Copyright Law in the Digital Age:

Is This Legal Schema Adaptable to the Era of the Internet?

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"(J)ust because it's the digital era doesn't mean we can't apply a little common sense to this thing, this copyright law. And conversely, just because it's the digital era doesn't mean we get to toss out traditional precepts that have served personkind."[i]

--- Mary E. Carter

(I) Introduction

Copyright is an artificial creation of statute designed to protect intellectual property as it is expressed in the tangible world. This bundle of rights was created to address the protection of ideas as they are expressed in corporeal form, such as a photograph, movie, book, tape, floppy disc, or compact disc.[ii]

The digital age poses serious problems for copyright law, specifically as it pertains to the Internet and infringements in cyberspace. There are those who suggest that copyright law is dead or dying. Some believe that this niche of the law must be fundamentally revamped[iii] or even discarded altogether in favour of a modern system tailored to meet the needs and challenges of the modern age of cyberspace and digital information.[iv] There are those practically minded critics who search for a responsible party. They point fingers at Internet service providers and online service providers and demand that they be held liable for copyright infringements in cyberspace facilitated by their servers.[v]

This paper addresses these concerns and maintains that copyright law is alive and well in the digital age. Copyright will continue into the next century in its present form, possibly with incremental changes. It will be a tool as effective in cyberspace as it has been in the tangible realm.

(II) Internet as the Affordable Tool for Copyright Infringement

Traditionally, copyright has been used to protect ideas in a manufactured form. This form has been that of a record album, book, or even a T-shirt. Regardless of the product these expressions of ideas were all items that must be physically produced in

some way. Traditionally these goods have been manufactured in factories and it has been this fact that has been instrumental in facilitating the protection of copyright

First, factories tend to be large, expensive, and relatively immovable structures. This makes them fairly easy targets for those investigating copyright infringements. Second, the massive capital required to start up a bootlegging operation complete with effective distribution channels has been a barrier to all but an elite few. This has meant that the bulk of infringing material has traditionally been produced by only a small number of identifiable mass infringers. Any small infringers tend to be relatively incidental or even tangential to the market. Third, claims against these mass infringers can be substantial enough that the pursuit of litigation is economically viable.

Lance Rose comments:

> "Pursuing these mass infringers is the copyright owner's version of one-stop shopping: you can collect legal damages for many small rip-offs by suing just one mass infringer. The small-time infringers are all but ignored."[vi]

Unlike a factory, the Internet exists everywhere and nowhere simultaneously. It is a medium of purely intangible information and thus it expedites the movement and distribution of intellectual property at an unprecedented speed. Small, independent producers of intellectual property are now in a position to compete over the Internet on a world scale against giant competitors.

A late 1998 article in the *Economist* discussing the impact the Internet has had on the recording industry observed that one need only:

> "Nose around the Internet, and the proliferation of new labels is evident. On cductive, a site that allows consumers to create their own compilations, there are 59 from Britain, 42 from America, eight from Germany and a handful of others from smaller markets."[vii]

Ironically, this ease of legitimate intellectual property distribution also facilitates relatively easy copyright infringement. On the Internet the playing field has been leveled for all potential infringers. No heavy machinery is required. Furthermore, the Internet itself provides the means of distribution as well as the means to conceal oneself from authorities investigating such infringement.[viii] The Internet is both the ultimate tool for legitimate distribution of intellectual property and the perfect infrastructure to facilitate the misappropriation of this same intangible capital.

For example, any Internet surfer (or "Netizen") could insert a Neil Young compact disc (acquired legally or otherwise) into her disc drive, 'rip'[ix] one or every song from this work, compress that information into MP3 format,[x] and send it out over the Internet to millions of users in seconds. This infringer could set up her own web page to facilitate such infringing. This copyright infringer could easily cover her tracks via programs currently available and easily accessible online.

Jack Valenti, President and CEO of the Motion Picture Association of America laments:

> "The very same technology that eases the legitimate distribution of our creative products around the world also entices copyright piracy … The Internet will be the crucial link in the pirate operations of tomorrow. Today, the pirate who obtains, by stealth or malfeasance, a copy of the latest blockbuster picture before it is even released in the theaters must cope with formidable distribution problems. Physical copies must be smuggled across borders, warehoused and parceled out to distributors before reaching the ultimate consumer. Alas, digital networks will soon make this complex and dangerous undertaking cheap and simple. The pirate master will be digitized, posted on the Web, and made available to Net surfers all over the world."[xi]

(III) Copyright May Be Inappropriate for Cyberspace: The Problem of 'Caching'

Some believe that copyright is not an appropriate mechanism to apply to the Internet. Application of this traditional bundle of rights to the new medium can yield surprising and anomalous results. This leads many critics to hold that copyright has outlived its usefulness and should be discarded or fundamentally revamped.

