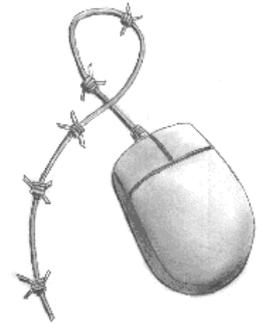


GreenNet CSIR Toolkit Briefing no. 7

Intellectual Property

Protecting ideas in the new information economy

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<http://www.internetrights.org.uk/>



The information economy

Economies are based on the trade and exchange of commodities. In today's new *information economy* ideas are becoming more and more valuable as commodities. This information economy is based upon a new framework of *intellectual property* (IP) rights.

Intellectual property constitutes the ideas, designs, inventions, or concepts created by a person or organisation. The framework of IP rights extends to cover such things as corporate brands, the development of e-commerce, and the increasing consolidation (or *convergence*)¹ of media and telecommunications corporations.

Globalisation has, for the most part, centred around the principle of free trade, and facilitating ease of transactions between the economies of nation states. But behind this lies a more significant revolution. Reforms in world trade have aimed at freeing up the movement of material commodities; reforms of intellectual property laws, on the other hand have aimed at doing the opposite, by reinforcing the rights of one group over another in order to protect monopolies on products or designs.

Changes to the framework for IP rights have, for example, allowed commercial 'ownership' of human genes, and have facilitated the increasing use of patents to control the use of new technologies in countries across the globe. These changes have also been instrumental in imposing new controls over the use of information on the Internet.

Issues of IP rights play an important role in potential developments and restrictions on the Internet. The exercise of certain aspects of IP rights represents a serious threat to the concept of the Internet as an open and accessible common space. As a result there is a growing backlash against the whole notion of intellectual property, evidenced by recent protests over bio-patents, for example, and the rise of *open source* and free software movements. New ways can be found to overcome obstacles and to use the IP framework to subvert control of information in the public domain.

What is intellectual property?

Most societies implicitly recognise ownership of commodities, land or objects. These are tangible, in that they can be identified as physically existing in the material world.

The term *intellectual property* covers ideas, concepts, creative processes, and things that result from them.

¹See GreenNet CSIR Toolkit Briefing no. 11 on *Media Regulation and Convergence*

Intellectual property law is therefore primarily aimed at controlling the use of such things created by the work of an individual or organisation, and at ensuring that the benefits of the use or copying of the goods resulting from those works are transmitted back to their originators.

The concept of *intellectual property* began as a means of recognising an author's creation of a work - usually literary or artistic - and their right to any benefits that might arise as a result of the sale of the work. The first UK copyright law, *The Copyright Act*, was introduced in 1709. But it was not until the nineteenth century that intellectual property became an important part of industrial economic practice.

The requirements of the business world were markedly different from those of the arts world, so new concepts of intellectual property, such as trademarks, were developed. The recent development of computers and information technology, and especially of the Internet, has pushed the bounds of intellectual property still further; global agreements have recently been reached for the protection of IP rights within computerised databases.

Intellectual property laws and regulations centre on the following categories:

- *Copyright* - the control over literary, artistic and other works;
- *Patents* - the control over new technological innovations;
- *Trademarks* - the control over names and logos; and
- *Databases* - the controls over the assemblage of information.

We will look at each of these in turn in the sections below.

The increasing globalisation of economic and trade standards has provoked radical changes in countries with few previous controls over intellectual property; recent examples are controversies over the manufacture of proprietary drugs in Africa and the pirating of music and video in eastern European countries.

The first international agreement on intellectual property was the *Berne Convention* in 1886. Today, the World Intellectual Property Organisation (WIPO),² a group established through the United Nations, carries out the work of developing international IP standards. Its most recent revision of the Berne Convention in 1996 was intended to update IP rights for the Internet age, and to assist the development of the *information society*. That model is already being challenged, however, by new developments on the Internet such as *peer to peer* networking (like the Napster music sharing network).

