

Executive Summary

**AN ECONOMIC BACKGROUND STUDY
OF COPYRIGHT AND INTERNET INTERMEDIARIES**

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Industry Canada

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EXECUTIVE SUMMARY

INTRODUCTION

This Study was commissioned by Industry Canada with the objective to provide a background understanding of the activities of Canadian collective societies and rights holders associations, Internet intermediaries, such as Internet access and service providers, and Internet content providers with respect to the treatment of copyrighted works distributed over the Internet.

The Internet is still in the very early stages of development. New products, services, applications and tools are emerging almost on a monthly basis. Similarly, methods to deal with copyrighted works on the Internet are also evolving. The provision of copyrighted works over the Internet, however, holds great promise for their creators and rights holders as access to the Internet becomes more widespread.

In light of this rapidly changing environment, the primary objective of this Study has been to provide an overview of the current practices followed by Internet intermediaries, Internet content providers and collective societies and associations dealing with copyrighted works. The methodology we employed to conduct the Study consists of four principal elements: (i) a literature review (including online sources); (ii) an examination of selected Web sites; (iii) personal interviews with key stakeholders (e.g., Internet service providers, collective societies, and content providers); and (iv) an analysis of the data and information collected.

The interview process provided the primary source of information on how parties are currently dealing with the copyrighted works on the Internet. However, constraints on the scope of this Study dictated that only a relatively small number of parties could be interviewed. The interview process was also complemented with an extensive online survey of Web sites. Consequently, the Study does not provide a comprehensive overview of current practices; nonetheless, the information collected yields a clear and useful description of current and emerging issues relating to copyright and the Internet.

BACKGROUND AND DEFINITIONS

The Internet encompasses a vast and rapidly growing number of interconnected computer networks and individual computers spanning the globe, all of which can readily and easily communicate with one another. In this respect, the Internet is a decentralized, global medium of communications that links people, institutions, corporations, and governments around the world.

The growth of the Internet has been nothing short of phenomenal. The number of individuals online is estimated to be close to 160 million worldwide, up from 26 million in early 1995. Estimates for Canada alone indicate that, as of mid-1998, roughly 7.5 million Canadians are able to access the Internet either from home, work, or some other location.

There are two broad groups of individuals or entities involved with the Internet that are the focus of this Study. These are Internet "end users" and "intermediaries".

Internet end users encompass individuals who access information over the Internet either through individual connections to the Internet (e.g., from home computer or the office) or, alternatively, originate, make available or "post" content for others to access (e.g., by creating a Web site), the latter being Internet Content Providers ("ICPs").

Internet Intermediaries, such as Internet Access Providers ("IAPs"), provide end users with access links or connections to the Internet or, in the case of Internet Service Providers ("ISPs"), also route Internet traffic between IAPs and between other ISPs or backbone network providers. IAP/ISPs provide end users with a variety of services, including e-mail, and access to newsgroups, chat groups and the World Wide Web.

The number and variety of ICPs are enormous and growing rapidly. ICPs range from individuals sending an e-mail message or creating a personal Web site to commercial ICPs or online service providers. In this respect, virtually all ISPs and IAPs provide content on the Internet as well, ranging from simple promotional Web sites to more extensive multifaceted Web sites.

In step with the explosion of users, there has been a similar explosion in the range and volume of content available over the Internet. In response, a growing number of "portal" or "gateway" sites have emerged to help end users locate information on the Internet.

They typically provide users with directory, search engine, and other Internet navigational capabilities, and have become among the most popular sites on the Web. In effect, portal or gateway site creators serve as "intermediaries" between end users and Internet content. Some of the most popular Canadian portal sites include: Yahoo! Canada, Sympatico, AltaVista Canada, AOL Canada and, in French language, InfiniT.

THE CANADIAN INTERNET INTERMEDIARY SECTOR

It is difficult to entirely separate ISPs and IAPs, since in many cases Internet intermediaries are both ISPs and IAPs. This is certainly the case with the Canadian Internet intermediary industry.

Recent estimates suggest that there are roughly 700 ISP/IAPs operating in Canada. According to Industry Canada's 1997 Survey of the Industry, the vast majority of IAP/ISPs in the country are relatively small in scale. However, many IAP/ISPs have alternative sources of revenues from those purely associated with the provision of IAP/ISP services.

