout documentation provides the readers with the illusion of individualized guidelines. Therefore, they feel more involved in the course of procedure.
- Making the guide sound fun can make it more enjoyable. Here, "fun" does not mean "funny"; rather a way to let readers feel pleasure. If writers do not necessarily use humor, they need to find the best examples or illustrations, to have a creative writing style, etc. They need to break the rules and to leave out the standard technical writing style, but still have to keep the appropriate style for their brand and audience.

Now, we can state user guides have the unchangeable role to describe procedures. If readers are to follow them, writers can possibly make this whole experience less painful.

¹¹ Mentioned by Tim Rich in the article "On pictures and prose" (2010)
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It requires a lot of effort for companies, as not only does it involve technical writers, but also marketers, designers, UX services, and developers. It is still worth it, as offering an amazing experience praised by brands to make happy readers-consumers should be a marketing priority when measuring User Experience, especially as happy readers are eager to evangelize the products. If enjoyment cannot apply to procedures, technical communication and marketing might become one overtime, for the sake of improving user experience.

Reinforcement

When conceiving a technical document, we can try to make good choices in order to prevent the users from negative reactions such as reluctance, feeling of inadequacy and abandonment.

In this section we want to answer the question “is it possible to make the user want to repeat the experience of reading a manual?”

The interest of proposing the users a compelling documentation can be considered as part of a wider phenomenon: when the users read a manual, an interaction human-object is established, in which the actors are the users who cannot prevent from feeling emotions, and the user manual, which represents a *sensorial stimulus*.

When the interaction occurs, the sensorial stimulus activates automatically a cognitive mechanism that processes the stimulus and generates *emotional stimuli*; the reactions involved by the emotional stimuli are based on the intrinsic properties of the stimulus, the intentions of the actors at the moment of the interaction, and the actors’ psychological properties¹². According to our survey, we determine the user manual as the sensorial stimulus, the user's need for solving problems as the intentions at the moment of the interaction, while taking into account the uniqueness of their psychological properties.

Because of the high variability of these factors, it is impossible to apply the “one-size-fits-all” rule while conceiving technical documentation, but we can state that only two elements never vary. On one hand, the main feature of user manuals is to provide rational information, on the other, users are emotional (human) beings.

The only constant in our results is that even if users open the manual, they can pay attention to it for a very short time. In most of the situations, a negative feeling makes them abandon the task. As far as it goes, we can question ourselves about how to “neutralize” the occurrence of negative feelings in the moment of the interaction.

¹² In “Dynamic modulation of emotional processing” (2012), Okon-Singer, H., et al. investigates about the variables in the cognitive process of emotional stimuli.

Can the interaction with a rational stimulus keep the attention, if not the interest, of an emotional being?

The emotions raised by the physical features of a product over different users are countless, because the emotional response does not depend on the product, but on its significance for the people's concerns¹³. Significance is an automatic phenomenon that implies the interpretation of a stimulus from an interpreter. In everyday life, different interpretations may lead to different significations depending on the interpreter whereas, in technical communication, the goal is to limit this phenomenon by providing precise, unequivocal content.

What about the impact of the impulsive emotional reaction over the attention span?

In the previous chapters of this article, thanks to the survey's results, we already mentioned the importance of visual stimulation. When a human-object interaction is established, the human brain reacts to emotional stimuli following a precise scheme of activation. The automatic attention is captured by three kinds of visual stimuli: "emotionally positive", "emotionally negative", and "nonemotional". When the interaction is established, the attention follows a three-stage sequence. First, the automatic attention is captured by negative visual stimuli. Second, the automatic attention keeps focusing on negative stimuli, but starts focusing also on positive ones. Finally, automatic attention is fully focused on both positive and nonemotional stimuli. The neural activity concerning the automatic attention depends essentially on the emotional features of the visual stimuli, which participates to the biological interpretation process¹⁴.

It follows that the manual stimulus, both a visual and rational, is able to awake the users' attention. It may be not able to keep the attention alive, unless we try to limit emotionally negative stimuli.

Can the stimulus also awake the interest of the reader in order to reiterate the experience in the near or the distant future?

It would be very ambitious to say that once the attention awakes, it is 100% possible to maintain it for a very long time. First, as we pointed out in the previous sections, the main goal of the user manual is not to be read, but to improve the user experience of a product; second, the action of reading the manual is frequently justified by the need to find a solution to a problem.

¹³ From the study about the impact of products design over human emotional reactions by Desmet, in the article "Designing Emotions" (2002).

¹⁴ From the results of the brain mapping study 'Automatic attention to emotional stimuli: Neural correlates' carried by Carretié, L., et al., about the capability of emotional and nonemotional visual stimulation to capture automatic attention (2004).

All we can recommend as technical writers, is to manage to keep the users feel positive feelings all the way through their experience of the manual, making sure to provide a high quality content - visually and pedagogically speaking - able to induce and satisfy the cognitive demand.

As our survey has shown, rare but real user manual experiences started from a good visual response, maintained attention of the users while they accomplished tasks, and ended with the users' decision to keep the manual, because they recognized its value.

We can state that reinforcement is not a strategy we can apply. It is the result of the application of many strategies aiming at raising positive feelings - then, trust - as the users consult the manual.

Conclusion

The issue about the function of the user manual is very sensitive in the field of technical communication. According to some professionals, the document has to be considered independently from the user experience of the product. According to others, it is a key element that completes the experience.

In this article, we tried to draw some answers, building our reflection on the analysis of the users' point of view. The results were both interesting and surprising: few people read the manuals but, when they do, they follow a more or less common path. Most users consult the manual in order to prevent or solve problems, seldom considering the consultation of the manual as the first step to learn how to use the product. We took into account these assumptions in order to analyze what the users need from the manual, and to determine what can be the expectations of technical writers about the users-user manuals relationship. Our research proved that consulting a manual is a cognitive process that involves a very delicate human-object interaction. In the first place, users need to be reassured by the minimalism of the design and content of the user manual. By overcoming the visual barrier, and feeling that the content is on the scale of their needs, users can feel comfortable with the idea of completing an actual task thanks to the manual. The practical implementation of the information provided is the unit of measurement of the quality of the content. This process puts the users in the position of learning actively how to accomplish a task and, consequently, makes them feel reassured and satisfied with such a constructive experience, as well as ready to repeat it. As technical writers, we can expect that, providing a compelling documentation, the set of positive feelings raised by an enjoyable experience can develop a sense of confidence towards both the product and the manual, improving the user experience.

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