



No. 65

Internet Piracy

Russell G. Smith

In 1716, William Hawkins defined a pirate as "one who, to enrich himself, either by surprise or open force, sets upon merchants or others trading by sea, to spoil them of their goods or treasure". Almost three centuries later, digital treasure in the form of information is carried internationally via fibre optic cables and satellites and is being set upon by pirates who, again for self-enrichment, make copies of works belonging to others in order that they may use the information contained therein free of charge or pass them off as their own intellectual creations.

This Trends and Issues paper discusses the regulation of intellectual property infringements in the world of telecommunications. Specifically, it considers how best to control offences of piracy committed on the Internet.

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The Internet, like the high seas, is an international environment. In it, computers in various nation states are interconnected through public telecommunications networks which allow for the transfer of text, graphics, sound and video. A wide range of on-line services are provided both publicly through the Internet and privately through proprietary or closed networks which obtain access to the Internet via so-called gateways.

Around 600 000 Australians are already connected to the Internet, some through educational and business enterprises while approximately 262 000 of them use the Internet privately at home through the use of modems connected to personal computers. Globally, the Internet is said to consist of 15 000 computer networks linked to twenty million users in over 175 countries, numbers which are increasing daily.

Copyright Protection on the Internet

Copyright laws provide a restricted form of protection for literary, dramatic and musical works by giving creators exclusive control over various acts carried out in relation to their works. These include the reproduction, publication, performance in public, broadcast, adaptation and transmission of material. The creators of artistic works have other rights in relation to their works. Only those intellectual productions which are original are protected and protection is extended only to the form in which an idea is expressed rather than the idea itself. Not all works are protected, however, as the doctrine of fair dealing allows works to be used under certain conditions relating to content and dissemination while published works created by authors who died fifty years ago or more are also not protected. The manner in which copyright is created and infringed on the Internet has been the subject of considerable debate in recent years. Even identifying the

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creators of works raises problems as new works on the Internet may be created and/or adapted by a multiplicity of contributors incapable of differentiation. Similarly, the traditional categories of works which are the subject of copyright protection (literary, dramatic, musical, artistic, sound recordings, films and sound and television broadcasts) have been collapsed through the process of digitisation such that all digitised works exist in the same type of format capable of being transmitted electronically.

In the past, everyone was at liberty to read a book without breaching copyright, but on the Internet the mere act of gaining access to a site and perusing its content may infringe copyright, even if the work is not downloaded or printed out.

In Australia, the Copyright Law Review Committee is working on a major reference to reform and to simplify copyright legislation (Copyright Law Review Committee 1996). Under the existing *Copyright Act 1968* (Cwlth), copyright owners' exclusive rights in relation to the electronic transmission of literary, dramatic or musical works to the public are limited to the right to broadcast the work and the right to cause the work to be transmitted to subscribers to a diffusion service. These rights are, however, limited and do not provide adequate protection for the transmission of copyright works on the Internet (see van Caenegem 1995, p. 337). To enhance the range of protections, particularly in respect of digital works, a new, broadly-based, technology neutral right of transmission to the public has been proposed which would replace the existing communications rights. Even this approach has been criticised in view of the fact that it may not extend to all forms of activity on the Internet and does not resolve the question of whether

transmission over the Internet involves transmission of works to the public (Thomas 1995, pp. 15-17). In addition, the creation of such a broadly-based right may adversely affect the appropriate balance which should exist between the rights of copyright owners and users necessary for creativity to flourish.

Should copyright law protect works on the Internet?

The issue of whether information should be treated as a proprietary commodity has particular relevance to the Internet. Where information is made available on the Internet, owners may simply not wish to place restrictions on the manner in which it is used and may not seek any financial reward from those who make copies of works in the public domain. However, other copyright owners (particularly commercial enterprises) may see it as financially essential to have their works, such as computer software, protected by copyright as the financial viability of their business may depend upon fees being paid each time the work is reproduced. For example, Ling Yan of the Beijing company Sun Tendency who created the first Chinese language word processing program, "Chinese Star", is said to have lost ten pirated copies of his program for every one sold, thus substantially reducing the success of his business (Forney 1996).

