

# For Best Results, Combine Document & User-Centered Design Principles

Why Understanding and Utilizing both Document and User-Centered Design Principles is Important to Technical Writers

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## ABSTRACT

This article focuses on the importance of pairing document design with user-centered design in order to create a stronger piece for the user. It begins by defining document design and discussing its recent advances in the technical writing field. It continues on to define user-centered design and its principles. This article argues that document and user-centered design must come together in order to create solid technical reports and other documentation in both print and electronic formats that are useful to the reader/user. This article concludes with a discussion of why document and user-centered design principles are important for technical writers to know and understand as well as the benefits of doing so. Also provided is key advice for technical writers in order to implement the principles of document and user-centered design.

## INTRODUCTION

Throughout the history of technical writing, there has been a focus on verbal communication. However, in recent years there has been an increase in support for visual communication within the technical writing field. The importance of combining the document and user-centered design has been ignored for quite some time and is now just beginning to come to light. Ultimately, technical writers need to know that combining the principles of document and user-centered design creates a stronger piece for the user.

## WHAT IS DOCUMENT DESIGN?

Document design is concerned with using color, typography, text, placement, etc. in the creation of a document, either electronic or print, that helps people use the document. Recently, there has been a surge in the value placed on visual communication, the heart of document design. Though this did not used to be an emphasis of

technical writing, visual communication is becoming more and more important for the technical writer. Document design has also become more important due to the boom of the web. The web is now housing more and more technical documentation, which is inherently more visual than print documentation. In 1996, the first article on visual rhetoric was published in a special issue of *Technical Communication Quarterly* and since then, visual communication has become a valued part of technical writing. Research shows that the first aspects of a document that readers notice are the visual elements. The visual aspects of a document help the reader determine the quality, credibility, and overall usefulness of a document. Thus, document design is a very important part of the writing process. Document design not only allows for a visually enticing piece, but a way to present information clearly. Sevilla (2002) states that the most important elements of document design are emphasis, flow, alignment, repetition, and unity (p. 7). Used together, these elements create good document design. As seen in the images below, the document on the left does not use these elements of document design. Thus, it does not provide a guide for the reader's eye and is largely ineffective. On the other hand, the document on the right uses these elements of document design, specifically alignment to guide the reader's eye.



**Figure 1: Good (right) and bad (left) examples of the flow and alignment principles of document design (Sevilla, 2002, p. 7).**

The future for document design holds much promise. Current literature on document design discusses the increasing importance of using visual communication in conjunction with the verbal. Brumberger (2007) even suggests that “visual communication will supersede verbal communication” (p. 377). Thus, it is becoming increasingly important that technical writers have the “ability to move fluidly between and within modes of thought and communication” (p. 378).

**WHAT IS USER-CENTERED DESIGN?**

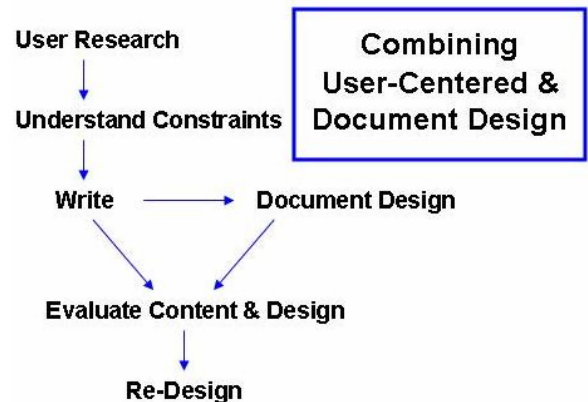
User-centered design, or UCD, is the process by which useful documents are made for a user through interactive information development (BogieLand). UCD focuses on writing and designing for the user. Do not confuse UCD with participatory design which is an “approach that requires actual representative users to participate in the designing and project specifying processes” (Evans). In its early days, UCD was called human factors research and was an “attempt to design for the user, but was not user centered” (Johnson, 1998, p. 72). However, because human factors research did not utilize user input in the early stages of design, it was not that helpful. Today, UCD solely focuses on the user. When a document is created using UCD principles, there are six outcomes for the user. These include: 1) Efficiency of use; 2) Ease of learning; 3) Memorability; 4) Error minimization; 5) Subjective satisfaction; and 6) Accessibility (BogieLand). These outcomes are what make the document useful to the user and thus, successful.