Another significant global agreement is *TRIPS*, the *Trade Related Aspects of Intellectual Property Rights* agreement, made in 1994 as part of the General Agreement on Tariffs and Trade (GATT) 'Uruguay Round' negotiations.³ TRIPS provides protection for IP rights, and especially for the technological designs and systems upon which the information society is based.

TRIPS extends the protection of intellectual property from *original works* to any *intellectual creation*. In doing so it extends copyright protection to cover databases, which are in effect intellectual creations of other (usually) "original" works. This also sets up rights in relation to such things as the technical design or operation of web sites and e-commerce systems. The TRIPS agreement also strengthens protection for "undisclosed" information through the use of copy protection or encryption systems.

The nature of the Internet system challenges traditional concepts of intellectual property. Copyright aims to control the copying and distribution of works, for instance, while the Internet functions through the multiple copying and transmission of information. Web pages, for example, are defined in one location but can use

²WIPO - <http://www.wipo.int/>

³*An Overview of the TRIPS Agreement* - http://www.wto.org/english/tratop_e/trips_e/trips_e.htm

text, images or even multimedia clips belonging to sources from elsewhere. A single page on the Internet, therefore, may represent not only the intellectual property of those who created it, but also of those to whose works it links (and who can claim to have *third party rights*).

Like any other property, all works are assumed to have an *owner* who controls the rights to that work, usually for a specified period of time (up to seventy years after the death of the author in the case of copyright). With increasing emphasis being laid by society on the importance and commercial value of ideas, the control of intellectual property will become crucial.

This means that IP law is likely to become even more restrictive, not only in terms of controlling who accesses information (and reinforcing existing divisions in society based on material property) but also who can use it.

The embedding of information within data that people receive (justified as a means of tracking down unauthorised use and thus of protecting intellectual property) could also enable closer surveillance of our everyday communications in the networked world. Clearly, there are important implications here for privacy and civil liberties implications.

Recent moves (as mentioned in the opening section above) in protest against the continued extension of IP rights do not aim to overturn the traditional framework of protection; rather, they seek to set the notion of control on its head through establishing controls over the financial exploitation of a work, but enabling the free exploitation of the work everyday non-commercial purposes within civil society.

Copyright

The extent of copyright

The UK *Copyright, Designs and Patents Act 1988*⁴ establishes the rights of originators of a variety of works. They encompass:

- Literary, dramatic, musical or artistic works;
- Sound recordings, or recordings of moving images (whether film, video or broadcast);
- The typographic arrangement of a published edition.

These broad categories cover other sorts of works. Computer programmes, for instance, are regarded as "literary works". Multimedia products may come under sound recording, moving image and literary works. However the work is classed, the requirement is that:

- it be recorded - that is, it be written, printed or encoded in a machine-readable form, regardless of how permanent that form is;
- the work is original - this covers practically anything someone might create, so long as it is not a copy or significantly reproduced from another work;
- the person creating it qualifies under UK law as holding the rights to the work - essentially this means that they must have been in the UK when they created it, and that the work must have been originally produced in the UK.

⁴This Act has actually been amended a number of times since 1988, so be aware that just getting a copy of the 1988 Act is not sufficient - you'll need all the amending legislation too. Up-to-date legislation, with all the amendments provided for you, can be found in the book, *Blackstone's Statutes on Intellectual Property*, published by Blackstone Press.

There is an assumption that the person who creates a work is the owner of all rights to that work. The exemption to this principle is where an employee creates a work as part of their job, in which case the rights to that work belong to their employer. The position of consultants occupies a grey area in the law, so it is usual when for employers to require all rights of work done by consultants to be turned over to them as part of the service provided.

The owner of the rights to that work may assign, transfer, give, bequeath or license the work to another. This is a fairly open process. The transfer of exclusive rights usually requires some written evidence in order to be legally binding, but non-exclusive licensing does not. Non-exclusive licensing (for example, for the use of a book or a computer programme) usually only requires a statement as to the conditions of the licence by which use of the work is controlled.

Until 1995, works remained in copyright for a period of fifty years. New regulations in 1995 and 1996 extended the period of copyright to seventy years from the death of the work's creator, or in the case of collaborative works such as film or television, seventy years from the death of the last member of the principle production team (the producer, director, screenplay writer, etc.).