If protections are not made available to the creators of works, the Internet may not flourish, particularly as an international marketplace, owing to creators being unwilling to place their work in an unprotected environment. Creativity, which is one of the main objects which copyright law seeks to encourage, may be stifled with the community suffering a loss in the production of new intellectual works.

This view, favoured by the United States Information

Infrastructure Task Force (1995, pp. 14-15), has been severely criticised by those such as Samuelson (1996) who argue that the Internet should be free of intellectual property law restrictions with all information being accessible and unencumbered. This, it is suggested, is because "cyberspace" is sovereign unto itself and should be self-governed by its inhabitants—or "netizens"—individuals who will rely on their own ethics—or "netiquette"—to determine what uses of works, if any, are improper.

Freedom for one person may, however, entail oppression for another. The benefits of having free access to information on the Internet and the ability to download or alter any files without restriction may result in creators of works suffering substantial damage both to their economic position and to their intellectual reputation. This, in turn, may result in creators of works simply not utilising the on-line environment fully. In the words of Simpson (1995, p. 29): "the freedom of cyberspace may prove to be a transitory and illusory one . . . The friendly anarchy of its early days may not provide a forum where either education or commerce can flourish".

The Nature and Extent of the Problem

There are few estimates of the extent to which copyright is infringed by Internet users and those which do exist suffer from problems of extrapolation of data and under-reporting. The problem is, however, thought to be widespread.

There is some evidence that intellectual property infringements generally are being reported more often than in the past. Between 1992 and 1995, for example, the number of copyright and patent offences reported to the Australian Federal Police (AFP) increased 152

per cent (Australian Federal Police 1993-95). In the United States, over the same period, reports of intellectual property loss incidents increased 320 per cent to an average of 31 incidents per month in 1995. Losses of more than US\$5 billion were reported for 1995 (Anonymous 1996, p. 14).

Assuming that the increase in reports of copyright infringement accurately reflects an increase in the number of incidents which are taking place, this may be partly due to the ease with which accurate copies of works may be made using modern technology. Acts of copyright infringement may occur quickly and without difficulty and may be carried out by anyone capable of using the Internet. Already in the United States it is possible to download compact disks and feature films from the Internet and this development has led to a group called "Imprimatur" being established by the European Commission to devise strategies to prevent copyright infringement of audio-visual material on the Internet (Fox 1995, p. 22).

At present, however, the area of greatest concern relates to computer program and software piracy committed on Internet Bulletin Board Systems (BBS). In 1992, there were between 30 000 and 40 000 BBSs in operation in Australia, the second largest number following the United States (Wallman 1994). Throughout the world there are estimated to be between 60 000 and 100 000 Bulletin Board operators in business (United States, Information Infrastructure Task Force 1995, p. 118, n. 378).

In the un-networked environment, Australia has the unenviable reputation of having the highest incidence of software piracy in the developed world with personal computer users and educational institutions being the prime offenders (Chester 1996, p. 5).

The Business Software Association of Australia estimates the cost of software piracy to be in excess of A\$260 million a year (Neiger 1996, p. 22), while the Software Publishers Association has identified 1600 BBSs which carry illegal software, and has estimated that A\$7.4 billion worth of software was lost to piracy in 1993. By some industry estimates, A\$2 billion of that amount was stolen over the Internet (Meyer & Underwood 1994). Such estimates are, however, based on figures provided by those from within the industries concerned and hence their objectivity may be questionable.

Already, there have been a number of criminal and civil actions taken in respect of infringements committed on the Internet.

