14 What Is Information Design?

JANICE C. REDISH

In this short, informative piece, Redish, a former director of the Information Design Center and one of the foremost usability experts in the country, defines information design *as both the "overall process of developing a successful document" and the presentation of information on page and screen (p. 212 in this volume). In addition, she offers a model of the information design process and a brief history of the term* information design, *focusing on its roots in the Document Design Project. Finally, she outlines the significance of information design for technical communicators in the future, focusing on page and Web design and single sourcing, a concept that involves a database and chunks of information that may be used many times for many different purposes, saving time and money. In so doing, she emphasizes an essential point about technical communicators: they don't just create information for information's sake; they design and present information to* people to be used, *and, as a result, they need to focus on learning about and understanding those users.*

Introduction

STC's Special Interest Group on Information Design was founded in 1997. A scant 3 years later, it has over 2,700 members. That astonishing and rapid growth is testimony to the widespread interest in the topic and is deeply gratifying to those of us who have thought of ourselves as information designers for many years.

What do those 2,700 SIG members mean by *information design*? As Beth Mazur says about plain language in her article in this issue, "Ask 10 people and you'll get 10 different answers."

In part, the differences in those answers may reflect the backgrounds of the people answering the question. Information design, like many other aspects of technical communication, draws on many research disciplines and many fields of practice, including anthropology and ethnography,

architecture, graphic design, human factors and cognitive psychology, instructional design and instructional technology, linguistics, organizational psychology, rhetoric, typography, and usability.

The Two Meanings of Information Design

In part, the differences in definitions may reflect an ambiguity between using *design* in a very broad sense and, at the same time, in a narrower sense (see Redish 1999). I and—I suspect—many others within the Information Design SIG use *information design*, perhaps at different times, to mean

1. The overall process of developing a successful document
2. The way the information is presented on the page or screen (layout, typography, color, and so forth)

Using the same term for the whole and a part of that whole violates a guideline of good writing, but the fact is that the term *information design* means both. (A little later in this commentary, I briefly describe a historical reason for this dual usage, at least within the North American technical communication community.)

Information Design as the Overall Process

My definition of *document design* or *information design* has always been, first and foremost, the "whole." Information design is what we do to develop a document (or communication) that works for its users. Working for its users means that the people who must or want to use the information can

- Find what they need
- Understand what they find
- Use what they understand appropriately

This definition comes with two additional points that information designers must always remember:

- Most of the time, most users of functional information are using that information to reach a personal goal—to answer a question or to complete a task.
- The users, not the information designer, decide how much time and effort to spend trying to find and understand the information they need.

To develop a successful document (or any other type of product, such as a Web site, software application, or hardware device) requires a process that starts with understanding what you are trying to achieve, who will use it, how they will use it, and so on.

When I drew a model (flowchart, job aid) for that process in 1978, I

the years based on experience, conversations with colleagues and clients, and changes that make it more appropriate for different media, but many characteristics have remained through all the permutations of the model, especially:

- The importance of the planning questions and of the front-end analysis
- The role of iterative evaluation
- The interaction and equal importance of writing and presentation (the other, narrower, meaning of information design)
- The fact that the specific guidelines that one uses depend on the answers to the planning questions (That is, there is no one best design for all situations.)

Figure 1 is an example of a recent version of this model.

