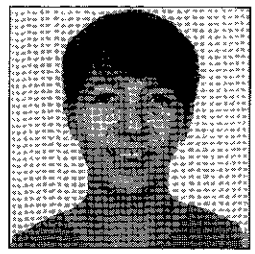
Is Copyright Coping with the Electronic Age?



Judith Bannister
Associate Lecturer, Faculty of Law
University of Western Sydney

> *"... almost everything we think we know about intellectual property is wrong. We have to unlearn it. We have to look at information as though we've never seen the stuff before.*
>
> *The protections that we will develop will rely far more on ethics and technology than on law.*[1]

These are the views of John Perry Barlow, lyricist with the "Grateful Dead" and co-founder of the Electronic Frontier Foundation. Perry's article, originally published in *Wired* magazine, has caused something of a stir in the world of intellectual property law and is regularly cited. It reflects a view held by many involved in the information technology industries that the law generally, and intellectual property law including copyright specifically, is an anachronism. In an age when material may be stored, retrieved, transformed and transmitted electronically across national boundaries, it is argued by many that national laws are irrelevant. Barlow envisages the end of copyright law. He argues that encryption will be the "technical basis for most intellectual protection"[2] and that other methods of remuneration for authors and creators will emerge. You will not be surprised to hear that this view is not supported by many copyright lawyers! It is a scenario that terrifies many authors, artists and producers who rely upon the control which copyright law grants in the form of exclusive rights to ensure payment for their work and investment. Creators and producers are not confident that "technological safeguards" alone will ensure payment for the material they create.

There seems to be agreement internationally that copyright law is being challenged by new technologies.[3] Opposing sides in the debate argue for abandonment or reform. In Australia, both at a governmental level and in the legal profession, the focus is upon reform.

---

[1] Barlow, J. "Selling Wine Without Bottles; the Economy of Mind on the Global Net" (1994) 7 *Australian Intellectual Property Law Bulletin* supplement p. 16. Article originally published in *Wired* magazine.

[2] ibid p. 16.

[3] See for instance; *Intellectual Property and the National Information Infrastructure. The report of the Working Group on Intellectual Property Rights* B. Leham Chair. Washington: Information Infrastructure Task Force September 1995; European Commission Green Paper *Copyright and Related Rights in the Information Society* released July 1995.

Is Australian copyright law coping with the electronic age? Yes and no. The fundamentals of copyright - the protection of the works of authors, artists and composers - remain the same regardless of the format in which the work is recorded or reproduced. A copyright protected literary work, for instance, is protected when stored in an electronic database or on a CD-ROM. Reproduction of a "substantial part" of the work, including downloading in digital form and paper printouts, will usually require permission.[4] Other exclusive rights, including the proposed new right of transmission to the public, may also be relevant to on-line database suppliers and will be discussed further below.

While the basics remain the same, it must nevertheless be conceded that some of the specific categories in the *Copyright Act 1968 (Cth)*[5] are "straining" to deal with the digital age. Reform is essential. This has been recognised and there are a number of proposals for reform currently being considered in Australia. The Copyright Law Review Committee (CLRC) report on computer software protection was released last year.[6] In February 1996, an exposure draft of amendments to the Copyright Act was issued by the Minister for Justice. These amendments incorporate a number of changes to the law which the government has been heralding for some time including the introduction of moral rights[7] and changes to the ownership provisions for the works of employed journalists.[8] The amendments relevant to this discussion of copyright and digital technology are included in Schedule 5 of the draft *Copyright Amendment Bill 1996*. They introduce a new "broadly based" transmission right as recommended by the Copyright Convergence Group (CCG) in its 1994 report *Highways to Change: Copyright in the New Communications Environment*.[9] Whether the Bill, in the form of this exposure draft, is ultimately introduced will depend upon the outcome of the current federal election which you, the reader, will know but I do not as I write.

One year ago the Commonwealth Minister for Justice, Duncan Kerr MP, also announced a major review of copyright law in Australia. The CLRC has been granted three years to conduct the review; the Committee's first report to the Minister is due by 29 February 1996. The aim of the review is, the Minister explained, to "better equip the law to absorb technological change".[10] (You will note that the reference to the CLRC does not anticipate the radical "abandonment" option favoured by John Barlow!)

