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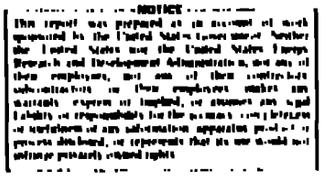

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DEFINING COMPUTER DOCUMENTATION AUDIENCES*

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ABSTRACT

This paper is intended to enlighten technical writers in the computer field to the importance of defining their audiences. Observations are made about audiences in general, realms of experience, levels of usage, numbers of documents, grouping audiences and writing for specific audiences.

Key Words and Phrases: technical writing, audiences, levels of usage, reaching users, manual design, documentation

CR Categories: 1.1, 2.42

Audience is one of the more important factors of communications that must be considered in the computer writing field. Computers and documents about computers tend to be just beyond the comprehension and needs of some audiences, useful to a few and useless to others. There exist many levels of competence and computer usage in computer science, and therefore many levels of documentation need. Thus comes specialization of both computer users and, at the same time, their requirements for documentation.

Mastering the art of explicitly getting the right information to the right users, at the right time, in the right form is an

important consideration in computer documentation. And a mighty one at that. Simply defining a general class of users (audience) for a document is difficult, and probably not very useful; it goes much further than that. For if communicators are to communicate the vast and necessary intricacies of computers to their users, they must consciously define their audience of readers, students and critics.

WHO IS THIS AUDIENCE?

Surely a technical communicator's goal (and responsibility) in writing any user document is to reach as many people as possible in an audience of computer users. Because there may be many levels of documentation need in a computer installation (by virtue of the differing levels of computer usage), several audiences can and must be defined.

Each of us have unique and entirely individual realms of experience. As audiences of network television news programs, we each understand the news broadcast a little differently. Our personal feelings and biases (instilled by our experiences) and the many external factors affecting those feelings, cause us to get our own personal slant on the news. Each person, however, as an audience in TV land, is gaining some benefit from the broadcast. While reading Scientific American I was taught that two people standing a few hundred feet apart experienced entirely different views of stars passing behind the moon. This small audience of two demonstrates that even though the individuals may have equally benefited from being part of the audience, their experiences differed significantly. Even our physical orientation

can affect how we act and react and what we experience as a member of an audience.

The generalness of the television news broadcast allows some communication of information to almost every person in TV land. But when the information is more specialized, drawing on more specific realms of audience experience, the audience changes. Not only can it change in size, but also in characteristics. Even when the information is very specific, individual experiences of events may and do vary. The moon-star gazers found this out.

While switching my television from channel to channel, I found myself seated in front of the tube watching Sesame Street, a free-format educational show for young children. As I evaluated the show I found that although the program had entertainment value, the educational information was ineffective and did not fit my requirements as an audience. I had, at some previous point in my life experiences, experienced and learned the sounds and meanings of the words featured in the lesson of that day on Sesame Street: FAT, CAT, HAT SAT, RAT, GNAT and FLAT. Had the moon-star gazers been doing their experiment repeatedly, with the same individual observations by each person, then they could conclude that they each felt competent in watching stars pass behind the moon. Repeating their observations further could only reinforce their conclusions and would add little new information to their experiences. Sesame Street simply reinforced my previous experiences of the various sounds and meanings of FAT, CAT, HAT, SAT, RAT, GNAT and FLAT.

In the same way, a computer user, being competent in a

specific elementary facet of executing a program, need not re-experience learning this information in all parts of the documentation being used. Judicious repetition for reinforcement is important but needless relearning is wasteful.

The effort in the computer field is to find, and take advantage of, the small overlapping areas of experience in an audience. Define those areas that are certain to be elementary to as much of the audience as possible, weed out those people that are not constituents of our audiences and capture those that fall into the category of education, reinforcement and documentation need.

LEVEL OF USAGE

The computer audience definition should begin with a complete and well thought-out description of all of the significant levels of usage of your computer facility.

Following is an abbreviated example:

1. Systems Programmers

Uses many diverse functions of computer facility, at both the systems and user levels. Requires very high degree of completeness in manuals.

2. Applications Programmer

Uses many user-level functions of the computer system, along with a limited number of systems functions. Requires a high degree of completeness in all user-level functions.