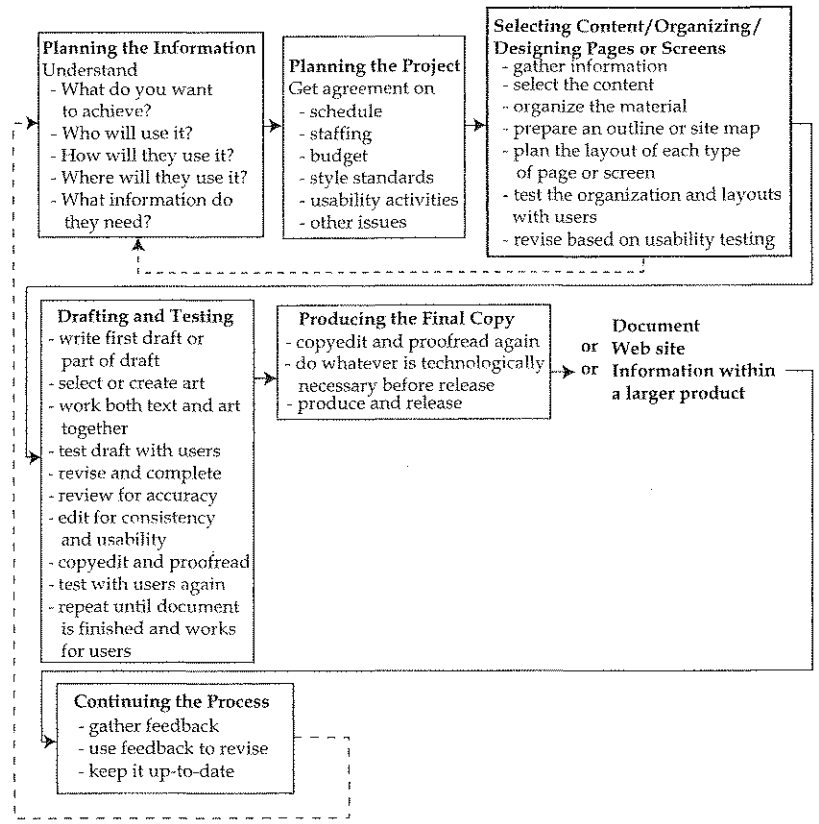

FIGURE 1 *A model of the information design process. This is a visual of information design in the broad sense of doing what is necessary to develop information that works for users. The dotted arrows indicate that the process is iterative, not strictly linear. A dotted arrow should also connect the Drafting and Testing box back to the box on Selecting Content/Organizing/Designing Pages or Screens. Model © 1999 Janice C. Redish, based on versions of a similar model developed between*

Information Design as the Presentation on Page or Screen

Information design in the narrower meaning of the way the information is presented on the page or screen is a part of the larger information design process. In this sense, information design encompasses layout, typography, color, relationship between words and pictures, and so forth.

The two meanings of information design are intertwined. Clear presentation on the page or screen is critical. However, the presentation that works for users is not just a matter of aesthetics. The best presentation for a specific communication depends on the situation—on the answers to the planning questions that the broader definition makes us think through.

Information design on the level of page or screen also depends on doing a good job of other parts of the broader process, such as selecting the right content and organizing so users can find what they need quickly. Information design as whole and as part must work together.

A Bit of History

How did I (and others) come to use *information design* in both the broad and narrow meanings? I can think of two reasons:

- Many STC people come to information design from a background in rhetoric and technical communication, which take the broad view, stressing users, content, organization, and writing, as well as presentation.
- The U.S. federal government funded a broad-view project and called it the Document Design Project.

For an excellent treatise on the first of these reasons, read Karen Schriver's *Dynamics in Document Design* (1997). I elaborate a bit here on the second reason because many readers of *Technical Communication*, especially those who have joined the field recently, may be unaware of this history.

The Document Design Project

My own involvement in the field that I have on different occasions called "document design," "information design," "plain language," and "technical communication" began in the late 1970s. The National Institute of Education (NIE), which was then part of the U.S. Department of Education, funded a project to find out why most public documents are difficult to use and to find out what could be done to make them better. The group at NIE named the project they were asking for the Document Design Project.

NIE was clearly not concerned only with the layout of public documents. By "document design," they meant the entire process of developing the document. In fact, because they were primarily linguists and reading specialists, they were most concerned with the content, organization, and writing of the documents.

My colleagues and I at the American Institutes for Research (AIR), a not-

conduct the Document Design Project for NIE. We did that in collaboratio with Carnegie Mellon University and the New York information design firı of Siegel & Gale.

The Document Design Center and the Communications Design Center

A year into the project (1979), we at AIR expanded the project into th Document Design Center, which I directed through the 1980s. The projec staff at Carnegie Mellon University expanded their part of the project into th Communications Design Center. We both used "Design" in our Center names in part to reflect the continuity of the original project. Both Center practiced information design in both the broad and narrow meanings. That i we followed the model in Figure 1 on all projects, and we paid as much atter tion to page or screen design as we did to writing.