While there are many players in the market, it is dominated by a handful of large-scale IAP/ISPs. Roughly 50% of Canadian Internet subscribers receive service from one of the large national or multi-province service providers (which includes services such as Sympatico, AOL Canada, MSN Canada, AT&T Canada, Sprint Canada and @Home Canada).

The 1997 Survey results also suggest that, on average, other than large scale players in the industry, few ISP/IAPs appear to be profitable. While these results are influenced by the inclusion of revenues attributed to non-IAP/ISP operations, the findings also indicated that firms who were largely IAP/ISP-based operations were the least profitable.

The IAP/ISP industry is still in the early stages of development and, like the Internet itself, is evolving rapidly. With the rapid pace of technological developments and constant alliance announcements between IAPs, ISPs and ICPs, will continue to reshape the industry in the coming years.

COPYRIGHTED WORKS ON THE INTERNET

In their early days, online services were known as bulletin board systems and the principal form of communication was text. The more recent introduction of browser software provides quick and relatively simple access to an immense range of content on the World Wide Web. There are constant improvements in the availability and quality of online features such as graphics, animation, audio and video.

While there are a variety of means through which copyrighted works can be made available on the Internet (e.g., via e-mail or newsgroups), we have focussed largely on content provided through Web sites. Web sites typically include a combination of text, graphics, images, and/or audio (for display and performance purposes), although more advanced sites offer richer forms of multimedia, interactivity, as well as e-commerce capabilities (including transactional and downloading capabilities).

Creating an advanced Web site involves a team of people with a diverse set of skills from production (design and layout), content development (writing, editing and image creation), to software development (programming, navigation and user interface design) as well as resources devoted to copyright clearance matters.

Copyrighted material being made available on these Web sites by the site originator include literary works (reprinted articles from newspapers and magazines, software), artistic works (maps and reprinted photographs from newspapers and magazines), and compilations (audio and video feeds from other sources).

Issues Identified

A number of concerns and issues were noted by parties interviewed for this Study:

- Many content creators and rights holders are currently hesitant to make their works available over the Internet due to piracy concerns.
- Some were concerned that electronic delivery will have a negative impact on the current "orderly marketplace" (e.g., for film and television which has a well-defined window release schedule).
- Concerns were also expressed regarding publishers re-use of material from existing media in electronic form.

- At the same time, many rights holders are making entire works, excerpts, clips, and/or images available as promotional material.
- The most common issue with respect to the unauthorized use of copyrighted material on the Internet is that users are either not aware that they are infringing copyright, or they are not clear on how to clear rights or who owns the rights.

COLLECTIVE SOCIETIES

Most of the collective societies and rights holders associations interviewed for this Study are either currently involved in clearing rights for Internet activities or examining the issue of copyright and the Internet in order to determine when and how to get involved.

Collective societies that are currently involved in clearing rights on the Internet are generally relying on case-by-case individual licences, although most collective societies and rights holder associations interviewed for this Study indicated that they would prefer to utilize a blanket licence arrangement in the future. Most collectives interviewed noted that individual licensing is time consuming, expensive and not cost effective. On the other hand, information elicited during the interview process for this Study indicated that many users (e.g., ICPs and IAP/ISPs) are not receptive to blanket licenses, opting to take-down a work rather than pay a mandatory blanket licence fee.

Most collectives and associations are currently dealing with the user of copyrighted works (e.g., ICPs or Web site operators). However, two collectives interviewed for this Study expressly indicated a preference for dealing with IAP/ISPs, noting the difficulty in dealing with individual Web site operators.

Many collective societies and associations are also involved (either peripherally or directly) with systems being designed to address rights management and piracy prevention including the following: (i) watermarking and other tracking systems, (ii) encryption and (iii) anti-piracy (e.g., the Secure Digital Music Initiative ("SDMI") to promote Internet distribution of music, and to protect copyrighted music in digital format from theft).

Issues Identified

Most collective societies and rights holder associations interviewed do not object to works being used on the Internet as long as adequate financial arrangements can be made, users respect the rights of the creators and adequate measures to protect against piracy can be put in place. Many of these collective societies and rights holders are optimistic that with adequate systems in place, rights management and piracy can be dealt with in the future.