---

[4] Contractual obligations arising from any licences granted by the supplier of the product must always be considered.

[5] Throughout this article the "Act" refers to the *Copyright Act 1968 (Cth)* unless otherwise stated.

[6] Australia. Copyright Law Review Committee, 1995. *Computer Software Protection*. Office of Legal Information and Publishing, Attorney General's Department, Canberra.

[7] Copyright Amendment Bill 1996 Schedule 1.

[8] Copyright Amendment Bill 1996 Schedule 2.

[9] Australia. Copyright Convergence Group August 1994. *Highways to Change: Copyright in the New Communications Environment*. AGPS, Canberra.

[10] Media Release, 3 February 1995. The Hon. Duncan Kerr MP, Minister for Justice.

A history of reform

This is not the first time that copyright law has had to deal with the introduction of new technology. An analysis of the history of copyright would show an evolution in the range of copyright protection corresponding to the development of new technologies. Copyright developed in the age of Gutenberg. From the printing press through to the phonograph, cinematograph film, wireless telegraphy and the photocopier, copyright law has developed to deal with new technology. The current Australian Copyright Act is based upon a 1956 British Act and commenced operation on 1 May 1969. The Act has been regularly amended since that time (34 times to date[11]). Yet despite numerous amendments, the Act still reflects the technology of its period. The current categorisation in the Act of both the materials entitled to protection, and the rights that copyright grants, is often inappropriate for converging technologies and new forms of transmission.

Technology specific categorisation of protected material

Copyright law has evolved by the introduction of new categories of protection. Early British copyright legislation (the precursor of the Australian law) developed piecemeal. Initially this was by the introduction of new categories of protected works. From the protection of published books in Britain in 1709,[12] separate protection was granted throughout the 18th and 19th centuries to engravings, sculptures, paintings, drawings and photographs, dramatic works and lectures.[13] In this century, other categories of subject matter were introduced. Sound recordings (including phonograms and perforated rolls) were first protected under the British *Copyright Act 1911*,[14] while films were not protected as a separate category in Australia until introduction of the current 1968 Act.[15] Sound and television broadcasts and published editions were added to the list of protected material in the 1968 Australian Act.

---

[11] The law discussed in this paper is stated as at 18 February 1996.

[12] Statute of Anne - 8 Anne, c. 19 (1709)

[13] For a discussion of this history see Ricketson, S. 1984. "The Origins of Australian Copyright Law" *The Law of Intellectual Property*. Sydney: Law Book Co. Chapter 4.

[14] Australian Copyright Act 1912.

[15] Under the 1911 Act, some films were protected as "dramatic works", various elements such as the script and sound track were protected, and the individual frames were protected as photographs.

The current categories

Under the Act there are eight categories of protected material - four categories of "works" and four of "subject matter other than works" As a general statement, "works" protect the creative work of authors, artists, composers and dramatists, while the investment of producers is protected under "other subject matter" The four categories of "works" are:

- Literary works
- Dramatic works
- Artistic works
- Musical works[16]

Generally, these categories are not technology specific. To be protected by copyright, a work must be recorded in a "material form" which includes any form (whether visible or not) of storage from which the work can be reproduced.[17] Works stored in electronic form are, therefore, protected. An original literary work, for instance, might be written down, printed, spoken onto a sound recording, or stored on a CD-ROM to meet this requirement.

The creators of "artistic works" do, however, face some problems if their work is fixed in electronic form, rather than in more traditional media. "Artistic works" are defined in the Act as: paintings, sculptures, drawings, engravings (which includes etchings, lithographs, woodcuts print or similar works), photographs, buildings and models of buildings, and works of artistic craftsmanship.[18] This is an exhaustive list which means that a work must fit within one of these categories to be protected as an "artistic work". Because the list reflects 19th century concepts of what a work of art may be, some works, for instance material created using computers, may have some difficulty fitting into the category While the material remains in digital form it may not be a "painting, drawing etc" and may not be protected by copyright. Once printed out, however, the work might be classified as a "drawing" or maybe a "print or similar work" under the current definitions. It is a definition which certainly requires reform

The four additional categories of protected material referred to in the current Act as "subject-matter other than works" are:

- Cinematograph films
- Sound recordings
- Broadcasts
- Published editions[19]

---

[16] Section 32.

