

THE CARE AND FEEDING OF THE END USER

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ABSTRACT

Over the past several years the responsibility for online searching has started moving from the information specialist to the end information user. Investment analysts, scientists, sales representatives, reporters, lawyers and others are conducting their own research using online data bases.

Serving this new user population has created new challenges for data base vendors. Manuals, training methods and systems design need to be tailored to meet the needs for this group.

This paper offers definitions of several types of online users, compares them, and then concentrates on the end user. The paper draws on Info Globe's experience with Globe and Mail reporters and with the large number of external customers who can be defined as end users. Plans for future modifications are also discussed.

PRENDRE SOIN DES UTILISATEURS EN BOUT DE CHAÎNE

RESUME

Au cours des dernières années, la responsabilité de la recherche en mode conversationnel est passée du spécialiste en information à l'utilisateur de l'information. Les analystes des investissements, les scientifiques, les représentants de ventes, les journalistes, les avocats et autres font maintenant eux-mêmes leur recherche en utilisant des bases de données en mode conversationnel.

Pour les vendeurs de ce type de base de données il s'est créé de nouveaux défis afin de bien servir cette nouvelle population d'utilisateurs. Des manuels, des méthodes de formation et des plans de systèmes ont été modifiés et ont encore besoin d'être modelés afin de rencontrer les besoins de ce groupe.

La présente communication se veut une discussion de l'expérience "Info Globe" avec les journalistes du Globe and Mail et avec les clients externes qui sont les utilisateurs en bout de chaîne. Des plans futurs de modification seront aussi discutés.

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INTRODUCTION

When data base vendors and information specialists get together to talk about the "End User" they tend to shake their head and cluck their tongues and generally behave as though the end user were some sort of poor creature who couldn't possibly be trusted with anything as complicated as an electric can opener, much less a computer terminal. Discussions in the online community generally center on whether this mythical, half-witted person can possibly be taught the fundamentals of online searching, and if so, what extra problems it will pose for data base vendors and busy librarians.

No one seems quite certain about how to treat the possibility of end users performing their own searches. Some fear extra work. Others worry that their jobs will become redundant if they allow clients to do their own research. A few look on it as a chance to become free from routine research questions and concentrate on the more challenging aspects of research.

Behind all these doubts is that fundamental question -- Can the "end user" be taught to search effectively?

Before that question can be explored in detail, it is necessary to decide what we mean by the "end user". I'd like to start by offering definitions of three different types of online searchers, the professional researcher, the "end user" and the "casual user". Next I will discuss some of our experiences with each type of user. Finally I will mention some of the ways that Info Globe is attempting to serve each group, with emphasis on some of our newer features.

DEFINITIONS

The professional researcher and the end user are distinguished from one another by their functions. A professional researcher is a person who performs research for other people as a primary activity. The researcher analyzes the request of the person who requires the information and determines the most appropriate means

of acquiring the information. If online searching is indicated, the professional searcher selects the data base or data bases and performs the searches.

The second type of searcher is what I'm going to call the end user. The end user is the person for whom research is performed. The end user's primary activity is using the information acquired by research to do another job -- writing newspaper articles, marketing computer equipment, buying and selling stocks, etc. The end user, then, is likely to be trained not as an information specialist, but as a journalist, a salesperson, a lawyer, a secretary or a financial analyst.

In the past, the end user's research was usually performed by a professional researcher. Increasingly, for reasons of economics or preference, the end user is doing his or her own research, including online searching.

The third type of user is the casual or occasional user. The thing that distinguishes the casual user is not his function but the frequency with which he performs online searches. The casual user may be a professional researcher or an end user but in either case he has had only limited training and experience searching.

COMPARISONS

How do these three different searchers fare when they get online? What are the strengths and weaknesses of each?

Professional researchers are often librarians or they have some information science training. They are aware of the various sources of information available, both online and offline. They know how to conduct a reference interview and help the person who has requested the information define his or her information request.