Consider the act of 'browsing' on the Internet. Typically, when looking for information in cyberspace, a user browses many sites, perusing their contents in order to find the information sought. Ironically, under the current copyright regime, this act is, itself, a copyright infringement.

This is a result of the implementation of the technology itself. When a user wants to view a particular web page, the browser sends a request out over the Internet to the appropriate web server for a file called an HTML file. The web server sends a copy of the file back to the browser. The browser interprets and displays on screen the text and graphics of the web document, according to the instructions contained in the HTML file. The HTML file itself contains the text for the document, but the graphics files, being much larger, are kept as separate files on the server, and are called up individually by the browser. The end result produced on the user's screen by the browser software, combining text, layout, and images, constitutes a web page.

In order to expedite this process, the technology implements certain short cuts known as 'caching'. The cache in a browser has important copyright implications. The browser caches (stores) copies of the text and images of visited web pages. These are stored on the local server as well as on the hard drive of the user's computer. The purpose of caching is to improve access to web pages.

The time it takes for an entire web page to reach the user depends on the information-carrying capacity (the "bandwidth") of the Internet connection between the web server and the user's computer. The vast amount of information being transmitted can create bottlenecks that will impede the progress of this information. Caching the graphics from previous transmissions, however, speeds up this process tremendously, thereby alleviating much of the congestion at bottlenecks.

Caching, however, has serious legal implications. This process means that viewing a web page necessarily involves making a copy of it in the memory of the client computer. At the very minimum, there must be a copy of the information in the computer's Random Access Memory (RAM), otherwise the client software would be unable to interpret and display the web page.

Unfortunately, this innocent act of copying simply for the purpose of viewing has been held contrary to copyright law. This issue has been litigated in the United States in the case of *MAI Systems Corp*. v. *Peak Computer, Inc.*[xii] American jurisprudence is increasingly being held to be influential on Canadian adjudicators, due to the tendency of Americans to litigate cutting-edge issues more readily than Canadians. It is logical, therefore, to examine this American case as it is reasonable to assume that Canadian courts will interpret caching in a similar way to their American counterparts.

Furthermore, the principles espoused in the American decision have received tacit, general acceptance. They are reiterated in both the U.S. Department of Commerce's *White Paper on Intellectual Property on the National Information Infrastructure*,[xiii] which actually cites the case law, and Industry Canada's *Information Highway Advisory Council (IHAC) Final Report on Copyright*,[xiv] which outlines the same principles.

Daniel Cahoy comments on the American decision:

> "Following the holding in *MAI Systems Corp*. v. *Peak Computer, Inc.*,[xv] it is possible that a court may find that an OSP "copied" a work by simply loading it into the RAM of its computer as it prepares to transfer it to the end user's computer via a telephone modem or direct line."[xvi]

One could argue that it seems unreasonable to declare the mere use of the Internet to be a copyright infringement, as the above case does. Critics have noted this objection. It has been noted that if the law is interpreted and applied to the Internet in this mechanical, 'black-letter' manner, this will lead to absurd results. Pragmatically speaking, a legal system which essentially criminalizes Internet use, would certainly hamper the development of this new medium, if not stifle it entirely.

Lisa Anne Katz Jones comments on the criticisms of Harvard Law Professor James Boyle:

> "The authors of the White Paper consider MAI v. Peak to be "well-established law." This assessment has been severely criticized by some commentators. Professor James Boyle reports that out of twelve law review articles discussing the MAI v. Peak judgment, only one defends it. Boyle lists criticisms voiced in submissions to public hearings, and in articles published in journals, newspapers and magazines. … (C)ritics charge that only mechanical, positivist reasoning would elevate MAI v. Peak to the decisive case on which to build a new legislative regime for the coming information age."[xvii]

(IV) Liability for Infringements in Cyberspace

(A) Who is the Infringer?

