

# Policy Questions Concerning the Legal Treatment of Copying and Dissemination through Digital Networks<sup>11</sup>

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## **Goods and services**

One of the major distinctions made in the law, is that between goods and services. Roughly speaking, “goods” is a general term indicating physical objects – tangibles, chattels, movables, the terms used in law are numerous. “Services” is often understood in opposition to “goods”, what is not “goods” are services. This may be personal services (like hair dressing or legal counsel), but again “services” are too numerous and heterogeneous to be listed easily. The distinction is often made in such a way that the two terms cover the whole area of the law in question; something has *either* to be goods *or* services. One may find this distinction in different areas of law – for instance the law applied to the sale of goods (which does not necessarily apply to the provision of services), the law of value added tax (in many jurisdiction, at least initially trade in services were not subject to VAT) and other areas of tax law. The distinction is not necessarily made identical in detail in different areas of law, but is nevertheless related.

Information technology has made it possible to replace goods with services. A trivial example, but a very clear one, is the fax machine. At the sender’s, the fax machine will scan a document, and resolve the page into a matrix of very small squares or picture elements (pixels), typically at a resolution of at least 300x300 dpi (dots per inch). To each pixel is assigned a value, indicating whether the pixel is black or white. The resulting binary code can be transmitted through a telecommunication system to the receiver, where another fax machine will be supplied with blank paper and a toner. Using the data received, the machine will then reproduce the original page (with the exception of a possible loss in resolution). This system has replaced the forwarding of a physical object – the original page – with a service, the communication of a string of signals along a telecommunication link. It has the same functionality as the traditional mail, but has

<sup>11</sup> Address offered to ALAI Budapest 14–17 September 2003. This essay differs from the oral presentation made during the meeting.

resolved this functionality through a telecommunication service rather than the transport of a physical object.

In copyright law, the notion of a “copy” is basic. Tracing copyright back to its origins, one of the roots is the Venetian system of “patents” or exclusive rights granted by the Republic to beneficiaries, introduced around 1500.<sup>12</sup> Until the introduction of the printing press, the ownership of a book could be governed by the same law as governed the ownership of any precious object. But when the printing presses multiplied in Europe during the latter half of the fifteenth century, new issues relating to the trade in books arouse. For instance, a printer finding an ancient text, and perhaps translating it into a modern language, might find that the text becomes popular. This would tempt other printers to copy the text, and printing it themselves to have their share of the success. This was solved by the Venetian “patents”, where printers were given an exclusive right to print a certain title. Occasionally, also others were given such an exclusive right, it is known that the Italian author Ludovico Ariosto in 1515 was given an exclusive right to have printed his marvelous novel *Orlando Furioso*,<sup>13</sup> making Ariosto one of the first authors to have an exclusive right to reproduce his own book. The Venetian system made its way to other countries, emerging in England organized by the Stationers’ Guild in the registers of Copy Rights.

In the context of this small essay, the point is that this early emergence of copyright<sup>14</sup> was related to the sale of goods. The printed book was, perhaps, the first mass produced product, and the legal regime was developed to contain and regulate the trade in these products.

Therefore there was no question that a copy was an example of goods, though one should hasten to add that the dual regimes of property and intellectual property law would restrict the use an owner may make of the copy in a different way than with respect to other types of goods.

Then information technology came along, and the notion of a copy became more of a problem, elegantly caught in the title of an early paper by Michael S.

<sup>12</sup> Cf Mark Rose “The Author as Proprietor: *Donaldson v. Becket* and the Genealogy of Modern Authorship”; Brad Shermant and Alain Strowel (eds) *Of Authors and Origins*, Clarendon Press, London 1994:24–55, see especially page 28.

<sup>13</sup> Cf Mark Rose “The Author as Proprietor: *Donaldson v. Becket* and the Genealogy of Modern Authorship”; Brad Shermant and Alain Strowel (eds) *Of Authors and Origins*, Clarendon Press, London 1994:24–55, see especially page 28, where the date 1515 is given for the granting of the privilege. Lin Carter “The Ring of Angelica”, introduction to *Orlando Furioso* translated by Richard Hodges, Pan, London 1973:xiii gives the publication date as 1516.