[17] Definition of "material form" s 10

[18] Section 10.

[19] Sections 89 - 92

It can be clearly seen that these categories are technology specific. This is not surprising as the rights were introduced to protect the investment of producers of specific materials As new technologies were invented, new categories of protected material were introduced into Anglo-Australian law to meet the demands of producers in the emerging industries - or in some cases many years later. For instance, copyright in the typographical arrangement of editions owned by publishers, separate from any copyright in the works published, was only introduced in Australia in the 1968 Act.[20] In its 1995 computer software report, the CLRC recommended that this copyright should not be confined to printed editions, but should extend to editions of works in "machine readable" formats [21]

The categories of "other subject matter" - introduced to protect the interests of specific industries - reflect the technology that existed at the time the protection was introduced It is in the categories of "other subject matter" that some of the more anachronistic definitions can be found. For instance:

> *"cinematograph film" means the aggregate of the visual images embodied in an article or thing so as to be capable by the use of that article or thing.*
>
> *a) of being shown as a moving picture ...* [22]

Following the tradition of technology specific categorisation, producers of new forms of electronic products are now lobbying for additional categories. The producers of multi-media products, for instance, made submissions to the CCG[23] that a new category of "multimedia works" be introduced. The CCG did not think the introduction of a new category appropriate.[24] Instead, the Group favoured a new category of "audio-visual work" which would encompass "cinematograph films" and extend to multi-media products.[25] The rationale being to reduce, or at least not increase, the number of categories in the Act and define them without reference to specific technology

Given the broad definition of a "literary work", which includes "a table, or compilation in words, figures or symbols (whether or not in a visible form); and a computer program or compilation of computer programs",[26] a good deal of electronic material used by librarians is likely to be classified under that category There is no requirement that the work be "literary" in any aesthetic sense.

---

[20] The Act commenced operation on 1 May 1969.

[21] Copyright Law Review Committee, op cit , rec 2 65 (b)

[22] Section 10

[23] Copyright Convergence Group. op cit.

[24] ibid , para 7 8.

[25] ibid., para 7 4 Although the CCG favoured introduction of the category of "audio-visual work" it recommend that the issue by reviewed further

[26] Section 10

Electronic products, such as CD-ROM, may also incorporate a range of other protected materials, including artistic, and musical works, sound recordings and films. However, some electronically stored material does not fall into any of the existing categories. It will not fit into any of the categories of "other subject matter", and may not be sufficiently original to be protected as a "work".

Unprotected electronic material

To be protected by copyright a "work" must be "original" in the sense that it is the product of some skill and labour on the part of an "author".[27] While the test of originality is not high under Australian copyright law, there must be some contribution from the author which makes the work more than a mere reproduction of another's material. The work must also have been created by a human author.[28] This is the case even when another entity such as a company owns the copyright (for instance when copyright in works created by employees are owned by the employer). When a computer is used by an author as a tool, for instance as a word processor, there is little doubt about the "authorship" of the work. However, the requirement that there be a human author places the copyright status of certain materials which are created by the operation of computer programs, with little or no identifiable human input, in some doubt. Meteorological and geological images transmitted from satellites are often cited as examples of this kind of material. The CLRC recommended in its 1995 computer software report[29] that a new category of "computer-generated material" be created in the Australian Act to cover computer generated material where there is no human author. Copyright in this material would, the CLRC has recommended, be owned by the investor or the person who made the arrangements for its creation, and should be categorised as material "other than works" along with films, sound recordings, broadcasts and published editions. Yet another category!

Non-original databases

As discussed above, "literary work" includes not only written text, but also tables or compilations, expressed in words, figures or symbols (whether or not in a visible form) and computer programs. The copyright in a compilation relates to the selection and arrangement of material in works such as lists, directories and databases, and is separate from any copyright which may subsist in the items within the compilation. It is the skill and effort involved in the selection and arrangement of the compilation that is being protected.