Copyright infringement in cyberspace is a growing matter of concern to those who derive their income from intellectual property. This has evoked the natural reaction of some individuals to pursue the goal of laying blame and attempting to 'hold someone responsible'. Determining liability in online copyright infringement, however, is not a simple matter. This is a legal transgression crossing international borders and involving

numerous parties, some of whom are directly involved whereas others are indirect participants.

There are various candidates for liability. It is not clear, however, who should be held responsible and on what basis. Furthermore, in cases where a responsible party is identified, it is often a practical impossibility to prosecute that individual, let alone to extract damages from that party.

(B) Internet Service Providers (ISPs)

(i) Exception for Common Carriers

The first of the two most obvious candidates for liability are the *Internet service providers* (ISP). These individuals physically facilitate copyright infringement by providing the link-up for potential customers to receive unauthorized material. In Canada, however, it is reasonable to exclude these parties from liability based on domestic copyright law.

Section 2.4(1)(b) of the *Copyright Act* addresses those such as ISPs. This section excludes liability for 'common carriers' that are not directly involved in infringing, but merely supply the necessary communications system used to infringe.

The section states:

> "A person whose only act in respect of the communication of a work or other subject-matter to the public consists of providing the means of telecommunication necessary for another person to so communicate the work or other subject-matter does not communicate that work or other subject-matter to the public."[xviii]

This means that as a 'common carrier', an ISP could not be held liable in Canada for infringements occurring over its lines. Avi Pollock defines a 'common carrier' in the context of the Internet as an entity:

> "… whose sole function is the providing of the means for accessing the information but is not involved in the actual content of the Internet site."[xix]

ISPs are analogous to companies who provide telephone service. Telephone companies merely provide a means by which individuals are free to communicate about any topic they so choose. It would be intuitively illogical to hold such companies liable for infringements or any other legal transgressions that occur over their lines.

For example, consider the hypothetical situation wherein Lindsay uses her telephone to contact Dylan and then proceeds to read a movie-script over the telephone to Dylan. MacDonald Productions holds the copyright to this script. Dylan records the script as read to him over the telephone. Within two months of his telephone call from Lindsay, Dylan surreptitiously produces a cinematographic production of this script.

It is obvious that Dylan is a copyright infringer. It is also plausible that Lindsay was involved in the activity. It would be intuitively illogical, however, for MacDonald Productions to seek damages from the telephone company. This party merely provided the medium that facilitated the infringement. It took no part in the infringing activity itself. It did not assert control over the information travelling over its lines nor did it claim to assert such control. Analogously, it would be equally illogical to seek such damages from ISPs, and the law is written to reflect this.

(ii) Liability of ISPs: Privacy Issues

Apart from the intuitive illogicality of seeking damages from ISPs, there are also legitimate concerns pertaining to the potential result of holding these entities liable. The implication of seeking damages from ISPs who facilitate copyright infringement is that society expects such entities to exercise a due degree of diligence to become aware of infringements over their servers.

Presumably this would mean that ISPs would be forced to employ a staff to monitor the content being transmitted via their servers. Apart from the huge costs of such a system, which the market for Internet service might or might not bear, there are serious concerns pertaining to privacy. When two individuals communicate over the Internet these people presume a reasonable amount of privacy for that communication. This sense of privacy would be eradicated in the event that ISPs are held liable for infringements over their servers.

Richard Cantin explains the potential threat to privacy that holding ISPs liable for transmissions by their users would cause:

> "Canadian citizens like to think they have an inalienable right to privacy but proposed regulation of the Internet service provider (ISP) industry may lead to an invasion of privacy on a number of fronts. At the heart of the debate is the belief that ISPs should be accountable for the traffic they carry on their networks. To be accountable they would have to monitor every packet."[xx]

An understanding of the technology leads one to the obvious objection to this contention, however, that people should not expect privacy when engaging in Internet communication. This objection arises because the bytes of information constituting the communication between users are travelling to innumerable places in the world before ever reaching their destination. This communication could be intercepted at any number of junctures.

This objection, however, is spurious and is revealed as such if we return to our analogy of the telephone. A communication by telephone travels over an array of wires as well as via satellite. Such a transmission is quite susceptible to interception. Telephone users, however, expect that their transmissions are not systematically monitored.

