

# How to Stop Writing Documentation and Start Working for Your Users

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*How do you stop writing documentation and instead give people the information they need to use a product? You start by understanding your users: their level of expertise, the tasks they need to accomplish, and the problems they are likely to run into. Then you can help them do their work by presenting the information from their point of view and focusing on real tasks, rather than product functions. With this background, you can develop information that is easy to understand, easy to find, and visually effective.*

The brief history of computer documentation started with product information written for programmers and engineers. Its purpose was to explain how the hardware or software worked. When computer use spread from experts to ordinary people, documentation evolved to include procedures for using the product. Task-based instructions have been the industry standard for the past 10 years or so. But focusing on tasks still hasn't solved all the problems for our users.

According to JoAnn Hackos, "...we must stop writing documentation as we know it, abandon the developers and their need to explain how everything works, and go to work for the users....We need to get closer to the users, spending time in their workplaces, watching them struggle with everyday tasks, listening to how they describe their activities, and generally understanding their environment from their points of view." (1)

## UNDERSTANDING YOUR USERS AND THEIR WORK

The best way to understand your users is through personal observation and interviews. In many situations, you have to rely mainly on second-hand sources: customer service, product support, sales, marketing, or trainers. You can also learn about users through focus groups, trade shows, and market research questionnaires. Hands-on experience with the product makes you a user yourself.

Usability testing of a similar product, or the previous version of the current product, is an excellent way to research your audience. Even if you don't have the resources to conduct rigorous scientific tests, you can learn a lot from informal tests. Studies show that in less formal testing, you can identify 80% of the usability issues with four or five participants, and the 80% represents most of the major problems. (2)

Once you have gathered the information, you can organize it into an "audience profile," including users' education level, how they use the product in their work, and their level of computer expertise. Users can be beginners, intermediate, or expert in both computer knowledge and subject matter knowledge. For example, a professional photographer might be an expert in areas like image quality, exposure, and composition but a novice when it comes to graphics editing tools.

The next step is to determine what basic concepts your users need to know, and create a task list of what they need to do as part of their work. These can be general tasks, such as giving presentations, or specific, such as checking spelling. According to Jonathan Price and Henry Korman in their book, *How to Communicate Technical Information*, "The more you understand these tasks—as the customer sees them—the more easily you can explain how to use your product to accomplish work, rather than how to exercise various neat features." (3)

The task list is the basis for your table of contents, so you need to organize it into a logical sequence, either chronologically, working from familiar to unfamiliar, or from simple to complex. The level of detail depends on the level of your audience. If your users are computer novices, for example, you may need to include a step-by-step procedure for installing the software. If you're working on a higher-end product, you may be able to say, "Insert the CD-ROM and follow the instructions on the screen."

Throughout the process of learning about your users, focus on potential problems and solutions. Note the language that people use to describe their difficulties, so you can incorporate that information in troubleshooting tips and the index. You can't always use tech support "call logs" without analyzing the information. For example, in one software company a number of support calls were recorded as "uninstalling the software." But that was the solution to a variety of problems, which could only be identified by further research.

## HELPING USERS DO THEIR WORK

In her book, *Developing Quality Technical Information*, Gretchen Hargis offers a wealth of tips on making information easy to use, easy to understand, and easy to find. I have borrowed many of her ideas in the following sections. (4)

When you take the user's point of view, the product is no longer the subject or "main character" of your documentation. The real subject is the user. Focusing on real tasks rather than product functions allows you to simplify. You don't have to cover every way of accomplishing a task. If your product can be customized, you don't have to explain all the possible variations. Start with the default setup, but be sure to mention that it can be changed. You might want to place the customization instructions in a separate section or appendix. The same goes for multiple platforms or configurations. Focus your efforts on the most common configuration, and place the other information in an appendix.

Organize your manual based on your list of user tasks, not necessarily the way tasks are organized on product menus. Ideally, the product has been designed around the needs of users, and the menu functions are organized logically. In reality, this may not be true.

Sometimes you need to explain concepts in the process of describing a task. This type of information makes a good introduction to a task—explaining why the user would want to do it. But it has to be brief. For example, in online help instructions for saving a file, you list several file types or formats. By giving a brief description of each one, you can provide enough information to help the user make a decision.

Use titles and headings that identify users' tasks. We often use gerunds to describe tasks, so we assume that *ing* is the important part of the heading. But it can also indicate an artificial task, such as "Using the SpellMaster Tool." A more appropriate heading would be "Checking the Spelling in a Document."