In July 1994, the Australian Federal Police investigated a former employee of a Sydney-based international company who had copied program source codes and files and then electronically mailed these to his personal computer. The value of material taken was conservatively valued at A\$300 000 and the offender was found guilty and sentenced to 200 hours community service with his computer equipment being forfeit to the AFP (Australian Federal Police 1995, p. 22).

In the United States, there have been a number of reports of computer software being pirated since the late 1980s (for example, Bequai 1987, p. 58) and recently the problem of commercial software being uploaded onto Bulletin Boards and made available for free downloading in violation of copyright and software licensing agreements has become endemic (Denning 1995, pp. 324-5).

In the United States, the Software Publishers Association conducts a vigorous campaign to prosecute copyright infringements relating to computer software. In 1991, for example, the Association

filed thirty-three suits of which 19 per cent were against BBSs, training facilities and schools (Cheng 1995, p. 142).

On 27 September 1994, the *Wall Street Journal* reported that a Bulletin Board operator had been charged with criminal violation of copyright for the unauthorised copying of computer software which was available to subscribers for US\$99 per annum (Walker 1994, p. 686).

In the case of *Playboy Enterprises Inc. v. George Frena d/b/a/ Techs Warehouse BBS Systems and Consulting, and Mark Dyess* (839 F. Supp. 1552 (1993)), Playboy Enterprises won a suit against the operator of a Bulletin Board for allowing copyrighted images taken from *Playboy* magazine to be posted on the Board. The court held the Bulletin Board operator strictly liable for the display and distribution of unauthorised copies even though the operator may have been unaware of the infringement.

In *Sega Enterprises Limited and Sega of America Limited v. Maphia* (857 F. Supp. 679 (1994)), the District Court of California issued a preliminary injunction against the operator of the Bulletin Board, for uploading and downloading unauthorised copies of Sega's video games. The court found that a prima facie case had been established for both direct infringement, based on the BBS operator having permitted the uploading of copyright games onto the BBS, and contributory infringement, based on the operator's role in copying the games, including the provision of facilities, direction, knowledge and encouragement.

One of the most recent instances in which court proceedings have been taken in respect of alleged copyright infringement on the Internet involves the Church of Scientology (The Religious Technology Centre). In a series of actions, the Religious

Technology Centre has sought interim orders restraining the publication of materials on the Internet which are said to infringe its copyright.

In *Religious Technology Centre v. Netcom On-Line Communication Services Inc.* (907 F. Supp 1361 (1995)), for example, Netcom was found not liable for direct copyright infringement because it had no control over the material placed on its network but liable for contributory infringement because it failed to take action when notified that the infringing material was on the network.

Regulatory Issues

The development of the Internet and the digitisation of information has created a dilemma for those seeking to prevent intellectual property infringements. On the one hand, they may apply and extend copyright laws in order to ensure that individuals do not infringe the rights of creators who place their works on the Internet, or, on the other hand, they may retain the existing level of regulation or even restrict laws in the hope that other means will become available to protect works from Internet piracy.

Prosecution policies

There is no single copyright law which operates throughout the globe, but instead, there is an international system of principles to which individual nation states have regard when devising their own laws. Differences between the laws which apply in different international jurisdictions sometimes create problems for the effective prosecution of offenders who reside in different geographical regions from those in which they commit their offences or in which their victims reside. The principle of national treatment also means that acts which constitute infringement of copyright in one country may not amount to in-

fringement in another.

In addition to civil remedies, the *Copyright Act 1968* (Cwlth) creates various criminal offences relating to infringement of copyright. Penalties range from fines of up to A\$500 for individuals to fines of up to A\$250 000 for companies as well as terms of imprisonment of up to five years. These criminal sanctions apply in respect of infringements of copyright subsisting in any subject matter covered by the provisions set out in the civil parts of the Act and thus, in order to prosecute an infringement successfully, it is necessary to establish that the work in question is covered by a valid copyright and that this has been infringed. Achieving these goals under the terms of the existing provisions in relation to works on the Internet is problematic, to say the least.