---

[27] "Author" is used generically throughout the Act to cover creators including: writers, compilers, computer programmers, artists, photographers, composers and dramatists.

[28] This is not the case for the four categories of material where the investor's interests are being protected rather than the creativity of the author - that is films, sound recordings, broadcasts and published editions.

[29] Copyright Law Review Committee, op. cit., rec. 2.42(a).

This copyright is relevant to electronic as well as print-based databases. In its 1995 report the CLRC stated:

> *The test is whether the compiler has imposed some sort of order upon the material, ie, whether an element of coherence has been introduced which is not otherwise found in the mass of materials collected.*[30]

If the underlying data is not separately protected by copyright as a "literary work", then copyright protection is unavailable under Australian law to databases which do not meet this requirement of originality.

Producers may, nevertheless, invest significant amounts of time and money in establishing databases of this kind. The solution recommended by the European Commission (EC) in its amended draft directive on databases[31] is to introduce a new right of "unauthorised extraction" for commercial purposes which would apply to electronic databases, both "non-original" and those protected by copyright, when the material within the database is not itself protected. This would cover, for instance, collections of numerical and statistical data which might not otherwise be protected. The EC suggests a protection period for this extraction right of 15 years. There has been some support for the introduction of a right of unfair extraction for "non-original" databases in Australia, and the CLRC considered the EC proposal in its software report. However, the Committee deferred the issue pending further review and finalisation of the issue in Europe.[32]

Technology specific rights

Owners of copyright are granted a series of exclusive rights. The rights granted, and the duration of protection, vary depending upon the category of material.

Owners of copyright in "works" have the exclusive right to:

- Reproduce the work in a material form (including producing a computer-readable version or a paper printout);
- Make the work public for the first time (that is to publish);
- Broadcast the work;
- Transmit the work to subscribers to a diffusion service.

Owners of copyright in literary, dramatic and musical works also have the exclusive right to:

- Perform the work in public;
- Make an adaptation.

---

[30] Copyright Law Review Committee, op. cit., p. 273.

[31] For a discussion of the draft Directive see: Chatton, S. "The Amended Database Directive Proposal: A commentary and synopsis" [1994] 3 *European Intellectual Property Review* 94. The Council reached a "common position" on the Directive on 10 July 1995 and the deadline for implementation by member States has been set for 1 January 1998 - see [1994] 10 *European Intellectual Property Review* D-301.

[32] Copyright law Review Committee, op. cit., rec. 2.61.

Owners of copyright in the other subject matter have the exclusive right to make a copy of, or reproduce, their material. In addition, there are rights relating to:

- Broadcasting films and sound recordings;
- Transmitting films to subscribers of a diffusion service;
- Showing films and playing recordings in public; and
- Rebroadcasting television and sound broadcasts.

Since 1 January 1996, owners of copyright in computer programs, sound recordings and works on sound recordings, have had the exclusive right to rent articles such as compact discs and CD-ROMs which contain this material [33]

However, many of the current definitions of these exclusive rights are anachronistic and technology specific. "Broadcast", for instance, is defined as "transmit by wireless telegraphy to the public".[34] Some categories of material are not granted the full range of rights as they are currently defined in the Act. For instance, sound recordings do not currently have a cable transmission right. While owners of copyright in literary, dramatic and musical works are granted a right to transmit the work to subscribers to a diffusion service, for artistic works this right is limited to causing "a television program that includes the work to be transmitted to subscribers to a diffusion service". As the CCG recognised in its report *Highways to Change; Copyright in the New Communications Environment*[35] this right would not extend to transmission of artistic works from an image bank or database. In this respect, owners of copyright in artistic works have fewer rights than, for instance, owners of copyright in literary works.[36] The recently released exposure draft of the *Copyright Amendment Bill 1996* grants a new transmission right to artistic works and sound recordings in the same terms as the right which would be granted to other works and subject matter.