Concerns and issues noted by and collective societies and associations include:

- Difficulties determining how much to charge for the use of work, whether by individual or blanket licence.
- Case-by-case basis licensing is not cost effective.
- Need to develop a form of one-stop shopping for users interested in clearing rights to multiple types of works for a single project.
- Rights holders can be reluctant to let collective societies negotiate electronic rights on their behalf, as they are unsure of how much control they will be giving up.
- Some believed that even if higher costs are a result, most Canadians will be willing to pay (either through higher access fees, or other forms of payment) for "legitimate sites" (e.g., licensed sites).

INTERNET INTERMEDIARIES AND CONTENT PROVIDERS

Web site operators, or ICPs, range from personal sites to large scale commercial or government sites, and also includes IAP/ISPs. ICPs provide an enormous range of content and services online.

A number of alternative approaches can be followed to develop and make content available on the Internet by both small and large scale ICPs, including:

- in-house creation of original content,
- re-purposing and expanding existing in-house content for the Internet,
- packaging content obtained from external authors or other sources, or
- provision of access to external content through use of "links" to content available on other Web sites.

Based on the interviews conducted for this Study, Internet intermediaries and ICPs all indicated that they adhere as best as they can to copyright requirements. Indeed, many Web site operators have clearly posted policies and terms of service with respect to use of copyrighted and other materials.

Copyright Clearance

As a general rule, commercial online content providers try to minimize to the greatest degree possible any copyright clearance related requirements. This is typically accomplished by creating content in-house, establishing cross-promotional partnership arrangements or by providing links to other content. Creating content in-house often involves re-purposing existing content for online delivery (e.g., in the case of online newspapers).

Where required, dealing directly with authors or copyright owners appears to be the most common approach to obtaining clearance for copyrighted works. For instance, one Canadian online magazine indicated that it typically establishes contracts with the author that give it exclusive use of the work for a set period of time, but it is also common to have material provided to the ICP for free for purely promotional purposes with the agreement of the rights holder.

With respect to Web sites featuring audio content, the availability of musical works on the Internet is growing rapidly. Musical works are made available over the Internet in a variety of formats: "Juke Box" format, "re-broadcasters" (e.g., CBC Radio), original online programming, and downloads (e.g., in MP3 format). The primary approach to clearing copyright to musical works involves dealing with the artist or copyright holder directly, although some ICPs have approached collective societies to discuss licencing arrangements.

Larger scale content providers and aggregators who provide a variety of materials online (e.g., @Home and AOL) rely extensively on partnerships with other content providers to provide a comprehensive range of content for their subscribers. Content partnerships are established with the objective of sharing advertising revenues. They allow copyright related issues to be handled easily and with minimal cost and procedural difficulty. More and more, larger-scale ICPs are looking for partners to provide content much the same way as a "program" or "channel" does in a broadcasting environment.

Most parties interviewed for this Study, given that they typically operate commercial Web sites, indicated that if the copyright owner or the source of certain content was unknown, as a rule, they just would not post the material on their Web sites.

Generally, ICPs indicated that they do not actively monitor other Web sites to protect against copyright infringements of their own content. They simply rely on word of mouth to identify any such violations and, if necessary, take action to address the matter.

Hyperlinks

Providing hyperlinks to content available on other Web sites is commonplace. A hyperlink simply provides the Internet address, or URL, of the linked page. Once activated, the end user is sent to the linked Web page and, in effect, leaves the referencing Web site.

Parties interviewed indicated that there are no formal arrangements or copyright fees associated with the establishment of links between Web sites. The general opinion of the ICPs we interviewed regarding the use of such links is that both parties benefit from their use, since the end result is increased traffic to the linked Web sites.

Many Web site operators, including large scale ICPs, provide a large number of links to external sources to provide their users with quick access to a variety of forms of information. In doing so, most ICPs often include a statement to the effect that they are not responsible for nor do they necessarily endorse the content that users may find on the linked Web sites.

There are, however, two primary concerns associated with the use of hyperlinks. The first is "framing" which occurs when linked Web page or material is presented to the user in a manner which makes it appear to be part of that initial Web site. A second concern is that framing often bypasses the linked Web sites' home page and can remove or obscure navigational capabilities within the linked Web site.