In terms of online searching, professional researchers, at their best, are familiar with the different protocols of the various data base vendors. While the differences can be confusing and annoying, professional researchers look on them as a challenge. Understanding the content and language of each relevant system and data base is part of the job. Professional researchers know what they want in terms of systems features. They welcome sophisticated features and use them effectively.

On the other side of the coin, the professional researcher is forced to deal with another person's information requirement. There is always some loss of information or misinterpretation possible and the more people in the middle the more chance there is for a communications failure.

Once a decision to go online has been made, the researcher must select one or more appropriate data bases, translate the request into an effective search strategy, and make decisions about the outcome of the search based on what is understood about the original request.

When research is being performed for a scientist or lawyer or other professional, the researcher without special subject knowledge may have some difficulty deciding on the correct search terms and also in assessing the outcome of the search.

Even without the problem of subject knowledge, the best reference interview can't guarantee that there won't be additional questions when the preliminary results are discovered. Unless the customer is available to give additional direction at this time, the researcher is often forced to make judgements based on incomplete knowledge.

Money is another complicating factor. Professional researchers often don't have complete control over their own budgets. They may be concerned that they will spend a great deal of money retrieving useless information. In the worst cases, this fear turns into a reluctance to go online at all.

The end user, on the other hand, has the advantage of knowing what he wants and being able to assess directly the information he's getting from his search. If subject knowledge is required, the end user is the one who possesses it.

The end user is motivated by his own need for information. At workshops, I generally find that end users have taken the time to read the manual before they arrive. After all, it's their own time they're wasting if they aren't well prepared. For the same reason, the end user may be willing to spend more time preparing and performing the search. And if he's picking up the bill he is the one who can best decide if results justify spending a bit more money.

On the other hand, end users are rarely trained to analyze a research request. They may not know all the resources available to them. End users don't normally expect their jobs to include making an intellectual analysis of different online systems and they may have little patience with the differences among systems. Typically, they spend less time online and therefore are less familiar with search techniques.

Nonetheless, it is my opinion that an end user with the interest and desire to do his own online searches is the most effective online searcher, particularly if he is dealing with only one online system. If the end user is curious about computers and new technology this is usually enough to compensate for a lack of formal information science training.

Where does all this leave the casual user? The casual user is the hardest to define and serve. The casual user is often mistaken for the end user, although as I mentioned earlier, casual users are actually defined by their lack of search experience and may be either professional researchers or end users.

This confusion is further complicated by the fact that most users go through a stage at the beginning when they resemble the casual user. In the end, the difference usually depends on attitude and actual research requirement. A person who is afraid of computers or resents being asked to do his or her own research generally will never pass the casual user stage. Nor will the person who only needs information once a year, no matter how motivated the person is.

Casual users generally want good results quickly and easily and are easily discouraged. They don't have the patience to read a manual or to attend a training session. But attempts to serve the casual user with extremely simple menu-driven systems like Prestel have had limited success because the systems become irritatingly cumbersome after the first few tries.

Our custom search service was set up to serve the casual user. Most of the time we feel it's more economical and efficient for casual customers to take advantage of our expertise by letting us do the search.

Nonetheless, we are trying to design features for the casual user. This is because we feel that some casual users can be turned into good end users if their interest is sparked by good initial results. As more executives get computer terminals and display phones on their desks and personal computers in their homes, we expect the demand for this casual service to grow.

THE END USER

Before I talk about our new features, I'd like to return for a moment to the end user. It is difficult to say exactly how many of our customers fall into this category, although because of the non-technical nature of the news information, I expect that it is higher than with most other online systems. I would estimate that between 30 and 50 per cent of our customers would best be described as end users.

These people range from computer and word processing salespeople to lawyers to secretaries to consultants to journalists to financial analysts. As I've mentioned above, when motivated, they make the best online searchers.

Online training, however, is essential. Also, we've found that

end users are not very impressed with jargon. They don't like words like "postings" or "Boolean" so we try to use plain language in our manuals and training sessions. We've also tried to use clear English language commands and messages -- although we haven't always been as successful as we'd like.

