Copyright Revision: Compromise in Photocopying Seems Likelier

Photocopying has made each of us his own Gutenberg. It has also compounded the difficulties of revising a copyright law overwhelmed by 20th-century technology.

Congress is well into its second decade of trying to rewrite a law which, in its essentials, dates from 1909. In recent months, optimism has been growing that ways may be found to unknot the major snarls, including those which afflict photocopying. Early this year the Senate passed a copyright revision bill (S. 22), and now a House Judiciary subcommittee seems promisingly close to completing work on a modified version which observers say has the best chance yet of being enacted into law. A caution should be added that those who, in other years, have seen light at the end of the tunnel for copyright legislation have found it to be a very long tunnel.

For the legislators, photocopying, of course, is only one of the complications caused by such modern media as movies, recordings, radio, and television, particularly cable television. For most scientists and engineers, however, the key issue is library photocopying. The question of how many copies of a copyrighted work a library should make without paying royalties is an important one in a time when photocopying of technical material, especially from journals, is a prime medium of intellectual exchange.

The question has pitted authors and publishers against research librarians, the latter really acting as surrogates for the scientists and engineers who are the users. The new cause for optimism on the photocopying issue is that the antagonists in recent months have moved toward at least a minor détente, apparently inspired by the realities of the present situation.

The photocopying issue was the subject of a hard-fought series of legal actions involving Williams & Wilkins, a Baltimore scientific publisher, on the one hand, and the National Library of Medicine and the library of the National Insitutes of Health on the other. The case proceeded though a succession of decisions and appeals, finally culminating in a deadlocked 4 to 4 vote in the Supreme Court. This effectively threw the matter back to Congress, where the courts all along had indicated that the basic issues should be resolved (*Science*, 14 March 1975).

The librarians, however, viewed what Congress—or at any rate the Senate—had wrought as anything but satisfactory. One head of a leading research library described the legislation as "devastating." For them the heart of the matter was a section prohibiting "systematic reproduction" of copyrighted materials. The librarians argue that no library can have everything in its collection and, in the case of material for which there is small demand, the library should be able to tap the resources of other libraries. This does not cut into subscriptions of journals for which there is slight demand, the argument goes, because the library would not subscribe in any case. According to the librarians, the Senate bill's section on systematic reproduction would seem to kill the interlibrary exchange system.

Publishers, for their part, were determined to see that the law did not sanction a situation in which one library subscribed to a journal and then made copious copies for a network of other libraries.

It should be noted that enforcement of restrictions on photocopying is more difficult than those dealing with book publishing or record manufacturing, for example, because there are so many photocopying machines around and so many people have casual access to them.

The court deadlock and disenchantment with the Senate bill might seem to have set the stage for an all-out lobbying battle, and indeed, both sides did begin to beat the drums. But each side recognized that unless some kind of accommodation was reached between them, they both stood to lose. This view seems to have been encouraged by Representative Robert W. Kastenmeier (D–Wis.), chairman of the Judiciary Committee subcommittee with jurisdiction over the copyright bill.

Progress toward a meeting of minds began early this year when representatives of Williams & Wilkins and the librarians met for informal talks. There were signs that ground rules satisfactory to both sides might be worked out, and at this point the talks were expanded to include interested parties on both sides of the issue. This was done under the auspices of the Register of Copyrights, Barbara A. Ringer, who has acted as honest broker in the negotiations.

The journey toward a compromise was helped along in mid-February, when staff members of Kastenmeier's subcommittee attending one of these meetings put forward amending language developed on the Hill. There were some objections to the language, but at this point a new factor entered the equation in the form of the National Commission on New Technological Uses of Copyrighted Works (CONTU). The commission had been created in an interim copyright bill passed in 1974. The 13-member body was commissioned to make a 3-year study of problems caused by new technology, including photocopying. Its chairman is Judge Stanley H. Fuld and the committee is dominated by members drawn from the fields of writing and publishing, libraries, and other sectors of academia. The executive officer, attorney Arthur J. Levine, has a background in copyright law.

Observers say that CONTU, itself a microcosm of the vested interests involved, helped to bring the discussion along. On 3 March the subcommittee adopted an amendment to the fair use section of the bill which seemed to open the way for reasonable use of multiple copies for classroom use. It makes such use contingent on its being for "nonprofit educational purposes."

At the same time, the subcommittee allayed the anxieties of the librarians about individual liability for violating the fair use doctrine by creating an escape hatch with the following new language: "In a case where an instructor, librarian or archivist in a nonprofit educational institution, library, or archives, infringed by reproducing a copyrighted work in copies or phonorecords, and believed and had reasonable grounds for believing that the reproduction was a fair use under Section 107, the court shall remit statutory damages."

On 7 April the subcommittee adopted an amendment to the section on systematic reproduction providing "that nothing in this clause prevents library or archives from participating in interlibrary arrangements that do not have, as their purpose or effect, that the library or archives receiving such copies or phonorecords for distribution does so in such aggregate quantities as to substitute for a subscription to or purchase of such work."

