Ad-hoc Group on Data and Information

A summary of database protection activities

ICSU has become increasingly alarmed by the potential adverse effects of new intellectual property laws on the conduct of science and education. The traditional open access to scientific data, which is fundamental to much science and education could be jeopardized.

The situation with regard to new database protection has changed greatly in the past few months. It now seems unlikely that there will be an international treaty this year, although the World Intellectual Property Organization will begin to consider new treaty language in September. Instead, action on database property rights is shifting to individual countries. The European Union's (EU) Database Directive will come into force on 1 January, 1998. In the United States, new legislation will likely be introduced in the next few months.

What is being proposed?

The creativity or selection, coordination, and arrangement of databases is already protected under copyright. A "sui generis" right (i.e., a new type of legal protection) which would provide a second layer of protection, would protect the contents of databases (i.e., the facts themselves). Thus, all sorts of compilations of data or datasets that have traditionally been in the public domain for lack of sufficient "originality" (to make them copyrightable) will now be protected against unauthorized uses. Legislation that is intended to protect the property rights of owners of databases:

- Has been approved by the European Union
- Was considered in a draft treaty at the World Intellectual Property Organization (WIPO) last year
- Will likely be introduced to the U.S. House of Representatives this year

Is a sui generis protection, in effect a second layer of protection, really needed for databases? It is now extremely easy and inexpensive to copy and disseminate databases electronically. Moreover, databases that are produced by "sweat of the brow" may be expensive and time-consuming to produce, but they are not covered by copyright because they do not meet the test of creativity in the arrangement of data (e.g., phonebooks which use a simple alphabetical arrangement). Parts of the information industry believe that a sui generis right is needed to protect their investment in creating databases and to guard against piracy.

Impacts on science and education

The Database Treaty proposed at the WIPO Diplomatic Conference in 1996 would have established a new legal regime that could impose serious constraints on science and education, undermining the ability of researchers and educators to access and use scientific data. The Treaty would have:

- Permitted database compilers and publishers to restrict anything in their database.
- Prohibited unauthorized use of any substantial portion of a database, as defined by the database owner. As a result, scientists and educators might have to obtain permission and/or pay for each use of the database.
- Made perpetual protection the norm for databases because every change or addition to a database would be protected for 25 years and it is unlikely that old versions will be preserved long enough to enter the public domain.
- Allowed strong civil and criminal action on individuals who knowingly or unknowingly violated the Protocol. A scientist or educator who passes protected data to a colleague may be subject to prosecution.

The draft WIPO treaty on databases allowed participating countries to provide public good exceptions in their implementing legislation. Key exceptions were for the use of government-produced data or the "fair use" exemption traditionally enjoyed by the research and education communities for their limited use of copyrighted works. Participating countries, however, were not required to make any exceptions and it seems likely that different implementation practices would have made it more difficult for scientists to compile global or regional datasets, or to reuse and combine data for publication or instructional purposes. Moreover, the concept of "fair use" in a digital environment is still being defined and may not provide the level of openness that the scientific and education communities require.

WIPO developments

A draft treaty on Database protection was introduced at the WIPO Diplomatic Conference in December 1996, but no action was taken. In addition to the concerns raised by the international scientific community, some developing countries, which use significantly more data from other countries than they produce, are concerned that they will not be able to obtain the data they need. As a result of these concerns, WIPO is moving more slowly on a database treaty. Member countries have been asked to submit new treaty language to WIPO, and a series of meetings are being held to determine when a new treaty will be considered. It is our understanding that certain non-governmental organizations will also be invited to submit position papers before the final treaty is drafted.

European Union developments

The European Parliament has enacted a Directive which calls for member states to implement legislation to provide sui generis database protection by 1 January, 1998. In the absence of such implementation, the provisions of the Directive may be invoked directly in many countries by European database producers through the courts. Under the obligations of the EEA (European Economic Area) Treaty, EEA States (Norway, Iceland and Liechtenstein) must comply with European legislation in the field of Intellectual Property.

The EU Directive contains a reciprocity clause, which states that data provided by another country and used in Europe will only be protected if that country has equivalent database protections. Though this clause has been frequently cited as a motivation for legislation in other countries, it may violate the principles of the World Trade Organization.