<sup>14</sup> There are other traditions not discussed here, especially the tradition usually indicated by the phrase *droit d’auteur*.

Keplinger “The case of the invisible copies”.<sup>15</sup> Obviously, data represented in magnetic form on tapes, and later on disks were invisible – but they were stored in an enduring way on a medium. The combination was still some type of goods, though the ease with which the representation could be reproduced divorced, in some sense, the copyrighted work from the storage medium, and emphasized the intangible nature of the combination of work and storage medium.

This became even more difficult when one considered the volatile representation taking place when copyrighted works were temporarily cached in servers, typically when communicating material through a packet switched network like the Internet, or when reading the material from a hard disk and caching it in the CPU of a work station for display. It was discussed whether this representation should qualify as a copy, or rather be classified as a fleeting representation like a mirror image of a painting not sufficient durable to be a “copy”. It may also be argued that the legal discussion did not sufficiently appreciate the underlying technology. When communicating a work through a packet switched network, the packets will be stored on an intermediate server only for brief periods, and it would be rare that a sufficient number of packets were simultaneously stored on the same server to constitute a sufficient substantial part of the work to be represented by these packets to imply a possible infringement. And a CPU would generally use a virtual memory which paged data out of the primary CPU storage without the control of the user, making it difficult to decide that the cache actually contained a representation.

But such considerations are part of a discussion now in the past, for Europe the directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society, which in Art. 2 qualifies such volatile representations as “copies”, and make exceptions in Art. 5(1) from the exclusive rights for such temporary reproduction as exemplified in the brief reference to caching above.

However, this removes the notion of “copies” from the category of “goods”. Systems providing copyrighted works in this way cannot properly be understood as a trade in “goods”. The work has been separated from the storage material, the ease of copying and making the work available across a communication network make it inappropriate to emphasize the “copy”, though there will be representations throughout this process which are qualified as “copies”. Purchasing a license for a literary work should not be described as the purchase of a “file”, where this “file” has the same function as a “copy” in the analogue environment. It should rather be described as the purchase of a certain *legal position* with

<sup>15</sup> MS Keplinger, “The case of the invisible copies”, *Revue internationale du droit d’auteur*, October 1970:3–31.

respect to the work, this legal position defined by the license rather than derived from the notion of a “copy” being subject to the transaction. To some extent, describing trade in copyrighted works in a digital environment using the notion of “copy” as a basis, would be to employ a *metaphor* taken from the analogue world. And legal discussions, at least with the sophistication necessary to analyze this situation, should be based directly on the facts rather than on a metaphor for what is going on.

### **Exhaustion as an example**

”Exhaustion” is a reference to the doctrine that the exclusive right in a copy of the work is delimited when that copy is sold to a third party.

There are somewhat different criteria in different jurisdictions to determine when the exclusive right is exhausted, in Europe the criterion is the act of “sale”, which – for instance – excludes exhaustion in copies made available to depository libraries according to law: Such copies are not sold, and the exclusive right is therefore not lost. There are also different notions for which territory the right is exhausted, typically the European Union has introduced the notion of regional exhaustion within the community, while other countries may rely on the notion of universal exhaustion. In our contexts, these variations are of minor importance.

The general point is that exhaustion presumes that a “copy” is being traded. As the sketchy discussion above has tried to indicate, the notion of a “copy” is lost in the trade in a digital network environment. Therefore there will be no exhaustion.

This may also be the point of departure. But the situation is in reality more complex.

The traditional situation for literary works presumes that a printer reproduces a rather large number of copies at the same time, using conventional reproduction technology. This would reduce the costs per copy, though introducing the risk that the edition was too large, and that the publisher would be stuck with unsold copies. As the technology developed, the advantage of printing large editions at one time was reduced, and today one may have systems which print on demand – only when a customer asks for a copy, the copy is reproduced.

Still a copy is being sold, and there would be no problems in applying the doctrine of exhaustion to a situation where only a few copies, or only one copy, were reproduced on request.