Most librarians indicate that the

amended provisions are acceptable. However, if the bill becomes law, the language of the statute itself will not be sufficient to elucidate the intentions of Congress on all the questions about photocopying that are likely to arise. Interpretation of the law will depend also on the legislative history of the bill—particularly on the final language of the committee report.

CONTU stepped into a potential breach on 2 April by offering to assist the interested parties in preparing guidelines on library photocopying. Kastenmeier accepted the offer and it is now understood that if guidelines acceptable to both sides can be worked out, they will be included in the committee's final report.

A precedent for this was the fair use agreement on multiple copying for classroom use reached in March among representatives of the education organizations, authors, and publishers. These

Kissinger Offers More Technology to Third World

A major but largely ignored component of the Secretary of State's speech at Nairobi last month was the promise to give Third World nations much greater access to the storehouse of American science and technology. Delegates to the United Nations Conference on Trade and Development heard Kissinger enumerate an almost cornucopian list of technological aids for developing countries. Delivery is another matter, but at least as an expression of benevolence the list left little to be desired.

Technology has always featured prominently in Kissinger's dealings with developing nations (*Science*, 17 May 1974). According to one account, promises of American technology for Arab countries have played a leading role in his Middle East strategy. But the Secretary's Nairobi address must have set some kind of record just for the number of technological marvels that the United States proposes to deliver, some by itself, some in conjunction with other countries. The list of proposals includes:

- An International Industrialization Institute to encourage research and development of industrial technology appropriate to developing countries. A founders conference is to be held later this year.
- Sharing by the United States of its technology in the fields of satellites, ocean exploitation, and water resources. The United States will help developing countries establish centers for the use of satellites in surveying, education, and communication. It will invite their scientists to participate in oceanology projects such as deep-sea mining and fisheries management.
- American universities will be encouraged to set up special institutes and courses to help train scientists in developing countries.
- Appropriate steps should be taken to curb the brain drain of Third World scientists to the United States.
- The United States will encourage the formation of a technology corps. This will be a private, nonprofit organization to which corporations and universities would contribute scientific and technical experts to help train local manpower in specific development projects.
- Voluntary guidelines should be developed that encourage the transfer of technology from industrialized to developing nations.
- To help make technological information available to developing countries, the United States will improve their access to its own information facilities, such as the National Library of Medicine, the Division of Science Information of the National Science Foundation, the National Agricultural Library, and the Smithsonian Science Information Exchange.
- The United States supports the United Nations Conference on Science and Technology for Development, now proposed for 1979, and, to speed preparations, will hold a national conference next year. The conference, which will bring together the "best talent" from U.S. universities, foundations, and private enterprise, will be invited to "help mobilize American resources to assist developing countries to meet their research requirements."

It remains to be seen just what substantive result comes out of the Secretary's proposals. The speech bears signs of a certain haste. For example, the function of the proposed International Industrialization Institute is incorrectly described. At least as envisaged by its original planners (a National Academy of Sciences committee), the institute would consist entirely of policy analysts rather than being a research institute of the type described by Kissinger. Not all of the ideas are new: the International Industrialization Institute and a proposed International Energy Institute were also mentioned in a speech delivered to the United Nations last September.

Nevertheless, the Nairobi speech represents a major policy commitment by the U.S. government to put a larger share of its technology at the disposal of developing nations. According to Kissinger, the program "represents the most comprehensive effort ever put forward by the United States to deal with the challenge of applying technology to development."

These brave words, however, have to be seen against the fact that American foreign aid has been in a state of steady decline. The United States devotes 0.26 percent of its gross national product to foreign aid, compared with 1.10 percent for Sweden, and by this measure only two other member countries of the Organization for Economic Cooperation and Development, Finland and Switzerland, give less. U.S. aid has been declining in absolute as well as relative terms. The proposed 1977 budget of the Agency for International Development is one of the lowest in the agency's history.

Moreover, Kissinger's Nairobi speech emphasizes industrialization, which may well be what developing countries want to hear, but it stands in possible conflict with the new mandate that Congress has written for AID in the Foreign Assistance Act of 1973. The House International Relations Committee has directed AID to give priority to food and nutrition, to population planning and health, and to education. It may be unwilling to find the considerable sums required to fulfill the somewhat different proposals Kissinger put forward in Nairobi. One foreign aid expert comments of the Kissinger speech: "While on the face of it the statement goes some way toward meeting the claims of developing countries, and is perhaps overdue in that regard, it comes at a rather late stage in the game, and its implementation by Congress is an unknown factor."

—NICHOLAS WADE

guidelines set criteria for such things as "brevity" and "cumulative effect" of material to be copied. Copying of a complete poem of less than 250 words or of an article, story, or essay of 2500 words, for example, is permitted. And not more than nine instances of multiple copying for one course in one term are allowed.