3. Casual Applications Programmer/User

Uses a fixed set of general user functions. Requires easy to understand and complete documentation of user functions.

4. Technical Applications User

Uses a fixed set of user-level functions to do one kind of scientific or business task repeatedly. Requires simplicity and conciseness in documentation of a small set of functions.

5. Non-technical Applications User

Uses a small fixed set of user functions to do some non-technical task, such as word processing. Requires simple and easy to understand documentation of a small set of user functions.

6. Casual User

Uses a very small set of user functions to do some simple task one or more times. Requires

simple and easy to understand documentation of a very small set of user-level functions.

7. Novice or Beginner

Initially uses a small set of user-level functions but requires completeness and simplicity for ease of learning.

Each category is not totally independent or isolated from the other categories. That is, the needs of the casual user (Level 6) may, in isolated cases, require using functions normally used in the applications programmer group (Level 2). In addition, as users increase usage, gain knowledge or change jobs, they may move up the "ladder" to higher usage levels. Or they may even need to move down, requiring less sophisticated computer tools and documentation.

When defining the levels of usage for a computer system, try to find the areas of significant difference between users. Notice that each level also indicates a relative level of knowledge of computer science. This will aid in determining how much, or how little, writing effort will be required to reach and be useful to each audience level.

Figure 1 is an illustration of the different needs of documentation completeness (amount of total system functions covered), and the writing effort required to construct useful documentation for each level. Note in the example that the novice

and casual users require the greatest effort to maintain receptivity. This is because the writer must work much harder to maintain receptivity in these audiences. Their computer knowledge is limited and they require more complete explanations, more specific examples and simplicity.

