SCIENCESCOPE

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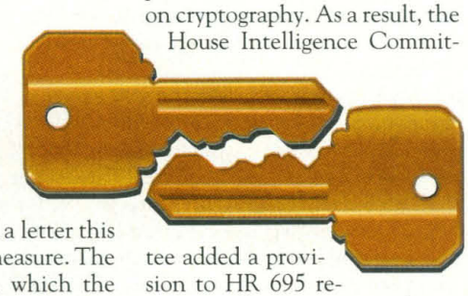
Scientists Weigh In on Cryptography Bill

Proposed legislation that would have eased curbs on data-encryption researchers in the United States has instead become a technically flawed plan that does little to protect scientific freedom, according to a dozen scientific and engineering societies, which issued a letter this week opposing the measure. The fight over HR 695, which the House Commerce Committee was expected to vote on this week, is part of a crescendoing debate over federal policy on encryption technology, which protects data from eavesdroppers.



Current laws bar the export of all but the most easily broken scrambling codes, making it a crime for cryptographers to share much of their research with overseas colleagues or publish it on the globally accessible World Wide Web. Congress has been considering several proposals to ease these restrictions, among them HR 695.

But this month, the Federal Bureau of Investigation made a pitch for domestic controls on cryptography. As a result, the House Intelligence Committee added a provision to HR 695 requiring all encryption software to recognize a "key recovery" feature that would give law-enforcement agencies instant access to coded messages. And another committee, National Security, weakened proposals in the bill to loosen export controls.

The 23 September letter—signed by 12 groups or their presidents, including Sigma Xi, The Internet Society, the American Mathematical Society, and the committee on scientific freedom of the American Association for the Advancement of Science (*Science*'s publisher)—points out that a 1996 National Research Council study warned that the "key recovery" idea was untested and could exacerbate security problems if implemented too quickly. The letter also argues that the current and proposed laws "stifle the ability of researchers and implementers to study and build" cryptography codes and secure systems and threaten the "free exchange of scientific information." "This is a fundamental issue of free speech," says Silicon Valley computer scientist Barbara Simons of the Association for Computing, which drafted the letter.

The issue is expected to remain on the political agenda next year even if Congress adjourns in a few weeks without completing action on HR 695 or other pending bills. Meanwhile, opponents of the export controls are pinning their hopes on recent federal court rulings that cryptographers should be free to distribute their work electronically.

New Head for Wellcome Trust

Britain's Wellcome Trust has gone outside the ranks to select a new director for the world's largest medical research charity. The naming of prominent hematologist Michael Dexter last week appears intended to reassure scientists that the $14 billion charity, which has seen its portfolio balloon in recent years, remains committed to academic research.

Dexter's selection surprised many scientists, as only 2 months ago he became head of the Paterson Institute for Cancer Research in Manchester. Dexter is noted for his research on the control of blood cell formation and leukemia-causing viruses. A fellow of the Royal Society, he will take over from Bridget Ogilvie, who retires next year after 7 years as director.

The Wellcome Trust has expanded greatly since 1995, when it sold its remaining interests in the Wellcome pharmaceutical company, and now gives out $350 million a year in research grants. Virologist Robin Weiss, former head of the Institute of Cancer Research in London, says that Dexter will face "some tough decisions" about the trust's strategy in supporting research.

Senate Moves on DOE Nominations

A copacetic confirmation hearing last week for senior Department of Energy officials could be the first sign of an expected revamping of DOE's research programs. Lawmakers used the hearing to air their views on reform, and the nominees greeted most of the ideas warmly.

Physicist Ernest Moniz, who would serve as DOE undersecretary and point man on science and technology issues, leads the list of names put forward this summer by the White House to fill out Energy Secretary Federico Peña's team. At his confirmation hearing before the Senate Committee on Energy and Natural Resources on 18 September, Moniz agreed with Senator Pete Domenici's (R–NM) view that DOE's energy research office should encompass a broader portfolio of science. Such a mandate might signal a reorganization of that and other science-related offices within the department.

Moniz also assured senators that he would devise better road maps for DOE science, such as a long-term facilities plan for neutron research. And he pledged to streamline DOE's oversight of its labs. "I expect some results," warned Domenici, whose state includes two of DOE's three weapons labs.

Domenici also encouraged Michael Telson, nominee for chief financial officer, to fix DOE's complicated budget system. "It's damned hard to know what's going on," he said. "It's pretty sloppy."

The nominations were expected to be approved by the Energy and Natural Resources committee this week, and could go before the full Senate in the near future. "We don't expect any problems," says one Senate aide. "The feeling is that these should be approved sooner rather than later."

China Elevates Scientists to Party Posts

Prominent scientists and engineers are increasingly visible in the new leadership of the Chinese Communist Party, which is also better educated than its predecessor.

Five members and alternates of the central committee elected last week during the 15th Party Congress are members of the Chinese Academy of Sciences (CAS): Song Jian, minister of the State Science and Technology Commission; Lu Yongxiang, newly appointed CAS president; Zhou Guangzhao, Lu's predecessor and now president of the China Association for Science and Technology; Chen Jia'er, president of Beijing University; and CAS physicist Zhao Zhongxian. Only Song and Zhou served on the previous central committee. Another new member, Xu Kuangdi, the mayor of Shanghai, is a member of the Chinese Academy of Engineering. Overall, some 92% of the committee's 193 members and 151 alternates hold college degrees, up from 83% of the group selected 5 years ago.

Observers say it is too soon to tell whether the increased scientific presence on the central committee will translate into specific R&D initiatives. But they see it as consistent with Communist Party chief Jiang Zemin's call to "develop the country by relying on science and education."