This, of course, is not an absolute or inviolable right. There is always the potential for a phone line to be 'tapped' by the police in the event of a criminal investigation. There is also the possibility that an independent party might illegally 'tap' an individual's telephone line in hopes of learning confidential information. It is reasonable to conclude, however, that in general, telephone users do not expect their communications to be monitored.

Those who communicate over the Internet expect a similar imperfect degree of privacy as that expected by telephone users. The vast majority of Netizens recognize the potential for 'hackers' to intercept their communications. For this reason, many people choose to avoid transmitting information such as credit card numbers or trade secrets over the Internet. (This problem can be alleviated to a degree by the implementation of security measures such as 'cryptography', but the use of such coding systems results in a whole other range of legal implications too broad for discussion here.[xxi]) Most Netizens do not, however, expect that, as a general rule, a person along the way will monitor all communications that they make via cyberspace.

The fact that it is possible to hack into an Internet communication does not imply that Netizens should expect that every communication made is automatically being reviewed before it reaches its destination. Such an invasive system is reminiscent of Orwellian literature. Such a system has unthinkable potential for abuse and its implementation should be resisted on all fronts.

(C) Liability of Site Producers

(i) Liability of Those Who Actually Transmit Material

The second of the two obvious potential groups to be held liable for copyright infringement in cyberspace is comprised of those who are actively infringing the copyright as opposed to those merely supplying the hardware to facilitate this infringement. This group can be subdivided into two sub-groups.

Avi Pollock describes them:

> "The most obvious member is the one who intentionally is running an Internet site which offers unauthorized protected material, whether to the public through a generally accessible site or to individuals by point-to-point E-mail."[xxii]

Once again it is possible to examine American jurisprudence to see how a court has dealt with the matter. Such American case-law is likely to be influential if such a matter is to be litigated in Canada.

In the case of *Playboy Enterprises* v. *Frena*[xxiii] a bulletin board operator was sued because subscribers to the board had uploaded photographs which had appeared in a Playboy magazine. Once on the bulletin board, these same photos were then downloaded by innumerable other subscribers.

Playboy sued the operator of the bulletin board for copyright infringement. The operator of the system claimed no knowledge of the infringing activity. The court held that the operator was, in fact, liable for copyright infringement.

Based on this decision, it seems likely that a Canadian court would also find site or bulletin board operators liable for infringement. Furthermore, as in the case above, knowledge of the infringing activity is not a prerequisite for liability. The court held the defendant liable in spite of the defendant's denial of any knowledge. This implies that if

a party transmits content over the Internet, that party is responsible to exercise due diligence to ensure that this transmission does not transgress copyright law.

(ii) What if the Infringer is in Another Jurisdiction?

The case above deals with litigants who all resided in a single country. It is reasonable to assume, however, that cases of this nature are going to arise that transgress international boundaries. The universal character of the Internet ensures this.

This can pose a problem for copyright law. This problem arises from the fact that there is "no such thing as an international copyright, but rather a system of international copyright law."[xxiv] This means that infringers in other countries need not be concerned with domestic copyright law such as the Canadian *Copyright Act*,[xxv] or the American equivalent under which Frena was held liable. As long as they and their assets remain in a foreign jurisdiction, they are out of reach of Canadian domestic law.

There are however international conventions that facilitate lawsuits against foreign defendants. Currently there is the *Berne Convention for the Protection of Literary and Artistic Works*[xxvi] as well as the *Universal Copyright Convention and Protocols*.[xxvii] Such international agreements make it possible for a Canadian copyright holder to extract damages from a foreign copyright infringer by litigating the case in a foreign court under foreign copyright law.

The greatest problem facing those who seek to prosecute foreign defendants, however, is posed when the potential defendant lives in a state that is not a party to any international copyright agreement. In the case of the Internet, this problem is compounded as it is possible for a copyright infringer to be in an entirely different locale than the server, upon which her web site is run that actually did the infringing. It is even

possible to switch servers and countries in a manner of seconds. In such a case, plaintiffs may be without recourse.[xxviii]

(V) Copyright Has Never Worked Perfectly

Problems such as caching or determining and litigating liability for infringement illustrate the fact that copyright law and the Internet are far from a perfect match. Some maintain that this fact leads to the conclusion that copyright is dead, or at the very least should be 'mercifully put out of its misery'. Those who dwell on such incidental shortcomings of copyright law, however, are missing the point of this system. This object has existed throughout the tradition of protecting intellectual property and has not changed with the advent of the Internet. The point of protecting intellectual property always has been and will continue to be to encourage would-be creators of intellectual property by providing some security that they will receive remuneration for their efforts.