Licensing and Administrative Costs

While based on a limited sample, the IAP/ISPs and ICPs interviewed for this Study indicated that, at this point in time, the costs associated with copyright clearance generally

accounted for only a "minimal" portion of the overall production and administration costs of their respective Web site operations.

These low cost estimates are likely a reflection of the early stage of the development on commercial online content provision. Indeed, considerable effort is taken to reduce licensing and copyright administrative costs to the greatest degree possible. This is done by developing content in-house, re-purposing existing content for online applications, and/or partnering with other content providers.

Transmission and Storage Issues

IAP/ISPs interviewed for this Study indicated that they have no policy or procedures in place to monitor on an ongoing basis the content posted on their servers by their clients with a view to screening material for potential copyright violations or, for that matter, other potentially illegal activities. Some added that to do so would be costly and, moreover, put them in the position of judging whether certain activities violate copyright or other laws.

On the other hand, IAP/ISPs typically endorse a standard "Code of Conduct" that includes the adoption of an "Acceptable Use Policy" to which its clients are expected to adhere. In this respect, the Canadian Association of Internet Providers has established a voluntary code of conduct for the Canadian industry.

Caching and mirroring are fundamental and increasingly important technological elements of the World Wide Web considered to have potential copyright-related implications.

As described by the Global Internet Project: "Caching is the automatic creation of temporary copies of information residing on computers other than a host server in order to make this information more easily available to people around the world, and to prevent traffic jams when users wish to access a Web site. Caching technology, in short, allows for the temporary storage of digitized materials."

There are three basic forms of caching currently in use: PC or browser caching, proxy server caching and mirroring or mirror caching. We focussed on the latter two which are of direct relevance to IAP/ISPs.

Proxy server caching involves the creation of temporary copies of frequently accessed Web pages that are copied and stored on an IAP/ISP's proxy servers (i.e., separate from the Web site operator's host server). This form of caching provides users with faster access to the information. Proxy servers are widely used by IAP/ISPs and some large Web site operators as a means to speed access to the information and reduce telecommunications costs.

There were two key technical concerns related to the use of proxy server caching. The first involves potential traffic monitoring problems. Proxy server caching can create challenges for the host Web site operator to accurately track traffic to its site, which is a key factor determining advertizing revenues. The second involves and Web page update frequency. In this respect, it is important that IAP/ISPs comply with rules regarding updating or refreshing material on the Web pages temporarily stored on proxy servers.

The IAP/ISPs and ICPs interviewed for this study considered proxy server caching as a fundamental, as well as beneficial, operational element of the Internet. The fact, that proxy server caching involves automated copying of material was not considered an infringement on copyright by either the IAP/ISPs or ICPs we interviewed, nor were licensing fees for copyrighted material temporarily stored in this manner deemed necessary. In this respect, the *Digital Millennium Copyright Act* passed late last year by the U.S. Congress, shields Internet service providers from liability in respect of reproduction made for the purpose of caching.

Mirror caching involves the creation of identical Web sites on separate servers. This allows the Web site operator to more effectively manage traffic volumes, balancing traffic on alternative servers or diverting traffic from one mirror site to another if one fails temporarily. Mirroring also allows the Web site operator to geographically distribute mirror servers to permit faster access to the Web site so that users can avoid potential traffic congestion related delays in accessing the information on the Web site. Unlike proxy server caching, setting up mirror sites involve licensing agreements where a third party operates the mirror site. The nature of such arrangements vary depending on the nature of the content involved.

Issues Identified

From the perspective of IAP/ISPs and ICPs, several issues and concerns regarding the procedures and the associated costs relating to copyright clearance were identified:

- Commercial online content providers attempt to minimize to the greatest degree possible any copyright clearance related requirements. This approach is not surprising given the limited prospects for profitability of online operations at this early stage of the development of the Internet.
- Copyright violations are attributed to users' lack of awareness of copyright laws combined with their general misled belief that material on the Internet is free for use in any way (e.g., personal "fan sites" which can include pirated photographs, digital images and MP3 music files).
- The use of hyperlinks to content located on other Web sites is widespread, and generally involves no licensing requirements.
- While no licensing fees are generally required as far caching activities are concerned (excluding the establishment of affiliated mirror sites), some concerns expressed with the current legal uncertainties surrounding the practice.