Such reproduction can be made by different systems. One example is a modern “photocopying”<sup>16</sup> machine, where an original is copied and the resulting copy is

<sup>16</sup> Whether such machines really use “photocopying” methods is the cause of the quotation marks.

bound and sold. Another example would be a laser printer, where the original is machine readable, and a copy is printed and sold on request. This still poses no challenge to our understanding or application of the doctrine of exhaustion.

Obviously, the request may be made at a point in space which is far removed from the location of the machine on which the original is available. We may imagine a publisher establishing a network of retailers who one may approach to purchase a copy. The retailer will then place an order for the copy through a network, and the work is reproduced locally by equipment at the retailer's. This really may be seen as extending the internal wiring in the reproduction system – rather than being short and bringing the printer physically close to the storage unit, the wires become very long, separating the storage unit and the printer by a great distance. In principle, it is exactly the same process. And when the user is presented with a copy across the counter, there is still no problem in seeing this as the purchase of a copy subject to the doctrine of exhaustion.

The example may easily be varied, the request is not made at a retailer's, but at the work station of the purchaser. The situation is very similar to the one based on printing on demand at a retailer's. The difference is really only the perceived control of the right holder with respect to the situation. If we presume that the right holder is able to provide the work in such a way that the purchaser only is able to print one copy at his or her work station, it would seem that we have a situation which may be equal to the one where the copy is purchased at a retailer's. We then have a situation where the subject of the purchase is a copy, and the doctrine of exhaustion may be applied to this copy of the work.

Whether the right holder is able to control the use of the work to such a degree that only one copy is printed at the purchaser's end, will rely on the digital rights management system available. Today, such a control is hard to secure. Therefore, the example may also not be realistic in technical terms. However, this may only be an intermediary situation until DRM systems are sufficiently well developed to exercise the necessary control.

More important, probably, is that there may be little interest from right holders or purchasers to introduce DRM systems with such restrictions. As indicated above, if you are trading in intellectual property within a digital environment, what you purchase is really a legal position with respect to a work. The doctrine of exhaustion may be seen as a default legal position in a situation where there are no practical possibilities to negotiate (1) the legal position the purchaser wants to obtain, and (2) the price the right holder demands for a certain legal position.

With the introduction of appropriate DRM systems, there will be considerable flexibility in what legal position may be purchased: The purchaser may want to obtain the right to one hard copy only, but may also want to obtain the right to reproduce a limited number of printed copies, to retain a machine readable copy,

perhaps for a limited time, to make the work available within an intranet set, *etc.* The digital environment will permit the parties to negotiate and form binding contracts, where details in the license agreements are set out.

In such a situation, the doctrine of exhaustion will be of little importance. The provisions in national copyright legislation governing exhaustion will typically stand back for contracts explicitly regulating the issue. In the analogue environment, such contracts were only negotiated for very special cases of works – one example would be large and expensive computer programs subject to individual negotiations. In the digital environment, such contracts would be commonplace, and they would be overriding the doctrine of exhaustion by explicit rules. In this situation, the problems indicated by the slippery slope from conventional printing to printing on demand at the desk of the purchaser, would become only a curiosity.

The notion of a copy probably would still be important to copyright law, but would not be as essential as it was in the conventional environment.

### **Using electronic agents for the trade in copyrighted works**

There are several presumptions made in the discussion above. We still have to gain experience with digital rights management systems, especially for open networks and for purchases not presuming the existence of some specific hardware (like a reading device, a music player, *etc.*) at the purchaser's end. Another presumption is how a purchase takes place – it is easy to presume that it will take place in the same way as click-wrap licenses today are negotiated: The purchaser gains access to a web site, reads the provisions, ticks off boxes indicating his or her choices of conditions, and concludes the contract. This is the presumption, for instance, basic to the Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the internal market.

