

# **The Impact of Electronic Publishing on the Academic Community**

## **Session 2: Legal and political issues**

### **Copyright principles in a digital scientific world**

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#### **The nature of copyright**

Copyright is an exclusive right comparable with a property right and embracing moral rights and property rights. Hence, it constitutes a basic and human right which in most countries enjoys protection by constitutional law. Copyright protects the creators of literary works, of scientific and artistic works (text, music and pictures, but also databases and computer programs) as well as certain producers of cultural emanations (in particular performing artists, phonogram and film producers, broadcasting companies).

Copyright guarantees creators and producers both control over and participation in the commercial exploitation of their protected works and achievements; in contrast with property in tangible objects, basically speaking creators have the right to permit or prohibit not only the first but also every additional exploitation of their works.

Even before the digital age the copyright industry generated approximately 5% of industrialized nations' gross national product (GNP); future digitization developments will give rise to a further increase in this percentage. Hence, copyright will gain considerably in significance as regards securing employment and the industrial future of our societies.

#### **Problems in connection with digital use of works**

Digital technology enables protected works and achievements to be copied without any loss in time or quality; an additional problem is the vulnerability of digital data regarding manipulation ('digipulation') by third parties. This leads to a considerable loss of control in data representing protected works and achievements that can be --- legally or illegally --- accessed by third parties. This loss of control is even greater as regards online media (the Internet, proprietary networks, intranets, etc.) than it is for off-line media (disks, DAT, CD-ROMS, DVD, etc.).

Owing to the fact that the language of all national copyright acts is directed at analogue exploitation technologies, certain lacunae, and in numerous cases uncertainties, arise with respect to the exploitation in digital form. The same applies at the international level, for global digital networking is characterized

by the ubiquity of the works fed into the Internet, yet a global copyright will not exist in the near future. Rather, problems will continue to be regulated by a bundle of co-existing national copyright laws, giving rise to the necessity of worldwide harmonization as regards both substantive law and issues of applicable law, international jurisdiction as well as the effect, recognition and execution of national judgments in foreign countries.

## **Interests involved**

From the perspective of rights owners, a loss in control and uncertainty in legal issues may well entail reductions in investment activities. On its part this could lead to an undesirable restraint regarding investments in the digital infrastructure and in attractive digital products. Another reason for such a restraint is the fact that at present the manner and extent of the replacement of analogue by digital exploitation --- which will continue to co-exist --- cannot be foreseen with any degree of certainty. Moreover, there are divergences between the creators and producers as to the division of rights on the suppliers' side. Contrary to continental European traditions --- protecting the author as the original creator and weaker contracting party --- producers aim to acquire all the rights at once and on a centralized basis from the authors ('buy out' in a 'one-stop shop'). Furthermore, a distinction has to be made between 'scientific' and 'commercial' publications. As regards scientific publications, authors hardly need copyright as an incentive to continue their research activities. In addition, scientists aim to achieve the widest dissemination possible for their scientific findings; excluding possible readers, or allowing them access to scientific information only against payment of a fee, is just not what they want. However, it should not be overlooked that even as regards publishing for scientific purposes, publishers are in need of copyright in order to protect their added value. As regards purely commercial publications, such as textbooks, reference manuals, etc., it would seem that both scientific authors and their publishers are in need of copyright protection.

On the other side of the fence users of protected works and achievements fear that such a strengthening of legal protection would result in their gradual exclusion from enjoyment of copyright works and that access even to unprotected information would be unduly blocked. Reference is made to the fact that the extension of copyright protection would render a large number of acts that as yet do not require consent subject to the consent of the creator. Libraries in particular have joined the users' side, for in accordance with their present activity they wish to lend not only analogue books but also participate in digital information transmission; yet this means that they will become direct competitors of producers (publishers, but also authors and sellers of analogue material and of products in material form). The same holds true as regards independent information providers who make use of preliminary work undertaken by third parties.

To a much greater extent than all other authors, scientists and researchers find themselves in a dual position: they depend on information controlled by third parties (and are therefore users of protected subject matter) before they can create their own scientific output (and thus become authors of protected subject matter). It may indeed be tempting for scientists to speak up against strong copyright protection in the digital environment, since this would facilitate access to protected works. However, such an approach has its dangers, since --- although it may well suit the interests mainly of natural scientists --- it severely undermines the interests of researchers in the humanities, for whom the royalties generated by their publications are an indispensable source of income. A solution should not be sought in curtailing existing rights, but in drafting an appropriate, research-specific exception to broad exclusive rights, in improving rights management and in balancing opposing interests by appropriate contractual language.

## **Recommendations**

Consequently, the following principles should be observed in order to attain adequate copyright protection.

First, the legislature is called upon to remedy lacunae and uncertainties in national copyright acts and, at the international level, to further global harmonization of copyright law. The conclusion of the TRIPs (Trade-Related Aspects of Intellectual Property Rights) agreement and of the two WIPO (World Intellectual Property Organization) treaties (WCT [WIPO Copyright Treaty], WPPT [WIPO Performances and Phonograms Treaty]) represents a first step in respect to substantive law. In this context, particular attention should be paid to attaining a balance of interests.

Secondly, promotion of rights holders' initiatives with the aim of providing information on the ownership of rights in individual works, facilitating access to works while developing additional technical protection.

Thirdly, it is the responsibility of practitioners to adjust copyright contracts to the changing technological situation in exploiting protected works and achievements. This includes the development and implementation of new models of centralized rights management in addition to the existing system of collective administration.

These principles may further be described as follows. Contrary to prognoses to the contrary (e.g. Negroponte), copyright will prevail in the digital world as a vital instrument of cultural and economic control. There is no need for a fundamental new system of attributing rights on immaterial goods that are of such significance to commerce and society as a whole.

Uncertainties regarding the application of current copyright laws should be resolved. In principle, copyright law should be strengthened and not undermined, for defective or a total lack of copyright protection means that necessary investments cannot be amortized and as a result will not be carried out. Without attractive products, the future development of the information society's infrastructure is endangered. However, this does not exclude the definition of well-balanced exceptions to the exclusive rights. It goes without saying that, as a rule, legislative language should avoid being technology-specific, and it should be open to changes regarding the economic relationships between the parties involved.

Of course, the loss in control will only be compensated in part by strengthening copyright protection; over and above this the answer to the problems posed by new technologies must be sought precisely in these technologies ("the answer to the machine is in the machine"). There is, however, a certain danger that in the long run, access possibilities will be controlled by technical devices rather than by well-balanced copyright rules.

Strengthening of legal protection and the demand for technical access, control and accounting mechanisms does not preclude the future co-existence of legally protected and 'unregulated' spheres (such as the Internet or scientific publications, where authors would not wish to exercise their exclusive copyright). In addition, it should be remembered that unfettered access to information does not necessarily mean that this access will be free of charge.

Finally, one should note that the necessity of global harmonization of laws caused by developments in technology restricts drastically the space for national regulatory policy. This applies not only to the field of copyright law but to all legal matter affected by networking. The price to be paid for any attempt to uphold national legal particularities will be a decrease in international enforceability of rights.