Breach of copyright

It is a fairly simple matter to breach a copyright. The law distinguishes two forms of breach:

- A *primary breach* is where someone deliberately breaks the terms of the licence under which they obtained the work, or uses the work without the permission or licence of the work's owner. This therefore includes:
 - *Copying of the work - the owner of the work has exclusive rights to copying and any copying outside of that permitted by them is a breach of copyright,*
 - *Making adaptations - this is where a person takes the work and makes modifications to it for their own purposes,*
 - *The issuing of copies to the public - this includes lending, rental, leasing, etc., and importing works from elsewhere in the world for sale in the UK (the so called grey market); the latter is very complex - controls and exemptions vary depending on the class of work involved.*
- A *secondary breach* is where someone infringes the rights of the works owner, following a primary breach by another person. This means:
 - *Dealing in infringing copies - this is when a person knowingly distributes copies of the work which are in breach of copyright,*
 - *Providing articles for the making of copies of the work - this does not mean that a person provides a device or tool to circumvent the proprietary copy protection features of a particular work (this applies especially to copy protected or encrypted software),*
 - *Related to the above, the circumvention of copy protection - which essentially means the creation of tools to circumvent the copy protection measures used to protect a work,*
 - *Facilitating infringement by transmission - which means the transmission through any form of telecommunication of a copyright work without the permission of the work's owner; transmission of material across the Internet is a good example of this.*

When a breach of copyright is identified, the owner of the work can institute civil proceedings to prevent the breach, and recover damages that represent the loss of value or income that the breach creates (criminal proceedings can only be taken out by the police or the state). It is usual to seek a court order/injunction to prevent any further breach of copyright. If you breach an injunction this constitutes contempt of court, which can be dealt with as a criminal offence.

Once an injunction is served a date will be set for a court hearing, where the case for breach of copyright

will be heard and must, on the balance of probability, be proven. If so, the court will award damages, and may also issue further court orders for the destruction of the infringing copies of the work.

It is possible, in certain circumstances, for the state (usually local government trading standards departments) to take criminal action against those infringing copyright. This is aimed at people who, as a commercial venture, deliberately produce or import pirated or copied works for sale (such as videos and CDs, etc.).

If a person receives any notification other than an injunction (injunctions must be obeyed upon receipt, and not to do so is contempt of court, irrespective of whether they are subsequently upheld), then they do not immediately have to remove or discontinue use of the material. Before any action can be taken to stop the use of a work, a person who accused of breach of copyright is entitled to prove or evidence that:

- those making the complaint are the owners of the rights to that particular work. Some form of proof of those rights could be required (such as when rights to the work are licensed by the work's owner to another party, and that party then seeks to take action);
- the alleged breach of copyright is the result of the actions of the person accused (in the case of a primary infringement) or that the person had knowledge that by their action they were assisting in the breach of copyright (in the case of a secondary breach);
- the breach is not covered by any "fair dealing" or "assumed licence" (see the following section) that is implicit by the manner in which the copyright work has been made available,

Outside the civil proceedings of a court, it is for the owners of a work to make a case as to why the use of a work infringes copyright. Those using the work do not have to stop the alleged infringing uses of the work until the copyright owner conclusively shows that they never gave any right or licence to the person for the use of that material, and that the use constitutes a breach.

Copyright and the Internet

The Internet poses a big problem for copyright owners. The use of material on the Internet would, under a strict interpretation of the law, automatically constitute copyright infringement, even if the owner were to put it online themselves. To view a web page, the content of the page must be copied to a computer via a number of other computers along the route of transmission before it is displayed. This will usually result in the work being stored, albeit temporarily, on the viewer's computer. They may also make copies, save it to disk, or print it out. There have been no court rulings so far which reconcile this contradiction between law and practice.

For the moment, the problem of copyright on the Internet is solved by assuming that licence exists whereby the work's owner, by making the material available via the Internet, implicitly allows the transmission and storage of the work, providing it is for the use of the viewer only. It could also be argued that, because of the digital nature of the data, the viewer may make one backup copy of the work for future use. Any use of a work on the Internet over and above these conditions will be a breach of copyright, unless the work's owner specifically indicates otherwise as part of a licence within the work (see *copyright* below).

