

Smithsonian to share a revolution

The world is in the midst of an information revolution. Information's ability to shape societal change today is rivaled in recent centuries only by the invention of the Gutenberg press and the industrial revolution, according to Smithsonian Institution Secretary Robert McC. Adams. The Smithsonian has decided to take the lead, nationally, not only in explaining the origins and implications of computing technology but also in giving visitors the chance "to experience, even in a sense to participate in, various aspects of the information revolution."

That represents a hefty challenge, since the Smithsonian's existing computing exhibit is 20 years old. Adams outlined the challenge Oct. 31 while announcing plans for a \$4.3 million permanent exhibition to open in 1989 at the Smithsonian's National Museum of American History, on the Mall in Washington, D.C. Eventually, Adams says, "we envision the possibility of an entire museum devoted to the information age."

Civil liberties' electronic loopholes

Federal laws protecting civil liberties have not kept pace with the electronic revolution, according to a new report by the congressional Office of Technology Assessment (OTA). The issue is no small one, its analysts report. Their survey of 142 federal agencies (excluding foreign intelligence and counterintelligence) identified 35 that use or plan to use electronic surveillance technologies. Thirty-six agencies now use computerized record systems for law enforcement, investigations or intelligence gathering; the 85 computer systems they maintain contain records on 114 million persons. The Justice Department alone uses 15 systems with records on 87 million persons.

Provisions of the Omnibus Crime Control and Safe Streets Act, passed in 1968, provided privacy from telephone taps and concealed microphones, the surveillance technology of the day. It's not clear, however, that technology commercialized since then receives comparable protection, OTA says. For example, it found that contents of digitally transmitted phone conversations, calls made on cellular/cordless phones, data communications between computers and digital transmission of video and graphic images are not clearly protected under existing statutes. Electronic mail, which can be intercepted at several stages, also receives little or no protection, OTA reports. Similarly, it remains unclear whether covert surveillance of computerized records transactions is legal, OTA says.

OTA suggests a number of ways in which Congress could close these potential privacy loopholes in the law. For example, it could legislate changes so that the Omnibus Crime Control Act specifically includes these newer technologies. A more radical option: Congress could take a more active oversight role, such as by requiring that a federal agency get its approval for each database surveillance program.

Sulfite suit victorious

A U.S. District Court judge has ordered the Treasury Department to reinstate, by April 30, a law requiring that alcoholic beverages carry ingredient labels or instructions on how consumers can obtain an ingredients list. The suit to reinstate the law was brought by Center for Science in the Public Interest (CSPI), a Washington, D.C.-based consumer group, in large measure to see that beverages containing sulfites (SN: 8/17/85, p. 100) be identified as such. Asthmatics have been known to suffer life-threatening allergic reactions after consuming the preservative. According to CSPI, sulfites are used in most wines and many beers.

Treasury's labeling law, originally passed in 1980, was rescinded a year later — two years before it was to take effect.

Fluoride proposal draws criticism

The Environmental Protection Agency (EPA) proposes changing the recommended ceiling on fluoride concentrations in drinking water to 4 milligrams per liter — up from 14 to 24 milligrams/liter (a temperature-dependent range adopted in 1977). Studies have shown that at levels of 1 to 2 mg/l, fluoride helps fight tooth decay. At higher levels, it can cause dental fluorosis, a discoloring (usually browning) and pitting of teeth (SN: 7/19/80, p. 42). At 4 mg/l it can even alter bone density, though EPA's announcement on the proposed standard says this would "cause no detectable health effects."

The new primary limit, as a recommendation, would not be enforceable. However, it is a necessary first step in setting enforceable standards under the Safe Drinking Water Act. A final enforceable rule is to be set as close as possible to the recommended level.

Battle lines being drawn over the proposal are based primarily on the issue of whether fluorosis constitutes an adverse health effect. EPA cites a 1982 report by the U.S. Surgeon General in which he said he did not consider it to be one. The Natural Resources Defense Council (NRDC), an environmental group based in New York City and Washington, D.C., maintains otherwise. And in comments it has filed with EPA, NRDC points to a number of groups that share its view, among them the World Health Organization, the National Academy of Sciences, members of the Surgeon General's Ad Hoc Committee on non-dental health effects of fluoride and the National Drinking Water Advisory Council.

"EPA concedes that moderate to severe fluorosis has been shown in as many as 40 percent of children exposed to fluoride at the level of the proposed [recommended limit]," NRDC says. The group contends that the disfiguring condition could also result in long-term psychological harm for those affected. Moreover, the group says, EPA is apparently ignoring the susceptibility of certain groups — mainly diabetics and kidney-stone formers — whose recommended high intake of water might result in their receiving toxic doses of the chemical.

Like EPA, the Chicago-based American Dental Association sees dental fluorosis as "a cosmetic problem, not a health problem," according to Lisa Watson, ADA's director for fluoridation and preventive dentistry. As such, she says, ADA sees no need for a federal primary standard for fluoride in drinking water, since these standards are only to limit health hazards. However, she adds, ADA recommends maintaining fluoride at levels providing optimal dental benefits — roughly 1 mg/l.

EPA will hold hearings on its proposal Dec. 18 in Washington, and will accept written comments on it through Dec. 30. NRDC plans to challenge it, both in that forum and in the courts.

More on homely radon

Routine monitoring at the Limerick nuclear plant near Philadelphia identified a construction worker who had been exposed to high levels of radiation. Subsequent investigation showed that the exposure occurred at home. Levels of naturally occurring radon gas and its radioactive decay products were exposing the worker's family to more than 50 times the annual radiation limit for uranium miners, according to the Nov. 1 MORBIDITY AND MORTALITY WEEKLY REPORT (MMWR). Radon, which emanates from soil, water and rock, often builds up in homes after entering through cracks in basement floors (SN: 9/18/82, p. 186).

A state survey found that roughly 40 percent of 2,000 homes neighboring the construction worker's also exceed EPA's indoor radon guidelines. An MMWR editorial note by the Atlanta-based Centers for Disease Control noted that the levels in 7 percent of the homes might, after a 10-year exposure, contribute a 3 percent risk of dying from lung cancer.