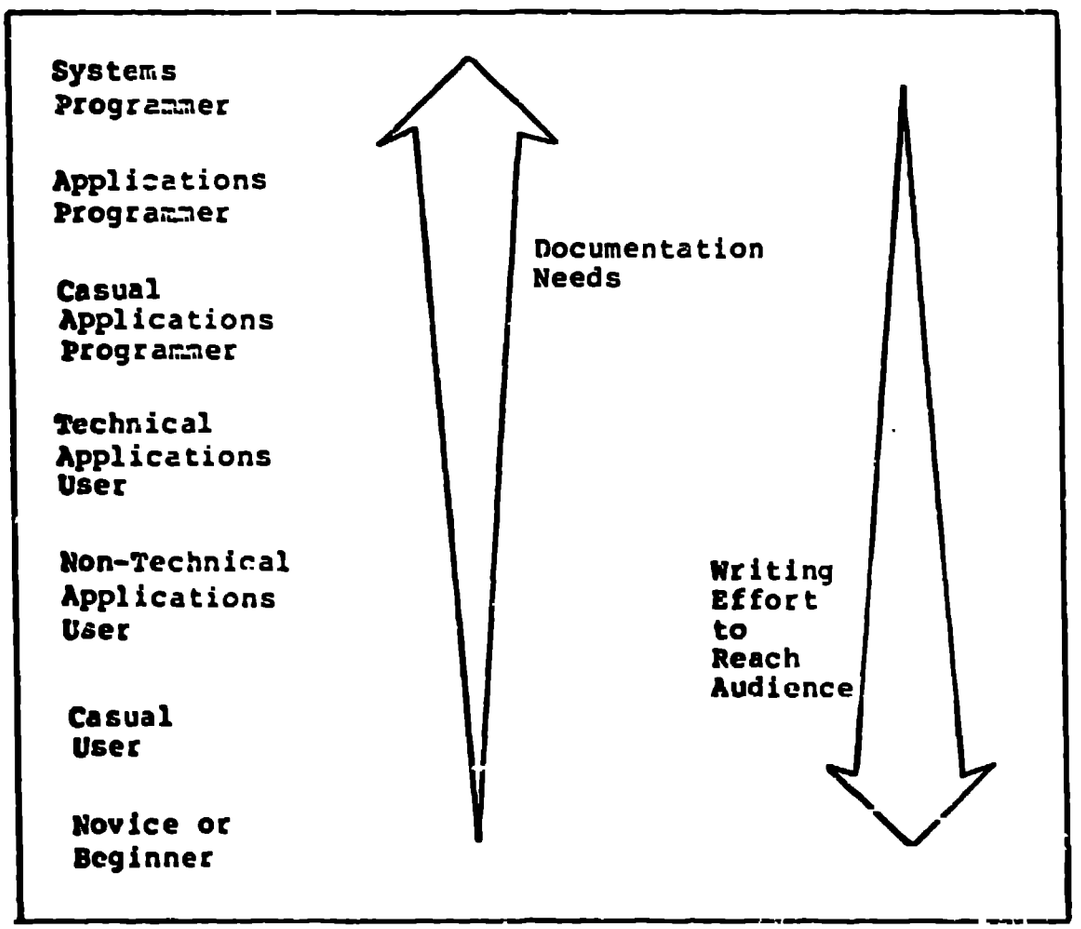

Fig. 1. Levels of Usage; Documentation Needs and Writing Effort.

At the same time, the systems and applications programmers require the greatest amount of detail with the least amount of writing effort required to maintain receptivity. The writer can assume much greater knowledge in this audience than the lower-level users.

HOW MANY MANUALS?

Practical limitations prevent the production of a separate manual for each of the seven classes. The writer must determine the most efficient, and practical, method of combining the user levels into more general groups.

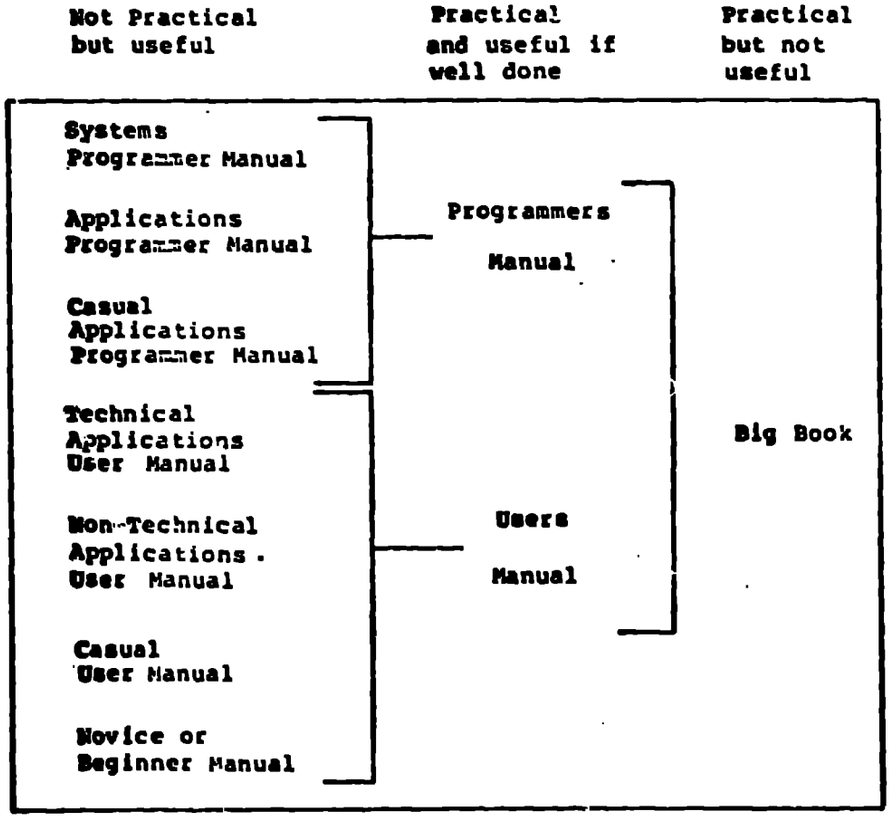

Fig. 2. How Many Manuals?

Figure 2 shows how this grouping might be accomplished. Not only are the documentation requirements of the user levels considered when the groupings are made, but also the number of users in each level. For example, in trying to write a manual for a large number of systems programmers, along with a small number of applications programmers and casual applications programmers, the writer should lean toward providing better service to the larger group; the systems programmers.

The manner in which the groupings are made will have a great impact on the usefulness and success of the manual.

WRITING FOR THE AUDIENCE

Maintaining receptivity in an audience is a main consideration when a user manual is designed and written. Each document must appeal and be useful to its intended audience. Figure 3 shows some of the important points one might keep in mind while designing and writing a manual for the seven-level audience.