Another problem is that copyright, as part of an Internet service, may not rest with one owner. A web page can represent a variety of permissive copyrights; one author makes available the text, another the images, another the dynamic scripting or programming code, and another actually codes the page for online operation. Each of these individually can be said, by making information available over the 'Net, to have agreed to the *assumed licence* noted above. But who would take action in the event of a breach? Where there are a variety of interests involved it is sensible that one entity, usually the service/information provider, be empowered by the others to take action to remedy a breach of copyright.

Material from the 'Net may be copied or pirated in a manner that creates a breach of copyright. But a breach of an owner's *moral rights* may occur even under normal use on the 'Net (through, for example, the linking of resources). *Moral rights* are a special category of rights, over and above ordinary copyright; they permit the originator of a work to object to certain uses of licensed material. It is a complex area, but moral rights are essentially a means by which an owner may restrict any use of the work which they consider "derogatory" to the work.

Under *moral rights* a work's owner may license the use of it by anyone except for those engaged in a specified activity. A wildlife photographer, for example, may make images available on the 'Net, but may prohibit their use (or the setting up of links to them) by anyone engaged in the destruction of wildlife. Breaches of moral rights are usually pursued through the civil courts in the same way as breaches of copyright.

Patents

The purpose of a patent is to grant a monopoly over the use of a new technological innovation, in return for full public disclosure on how that innovation was achieved.

Patents are granted for inventions which are innovative, unique, and insightful (i.e. that any modification it uses of an existing technology is not an obvious one). Patents are granted through national patent offices, and once granted they provide absolute rights to control the use of the technology. Strict criteria for the issuing of patents provide an effective platform from which to challenge the technological innovations and patent applications of others.

An example of the power of patents is the issue of patenting of human genes. It can be argued that genes cannot be 'copied' - a gene is a gene. The patenting of genes for therapeutic uses pose enormous potential problems for the use of or access to certain medical treatments; pharmaceutical and biotech companies are seeking control over the market through this use of patent rights.

Recently there has been a campaign by software producers to change the legal definition of software from being a *literary work* (and so protected by copyright) to being a *technological innovation* (and therefore patentable). This would give companies a total monopoly over certain aspects of the operating systems or software that enable the information society to function. It would also prohibit others from producing their own versions of the processes involved. So, for example, if Microsoft were to patent the file format for their latest word processor, they would effectively control the ability of all other software writers to interface with files created with Microsoft's software. Anyone writing a compatible interface for the Microsoft file format could be sued for breach of patent.

So far, in Europe at least, legislative bodies have resisted moves to enable the patenting of software, precisely because of the potentially damaging impact this could have.

As new technologies begin to mediate many parts of our public lives the hold patents have over the creative process becomes important. One of the immediate impacts of a patent is control over the market. Those who have the rights to a patent in a particular country can specify conditions on use. They are also likely to charge a large fee for allowing the use of patented technologies. How the state allows patents to be awarded, and protected, is therefore a fundamental democratic issue where these patents impact the freedom of civil society to communicate or work creatively.

Trademarks

Original ideas are not the only thing that can be protected under IP rights. The development of *the brand* can be protected as an intellectual entity through trademarks, an increasingly important aspect of IP rights.

A trademark can be a name or an image. In the UK trade marks are enforced through the *Trade Marks Act 1994* which defines them as -

*any sign capable of being represented graphically which is capable of distinguishing goods or services of one undertaking from those of other undertakings*⁵

Trademarks have two impacts on the use of the Internet:

- The use of names as domain names, and rights to use a particular name as part of an Internet domain; and
- The use of names or images in the content of services on the Internet.

Trade marks and domain names

The use of a trademark not only gives an exclusive right to those wishing to use certain names as part of the Internet; if someone registers a pre-existing name as a trademark for the first time, they have the right to stop others using that name.

