CONSIDERING A RESEARCH AGENDA FOR THE 80's

Dr. R.G. Crawford,
Associate Professor
Department of Computing and Information Science
Queen's University
Kingston, Ontario
K7L 3N6

ABSTRACT

One effort to outline a research agenda for the 80's was recently completed and another is currently under way. The approaches are briefly described. Both efforts consider the need to establish priorities for funding to disseminate results widely. It is important that similar discussions be under way in Canada. An immediate concern is the gap that already exists between research development and information retrieval practice.

ENVISAGER UN AGENDA SUR LA RECHERCHE POUR LES ANNEES 80

RESUME

Un premier effort en vue de préparer les grandes lignes d'un agenda sur la recherche pour les années 80 a été récemment complété et un autre est en cours. Les approches y sont brièvement décrites. Ces deux efforts font ressortir le besoin d'établir des priorités pour subventions afin de disséminer les résultats de façon exhaustive. Il est important que des discussions similaires soient entreprises du Canada à l'étendue. Un point de discussion immédiat est la lacune qui existe déjà entre le développement de la recherche et la pratique à retracer l'information nécessaire.

CONSIDERING A RESEARCH AGENDA FOR THE EIGHTIES

R.G. Crawford

In the Chairman's Message in a recent issue of SIGIR Forum[3], Gerard Salton comments, "One of the striking things these days in the retrieval world is the existing gap between certain exciting developments in theory and practice on the one hand, and various remarkably backward and inefficient conditions that hamper the retrieval task." He considers some typical examples, and concludes that, "It is obvious that a wide gap exists between where we are and where we should be, or might be given a better use of common sense and existing know-how. If the field is to be preserved from stagnation, the system managers should look beyond the day-to-day operations, and the research people should become more vocal and more influential." That any research agenda for the eighties must involve the intention of lessening the gap he refers to seems apparent. Funding for research is ever more restricted, and projects that have concrete social implications (i.e. obvious application) are more readily supported.

In a session on Funding for Information Research at ASIS 81, Ed Weiss of the National Science Foundation Division of Information Science and Technology stated that, while he could outline some areas of interest, "any good idea will get funded." In reacting to his remarks, Charles Pearson (School of Information and Computer Science, Georgia Institute of Technology) noted that there is, nevertheless, "a woeful lack of basic research."

All of the above points out that it would be useful for the Information Science research community to carefully consider a research agenda for the eighties and the decade beyond. Two examples of such efforts can be cited. Cuadra Associates, Inc., under contract with the U.S. Department of Education's Office of Libraries and Learning Technologies, spent a year conducting a study to prepare a list of research priorities for the field of library and information science[4]. The complete report is to be available in February 1982. Manfred Kochen (University of Michigan), Chairman of the 1982 ASIS Research Committee, has set the development of a research agenda for the eighties as one of the goals of the Research Committee.

The ASIS Research Committee worked at ASIS 81 toward development of a research agenda. Discussions involved Karl Deutsch (Harvard

University), Fritz Machlup (New York University), Leonard Uhr (University of Wisconsin), Gerard Salton (Cornell University), Jack Minker (University of Maryland) and others. Results are currently being compiled.

The efforts by Cuadra Associates are tied directly to the limited funding that will be available for the near-term. As they state, "It is clear that, whatever funding patterns have been ... for publicly funded library and information science research, we are likely to face a certain level of austerity for the next five to ten years." As a result, research having "the highest payoff possible" must be funded. And that requires careful planning of research projects and wide dissemination of their results.

One of the charges of the ASIS Research Committee involves efforts to stimulate research and set priorities, and to coordinate (with funding agencies) selection of research problems and priorities. Thus, both efforts are concerned with setting priorities in a period of limited funding, and in stimulating the wide dissemination of research results.

Part of the work toward a research agenda involves the development of a framework within which to work. The report by Cuadra Associates outlined 20 specific projects grouped in nine subcategories within five major research areas. These areas are:

- Information Generation and Provision of Library and Information Services
- Information Users and Uses
- Economics of Information and of Library and Information Services
- Educational and Professional Issues
- Intellectual Freedom

In general, the 20 specific projects listed are applications oriented.

Another classification is brought out in the following list of questions to which research in information systems is directed.[1]

- What information does it take to X, where X may be "operate", "plan", "perform", etc.?

- How can those responsible for X access the most important information when they need it without being overloaded by less needed information?

- How can such information be represented, organized and stored?

- How can such information be evaluated, screened, synthesized and brought to bear when and where it can have substantial effect?

- What are the most important trends in our societies relating to the use of information and information technologies and what policy issues do they imply?

This list of questions shows clearly the broad range of areas involved. Computer science deals principally with question 3. Other questions require the efforts of psychologists, sociologists, librarians, and so on. Whatever list of areas is chosen, it is only useful as it provides a tool for developing a research agenda.

Numerous other factors bear on the research that will be done in the next decade. We must engage in interdisciplinary work. To quote Fritz Machlup, "we need to 'look over the fences' at other disciplines."[2] How often we gain new insights and achieve research breakthroughs as we use ideas developed in other areas.

Another factor to consider is new technology. Videotext, fibre optics, and video disks are all technologies that society is not going to keep the lid on while waiting for the "community of researchers" to come to an agreement as to their optimal use.

We need more people involved in information science research. In the United States the information sector accounts for more than a third of the Gross National Product and employs over half the labor force. Yet, in the American Society of Information Scince, only 4.9% of the membership indicates involvement in Research and Development.

What percent of the CAIS membership is involved in research and development in information science? Should we work to develop a Canadian agenda for research in information science? Do we have sufficient input into the setting of priorities for funding? Are we ambitious in disseminating the results of our work? Are practitioners interested in research results? Can we narrow the gap between what we know and what we do?

REFERENCES

1. Kochen, M., Research in Computer and Information Systems, University of Michigan School of Business, 1981.

2. Machlup, F. "The Sciences of Information: Looking Over the Fences", Plenary Session, ASIS-81, Washington, D.C., October 1981.

3. Salton, G., Chairman's Message, SIGIR Forum, Vol. XVI, No. 2, Fall, 1981, 1-3.

4. A Research Agenda for the Eighties, Bulletin of the American Society for Information Science, Vol 8, No. 2, December 1981, 36-39.