The future of user-centered design is looking very bright. Peter Merholz, the advisor to the IA Institute and an expert on UCD, said that the next step for UCD is to “look outward to those whom user-centered design supports [...] and begin a dialogue to help them understand the value we can bring” (Evans). To do this, technical writers need to be able to attach dollar signs to the benefits of UCD and articulate its importance to businesses that could benefit from UCD principles.

**WHY COMBINING DOCUMENT DESIGN & USER-CENTERED DESIGN IS IMPORTANT**

While both concepts of document and user-centered design are extremely helpful to the overall user experience with a document, Pang, et

al (2007) suggests that used on their own, document and user-centered design principles are lacking. In fact, they state that the “interplay of user needs and feedback [...] cannot be satisfied in a linear, streamlined methodology of design” (p. 529). Therefore, it is necessary to use the concepts of document design and user-center design together. In the past visual and verbal thinking were viewed as opposites, but “it is important to realize that they are not and that in order to create an effective piece, it must incorporate both the verbal and visual” (Brumberger, 2007, p. 380). All too often problems that occur in documentation are “wrongly attributed to user incompetence, when in fact it is poor design that is to blame. Poor design is the result of insufficient focus on the users of technical documentation” (BogieLand). Therefore, technical writers need to know how to design and write to user’s needs. Writers must know how the user intends to use the documentation and should therefore be task/action oriented. This is how the document design comes together nicely with UCD. In addition, because “user-centered design is about producing documents that work, designers are required to [...] produce an aesthetically-pleasing document ‘interface’ that also meets a range of user-centered requirements” (BogieLand). In order to combine document and user-centered design principles, writers must first research the user’s needs and then understand constraints. Next, writers must write content and then design according to document design principles. Finally writers must evaluate the written content and the design through usability testing, and then re-design if needed.



**Figure 2: The process of combining document and user-centered design principles.**

## THE BENEFITS OF USING BOTH DOCUMENT AND USER-CENTERED DESIGN

As a result of combining document and user-centered design in writing/designing documents, there are many benefits. Perhaps the most important benefit is an enhanced user experience. Other benefits include documentation that is

- Easy-to-use
- Visually appealing
- Successful and useful (BogieLand).

## WHY IS THIS IMPORTANT FOR TECHNICAL WRITERS?

Using the principles of document and user-centered design together allows technical writers to fundamentally make documentation better. “For documentation to be effective, it must be designed to fit into the active situation of the user, or it will never be used” (Johnson, 1998, p. 83). It is important to realize that a useful piece can be horribly designed and a well designed piece can be useless. Herein lays the value of balancing document and user-centered design principles for technical writers. For example, technical writer Jane Smith is setting out to write a set of documentation implementing both document and user-centered design principles. In order to best utilize the benefits of both concepts, Ms. Smith should:

- Research user needs *first*.
- Understand the constraints placed on her by both the user and her employer.
- Write and design with users in mind.
- Actively pay attention to page layout and experiment with text placement and visual layouts. Make use of white space.
- Design a clean and simple document using the emphasis, flow, alignment, repetition, and unity.
- Use fonts and font sizes that are appropriate for her user and medium.
- Evaluate her writing/design by holding user-testing. Then go back and re-design based on the outcome of her usability test.

If Ms. Smith follows these guidelines and successfully implements document and user-centered design principles in her set of documentation, she will have created strong, visually appealing, successful, and easy-to-use piece that her users will find satisfying. By

incorporating both document and user-centered design, technical writers are better able to “work out visual communication problems and arrive at successful solutions” (Brumberger, 2007, p. 380). This will therefore not only make better pieces of documentation, but better technical writers as well.

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