Domain names are registered on a first-come-first-served basis by the organisation that assigns names and Internet address numbers in each country. As part of the agreement made when registering a domain name, you enter a contractual agreement with the assigning organisation to accept a mandatory name disputes policy. The current procedures⁶ for domain name dispute resolution were approved by the body responsible for directing names, ICANN (the *Internet Corporation for Assigned Names and Numbers*),⁷ after consultation with the World Intellectual Property Organisation (WIPO). These bodies in turn approve other organisations that arbitrate disputes under the *Uniform Dispute Resolution Policy* (UDRP) rules.

So far there have been a few hundred cases brought under the disputes policy; the majority of them resulted in the domain name being handed over to the party making the complaint. A key part of the arbitration procedure is the proof of *bad faith* by the person holding the domain name. This primarily rests upon three issues:

- That the name is a trademark, and that the current use of that domain name infringes trade mark protection;
- That the holder of the domain name has offered the name for sale to the organisation who claim it as theirs (the accusation being that the domain name's holder is cyber-squatting); or
- That the person currently holding the name is not using it - that is, they have registered but it is not actively used the name as part of an Internet service.

However, there was a significant caveat to the *bad faith* principle in a case where someone registered the *natwestsucks.com* domain name. In making a decision on whether this constituted bad faith the arbitration panel decided that,

Those who have genuine grievances against others or wish to express criticism of them - whether they are against commercial or financial institutions, against governments, against charitable,

⁵Section 1, *Trade Marks Act 1994* - http://www.legislation.hmso.gov.uk/acts/acts1994/Ukpga_19940026_en_1.htm

⁶The *Uniform Dispute Resolution Policy* (UDRP) - <http://www.icann.org/udrp/>

⁷ICANN - <http://www.icann.org/>

*sporting or cultural institutions, or whatever - must be at liberty, within the confines set by the laws of relevant jurisdictions, to express their views. If today they use a web site or an email address for the purpose they are entitled to select a domain name which leads others easily to them, if the name is still available.*⁸

The registration of trademarks still dominates the UDRP.

The primary issue regarding the use of an identifiable trademark, as noted in the legal definition above, is whether it causes confusion amongst the public. Porsche, for example, brought an action in the USA⁹ against all those who held domain names with *Porsche* in the title, on the grounds that it infringed their trademark. As the scope of trademarks increases, through, for example, WIPO proposals to extend them to cover more generic terms such as the names of wine growing regions, then the issue of trademark infringement is likely to intrude further in the registration of domain names.

Trademarks and Internet content

All intellectual property contains *fair dealing* provisions. For example, Microsoft is a trademarked name, but the name is permitted to be used by the public as part of everyday discussions on issues relating to Microsoft, whether for or against.

The issue of trademarks and Internet content becomes contentious where it may cause perceived *confusion* amongst the public. There are three examples of how this may happen:

- The site is a deliberate spoof which, rather than being a simple parody, seeks to convey the sense of being an official site controlled by the owner of the trade mark;
- The site contains data embedded within it that seeks to attract visitors who would have otherwise visited the official site of the trade mark owner; or
- The site contains links to material on the trademark owner's site, or contains the trademark itself.

The decision as to whether a site is misleading in its use of trademarks, beyond the point of being a simple parody or expression of grievance (as noted in relation to the decision on *natwestsucks.com* above), will depend upon the *intent* of those running the site. If the site is constructed as if it were an emanation of the trademark holder's business, then it would clearly constitute an infringement of trademarks. If it is a clear and unmistakable parody, then it would not (with the caveats on *content* noted below).

One recent issue to arise with respect to trademarks is the use of *links* and *metadata* that cause someone to be linked to a particular site rather than that of the trademark holder. Many people access sites through search engines because they do not have the site's address. A well-constructed set of keywords (which are used by search engines to index a site), or the registration of a site with a search engine, could cause a site to be selected higher in the order of a search engine than the actual trademark holder's site.

The issue will then arise as to whether the indexing of web pages through a search engine would cause *confusion* over the use of a trademark. This is an ambiguous area, but there are cases where this has been judged to have happened and sites have included trademarks in the metadata. For example, in *Niton Corp v. Radiation Monitoring Devices* in the USA two companies were competing for sales on the Internet; one (A) included the name of its competitor (B) in its metadata, in order to encourage people looking for B's equipment to visit A's web site.