On the other hand, sometimes you have to provide reference information, such as system requirements. You can call it "Checking System Requirements," but it might be more appropriate to admit that this is not a task, and just call it "System Requirements."

## WRITING FOR EASY UNDERSTANDING

Keep elements short: words, sentences, paragraphs, lists, and procedures. Short words are easier to read and

understand, and short sentences lead to more concise writing. Generally speaking, paragraphs should be no more than three sentences long. In documents for users, paragraphs are used for explanations, not instructions, and explanations need to be short.

The rule of thumb for lists is 7 items maximum in online information and 9 in printed information. (5) This limit also applies to numbered steps in procedures. If a procedure is too long, break it up into several procedures. Sometimes you can combine several trivial steps into one. Or, if you have several procedures that all begin with the same three steps, you might want to make those three into a separate procedure.

Don't use jargon unless you know your audience is familiar with it. Words that we take for granted in the computer industry, like *platform* to mean hardware system or operating system, may be unfamiliar to a novice audience.

Examples and scenarios make information concrete. They should be realistic, up-to-date, and easy to find. Analogies and similes are other ways to clarify abstract concepts. In addition to inserting examples and analogies into your text, sometimes you can replace an explanation with an example.

A simple and direct style is usually the most appropriate, with instructions given as imperative commands. Each step in a procedure should begin with an action. If you describe the response after the action, the response should be part of the same step, not the beginning of the next step. For example,

1. Click Open. You see the Layout Option dialog box.
2. Choose the layout options you want to use and click OK. The dialog box closes.

In most cases, your users will appreciate a friendly, conversational tone, as in the "Dummies" books. But be very careful about using humor or idiomatic expressions, especially if your writing has to be translated.

## MAKING INFORMATION EASY TO FIND

We know that most users turn to a manual or help system only when they have a problem. If they can't find the solution quickly, they give up and call technical support.

Good organization helps people find what they need. This means using a similar pattern and the same level of detail for similar information. Break information into small chunks, especially when it's online. Hargis recommends no more than 12 lines of printed text in one "block." For online help, her recommendation is 25 lines in one window, with a limit of 6 lines in one block. (6)

But don't divide a topic unless it has at least two subtopics. If you have only one subheading under a main heading, you may not need the subhead at all. Or, you may need more than one subsection to break up the information appropriately.

Sometimes repetition is better than a cross-reference. Users prefer to have all the necessary information in one place, rather than following an online link or being told to "see page 47" in a printed manual.

According to studies by the American Institute of Research, one third of users turn to the table of contents first when they are looking for information, one-third turn to the index, and another third thumb through the book. (7)

Index specific terms rather than general ones. People are unlikely to look up topics under words like *using* or *changing*. Index every task, concept, and component or object. If you use subentries, make sure you have at least two at each level. In printed information, make sure you use lots of synonyms and variations for index entries. Include no more than two page references for an entry. If there are more than two, it needs a subentry.

## DESIGNING FOR VISUAL EFFECTIVENESS

According to Robert Horn, the combination of words, images, and shapes constitutes a new "visual language." (8) Elements like headings, illustrations, tables, lists, icons, rules, and white space help to break up large sections of text. They give form and structure to text, including cues that help users locate information and understand the relationships between different elements. For example, appropriate icons placed in the margin can separate Macintosh instructions from Windows instructions, and indenting a block of text subordinates it.

Graphics can go a long way to clarify abstract or difficult concepts. They must be located as close as possible to the text that refers to them—on the same page or on the facing page. Horn points out that illustrations are most effective when they are tightly integrated with text. Adding callouts and captions to screenshots, for example, helps to integrate them. Screen images should appear at a consistent scale and should be large enough for legibility without overpowering the page or help window. Often you can use a portion of a window, rather than the whole window, for emphasis.

Use visual elements consistently. In online information, make sure your buttons and other navigation tools are consistent in appearance, size, and location. Color and shading add visual interest, but make sure they clarify the information rather than just decorating it.

To show the relationship between items in a diagram, use shading or boxes. To separate rows and columns in tables, you can often use white space or shading instead of lines. Make sure the structure of the table or diagram doesn't overwhelm the information itself, and don't try to include too much information in one diagram.

When information is attractive, people want to use it, and visual effectiveness provides continuing motivation for readers. Visual elements make information more interesting, more accessible, more memorable, and less intimidating.

## CONCLUSION

Focusing on users and their needs makes you a more successful and creative technical communicator. The process of making information easy to understand, easy to find, and visually effective allows you to explore new forms of user assistance. Working for your users can also work for you and your career.

## REFERENCES

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