Database Protection and Academic Research

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What effect has the European Database Directive had in Europe to date?

Maurer, Stephen, Across Two Worlds: Database
Protection in the US and Europe, May 2001
(Commissioned study for Industry Canada)

1. quantitative comparison - 1164 database providers
in Canada, US, UK, Germany and France, 1993-2001
(data from Gale Directory of Databases)

2. extended interviews with academic scholars,
officials, practicing lawyers, and business executives
with first hand knowledge of EU Database Directive

Benefits of new national laws comporting with
European Database Directive

(a) one time boost in database production

(b) one time boost in number of new firms entering the
database industry

- since 1999, growth rates have returned to
previous levels

Side Effects of new national laws comporting with Database Directive

From the initial court decisions in enforcing the new legislation, legislation appears to provide
(a) excessive protection for certain databases (e.g. telephone directories, event schedules)
(b) new barriers to data aggregation

From the court cases and interviews, other probable side effects include:

(c) new opportunities for dominant firms to harass competitors with threats of litigation

(d) increased transactional gridlock and

(e) inadvertent impediments and disincentives for non-commercial database providers

Don't follow Europe until:

(1) we make sure that their database laws actually do work in supporting domestic economic objectives and

(2) Europe's further experiments in correcting their database laws over time actually work

Recommendation to Industry Canada:
     - wait until the results of Europe's database
      experiment become clearer

What are the practical effects on European and US scientists of the European Database Directive to date?

- confusion among scientists in how to adhere to the law

- does adhering to the traditional customs, mores, and activities in building on the works of others in order to advance science now make the scientist a lawbreaker?

Assume a scientist:

1. views empirical values obtained by other scientists published in tables in refereed journal articles,

2. accomplishes an experiment and arrives at her own empirical values, and

3. in a comparative assessment of results, lists empirical values drawn from tables in the other cited publications along with her own observations in a new electronic or paper publication.

 Under what conditions is this scientist a lawbreaker?

Plain language reading by scientists (and probably lawyers):

1. Object of Protection under the Database Legislation

… 'database' shall mean a collection of independent works, data, or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means (Ch I, Art 1:2)

Assessment:

- empirical values and measurements would appear to clearly fall within definition of "data"

- even non-original photographs or remotely sensed images would likely fall at least within the definition of "other materials"

"This directive concerns the legal protection of databases in any form." (Ch I, Art 1:1)

- clearly includes databases on paper (UNMS v. Belpharma Communication, Belgium, 3/99)

- for instance, paper telephone directories arranged in alphabetical order are clearly protected (France Telecom v. MA Editions, Paris, 6/99; KPN v.XSO, Netherlands, 4/97; Tele-Info-CD, German, 5/99)

Assessment:
-must assume that data systematically arranged in tables are protected, whether on paper or electronic

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What minimum number of data elements might be required to constitute a "database"?

- one can only assume a very small number

- an alphabetical list of 251 web links constitutes a database (Kidnet/Babynet, German, 8/99)

2. Subject Matter of the Sui Generis Database Right

- protects sweat of the brow assuming "there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents…." (Ch III, Art 7:1)

How much investment is required in order to be a "substantial" investment?

- deriving even a single empirical value in science typically involves a quantifiable amount of time, effort, energy or money

- a value requiring the employment of professional expertise would appear to clearly meet the requirement of a "qualitative" investment

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3. Scope of the Sui Generis Database Right

maker has a right "to prevent extraction and/or reutilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database" (Ch 3, Art 7:1)

How much of a database needs to be extracted or reutilized to be a substantial part?

- small amounts of data qualify as "qualitatively substantial" if the few data elements extracted are of substantial value to the end user (NVM v. De Telegraaf, Netherlands, 12/00)

- under such reasoning, virtually any extraction is likely to be legally substantial since you would not extract if elements were not of value

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4. Exceptions

- clear that most exemptions comporting with traditional fair use concepts unavailable (Ch III, Art 9)

Exemptions of extractions for teaching or scientific use?

Member States may legislate an exception for lawful users "in the case of extraction for the purposes for illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved" (Ch III, 9)

- what does "illustration" mean?

- exception is non-mandatory and therefore not all Member States have legislated
	- whole concept of uniformity in the law across Europe lost

- even if the exception applies, a lawful user "may not perform acts which conflict with normal exploitation of the database" (Ch III, Art 8:2)
	- since scientists are the normal market for scientific publications, when would conflict with an exploitation right not occur?

Conclusion:

- traditional method of scientific advancement by
extending from and building upon the data and
works of others appears to be substantially burdened
by the EU database legislation

Has our hypothetical scientist breached the new
European database law by carrying out the
traditional scientific practice of using data and citing
her sources?

- plain language and growing court cases suggest,
yes

- did I just breach the law?

without permission I took data from
http://www.ivir.nl/medewerkers/hugenholtz.html

**If some similar form of database legislation is
imposed on scientists in the U.S., what will be
their response?**

The typical scientist is conservative

… will not want to violate the law
… will not want to fight the law
… will not want to be bothered by the law

Option 1 - Each time a scientist or student wants to cite or aggregate factual data and observations reported by other scientists, scientist will obtain permission from scientific publishers and pay royalties

Unlikely (if other options exist)

- too much bother (too heavy of a bureaucratic and economic burden for little to no return in advancing science)

- goes against mores of science developed over hundreds of years (inherent need for full and open disclosure and need for detailed peer critiques in science)

-goes against notions of fairness

- makes no sense

Option 2 - Work around the law

One example: public library of science initiative
            http://www.plos.org/

- approximately 16,000 scientists signed on within weeks vowing to not publish in journals that don't allow their articles to be openly available in archives within 6 months of publication

- working group developed an "open access" license

Intent: conditions of copyright established for articles prior to submission for scientific publication

Basic premise: negotiate any conditions you want prior to and through publication but the open access license tolls six months after publication and cancels all other contractual conditions

- now many such licenses exist … most prominent are cc licenses

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Scientist Perspective:

    highly reasonable balance supporting both scientist and publisher needs

Publisher Choice:

    accept articles under such conditions or reject such articles from your peer review process

Will organized scientist effort succeed?

Many, many alternatives already being pursued by scientists for working around default laws

- preprint before submission and peer review

- applying open source movement to other forms of intellectual property (i.e. creative works as well as data)

- information commons movements

- numerous archiving and digital library efforts (D-space, Fedora)

- Napster and Gnutella-like data file sharing arrangements among large groups of scientists

Bottom Line:

"unfair competition" approach to database protection that largely leaves the science community alone would be far more palatable to science community