⁸See <http://arbiter.wipo.int/domains/decisions/html/2000/d2000-0636.html>

⁹Porsche Cars North America Inc. v. Porsche.com, June 1999

As metadata becomes increasingly important on the Internet, especially with the introduction of XML (the *eXtensible Mark-up Language*), and standardised metadata replaces the current haphazard indexing systems of web pages, such cases may become more numerous.

Links are another type of trademark-related information that you can include in a web page. There have been a few cases related to links; the *Shetland Times* case in the UK, for example, and the *Ticketmaster Corp. v. Microsoft* case in the USA. They mainly raised questions on the legality of linking, in copyright terms, but they also touched on the issue of linking to material belonging to an organisation holding a trademark, and whether this could lead to confusion about the ownership of the trademark. Both cases were settled outside court, however, so there has been no decision which could provide guidance for future cases.

Finally, there is the issue of including a *copy* of a logo or graphical trademark within an Internet service. This applies especially to campaign web sites, or Internet directories. If a person uses someone else's trademark as part of a site then they could expect to receive some sort of legal threat from the holder of the trademark.

When considering the *bad faith* use of a trademark, one defence is that the holder of the trademark no longer uses or defends the trademark. For this reason the defence of trademarks has become an important aspect of their use. In general, it is not a good idea to use a copy of a trademark sourced from within a site. Even a parody of the logo or trademark could be considered to infringe trademark law if it could cause the confusion. Some sites get around this problem by linking to the trademark owners' site, but this could still fall foul of the *linking* restriction noted above.

Databases

As part of the protection of databases initiated by the TRIPS agreement, a new class of literary work has been created as part of a *database right*. The purpose of this is to protect the investment made in large databases, and to prevent information being extracted from them and used for other purposes. Currently the database right lasts for fifteen years, but, should the database be sufficiently amended or updated, then this fifteen-year period can be renewed with each revision.

The main issue with regard to the protection of databases is the uses to which they are put and how far a the database right may impact upon the rights of others. An example would be information compiled by local authorities, or the private contractors they often employ to provide services. The database right restricts the extent to which the public may obtain information on an issue held by the contractor on a database. The Environment Agency (EA), for example, holds public registers of information on pollution in the UK. The EA currently claims copyright¹⁰, as a *literary work*, over the public registers of information it holds under pollution law. On this basis they have begun to question members of the public about their purposes in requesting certain information from the registers, and have steadily sought to control the uses to which this information is put.

As more information is made accessible through online databases, Control over the use of databases has particular relevance to 'Net users. Most online databases provide access to only a small part of their contents. Should someone seek to access a larger part, one record at a time, and use that information as part of their research by merging it with their own in another database, the database right may be breached.

¹⁰See the EA web site - <http://www.environment-agency.gov.uk/other/help/196644/?version=1>

Copyleft, open publications, and the origins of 'open' intellectual property

Traditionally, intellectual property rights have been used to exert more control over the uses to which information is put. This has not taken place without protests from those who disagree with this expansion of control, and its implications for society. Indeed, this backlash against excessive control over knowledge began in computing, one of the industries most tightly constrained by intellectual property issues.

The movement against intellectual property rights began in the 1980s, as a reaction against the increasingly closed world of computer software. A large part of the computer industry grew out of academia, where the idea that knowledge should be open is generally cherished. The development of the personal computer (PC) by academics and 'techie' radicals in 1970s California was also based on the principle that the sharing of knowledge and information between collaborating groups was a priority in the development of new tools.

The growth of wider availability of computers challenged the notion that all information must be "paid for". The rise of the PC also enabled alternative models of intellectual property rights to be developed, outside the mainstream software industry. These new models allow socially motivated programmers, driven by perceived social needs rather than the protection of self-interest, to work collectively to develop their own solutions.

