INTELLECTUAL PROPERTY

Database Access Fight Heats Up

Science officials in Washington are stepping up their efforts to head off what they see as a threat to scientists' ready access to databases. They are trying to persuade U.S. trade negotiators to press for clear exemptions for scientific research in proposed new international rules protecting private databases from piracy (*Science*, 25 October, p. 494).

The U.S. government hopes to clarify its position by 2 December, when talks are scheduled to begin in Geneva on a draft treaty of the World Intellectual Property Organization that would give industry added protection against unauthorized use of commercial databases. Researchers don't dispute the industry's need for protection, but they fear that what has been proposed could make it harder and more expensive to access data on everything from the human genome to global weather. Industry officials say that fear is exaggerated, and that all they want are rules updated to fit today's information society.

The Clinton Administration is divided over the issue, and officials say they have made little progress in finding a middle ground. "It's a clash of cultures, and I'm not sure we can come up with a united stand," says one Administration source. Some officials speculate that this dispute, combined with a host of unrelated concerns shared by several countries and constituencies, may even delay the start of negotiations until next summer.

In the meantime, scientific forces rallied their troops last week at a meeting in Washington under the auspices of the American Association for the Advancement of Science (which publishes *Science*). "The fact is there has been no opportunity for dialogue," says William Wulf, the interim president of the National Academy of Engineering (NAE), which last month raised the alarm in a letter to Commerce Secretary Mickey Kantor. "We're saying let's slow things down." Tempers at one point in the meeting got a bit frayed: When an industry representative argued that attempts by European nations to establish a new regime make it essential for the United States to do the same, Wulf snapped, "I don't like that kind of threat."

This week Patent and Trademark Office chief Bruce Lehman was slated to meet with library and education representatives to hear their concerns, and PTO is accepting comments on the proposed treaty through 22 November. So far, however, neither side appears willing to compromise.

In an attempt to influence the debate, the National Research Council—the operating arm of the NAE and the National Academy of Sciences—next week will take the unusual step of releasing a portion of an upcoming report that opponents of the draft treaty see as bolstering their case. The report, called "Bits of Power," concludes that market forces are not enough to protect the public good associated with open access for scientists and educators, according to panel members who spoke on the condition of anonymity. Excerpts of the document, 2 years in the making, will be released on 22 November in conjunction with a symposium on database protection.

–Andrew Lawler

SCIENTIFIC LITERACY

Global Interest High, Knowledge Low

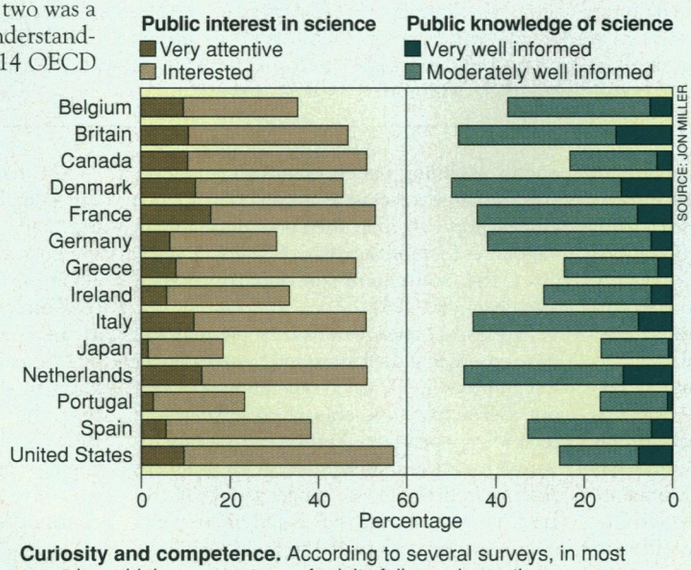
TOKYO—Public understanding of science and technology lags well behind public interest in these fields throughout the major industrial countries, according to a pair of new studies released here last week. The studies, commissioned by the Organization for Economic Cooperation and Development, sparked a lively discussion at an OECD-sponsored Symposium on Public Understanding of Science and Technology.

The more broadly based of the two was a comparative analysis of public understanding of science and technology in 14 OECD countries done by Jon Miller, vice president of the Chicago Academy of Sciences. After synthesizing results from three separate national surveys and one Europe-wide survey done between 1989 and 1995, Miller found that self-described interest in science and technology among the general public remains high in virtually all industrial nations (see table). But only about one in 10 is also well informed, as measured by responses to specific questions about aspects of science and the scientific process. It is only those people who consider themselves well informed—Miller calls them the "attentive public"—who are likely to get involved in public-policy debates, he says. Miller argues that the subset should be larger. "It is essential that there be a sufficient number of citizens who are attentive to an area and who are able to comprehend the debates among [policymakers] on the issue," he says.

The second study explored attitudes toward science and technology of young people in a cross section of OECD countries. Helen Connell, a Paris-based educational consultant who reviewed a large number of previous studies, concluded that there has been no recent detectable drop-off among students in either personal interest in science or selection of university science majors. She did find a shift away from the physical sciences and toward the life and information sciences, however. Echoing Miller's concerns, Connell says the larger question is "whether the level of learning [of science and technology] is adequate" to hold down a job and perform civic duties.

Most of those attending the conference seemed to agree that the OECD countries need to improve public understanding of science and technology. "Increasingly, a wide range of careers and professions will require a good knowledge of science and technology," said William Blanpied, senior international analyst for the U.S. National Science Foundation, in summing up the presentations. The purpose of boosting greater public understanding, added Yoichiro Murakami, a science historian at International Christian University in Tokyo, is not just to ensure bigger research budgets but to "cultivate the sound common sense" needed to debate "the purposes of science and technology."

–Dennis Normile



Curiosity and competence. According to several surveys, in most countries a higher percentage of adults follow science than can answer specific questions about the natural world.