Enlightenment of technical writers as to the needs of an audience is particularly important to computer documentation. Computer users vary greatly in how they use computer systems and in their documentation needs. Technical writers in the computer field have a responsibility to provide <u>useful</u> documentation for their audiences. The better the writer is able to define and write for a specific audience, the better this responsibility is carried out.

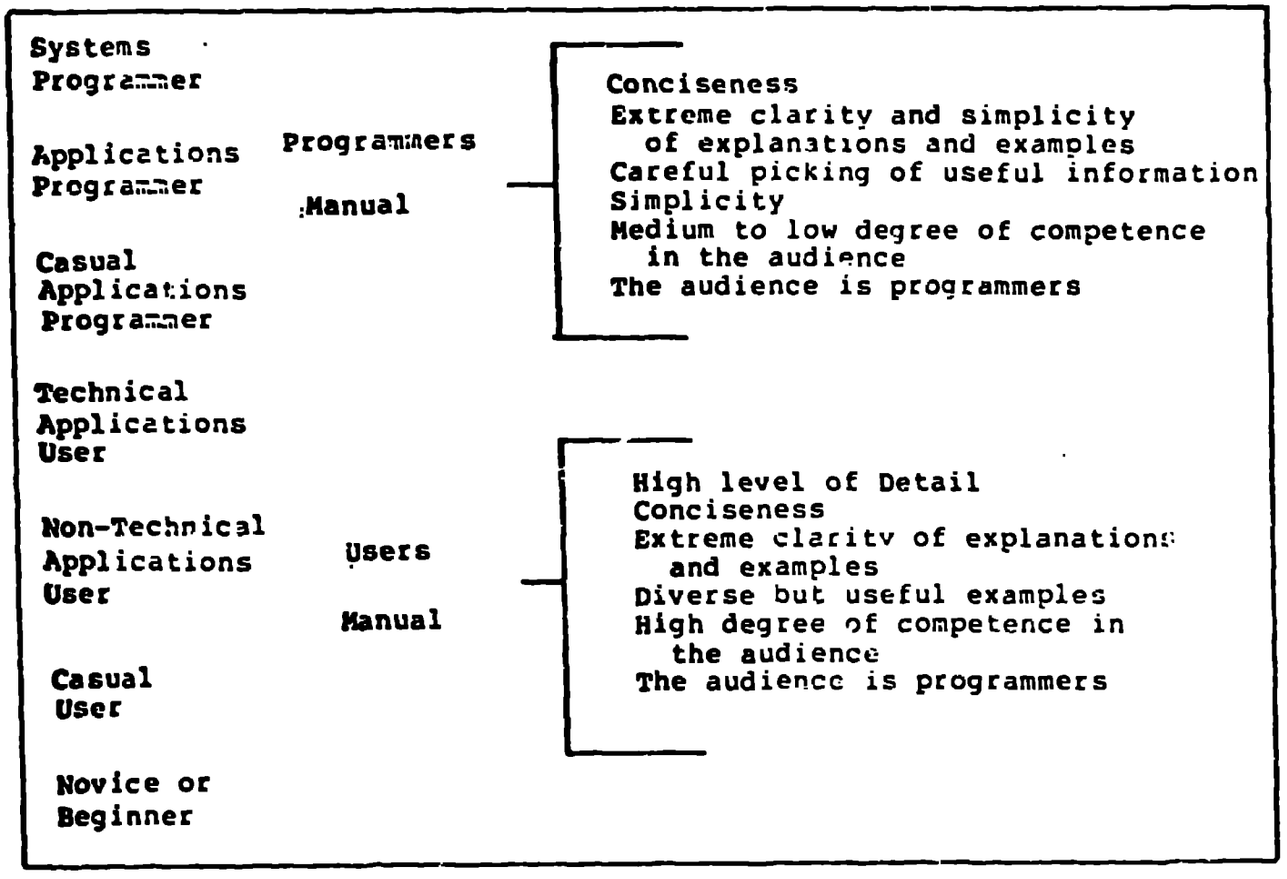

Fig. 3. Writing For the Audience.