## Reported by Ralph Dumain

52nd Annual Meeting of the American Society for Information Science (ASIS): "Managing Information and Technology," Washington, DC, October 30 - November 2, 1989

Session #10, Monday, October 30, 1989, 1:00-2:20 pm:

## LANGUAGE AND CULTURAL BARRIERS TO INFORMATION TRANSFER

Organized and moderated by Ralph Dumain on behalf of the Arts and Humanities Special Interest Group (SIG/AH), co-sponsored by SIGs for International Information Issues (III) and Behavioral and Social Sciences (BSS).

Panelists were Drs. Irene S. Farkas-Conn, Inez L. Sperr Brisfjord, Leif Brisfjord, and Esther Horne. The audience also participated in the panel discussion. The initial intent of the program can be found in the *Proceedings*, p. 209. A summary of the actual discussion follows.

"The New World Information and Communication Order (NWICO)". The opposition of the U.S. government to UNESCO and its NWICO is described by U.S. policymakers as the "free flow" of informationvs. government control, but it could also be described as domination of third world countries by transnational corporations vs. cultural autonomy. The "free market" can be seen to impose controls of its own. Transnationals not only seek to market their products for which a demand may already exist, but alsoseek to "create" demand for products where no need exists. The strong impact of mass market culture--movies and television, for example--constitute an assault on the value systems of third world peoples that could be considered tantamount to cultural invasion, hence various limitations such as those imposed on the percentage of imported television programs. In third world countries, who have been left with a colonial infrastructure, the state is the only source of capital, hence the government is the only source of control.

Aside from the basic philosophical differences outlined above, administrative and political problems in UNESCO were also cited as contributing factors to the U.S. pullout. Since then, UNESCO has also undergone a shift in policy as well as administration.

"Popularization of science" is now a high priority of third world governments. UNESCO is concerned by some crucial obstacles to scientific literacy: (1) mass illiteracy (up to 90%), (2) traditional thought vs. modern science, (3) the high cost of newsprint and its distribution, (4) lack of needed terminology in local languages, (5) inappropriateness of news reportage (availability of cow dung may be of greater relevance than news about nuclear energy), (6) discouragement of popular press stories by local scientists because of reporters' incompetence, (7) government policy against dissemination of certain information, (8) lack of trained science writers, (9) lack of interest on science reporting on the part of editors.

Audience members expanded on the philosophical problems involved in science popularization, even here in the U.S.: (1) the popularity of astrology in the U.S., including the White House, (2) superficiality and deleterious effects of popularizations of science, (3) lack of instruction

concerning the scientific method, (4) the superstition that science is technology-driven and the judging of science by technological criteria. In response, panelists suggested: (1) people expect science to solve problems; in the third world agriculture is a survival science, hence agricultural information is of paramount importance; (2) as an issue of values, it should be noted that more people in world study theology than engineering, science or technology.

On a more concrete level, it was stated that (1) many people [in Latin America] can read English-language textbooks, but more books should be translated into Spanish and Portuguese; (2) in some departments of the developing world things are going well, e.g. Venezuela oil production, where there are well-trained people and excellent information services; China and Mexico were also cited as examples; (3) in Mexico, one could say that only an elite has access to scientific knowledge in comparison to the whole population, but there are 100 universities, 50 of them technical with 600,000 students.

In Europe, there are interesting developments of a different sort. There is a great deal of consciousness and activism around ecological concerns. The group "Next Stop" is a multinational and multilingual grassroots organizing effort and information disseminator that has operated successfully with little money and no government support. They have camped together and have staged anti-nuclear protests in the U.S., USSR, and Scandanavia.

"Multilingual environments and publishing". Looking towards 1992, the European Economic Community is concerned about language and accuracy of translations. The third world situation was discussed above. In general, many can read English but cannot speak it. Americans ought not to be complacent; if some technical innovation takes off in a non-Englishs-peaking country, Americans will be at a disadvantage. But there are not only problems, there are successful multinational projects. Multi-language publishing works well in the USSR.

"Computer jargon and standardization". English computer expressions are used everywhere except in France where the French Academy insists on French terminology. Computer jargon is actually helpful in communication; it helps to surmount language barriers. An audience member suggested that computer professionals from many nations can comunicate reasonably well amongst themselves; the real problem is specialists vs. laymen.

There are limitations of the standard character sets, which make computerized multlanguage publishing difficult. Fonts and typesetting introduce further complications. New characters and code systems are needed. Standardization groups are working on the problem. Leif Brisfjord mentioned his use of a system with a separate character set to handle all the world's languages.

"Potential of interactive technology". Videodiscs can be used in scientific and medical education and in the humanities. The Georges Pompideau Center in Paris has foreign language training workstations by which one can receive free education via videodisc. Cultural differences which could affect reference interviews and other interactive situations could be taken into account in the design of information systems: various user interfaces could be tailored to different languages and appropriate cultural interactional norms.

Technology accelerates international contact without travel; for many, international telex and fax communications are more frequent than face-to-face contacts. Awareness of social and cultural differences leads to adjustment. Ultimately, science and technology may prove to be a more powerful force than other cultural factors; technology itself will change cultures.

Finally, Mr. Dumain linked these various issues with the 'World Brain' concept popularized by SIG/AH in recent years: the unification of knowledge and its availability to the masses.