Karen Schriver was part of the Communications Design Center (CDC and the projects described in her book carry on the dual meaning of informa tion design that was a hallmark of the CDC. When Susan Kleimann becam director of the Document Design Center in 1993, she renamed it th Information Design Center—still with the dual meaning of both whole an part.

From 1979 to 1989, through its newsletter, *Simply Stated*, the Documer Design Center reached about 18,000 people 10 times a year, espousing th process of document design in the broad sense; and the process with its nam was picked up by many people who were and are part of STC. Documen design or information design in the narrower sense of presentation on pag or screen was always a necessary but not sufficient aspect of the process tha the Document Design Center and the Communications Design Center used i their work.

Plain Language as Another Term for Information Design—In the Broad Meaning as Overall Process

A side note (related to Beth Mazur's article in this issue): We also used th term "plain language" primarily in the same broad meaning. As I have writ ten elsewhere (1985, 1996, 1999), a document in plain language is one tha works for its users. To develop a document that works for its users require the entire process shown in Figure 1, not just a few guidelines for sentence and words.

The Importance of Information Design in Both Meanings in the Future

As technical communicators, we do all the parts of the process that I show i Figure 1. We may specialize or call on colleagues who specialize in helping u with aspects of the process, such as user and task analysis, usability evalua

"word" people, we may call on others to collaborate with us on the "design" (here, design in the more narrow meaning of page or screen layout, typography, and so forth)—or vice versa, if we think of ourselves as primarily "visual" people, we may rely more on colleagues to review our writing.

However, we are all going to need to understand both information and design and how they relate to each other even more in the future. Whichever way you have come to technical communication, I urge you to spend time learning the aspects you feel least comfortable with now. At least two critical trends in technical communication require us to think even more about information design. They are

- The Web, which requires us to make information even more visual than in other media
- Single-sourcing, in which technical communicators prepare information that can be reused in different formats

Information Design for the Web

The Web requires information design in the broad sense of the entire process described in Figure 1. We must not let excitement over technical possibilities or the super-rapid pace of development eliminate the front end of the process. To develop a successful Web site, you must first consider the planning questions in the process, select the relevant content, and organize it into an appropriate hierarchy for ease of navigating quickly to the right place.

The Web also requires information design in the narrower sense of paying great attention to the mix of text and pictures and to presentation on the screen. Technical communicators know that for information on a page to be accessible, it must be chunked into small pieces, and the different page elements (such as headings, instructions, notes, screen shots) have to be clearly visible, separable, and easily identified. That's even more true on the screen where the amount of space available is smaller, where reading from the screen is slower and more difficult than from paper, where people have come to expect less text and more visuals. Learning to turn text into visual presentations (lists, tables, maps, pictures, fragments) is one of the most important skills for a technical communicator turned Web designer.

Single-Sourcing—Planning Information for Multiple Uses

Single-sourcing means creating a database of pieces of information (chunks of content) that can be used in different situations. The mantra of single-sourcing is "Write once, use many times." The goals of single-sourcing are to save time and money; to ensure consistency and accuracy; and to allow technical communicators to spend more time on aspects of developing information that have perhaps been neglected, such as user and task analysis, content, and evaluation.

Although developing Web pages brings writing and page/screen design

database, sometimes tagged with conditions that indicate that one version of the content is for paper and another for online help, or that one version is for Model 35 and another for Model 36, or that one version is for novices and another for experts. The formatting for different outputs (information design in the narrower sense) is contained in document definitions. A document definition indicates, for example, the font, size, placement, and color of each level of heading for that particular type of output (paper, online help file, PDF file, Web page, and so forth).

Despite this separation of writing and page/screen design, anyone planning on single-sourcing must pay close attention to information design in both the broad and narrow meanings. First, whether assembling a document from pieces in a database or writing the document from scratch, the technical communicator must start from the beginning of the information design process (information design in the broad sense as in Figure 1), understanding the business goals, the users, the ways users will work with the documents, and so on. Second, successful single-sourcing requires highly structured documents in which the writing style and the output formats have been carefully planned. (Schriver [1997, pages 341–357] describes how to plan the output format based on a detailed analysis of the types of content in the document.) Technical communicators who work in a single-sourcing system, even though they may not determine the output format for their documents, need to know what those formats are, and technical communicators need to be involved in planning them.

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