Proposals for reform

The CCG recommended that a new right of transmission to the public be introduced which would encompass the current broadcast and cable transmission rights. In February 1996, The Minister for Justice issued an exposure draft and commentary for a Copyright Amendment Bill. Schedule 5 of the Bill introduces the broadly based, technology neutral, right of transmission to the public which was recommended by the CCG. As mentioned above, whether the Bill is introduced in its current form will depend upon the outcome of the 1996 election and response to the draft. However it is interesting to consider how the CCG recommendation has been translated into legislative form.

---

[33] See the amendments introduced by the Copyright (World Trade Organization Amendments) Act 1994

[34] Section 10

[35] Copyright Convergence Group, op. cit., p. 20.

[36] Of course, if transmission of an artistic work in these circumstances also involved a reproduction of the work, which is likely, that right could be relied upon

Under the proposed amendments, the rights to broadcast a literary, dramatic, musical or artistic work[37] and to cause these works to be transmitted to subscribers to a diffusion service[38] are omitted and replaced with a technology neutral "right to transmit the work to the public" (within or outside Australia). A new section 25 would deem transmissions which are received upon payment of a fee to be "to the public". Similarly, owners of copyright in sound recordings[39] and films[40] are granted the general right of transmission to the public, and broadcasters the right to "re-transmit to the public". The rights of publishers, who have never had broadcast or cable transmission rights in relation to their editions, remain unchanged.

"Transmit" is defined in the draft Bill as meaning:

> *electronically transmit (whether over a path provided by a material substance or otherwise) sounds or visual images, or sounds and visual images, that are not capable of being heard or seen except by the use of reception equipment.*

The proposed right does not, therefore, relate to the distribution of physical items such as books or CD-ROMs. It is proposed that the new transmission right be extended to cable television operators, not currently protected. The Bill also introduces provisions to proscribe the making or importing of decoding devices used to obtain unauthorised access to encoded broadcast signals.

The CCG recommendations, and the draft Bill, demonstrate a trend in copyright law reform toward removing technology specific definitions in the Act. In his *Reference to Review and Simplify the Copyright Act* the Minister for Justice, Duncan Kerr MP, has asked the CLRC to consider how the Act might be simplified to make it more easily understood, and to consider specific matters including:

- the feasibility of subsuming the existing exclusive rights comprising copyright in works and other subject matter, into a smaller number of broad based rights;
- the desirability of maintaining the existing distinctions between different categories of works and other subject matters having regard to the impact of technological developments on the ways in which such materials are created and used in new products.[41]

One commentator, a member of the CLRC, has argued for a radical re-examination of the categories in the Act. Dr Andrew Christie proposes two broad categories of protected subject matter ("performance" and "fixation") and two broad categories of exclusive rights (to make a "transient" and a "non-transient" "embodiment" of

---

[37] Section 31 (1) (a) (iv) and 31 (1) (b) (iii)

[38] Sections 31 (1) (v) and 31 (1) (b) (iv)

[39] Section 85

[40] Section 86.

[41] Reference to the Copyright Law Review Committee to Review and Simplify the Copyright Act 1968 announced 3 February 1995.

protected subject matter).[42] Such broad categories may meet the demands of converging technologies, but they may also introduce their own complications. The current law, cumbersome as it often is, represents a delicate balance between the interests of authors and producers who demand control over the material they create, and the users of those material who expect that cultural resources will eventually enter the public domain. The scope and term of copyright protection is an important public policy issue. If all rights holders were treated equally by broad categorisations, difficult questions could arise concerning the scope of some rights. All rights holders are not equal under the current law. Generally, creators of works are granted more extensive rights, and longer protection periods, than producers and investors. Other subject matter such as film and sound recordings need not necessarily incorporate works and so the protection granted may relate only to the investment of the producer. Similarly, subject matter such as published editions may reproduce works now out of copyright and in the public domain. Problems are likely to arise if producers' rights are increased when subsumed into a broad category along with the works of creators. Keeping material such as sound recordings and films from the public domain for a longer period would not be popular with the general public (or librarians). Equally, reduction of authors' rights to coincide with that of producers and investors in a single category would not be well received by creators and their representative bodies. So long as public policy distinguishes between groups of rights holders, some level of categorisation would seem inevitable. That is not to say that the categories need be bound to specific technologies. Nor is it an argument for retaining the existing categories, but simply a call to consider why a right was granted before it is subsumed into a new broad category.