In addition to the criminal and civil provisions of the Copyright Act 1968, infringing copyright on the Internet may involve non-compliance with other laws such as the various telecommunications offences set out in Part VIIB *Crimes Act 1914* (Cwlth), computer offences in both State and Federal criminal legislation, laws which restrict the importation into Australia of infringing material and laws which prohibit the advertising of infringing material (s. 133A Copyright Act 1968 (Cwlth)).

Even if it is possible to establish breach of copyright legally, most law enforcement agencies are reluctant to take action in the absence of evidence of substantial financial losses or other issues which take the offence into the realm of organised crime or major fraud. In addition to resource limitations, law enforcement agencies may see it as being inappropriate to use the criminal law to regulate an essentially civil matter such as copyright infringement, especially for offences which involve extra-territorial issues such

as Internet piracy.

In the United States, however, a number of law enforcement agencies are now making the investigation and prosecution of copyright infringements a priority. The Federal Bureau of Investigation, the United States Customs Service, the Secret Service and the Department of Justice's Computer Crime Unit are all involved in conducting high technology investigations of copyright offences (Walker 1994, p. 685).

Internet ethics

One of the strategies which has been suggested by a number of writers is to change the behaviour of users through education in the ethics of using the Internet. The Copyright Law Review Committee (1996, p. 16), for example, has argued that "in the long term, it may be possible to reduce inappropriate uses of others' intellectual creations by promoting respect for the intellectual property of others via public education".

Unfortunately, as has already been demonstrated, substantial sums of money can be gained through Internet piracy, particularly of computer software and other commercial works, and ethical codes of conduct may simply be ignored by serious offenders.

An alternative approach would be to devise ethical codes of conduct which, if breached, would result in users being denied access to further use of specific sites on the Internet or the Internet in full. The technological and administrative infrastructure necessary to operate such a registration scheme may, however, prove too difficult and costly to implement and may detract from the very freedom which some who use the Internet seek to affirm.

Marketplace regulation

Rather than attempt to regulate activity on the Internet through the use of copyright law, some have

argued that it may be preferable for commercial enterprises to change the way in which they market their products and conduct their enterprises such that copyright infringement does not result in any meaningful loss.

It has been argued, for example, that creators should place material on the Internet without any expectation that their rights as authors will be respected, but rather in the hope that the material transmitted will advertise other works which are available commercially but not on the Internet (see Ricketson 1996).

Other strategies include frequently updating material, thus enabling the freshness of the data to control its marketability, and setting low initial price levels for works with financial recompense being obtained by charging for additional services or enhancements of the works in question (Copyright Law Review Committee 1996, pp. 15-16).

The problem with such approaches lies in the fact that they rely upon the continued existence of the dissemination of works in a non-digital form other than on the Internet. This detracts greatly from the desire to develop the Internet into the sole or at least the principal means of communicating information in the future. If the Internet is regarded as a means of transmission which fails to protect the rights of creators of works it may be relegated to a system of advertising or a means of transmitting government public domain works only which would obviously reduce its attraction considerably.

Contractual arrangements

A more closely regulated system may seek to protect the rights of copyright owners by restricting access to material transmitted on the Internet to those who pay a fee and who agree to abide by certain terms and conditions of use. Each

use of a copyright work could, for example be metered with a fee being levied each time the work is used. This is now technically feasible but would require a considerable bureaucracy for its effective administration. When electronic cash becomes more widely available, those wishing to download protected copyright works from the Internet may be required to pay an on-line fee directly to the copyright owner or to a copyright collecting society.

Some of the difficulties with such arrangements are that those who are unable to afford the specified connection or licence fees may be denied access to the information being sought. In addition, such contractual arrangements will create private rights which may be difficult to enforce internationally where the identities of the contracting parties may be difficult to ascertain and their assets difficult to seize.