It is suggested that this may be too conservative. For instance, the emerging agent technology may provide a more efficient way of trading in legal positions with respect to copyrighted material.<sup>17</sup>

An electronic agent is a computer program which may be launched by a user to retrieve material characterized by variables specified by the user. These may be variables sufficient to identify a copyrighted work by author, title, *etc.*, and typically using auxiliary databases to identify the addresses of the sites offering

<sup>17</sup> Cf. for an introduction to several issues, Jon Bing and Giovanni Sartor (eds) *The Law of Electronic Agents*, CompLex 4/03, Norwegian Research Center for Computers and Law, Oslo 2003.

such material. The variables may also contain characterization of desired properties of the material the user wants to purchase, for instance by key words or phrases occurring in a literary work. Anybody familiar with a search engine like Google on the Internet will have a rough idea of how this works.

In addition, the agent may have programs that allow the agent to negotiate for the terms of a license. Price may be compared to the scope of the license, and the agent will have a certain leeway of choice to make binding contracts. The agent is often characterized as “autonomous”, this may be seen as a reference to the fact that it may interact in a complex context which makes it difficult to foresee the outcome of its action, or simply that the user will not make the effort really to attempt foresee all possibilities – it is exactly to be relieved from this that the user employs the agent.

Using agents will make purchase much more efficient and easy. Behind the scenes there will be the complexity of the agent itself, its interaction with other agents, and its interaction with DRM. From the user’s point, it will be easy – a task will be set for the agent, and the result will then become available for the user within a short time, perhaps fractions of seconds, at the same time the payment will be deducted from the user’s account, and the DRM of the user will ensure that the agreed licensing terms are enforced.

In this environment, we see the emerging importance of instructions directed *not* towards users, but towards agents and similar programs. An example may be *eBay, Inc vs Bidder’s Edge, Inc*<sup>18</sup> which related to the auction service offered by eBay. Bidder’s Edge offered a service which would allow the user to specify what the user wanted to purchase, for instance a used car, employing variables as manufacturer, model, age, *etc.* The agent of Bidder’s Edge would then access a number of web sites offering such items, and present the results in a table for the user’s inspection. The user could then make a choice, and access the relevant site in order to conclude the deal.

eBay did not want to permit this practice, and won the preliminary injunction. In our context, it is of interest to note that one of the elements on which the court based its decision, was the inclusion in the root of eBay’s data base of a “robot exclusion header”. This is directed towards the programs (the robots) providers like Bidder’s Edge use to access eBay’s database. The case may be seen as an example of such meta-instructions gaining legal recognition.

<sup>18</sup> Preliminary injunction, United States District Court of the Northern District of California (No C-99-21200 RMW) 14 April 2000.

A *robots.txt* file has a first part specifying the robot, and a second part consisting of a directive, disallowing the robot to index files or directories. A simple example would be:

User-agent: googlebot

Disallow: cheese.htm

This is addressed to the robot “googlebot”, and directs the robot not to index the file “cheese.htm”.<sup>19</sup>

The Directive on electronic commerce governs several legal aspects. One of them is the liability of intermediary service providers (Sect 4).

The Directive of Electronic Commerce specifies in Article 13(1) among the conditions for the operator of the caching service to avoid liability:

(b) the provider complies with conditions on access to the information;

(c) the provider complies with rules regarding the updating of the information, specified in a manner widely recognized and used by industry;

The preamble to the Directive does not explain what types of “manners” the article refers to, but it may be argued that the wording implies that certain elements included for interpretation of computer programs only, have been made relevant for determining the liability of the providers of a cache service. Typically, there may be meta-tags in the HTML-coding of a site which is only directed towards computer programs, to govern their use of the material made available. These are indeed a way of specifying actions with respect to the site in question widely recognized and used by the industry.

It may be argued that this gives a glimpse of a new legal regime where the provisions of the WTC on technical protection measures and copyright management information are only the beginning of a development, the emergence of a new legal regime for the trade of copyrighted material (and other types of intellectual property) in the digital environment. We may in this development find that notions which have been important to copyright law – like “copy” – become less central, and completely new notions are brought into focus, notions which are closely related to digital management systems and their interaction with other systems developed to facilitate the trade in this new market place.

<sup>19</sup> Cf [http://www.searchengineworld.com/robots/robots\\_tutorial.htm](http://www.searchengineworld.com/robots/robots_tutorial.htm).