Libraries and electronic copyright

There are provisions in the Act which allow libraries to make "copies" in certain circumstances without the need to seek permission from the copyright owner. They operate as defences to copyright infringement. These provisions are also part of the balance struck by copyright law between the demands of creators and users. The current library provisions refer to "copying" works. "Copy" is a more limited term than "reproduce in a material form" which is used elsewhere in the Act. It is clear that "copy" is intended to cover photocopying and it is likely that it also covers other photographic or "facsimile" reproductions such as slides, transparencies and microfilm. There is, however, some uncertainty about whether "copy" covers a digitised (computer readable) version of a printed work, or an electronic reproduction or printout of a digitised work. As with the rights of copyright owners, these defences reflect the technology of the period of their

---

[42] Christie, A "Towards A New Copyright For the New Information Age" (1995) 6 *Australian Intellectual Property Journal* 145, 157.

introduction. The amendments to the Act introduced in 1980[43] in response to the report of the Copyright Law Committee on reprographic reproduction,[44] dealt with the advent of the photocopier and the reprographic copying of materials being done in and by libraries and educational institutions at the time

In its report on computer software the CLRC considered the provisions in the Act relating to copying by libraries and educational institutions. The Committee recommended[45] that the provisions in the Act which allow libraries to make copies for users who request the material for the purposes of research or study, and for inter-library loan[46] be extended to include electronic copying and transmission within the existing limits and subject to payment of royalties where applicable.[47] However, the provisions should not, in the Committee's view, enable libraries to digitise their collections.[48] The CLRC also recommended further review of the library copying provisions.[49] Similarly, the CCG recommended in its 1994 report that copyright owners, libraries and community resource centres meet at a conference to discuss the developing of guidelines for "fair uses of copyright materials by libraries and those who use them".[50]

The role of libraries in granting access to electronic material, and their interaction with intellectual property laws, has also been considered recently in the United States. In the report of the US Working Group on Intellectual Property Rights issued in September 1995 entitled *Intellectual Property and the National Information Infrastructure*, the "library exemptions" under the US Copyright Act were considered in relation to electronic sources. The Working Group recommended that

> ... new scenarios should be considered to avoid ambiguity [in the current provisions] and to continue to protect both the interests of copyright owners and to continue to provide libraries with a safe "borrowing" guide.[51]

The special position traditionally accorded to libraries in copyright law is recognised by the various law review committees. It is essential that librarians, and their representative bodies, take part in the review process.[52]

---

[43] Copyright Amendment Act 1980

[44] Australia. Copyright Law Committee, October 1976 - *Report of the Copyright Law Committee Reprographic Reproduction* (the "Franki" report). Canberra, AGPS

[45] Copyright Law Review Committee, op. cit., rec. 2.47.

[46] Sections 49 and 50

[47] Copyright Law Review Committee, op. cit., rec. 2.47

[48] ibid., para 14.23

[49] Copyright Convergence Group, op. cit., para 14.26

[50] ibid., para 7.1

[51] Leham, op. cit., p. 80

[52] Further details of the current review can be obtained from the CLRC secretariat GPO Box 2727 Sydney NSW 2001. DX 444 Sydney. e-mail - clcr.secretariat@ag.ausgovag.telememo.au

Conclusion

The fundamentals of copyright law remain the same when a work is stored, or reproduced, in electronic form. Technology specific definitions, in the current Act, of categories of protected materials and exclusive rights are, however, creating difficulties for some electronic materials. Other electronic material such as data compiled by the operation of computers without any human authorship, and "non-original" databases which cannot be classified as "compilations", are simply unprotected. Technology specific defences to copyright infringement, which were not designed for electronic use, are also proving difficult for libraries which have traditionally been granted special concessions to use copyright protected material. For all these reasons, copyright law is under review both in Australia and internationally. Stay tuned!