Technological solutions

A wide range of technological solutions have been suggested to deal with copyright infringement on the Internet. These involve restricting access to Internet sites or specific works, restricting use of works on the Internet and introducing some form of electronic surveillance of activities. Such approaches suffer from the problems of restricting freedom of Internet usage and may also involve the possible infringement of privacy. They do, however, facilitate the management of copyright licensing and collection schemes.

Restricting access to copyright works may be achieved through a variety of devices such as server control, encryption, digital signatures and steganography which only allow authorised individuals to obtain access to specific works. The problem with such approaches is that access keys, no matter how sophisticated, may be circumvented technologically. The Imprimatur study group, referred

to above, is examining the use of digital labelling of works which will identify them as they are being transmitted on the Internet. Software is then able to be used to identify the digitally-labelled works and to prevent unauthorised individuals from gaining access to them or from making copies without permission (Fox 1995, p. 22).

Various technological devices have been designed to restrict the use to which copyright works may be put. For example, software is able to restrict further copying, to limit usage to view or listen only and to restrict the number of times a work can be retrieved, opened, duplicated or printed (United States, Information Infrastructure 1995, p. 190; see also Copyright Law Review Committee 1996, pp.15-16).

Finally, devices might also be used which permit the electronic surveillance of networks or even private domestic computer and audiovisual systems in order to identify users who obtain access to or make use of copyright works in breach of owners' rights. Such an approach obviously raises significant privacy concerns (Copyright Law Review Committee 1996, pp. 15-16).

If such technological solutions to copyright piracy are adopted, measures will need to be taken to ensure that their effectiveness is not defeated through the use of technological means. Laws may, for example, be needed to ensure that devices, such as encryption decoding devices or anti-copying defeating devices, are not employed to subvert the effectiveness of technological strategies designed to protect copyright.

Imposing liability on carriers and service providers

One regulatory strategy which is being subjected to fierce debate throughout the world at present is the imposition of liability for copyright infringement on telecommunications carriers and network

service providers. Because such entities provide the facilities necessary to enable copyright infringements to take place, it has been suggested that they are best placed to detect and prevent infringements from occurring. Carriers and service providers have an interest in ensuring that networks are fully utilised and, as such, should be obliged to offer a secure environment in which works may be carried and transmitted.

The contrary argument is that carriers and service providers such as BBS operators should not be held liable for material which infringes copyright which is placed on their networks. Watts and Gilchrist (1996, p. 50), for example, note the problem with holding such individuals liable in that they would need to have knowledge of factual matters not generally known to a network operator and would be required continuously to apply legal skills in determining whether material infringes the rights of others.

In the United States, it has been argued that liability should attach only if the infringement is wilful and repeated or where the service provider has actual knowledge of the infringement and allows it to occur (United States, Information Infrastructure Task Force 1995, pp. 114-24). The problems which arise, however, are that it may be impossible for operators to monitor all the information which is placed on their networks, it would be too difficult to identify infringing material, liability would impair communication and the availability of information and service providers would be driven out of business (see Hardy 1994 & Samuelson 1996).

Conclusions

The resolution of the question of Internet piracy will ultimately depend upon how a balance is struck between the protection of

various public and private interests. Public interests include the right to obtain information and the right to free speech coupled with the need for efficiency in communication. Private interests relate to the need to protect authors' works from unauthorised reproduction or manipulation of a derogatory nature. An effective balance will enable Internet users to benefit from the wide range of facilities and services available on the Internet whilst ensuring that those who create material are adequately encouraged to continue the production of valuable works in the digital environment.

Unfortunately, the number and complexity of the legal and social issues in the debate over Internet piracy are such that it is unlikely that all interests will be accommodated prior to reforms taking place. We can only hope that those regulatory responses which are adopted will be closely monitored and evaluated in order than any adverse consequences can be detected and remedied prior to the global community suffering irremediable harm.

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