David Vaver explains:

> "The strongest economic argument for intellectual property is utilitarian: without such rights, much research and creativity would not be carried on or would not be financed by capitalists."[xxix]

This goal of protecting intangible capital to facilitate profit and encourage further creativity continues into the twenty-first century. This object, however, has never been reached exhaustively as it will not be in the future. This does not mean, however, that copyright is dead or that it must be restructured at its foundational level.

Lance Rose explains:

> "Business built on copyrighted products - record companies, book publishers, film producers, and the like - never depended on stopping all infringements. On city sidewalks and in country flea markets across the nation, you will find truckloads of bootleg music tapes, videos, and software, as well as knockoff T-shirts and watches. Infringements galore! Visit some foreign countries, especially in Asia,

> and you will find whole economies based on ripping off US software. … How do these companies stay in business? It's simple: copyright law succeeds at maintaining public markets for copyrighted products - markets where the owners can charge and receive a price for those products. It is irrelevant whether any given infringement goes unpunished as long as it is kept outside the public marketplace."[xxx]

It is for this reason that many of those who dwell on the shortcomings of copyright as applied to the Internet are missing the point. Much online copyright infringement is irrelevant. This is especially the case for incidental or technical infringements like caching. The reality is that such transgressions are not significantly material to a copyright holder's income potentially derived from her property.

(VI) Protection of the Public Market

As it has never been possible to prosecute all copyright infringers, it has been standard practice to sue massive infringers who are generally visible and have deep pockets. This practice has kept small infringers from operating openly in the public market. This has been an effective system. It keeps small infringers from significantly affecting the profits of intellectual property holders, while providing a means for retrieving damages from those infringers who do affect such profits. There is no reason to believe that this system should be fundamentally changed in order to police copyright infringements in cyberspace.

Lance Rose gives examples:

> "For instance, the Software Publishers Association reportedly has about 2,000 computer bulletin boards under continuing surveillance, while the FBI readily lurks anywhere it suspects wrongdoing. These groups, as well as large copyright-owning corporations, bust notorious online services every now and then, and wave their fists at lots of others. … Playboy recently won a court order against the Georgia bulletin board Tech's Warehouse for trafficking in digital images of its magazine pinups; Sega of video-cartridge fame, obtained a well-publicized shutdown of Maphia pirate BBS in California. Not content with such small fry, the Harry Fox Agency in

> New York … is suing CompuServe for millions of dollars because CompuServe's users were supposedly using the online service to trade large quantities of infringing songs. These legal tactics and others will keep online systems scared straight. They will discourage organized copyright infringement on their systems especially infringement out in the open."[xxxi]

It will be tireless efforts, such as those outlined by Rose above, that will be needed to enforce copyright in the digital age. This has been recognized by large copyright holders such as the Recording Industry Association of America who have declared that:

> "There will be continued legal pressure from the RIAA and record companies against any site that houses illegal MP3s. The association hopes to scare the world into just paying for the damn things at sites such as MP3.com."[xxxii]

Fundamentally, these tactics for enforcement are not novel. It is simply a matter of policing and prosecuting those who massively infringe, thereby discouraging smaller infringers from expanding or operating in the public market. "If a pirate operation drifts close enough to the surface that it threatens legitimate markets, the Net cops will infiltrate and bust it before it can make a dent in the copyright owner's profits."[xxxiii]

The reason that such infringers will have little or no bearing on a copyright holder's potential income, is that in order for small infringers to operate, they will be forced to be evasive and technologically advanced. Such infringers will have to be prepared to switch servers and countries as soon as enforcement regimes encroach. These parties will be forced to use coding systems such as encryption to transmit infringing materials or else risk getting caught.

It will be by keeping small infringers on the run that public markets will remain protected. The average Netizen in the market for a new compact disc will not even have the opportunity to purchase illegal copies on the Internet. In order for an infringer to be

available to the average Netizen, she must operate in the open, thus being open to investigation and litigation, whether it is domestic or international. Conversely, if an infringer wishes to remain hidden from authorities, she will also be hidden from the vast majority of her potential customers, thereby remaining out of the public market.