CONTU is now in the process of asking more than a score of individuals representing organizations with a stake in the guidelines or with personal expertise in the field to suggest specific language for the guidelines.

As for the chances of an agreement on the guidelines, those who are well informed on the matter are hopeful but not euphoric. Given the history of the copyright revision effort this is understandable. The subcommittee, however, hopes to complete action on the bill and see it enacted this year. Photocopying, of course, is not the only issue still to be settled. Cable television poses problems of considerably larger financial dimension. There too, an effort is being made to have the principal contestants and their lawyers—never forget the lawyers—fashion an agreement. This idea of letting the principals settle the matter out of committee, so to speak, just could work. It would be a great relief to a lot of people if it did.—JOHN WALSH

Swine Flu Campaign: Should We Vaccinate the Pigs?

The national campaign to vaccinate some 200 million Americans against "swine flu" has given rise to a parallel proposal that is causing consternation in some agricultural circles: why not vaccinate the nation's pig population and try to wipe out the disease at its probable source?

No one has yet issued an unequivocal recommendation that each of the 70 or 80 million pigs that are produced for slaughter annually in the United States should definitely be vaccinated. But a few key public health and veterinary experts have cautiously raised the possibility for discussion, much to the dismay of some swine partisans who believe such a campaign would give the swine industry an undeserved bad name.

Foremost among those raising the issue is the World Health Organization, which convened a meeting of international experts on 7 and 8 April to consider the implications of the outbreak of swine flu at Fort Dix, New Jersey. That group issued five recommendations; one called for greater surveillance of the spread of the Fort Dix flu strain in humans and swine, and another raised the possibility of a campaign to eradicate the flu virus in swine.

The WHO experts did not suggest any particular technique of eradication, but the possibility of mass vaccination of pigs has been explicitly raised by B. C. Easterday, professor of veterinary science at the University of Wisconsin, one of the nation's leading experts on influenza in swine. Easterday's thoughts were first brought to the attention of an array of policy-makers at a 25 March influenza workshop held in Bethesda, Maryland, by the Bureau of Biologics. A federal health official at that meeting quoted Easterday as expressing the hope that national leaders, before making a final decision about how to protect the public from swine flu, would "consider immunization of all the pigs as the means of aborting this whole question of swine flu epidemics or pandemics in man—it would be far cheaper and more effective." Easterday himself has since called it a "bunch of poppycock" to say that he advocates vaccination of all pigs. What he does advocate, he says, is that federal officials confront the issue of what to do about flu in swine and either decide to do nothing, or vaccinate them all, or take some intermediate course of action. "I have no preconceived ideas of precisely what this ought to be," he says.

The question of vaccinating pigs was first seriously confronted by federal officials at a meeting convened in Hyattsville, Maryland, by the Department of Agriculture's Animal and Plant Health Inspection Service on 11 and 12 May. There it became apparent that many livestock experts are skeptical of the need, desirability, or feasibility of such vaccination. The vaccination idea is based in large part on the notion that swine may serve as a reservoir for an influenza virus that may ultimately strike at humans. Influenza was first detected in pigs in 1918, the year of the famous pandemic that killed some 20 million people worldwide. It is not completely clear whether the virus first hit man and then spread to swine or vice versa, or whether both were victimized by a virus originating in a third host. Whatever the case, the virus eventually disappeared from human populations but has infected the pig population ever since. Some experts have theorized that the virus—which has been "drifting" over the years from its original antigenic structure—might ultimately reemerge from the pig population and strike again at humans. They note that the human population has been losing its immunity to swine flu as those who were exposed in 1918 (thereby developing antibodies against the disease) die off. Thus the right set of circumstances—perhaps a change in the virus that would make it highly transmissible in humans—might set off another pandemic, according to this theory.

That is a notion which does not sit well with the pig producers. Instead of seeing the human population threatened by a pig disease, they tend to see the pigs threatened by human disease. As a statement issued by the National Live Stock and Meat Board, an organization financed by farmers and packing houses, put it: "There's much more conclusive evidence of transmission of influenza from humans to hogs than vice versa." That's stretching things a bit, but it illustrates the touchiness of the industry. The Meat Board, in fact, has been loudly protesting the use of the phrase "swine flu" to describe the new strain found at Fort Dix; it suggests that the disease be called "New Jersey flu" in the time-honored tradition of stigmatizing geographical areas, as in "Hong Kong flu" or "Asian flu." (New Jersey officials have declined the honor on the grounds that their state has more than enough problems to cope with already.)

The relationship between the flu viruses that infect pigs and humans was one of the major subjects of discussion at the recent Agriculture Department meeting. Several experts stated that the antigenic structure of the swine flu found at Fort Dix is very similar to that of the flu found in swine in recent years; both are somewhat different from, though still similar to, the virus believed responsible for the 1918 pandemic.