The leading proponent of so called *free software* was Richard Stallman, initiator of the GNU Project¹¹ and the Free Software Foundation. After a successful early career in the computer industry, he began to formulate an alternative model for how the computer industry, and software development, could work. He described this new model as *copyleft* - the antithesis to the *copyright* framework that dominated the computer industry at that time. In turn the *copyleft* model, codified as the *GNU Public Licence* (GPL), has inspired others to evolve their own open licences and enabled the development of a whole new area of the computer industry, centred around the Linux (often called GNU/Linux) operating system.

The *open source* movement (a generic name for this new group, which actually encompasses a number of different models¹² that specify the extent of intellectual property controls that should be allowed) that Stallman inspired does not advocate abolishing the notion of intellectual property. Instead, they propose that the source or ownership of information is acknowledged under various public licences and that all rights should be vested with that person. But for the majority of cases, access to or use of that information should not incur a charge, nor any restriction on modification or adaptation, providing that the original contribution of the work's creator is acknowledged. This means that if the information is ever put to a commercial use, an agreement must be made with the owner of the work to govern how the work will be licensed for that use. In any case, the stipulation that any information or products that incorporate open source information must themselves be open source ensures the open nature of the work ad infinitum - something Steve Ballmer of Microsoft has described as a *cancer*.¹³

The *open* model does not stop at software. It has generated another movement; *open documentation* or *open publication*¹⁴. This model encourages the publication of literary works, usually via the Internet, on the same basis as open source/free software licences. Distribution is open and free, but if anyone proposes to use that material for a commercial purpose then a licence must be obtained from the author for that use. In this sense the open model of licensing could be said to encourage creativity to a far greater extent than the closed model enforced by the traditional use of intellectual property rights.

¹¹GNU Project - <http://www.gnu.org/>

¹²Details of the various free/open source licenses can be found through the GNU Project web site at <http://www.gnu.org/philosophy/license-list.html>

¹³See <http://www.suntimes.com/output/tech/cst-fin-micro01.html>

¹⁴See <http://www.gnu.org/philosophy/license-list.html#DocumentationLicenses>

Today the open source movement, supported by the GNU/Linux operating system and the open source programs written by many different groups across the world, is winning the battle between proprietary and open software. Much of the Internet is now run by open source software, and now the world of desktop computing is seeing new open source software becoming available. Recently Microsoft set up a special group to fight the open source developers because they now perceive free software as a threat to Microsoft's market dominance. In terms of other open information, the development of peer-to-peer file sharing over the Internet, such as Napster, FreeNet or Gnutella, that allow information, images or music to be shared freely over the 'Net, has begun to challenge the intellectual property orthodoxy's in the publishing world.

As the mass media converge into single channels of communication, and globalisation encourages corporations to acquire smaller companies in order to exploit new markets, branding and control over information becomes more important to the economic system.

Proprietary control is mainly limited at the moment to computer software and audio/video entertainment markets. But as tools for accessing information (such as the new *information appliances* to use the Internet, or pay-per-view television) themselves become proprietary, we will be required to pay to use them. The *open software* and the *open documentation* movements challenge this; there is no charge for *open information*, *open software tools* demand no licence fee to access information.

Implications for the future

We live in a hybrid virtual world at the moment, somewhere between the old analogue systems and new digital systems. Proprietary controls have operated for analogue systems for many years, be it for VHS video recorders or the trademarked Hoover vacuum cleaner. Digital systems enable greater control and flexibility and a higher level of "intelligence", to be built into systems, not only in terms of their function, but also in terms of their ease of use.

The new *Microsoft XP* package has many new restrictions built into it; it limits not only the number of machines you can install the software on, and the number of times you can modify your system and reinstall the software. Beyond those limits you must re-register, or your system will not work - a facility that has never been widely enabled before.

Looking to the future, there are two significant trends to consider:

- Systems will be increasingly linked together, not only for communication, but also to obtain operating instructions. Microsoft's new ".Net" ("Dot Net")¹⁵ proposals would mean that software would be leased over the Internet, or people can be charged or personally identified each time they access a certain web page.
- It is also likely that under this model information services would come as a 'bundle' with the leased package. To ensure control over this system, there would have to be some method of tracing how information is used in order to ensure that intellectual property rights for the information, databases and software employed are not abused. It is likely that large databases will be maintained by the corporations making these services available, in order to monitor the activities of users.