Rose explains:

> "Net users who aren't at least mildly familiar with the underworld will never even hear about such systems before they are dismembered, and will confine their purchasing to the legitimate above-ground markets for copyrighted goods."[xxxiv]

The objection could be raised that nothing would preclude any Netizen from engaging in convenient infringing strictly between her and her personal acquaintances. Anyone could send copyrighted material to her friends, via the Internet, and would never be prosecuted. This is analogous to the familiar practice of recording compact discs onto cassettes for the consumption of friends.

It is granted that this practice will continue into the digital age. It will not, however, be a formidable threat to revenues for copyright holders. In fact, in order for such arrangements to impact in any significant way on revenues derived from the public market, these groups will inevitably open themselves up to investigators.

Rose explains why this is so:

> "Can we all get the works we want cheaply or free among private, interlocking circles of friends? This is a tempting thought, but friend-to-friend markets are far more likely to remain small and self-limiting. We might refer to an extended circle of trading acquaintances as "friends", but in fact few or none of the participants will know everyone else in the circle. This makes such groups ripe for infiltration by the cops, who will do so readily if enough freebies pass within these extended groups that they noticeably reduce sales in the legitimate markets. A symbolic legal attack every now and then will keep these groups in check."[xxxv]

Additionally, the groups that will forever elude the copyright enforcement regime, small, 'friend-based' groups trading in infringing material, will never be able to satisfy the

needs of their members exhaustively. As a result of their small, tight-knit constituency, these groups will be severely limited in their range of available tradable product.

In order to diversify and acquire a wider range of product, such groups will have to turn to the legitimate market. If it wished to continue to avoid the mainstream market the group would have only two options. The group could choose to expand and include new members, but then it would be vulnerable to infiltration from without. Otherwise the group must associate itself with fringe markets. In the former case, it would only be a matter of time before authorities closed down the operation. In the latter case the group would be irrelevant to copyright holders and their profits as it would remain among the fringe that operate outside the public market where revenues for intellectual property are normally reaped.

In addition, the effort required by such groups to maintain connections with those who could provide desired illicit intellectual property is likely to be a further deterrent. The risk and effort required will induce the majority to simply purchase the product legitimately, thus further preserving the integrity of the public market.

Rose explains this self-restraining check built in to the market:

> "To get the illicit version, you need to find someone who has it, which means keeping up with the whereabouts of those who collect the kinds of music you like. It's not easy to stay informed about these people. … The survivors will be those deep enough underground that the cops can't readily find them, moving as necessary from dark corner to dark corner. Keeping track of these shady characters will require becoming part of an underground information network yourself, and maintaining strong enough security to keep out the narcs. …The adventure and risk of hunting down pirate suppliers and avoiding the cops will be left to cyberpunk romantics and belligerent information-freedom fighters for whom the game of getting the goods illicitly is the object anyway."[xxxvi]

It does not matter how Internet-based groups are arranged. They can be web pages, bulletin boards, or 'circles of friends'. In any case, the same results transpire in the

long run. These groups will remain small, fringe elements and will not impact significantly on public market revenues. Moreover, in order for such arrangements to attain a level at which they could have any significant impact, they will have no choice but to become larger, mainstream elements thus being vulnerable to detection, infiltration and litigation.

(VII) Conclusion: Copyright Law Will and Should Persist

Copyright law is appropriate for the Internet. This niche of law has never resisted change and adaptation in order to meet the challenges of new technology. Historically, copyright law has had to evolve to account for the advent of player pianos, photographs, and audiocassettes. It must and will now evolve to meet the requirements of the digital age and cyberspace.

The Internet does act as an affordable means for anyone to become a copyright infringer. Any Netizen has the capability of digitizing a piece of intellectual property and proliferating it throughout cyberspace. This is exacerbated by the fact that the Internet also provides the means for such infringers to disappear into cyberspace's ephemeral ether, sometimes reappearing on an entirely different server in a different hemisphere.

The Internet has also introduced new types of infringing such as those associated with caching. Caching represents a new, involuntary form of copyright infringement, unanticipated by existing copyright legislation. Such awkward applications of copyright law act as examples for the misplaced arguments of those who would seek to drive the final nail into the tradition known as copyright law. Contrary to these naysayers, however, copyright law can adapt and will evolve to address and account for new developments like caching.

