

# Letters to the Editor

## ARIST

Dear Editor,

Prefacing his review of ARIST 33, Birger Hjørland implores us to take a good look at the subject of “tertiary information systems” (Hjørland, 2000). I would like to second the motion and, rather than make a speech, I would quote from the first recommendation from a 1963 report by the President’s Science Advisory Committee. It read in part,

We shall cope with the information explosion, in the long run, only if some scientists are prepared to commit themselves deeply to the job of sifting, reviewing, and synthesizing information; i.e., to handling information with sophistication and meaning, not merely mechanically. Such scientists must create new science, not just shuffle documents: their activities of reviewing, writing books, criticizing, and synthesizing are as much a part of science as is traditional research.

**Albert Henderson**

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## Differences between Novice and Experienced Users in Searching Information on the World Wide Web

Dear Sir,

Having been the thesis advisor on what I believe was the first study of differences between expert and novice searchers (Fenichel, 1981) and more recently been concerned with the lack of standardized meanings of variables in information science research (Meadow & Yuan, 1999), I was attracted to the article by Lazonder, Biemans, and Woperis (2000) to see what changes may

have taken place in our ability to measure search performance differences or in the nature of any differences. I find there are still major problems.

The paper, in its introduction, states that, “experts take less time to complete the search tasks and produce a greater number of correct solutions.” I am not sure what is meant by “correct solutions.” I thought we had long since gotten over the idea that there was a right answer to a text search question, rather that what is right depends on who is asking, for what purpose. But, surely, the nature of “correct” should have been stated here explicitly. If, on the other hand, the questions were so phrased as to admit of a “right answer” this would or should affect interpretation of the results of the study. It is quite a different matter to search for information about certain stylistic or metaphoric usages in literature than to identify the author of a given passage.

Then, there is the question of what an expert is. I wish the authors had pointed out that fourth grade in the Netherlands is different from what it is in the United States or Canada (where most ASIS members reside), but even so the student subjects averaged 15.4 years of age and I am left to wonder if they qualify as expert as might, for example, a person with a master’s degree in library or information science and several years professional searching experience. It is one thing to distinguish between levels of experience, another to apply the term “expert” to the higher group. Doing so makes it highly questionable whether the results presented here can be compared with results involving experienced professional adults.

The questions posed to the experimental subjects were not given. How can a reader understand the meaning of outcome statistics? How could a subsequent researcher compare results? The subject matter of the questions was concerned with Dutch literature. With all due respect to that great nation, how does searching within that domain compare with searching on a topic likely to appear anywhere?

**Charles T. Meadow**

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## Rejoinder: Differences between Novice and Experienced Users in Searching Information on the World Wide Web

Our study (Lazonder, Biemans & Wopereis, 2000) examined the information literacy skills Dutch pre-university students need to search the Web efficiently and effectively. As the title of our paper indicates, the study was set up as a classic novice-expert study. Comparing the search performance of users with varying levels of experience is a well-tried way to identify training needs. At the same time, such an approach passes over the question which skills the education system requires students to master. As can be inferred from Mr. Meadow's remarks, the lack of this kind of information might hamper a proper understanding of our results and their implication. I will therefore try to give a somewhat more elaborate account of the study's basic assumptions and set-up.

In Dutch pre-university education, searching for information is best established in Dutch language education, probably because information literacy skills have traditionally been integrated in this curriculum. Observations prior to our study revealed that information seeking predominantly comes down to fact finding. Students search the Web to retrieve summaries and book reports, to find background information on authors, literary movements, and so on. The experimental search tasks were designed to resemble the students' actual search activities as much as possible. They are listed below:

*Task 1—complexity = low*

On the Internet site "www.uittreksels.nl" you will find a book report on *Snikken en Grimlachjes*. Surf to this site and locate this review.

*Task 2—complexity = medium*

On the SMC-site you will find a module on literature comprehension. Surf to this module and locate the page on Piet Paaltjens. Answer the following question: Why are most poems in *Snikken en Grimlachjes* untitled?

*Task 3—complexity = high*

In 1964 Rob Nieuwenhuys wrote a biography of François Haver-Schmidt (Piet Paaltjens). What is the title of this biography?

These tasks indeed admit of a 'right answer.' One can unequivocally determine whether a student has located the proper book report or the right title of a biography. Still I don't think searching for more abstract information would have produced other results. With regard to *locating Websites*, it makes no difference whether

students have to find a book report or information about, say, stylistic metaphors in a book report. In both cases they have to retrieve the Website containing that book report. For the *locate information* tasks, finding abstract information such as opinions, theories, and motives is probably more complex than finding facts. However, task complexity depends not only on the type of information requested, but also, and to a higher degree, on a document's structural complexity (Mosenthal, 1996). For this reason we used a Website's structural complexity to define the difficulty of the 'locate information' tasks.

Clearly, I am aware that Dutch literature is not the most widespread subject matter. Yet the information space our students had to search was large enough to reveal typical Web search performance. Relevant keywords produced 250 to 11,000 hits, causing several students to "get lost in cyberspace" (cf. Lazonder, in press). By way of illustration: suppose I gave Mr. Meadows a map of "my great nation" and asked him to drive from Amsterdam airport to the city of Enschede. Would this task call upon different (generic) navigation skills than using a map to get from JFK airport to Denver?

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