The text of the Directive leaves room for Member States to create exemptions or limitations under national law to guarantee/safeguard the use of data and data sets by the scientific community. Article 9 of the Directive allows for such exceptions *inter alia*

> "(b) in the case of extraction for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial use to be achieved."

Similarly, Article 6 (2)(b) of the Directive leaves Member States the freedom to limit the copyright in databases "where there is use for the sole purpose of illustration for teaching and scientific research ". Article 6 (2)(d) also allows for application of "traditional" copyright exemptions. ICSU is concerned that an exemption for illustration would likely not provide sufficient access to data and information for research and education.

According to the EU Council Directive on the Freedom of Access to Information on the Environment [90/313/EEC, 7 June 1990 (*Official Journal* No. L158 Page 56, Volume 1990, 23 June 1990)] information on the environment, collected by public authorities, must be provided at a reasonable cost. The term *environmental data* is defined broadly to include information on air, land, water, natural science, etc., as is the term *public authorities* which is broader than government. The Environment Directive may be at odds with parts of the forthcoming Database Directive. The Group will examine the possibility of applying the Environmental Data guidelines to databases of interest to science and education.

US domestic developments

For reasons discussed above, the Information Industry Association, which represents the interests of commercial database producers, continues to support sui generis legislation in the United States. A bill is likely to be introduced in the U.S. House of Representatives in the next few months, and there appears to be sympathy for legislation in the U.S. Senate as well. Until a bill emerges from drafting, we must wait to see what provisions it contains.

The US Copyright Office has held a series of meetings "to discuss issues relating to proposals to protect the investment in databases under a sui generis regime", in order "to informally obtain the perspective of various interest groups and to assist the Copyright Office in advising the US Congress". The Office is engaged in a fact-finding mission in preparing a report to submit to Senator Hatch which may be submitted as early as mid-June. The report will report the current situation in the US and other countries and give the arguments pro and con. It will not contain recommendations and should be publicly available.

As part of the process, ICSU representatives met with the US Register of Copyrights on 12 May.

ICSU activities

1. The International Council of Scientific Unions (ICSU) established an ad-hoc Group on Data and Information to deal with problems of intellectual property rights and free access to data. The group

has been following national and international developments in database protection, and is working to present the views of science and education in intergovernmental forums.

2. ICSU's Committee on Data for Science and Technology (CODATA), which is concerned with both technical and policy issues in providing data to users, has had a longstanding interest in the international exchange of scientific data. Their Commission on Data Access is intended to be a small group that can act promptly in the face of fast-breaking issues. For example, in 1995, on behalf of ICSU, it argued for full and open exchange for science and education of meteorological data and related products at the Congress of the World Meteorological Organization.

3. The two groups met jointly at ICSU Headquarters in Paris on 16 - 18 June. One decision was to merge the two groups. Together, they bring expertise in legal, economic, and scientific aspects of database property rights. A report on the meeting has been submitted to the ICSU publication, *Science International*.

   The group also decided to:

   - Send a letter to the ICSU/CODATA community, including the ICSU Unions, Associations, and Academies, updating them on recent database developments and asking them to raise their concerns with their governments.
   - Prepare articles for *Science International*, and the *CODATA Newsletter*, as well as possible articles for scientific magazines, and the press.
   - Work to mitigate the impact of the European Database Directive, which is due to come into effect on 1 January, 1998. Activities will include a meeting at ICSU Headquarters in August of ICSU National Members from Europe, with participation by ALLEA, Academia Europaea, and the Council of Europe.
   - Prepare a position paper to be submitted to the September WIPO meeting on database property rights. The paper will develop an ICSU position on *sui generis* protection of databases and will include a number of "scenarios" that explain how scientists and educators use databases.
   - Send a delegation to represent ICSU at the September WIPO meeting in Geneva.
   - Continue this site on the World Wide Web, hosted by CODATA. The Group will look into the possibility of a mirror site in Australia, with other possible mirror sites to be established in the future.

   The groups have prepared a list of references relevant to database property rights.

Summary

The ICSU/CODATA group will keep this Web site up to date as the situation develops. Comments and queries are welcome. Please send messages to the chair of the group:

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