As the Internet has become a commodity in ever-increasing demand, Internet service providers have arisen to provide access to this new medium. As new types of copyright infringement occur via this new medium, there are those who have espoused holding these ISPs liable. This would be a step beyond the proverbial 'shooting of the messenger as a result of the message'. Holding ISPs liable for communication via their servers would be tantamount to 'shooting the messenger's horse upon which he traveled'.

No member of modern, Western society would seriously advocate holding telephone companies responsible for the results of conversations held by independent individuals via their equipment. This is the same attitude that must be adopted toward ISPs. In order for copyright law to be effective, litigation must be pursued against infringing parties. In the case of infringements in cyberspace, however, the infringer is not the ISP, but rather the client using that ISP to facilitate an infringement. Pursuing litigation against an ISP in such a case would be both unfounded and non-productive as a deterrence to future infringers.

Fortunately, domestic Canadian copyright law recognizes such 'common carriers' and ISPs will be spared the expense of such liability. Canadian Netizens may also be relieved for this fact as their privacy would certainly be compromised if ISPs were deemed liable for infringements resulting from communications they facilitate.

Although ISPs are a new common carrier via which infringements may occur, infringers are still the same, identifiable group as they have traditionally been. There are still and will continue to be a relatively small number of large infringers, complemented by a smattering of smaller infringers. Analogous to the factories of the past, organized

copyright infringers large enough to impact on the public market will be formidable, but reachable targets for investigators and the justice system.

Small infringers will not be within the reach of the copyright enforcement regime, but this has always been the case. Copyright holders have never concentrated on enforcing their rights against flea market vendors, but have focused their efforts toward enforcing these rights against large, economically significant infringers and the factories run by them.

Similarly, person-to-person infringers in cyberspace will also remain outside the reach of enforcement mechanisms. These groups will only be able to remain so, however, as long as they do not attain a size that could significantly impact the public market for copyright holders. Furthermore, these groups are bound to be caught by authorities, eventually, unless they do remain at a level outside the public market.

In the event that those caught by authorities are situated in foreign jurisdictions, this creates a further obstacle for copyright enforcement. This scenario requires reliance on international copyright treaties and the comity of nations. This is a weak area for copyright law, but this is not a result of the Internet. This has always been the case. International law has traditionally been somewhat of a haphazard regime. This is not a problem unique to copyright law, and certainly not created by the development of the Internet.

A developed international copyright regime has always been needed. This fact is merely exemplified by the development of the Internet, not a result of this development. The Asian market, awash with misappropriated intellectual property, has existed and flourished for decades. Its existence has not hampered the development of intellectual

property in other parts of the world, as the Asian market is not considered part of the public market in the West.

This is not to say that this should remain the case. Ideally, the governments of the world should develop a universally recognized system of copyright that will allow copyright holders to consider all countries potential public markets for their products. This is one of the areas in which copyright law must evolve to meet the challenges exemplified by the digital age. Moreover, this is a change that has been long overdue.

In summary, the Internet has enabled each individual to perform widespread copyright infringement without being detected or reprimanded. The Internet also appears an awkward match for copyright law when examined closely and compared with the technology associated with the new medium. Modernity and novelty, however, are not new phenomena to copyright law. Time has brought many new challenges to be borne by copyright law, and this legal regime has always evolved and adapted accordingly. In one form or another, copyright law has always managed to protect holders' revenues by maintaining the integrity of a public market at the expense of fringe markets. This regime will evolve and continue to protect the integrity of the public market in the future. As long as copyright law manages to protect the public market, pragmatically speaking, copyright holders' profits will continue to be protected and copyright law will remain an effective and useful tool to be applied in cyberspace in the forthcoming digital age.