Given the past record of companies maintaining these databases, it is also likely that their contents would be sold on to other companies for other purposes, as a means of generating additional revenue. All this movement of data raises the probability of increasing invasion of privacy and disclosure of personal information.

¹⁵See <http://msdn.microsoft.com/>

It is likely that the systems we use to access these new information services will not be "computers" as we understand them today - the growth in Internet TVs, email phones and TiVO "intelligent" video recorders indicates a developing trend.

All these systems use proprietary systems that work according to the model devised by the manufacturer. Not only is modification to the system,(as you might do with a ordinary PC) not possible, but under intellectual property rights such modifications are likely to involve breaches of copyright or patents. We have already seen such battles take place over the use of DVD video discs, as people find means of circumventing the restrictive playing controls using home PCs (DVDs have *region codes* that mean only DVDs sold in a particular area can be played on players sold in that area, something that has implications for the structure of the market for discs, as well for issues of censorship). This will affect the ways in which people are able to access and use the technology, and the flexibility with which they can adapt new systems to suit their own needs.

In debates over social freedom there has been much discussion about the role of the information society in enabling more surveillance, and of the implications for civil liberties. The continued strengthening of intellectual property rights, in order to protect the monopoly rights of certain corporations, have equally damaging potential. Not only would those corporations decide what is good for society, but they could also have the power to prevent people modifying or adapting products to better suit their own needs.

The main debate on intellectual property rights and society so far has been around genetics and bio-patents. The debate over information systems and software has received less attention since it is of less immediate concern to the public as issues of medical treatments - that is, for the moment.

Soon, however, with governments and public services coming to rely on information systems to deliver services, the debate on intellectual property must gain prominence as people come to realise the fundamental implications for civil rights within the information society.

Further work

This briefing has been written in the context of the legal framework currently in force in the UK. If you live outside the UK you will need to make yourself aware of the procedures operating in your own country. Key points you will need to find out are:

- How are international intellectual property rights, under the Berne Convention, implemented in your country?
- How are actions for breach of the IP framework brought under the laws of your country?

You should also contact any civil liberties organisations operating in your country. They may be able to provide you with much of the information you need on laws relating to intellectual property.

The GreenNet Internet Rights Project

GreenNet¹⁶ is the UK member of the Association for Progressive Communications¹⁷ (APC), and is leading the European section of the APC's Civil Society Internet Rights Project.¹⁸ The primary goal of this project is to provide the resources and tools necessary to defend and expand space and opportunities for social

¹⁶GreenNet - <http://www.gn.apc.org/>

¹⁷APC - <http://www.apc.org/>

¹⁸CSIR Project - <http://rights.apc.org/>

campaigning work on the Internet against the emerging threats to civil society's use of the 'Net. This involves developing ways and means of defending threatened material and campaigning, as well as lobbying to ensure a favourable legal situation for free expression on issues of public interest.

Until recently, the social norms of Internet communities, together with a very open architecture based on supporting these norms, regulated the Internet, and was responsible for its openness. The main forces of regulation now, however, are the business sector and government legislation. Corporations and governments are pressing for fundamental changes in legislation and in the architecture of the Internet. Unless challenged, these moves could radically change the nature of the 'Net, making it a place of oppressive controls instead of freedom and openness. It is in this context that APC's Internet Rights project is being developed.

This briefing is one in a series¹⁹ that document different aspects of work and communication across the Internet. Although written from the perspective of the UK, much of its content is applicable to other parts of Europe. There is continuing work on these issues, as part of the European project. If you wish to know more about these briefings, or the European section of the APC Civil Society Internet Rights Project, you should contact GreenNet. You should also check the APC's web site to see if there is already a national APC member in your country who may be able to provide local help, or with whom you may be able to work to develop Internet rights resources for your own country.

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For more information about the Civil Society Internet Rights Project, or if you have questions about the briefings, contact ir@gn.apc.org.

¹⁹<http://www.internetrights.org.uk/>