The group that we are most familiar with are the reporters and editors at The Globe and Mail. The Info Globe data base was developed initially as a research tool for our own editorial department and we are pleased to report that the editorial staff is in fact our largest single customer. There are 12 terminals at the Globe's main office in Toronto. Most are in the editorial department or editorial library. In addition, each of our 11 North American bureau offices is equipped with a terminal.

The actual number of terminals is relatively unimportant, however. Usage is what counts. In January 1982, the editorial department did 3,761 searches. That's about 150 searches per day. The editorial library performed an additional 745 searches during the month.

This was not always the case. In January 1980 the editorial department performed 897 searches -- about 29 per day -- and the library did an additional 332. While the reporters had the motivation to use the system -- their own information needs -- they lacked confidence that the system would work for them.

The increased usage is due to an aggressive internal sales effort and extensive training. Credit for convincing the editorial staff that the system would work belongs to a few adventurous and open-minded reporters who took the time to learn how to use the system and then spread the word. Once that had happened, implementing an ongoing training program was relatively simple.

Our reporters have several advantages over the average end user. They have high-speed terminals that make highly precise searching less necessary. They are the most familiar with the "language" of the "data base". In a free text system like ours that is simply the language they have used to write the stories in the first place. Finally, the cost of the system is absorbed by the editorial department, so they don't get bills for their searching.

On the other hand, reporters are a basically impatient group and work to tight deadlines. I have found that generally they do not seem to use the most sophisticated features of the system, but we are only now starting a series of refresher workshops, so this may change. Nonetheless, the volume of editorial searching attests to the fact that they are getting the information they want themselves.

MODIFICATIONS

Serving this diverse group of users has proved a challenge. Manuals, newsletters, and workshops are designed for all of our customers. In addition, we have made about fifty modifications to The Globe and Mail Online in the past two years. Some of them were major changes, like updating the data base with today's newspaper. Some of the changes have been fairly minor, like the stems feature, but very useful to searchers.

Many of these changes were made in direct response to customer suggestions. Others are the result of our own observations. When we find that a lot of people are having a specific problem, we try to modify the system whenever possible.

Some of the changes were designed to please end users and others are for professional researchers. Only recently have we started planning for casual users.

One change that we plan to make this summer is designed for everyone -- the beginner, the end user and the casual user. We've found that most people assume that words separated by spaces are going to appear as a phrase. In other words, they assume, quite naturally, that the search statement

toronto maple leafs

will only bring them articles referring to the Toronto Maple Leafs hockey team. Unfortunately, the original software interprets the space as an OR and means that the search actually will retrieve all articles containing the word Toronto OR Maple OR Leafs. In other words, it would retrieve all articles about maple syrup.

Later this summer we are going to change the system to read the spaces as a phrase. We will also lift some of the existing restrictions on phrase searching.

One new feature that is geared to the more advanced user is set searching. Later this year we will also be introducing the use of parentheses and saved searches.

Paradoxically, the most innovative feature of saved searches is designed to serve both the highly sophisticated user and the casual user. This feature will allow you to construct a standardized search statement with embedded blanks for variable information. If you are a reasonably sophisticated user, you can call for the stored search and fill in the blanks in one step. If you don't fill in the blanks the system will prompt you with a question for each blank.

For example, you might construct a travel search. When the casual user called for it, the system would prompt with a question like "What city or country would you like to see?" Both the

parameters in the stored search and the questions that the system asks to prompt the user can be changed.

Obviously, the construction of these stored searches will only be attempted by very advanced users. But it will allow us to store "programmed" searches for the casual user. We can even construct customized stored searches for an individual or organization.

We are not sure how successful searches based on this sort of dialogue will be, but we are eager to explore this method of dealing with the casual user who has access to computer equipment.

Systems change; users change. We hope we will continue to change in response to customer requests and requirements.