ENDNOTES

[i] M.E. Carter, *Electronic Highway Robbery* (Berkeley: Peach Pit, 1996).
[ii] For a general overview of copyright law in Canada see:
D. Vaver, *Intellectual Property Law* (Concord, Ontario: Irwin Law, 1997) at 21-112 [hereinafter *Vaver*].
[iii] A. Christie, "Reconceptualizing Copyright in the Digital Era", [1995] 11 E.I.P.R. 522.
[iv] J.P. Barlow, "The Economy of Ideas: Everything You Know About Intellectual Property Is Wrong" *Wired Magazine* http://www.wired.com (last visited March 2, 1999).
[v] J. Valenti, Pres. & CEO Motion Picture Assoc. of America, "If You Can't Protect What You Own - You Don't Own Anything" (Address to the House Subcommittee on Courts & Intellectual Property on WIPO Copyright Treaties Implementation Act and the Online Copyright Liability Limitation Act, 16 September 1997) [hereinafter *Valenti*].
[vi] L. Rose, "The Emperor's Clothes Still Fit Just Fine" *Wired Magazine* http://www.wired.com (last visited April 19, 1999) [hereinafter *Rose*].
[vii] "A Note of Fear" *The Economist* (31 October, 1998).
[viii] This may be done by a means of concealing one's identity online known to Internet surfers (or "Netizens") as the "anonymous remailer".
[ix] "Ripping" is the Netizen term for taking sound information from its format on a compact disc and changing it to a .wav format that is malleable by a computer and suitable for compression to be sent over the Internet. The most effective compressed format for sending such information currently in use is known as "MP3" format.
[x] For a discussion of MP3 format see:
N. Manchester, "MP3: The Nuts and Bolts" *Wired Magazine*, http://www.hotwired.com/webmonkey (last visited April 19, 1999).
A. Powell, "MP3: Legal and Ethical Issues" *Wired Magazine*, http://www.hotwired.com/webmonkey (last visited April 19, 1999).
A. Powell, "MP3: The Transformation of an Industry" *Wired Magazine*, http://www.hotwired.com/webmonkey (last visited April 19, 1999) [hereinafter Powell, *Transformation*].
[xi] *Valenti* supra.
[xii] *MAI Systems Corp. v. Peak Computer Inc* 991 F.2d 511, 26 U.S.P.Q. 2d (BNA) (9th Cir. 1993) [hereinafter *MAI Systems*].
[xiii] Information Infrastructure Task Force *Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights* (1995) (http://www.uspto.gov/web/offices/com/doc/ipnii/ipnii.txt last visited April 28, 1999) [hereinafter *White Paper*].
[xiv] Information Highway Advisory Council *Copyright and the Information Highway: Final Report of the Sub-Committee on Copyright* (March 1995).
[xv] *MAI Systems* Supra.
[xvi] D.R. Cahoy, "Comment: New Legislation Regarding On-Line Service Provider Liability For Copyright Infringement: A Solution in Search of a Problem?" (1998) 38 IDEA: J.L. & Tech. 335.
[xvii] L.A.K. Jones, "Is Viewing a Web Page Copyright Infringement" (1998) 4 Appeal: Rev. Current L. & L. Reform 60.
[xviii] *Copyright Act*, R.S.C. 1985, c. I-5, s. 2.4(1)(b).
[xix] A. Pollock, "Canadian Copyright and the Internet" (http://aix1.uottawa.ca/~geist/cilrp.html last visited February 18, 1999) [hereinafter *Pollock*].
[xx] R. Cantin, "Will ISPs be Liable for Content?" *Computing Canada* (8 June, 1998) 30 at 30.
[xxi] For a further discussion of 'encryption' and the legal issues surrounding it see:
C. Kuner, "Legal Aspects of Encryption in the Internet" *International Business Lawyer* (April 1996).
[xxii] *Pollock*, supra.
[xxiii] *Playboy Enterprises* v. *Frena* 839 F Supp. 1552 (M.D. Fla. 1993).
[xxiv] *White Paper* Supra.
[xxv] *Copyright Act*, R.S.C. 1985, c. I-5.

[xxvi] *Berne Convention for the Protection of Literary and Artistic Works* 1971 Paris Revision, Cmnd 5002; JOF 28 Aug. 74; 1974 RTAF 51; 45 Vest A 619.
[xxvii] *Universal Copyright Convention and Protocols* 1971 Paris Revision UKTS 9 (1975), Cmnd 5844; 25 UST 1341, TIAS 7868.
[xxviii] For a discussion of the issues surrounding treaties and the difficulties of implementing effective international law see:
P. Malanczuk, *Akehurst's Modern Introduction to International Law*, 7th ed. (New York: Routledge, 1997).
[xxix] *Vaver* supra at 8.
[xxx] *Rose* supra.
[xxxi] Id.
[xxxii] Powell, *Transformation* supra.
[xxxiii] *Rose*, supra.
[xxxiv] Id.
[xxxv] Id.
[xxxvi] Id.

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