In addition, based on comments received from IAP/ISPs and ICPs interviewed, the following significant problems in terms of dealing with copyright infringement on the Internet were identified:

- Active monitoring and policing by copyrighted materials available on the Internet by authors or copyright owners is impractical and simply too expensive.
- Similarly, from the perspective of parties offering Web site hosting services, monitoring and policing the content posted by their clients is also considered to be impractical and too costly, as well as undesirable. The current complaints-driven process appears to work reasonably well in terms of dealing with copyright infringing materials.
- Some IAP/ISPs expressed concern with the lack of clarity as to who is or may be held responsible for copyright infringement activities. In their view, attempts to hold IAP/ISPs responsible for copyright infringement by others, simply because infringing material may be on their server, is misguided and based on a misunderstanding of Internet technology.

TRANSBOUNDARY ISSUES

Internet penetration rates are generally still not as high in other countries as in the U.S. and Canada. The majority of worldwide Internet users are found in the U.S. and Canada, accounting for just over 55% of the total worldwide users, estimated to be in the order of 150 million. North America has traditionally accounted for the vast majority of Internet users (given the Internet was first developed in the U.S.), however, other countries are beginning to catch up.

Indeed, most countries have also had to address issues relating to the treatment of copyrighted works on the Internet. The most notable examples of efforts to protect copyright in an electronic environment are the efforts by the World Intellectual Property Organization ("WIPO"). On December 1996, negotiators from 160 countries reached agreement on two new treaties, the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty. The first establishes minimum standards of protection in a digital network environment and the second establishes minimum standards of protection for sound recordings and performers on sound recordings.

For most signatories to these treaties, new legislation or amended legislation will be required. For example, in October 1998, the U.S. signed into law the *Digital Millennium Copyright Act*. In July 1998, Industry Canada and the Department of Canadian Heritage initiated discussions on what amendments would be required to Canada's *Copyright Act* in order to bring it into conformity with the WIPO Treaties.

Comparative Analysis

One of the objectives of this Study was to evaluate the potential impact of any new measures that would have the effect of placing an additional cost burden on Canadian IAP/ISPs and/or ICPs relating to the protection of copyrighted works. However, no particular program or measures were specified, in this respect. Consequently, the associated benefits of any such program could not be assessed and counterbalanced against the costs of the program. While the intent of this Study is not to propose or evaluate any alternative measures that may be considered necessary and appropriate, in general terms, we can comment on the likely effects of any such measures (e.g., tax or licencing fees) applied to IAP/ISPs and/or ICPs.

With respect to IAP/ISPs, any new measures that have a material impact on their overall operating costs can be expected to be passed on in large measure to their customers. To the extent that the costs might be passed on to consumers, higher access charges would likely dampen consumer demand for Internet access services, which would slow the growth of Internet penetration in Canada (*ceteris paribus*). There is also the possibility that some IAP/ISPs could decide to shift their operations out of Canada to the U.S. in order to avoid the additional costs.

Introducing new measures targeted at ICPs could have similar potentially detrimental effects (*ceteris paribus*). The effect of any new measure that raises the operating costs of ICPs can be expected to reduce the number of Canadian Web sites and the scope of Canadian content available on new and existing Web sites. Again, it is possible that ICPs could move their Web sites to the U.S. in order to avoid significant costs applicable in Canada only.

It is important to reiterate that the expected program benefits would have to be weighed against these costs. Any measures that had the effect of significantly raising costs for IAP/ISPs and ICPs could potentially reduce Internet penetration in Canada and/or reduce Canadian content on the Internet, unless the program had the net effect of stimulating penetration and content provision. This could occur, for example, if an efficient and comprehensive copyright clearance and payment system led to an increase in the supply of content and content providers.

Issues Identified

With respect to transboundary issues, one significant international concern raised by a few of the interview subjects is the issue of "copyright havens". These are countries that do not enforce copyright protection or which are not signatories to any international copyright treaties. These jurisdictions may become ideal places to host Web sites that are heavily involved in copyright infringement.

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