Licensing the Cloud

Daniel Gervais[1]

Everything digital will be in the Cloud. Almost every bit of human culture, every song, book, document and movie ever made.[2] This portentous change will have significant advantages, such as access to all those resources much more easily and on any digital device, an approach illustrated by Apple's recent platform paradigm uniting all Apple devices belonging to the same user.[3] The Cloud will reduce the perceived need for individual copies and serve as a general depository for both commercial and private content, and of course admixtures of both such as user-generated content.

The Internet was a major shift from a central or mainframe architecture to a client-server architecture. Pre-Cloud, the Internet was used to transport data and allows hundreds of millions of individual and corporate computers on which content was stored to exchange using their Internet identity (an IP address).[4] Abandoning this *connection paradigm*, in which the Internet was essentially a network

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[2] Access to media on the cloud, particularly music, has become one of the most popular uses among normal users. Services like iTunes (www.apple.com/itunes) allow for users to pick and choose which tracks they want to buy and download, while Grooveshark (www.grooveshark.com) allows for direct streaming of many tracks directly from the user's internet browser. Most banks have their own sites for online banking Amazon (www.amazon.com) keeps track of your purchases and uses that information to make recommendations on other things you might like. In the social part of the cloud, Facebook (www.facebook.com) is perhaps the most important player, but simple services like Twitter (www.twitter.com) are increasing in popularity if they are able to find the right niche to fill. Google (www.google.com) has a wide variety of ways to store personal media in the cloud and share it with others, including Youtube (www.youtube.com) for videos and Picasa (picasa.google.com) for photos. Dropbox (www.dropbox.com) is an example of a service that allows users to store their files online so they can be accessed anywhere while behaving as just another part of the user's hard drive to create a seamless integration of the PC and the cloud.

[3] Apple's (www.apple.com) push for unifying the use of all its products into one experience reflects their general attempt at providing a simple-to-use experience without requiring a lot of computer knowledge. When the iPod first appeared, it was a simple, though revolutionary, mp3 player. Now, the iPod can access the internet to synchronize with the user's iTunes profile, allowing access to a lot of music at any time. The iPhone contains a lot of similar functionality. The iPad seems to bridge the gap between a smart phone and a netbook, allowing users to do a lot of the stuff they would do on a computer, but through the touch screen interface similar to the iPhone. All of these products use internet access to sync with the user's media and data they they've stored in the cloud, unifying the user's experience.

[4] This is usually described as the Transport Layer and the Internet Layer. *See* NICHOLAS CARR, THE BIG SWITCH: REWIRING THE WORLD, FROM EDISON TO GOOGLE 54-55 (2008).

connecting to an *amalgamation paradigm* where user computers and mobile devices are merely access tools used with private and commercial content amalgamated on server farms operated by major intermediaries, is not a benign change.[5] .

In this contribution, I consider the application of copyright rules and licensing to the Cloud, and the impact that the Cloud within or without the confines of copyright law, may have on global cultural flows.

I DEFINING CLOUD COMPUTING

1.1 A new global infrastructure

Cloud computing is a term used to describe a *global technological infrastructure* in which the user of a computer accesses and uses software and data located outside of the user's personal computer or other digital device. The user connects to these external devices by way of an Internet connection, but typically has no knowledge of the nature or even location of the server on which the data and software are located.

As already noted, this is not a benign change. Before the advent of cloud computing, users mostly ran software and processed data on their own personal computer. The Internet was used to transmit processed data between two or more computers. In contrast, with cloud computing, the user stores (uploads) and accesses (downloads) data located on external computers that the user does not own, control or and that she cannot locate. The user only knows (hopefully) which entity ostensibly provides access to the service, whether it be storage (backup), data processing (access to a program) or both.

One of the main reasons for the rise in popularity of cloud computing has been the increase in Internet download and upload speeds. The use of the Cloud as a backup storage facility is only practical if it is possible to get large amounts of data transferred to the cloud at reasonable speeds. On the slow Internet connections that were available 15 years ago, it would simply not have been practicable to upload a large collection of files to a server over the Internet. At some point in this progression of Internet speed, a threshold was crossed. It marked Internet users' ability to access services offered in the Cloud just as easily as running software on their computer. The process began with relatively low bandwidth services that didn't require a constant flow of information, like email services that store the messages on their own servers (e.g., Yahoo!, Hotmail, and Gmail). With recent imporvements in bandwidth (broadband) availability, those services have expanded to the point of streaming high quality video and audio media directly over an Internet connection with little or no waiting time. It seems reasonable to predict that as the network infrastructure becomes capable of providing new kinds of services and user experiences reliably, the Cloud will expand to new areas. The end game is probably one in which all digital content is either stored exclusively on or at least backed up on the Cloud.

Another important factor in the growth of cloud computing has been the expansion in number and type of digital devices. In the early years of personal computing, a single computer was a luxury item, and few people owned more than one. However, with advances in hardware design and the shrinking of

[5] *See supra* note 2.

processor chips,[6] it is now normal for a household to have multiple desktop computers. In parallel, portability increased (laptops, netbooks) and even smaller devices (phones, tablets) became more powerful and able to transmit and process digital data files. The very existence and relative affordability (at least in industrialized countries) of these devices has created an enormous demand for services that can be used in a cross-platform way, allowing a user to check email, download/listen, watch a YouTube video etc. whether the user is at home on his couch or riding a train to work.

Everyone is using the Cloud, from the basic, casual user to the large corporation. Casual users use cloud computing to stay connected with their friends and to maintain a persistent presence on the Internet. Digital stores allow users to shop easily from anywhere. For casual users the cloud is not just about consumptive uses of commercial media, however. There are myriad ways to use the cloud for productive/creativeinteraction. More generally, the Cloud offers opportunities to share and transform content collaboratively thus offering new modes of expression for creativity.[7]

1.2 NIST Definition

The US National Institute of Science and Technology (NIST) has created definition and description of the term "cloud computing", allowing for a more coherent conversation on the topic. The definition states,

> "Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model promotes availability and is composed of five essential characteristics, three service models, and four deployment models."[8]

NIST admits that, along with most topics regarding cloud computing, this definition and the terms used are subject to rapid change due to the relatively recent explosion in advancement and popularity of the model. However, it does provide a jumping off point for detailed discussion about the attributes, advantages, and disadvantages of cloud computing.

The NIST definition of cloud computing is probably the most precise definition that is currently possible, despite its fairly broad scope. This is due to the nature of the cloud itself. In most basic of terms, the cloud is the Internet. Almost everything that an average computer user does occurs at least in part in

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[6] Moore's Law is a trend that was described first by Intel co-founder Gordon E. Moore that stands for the proposition that the number of components in integrated circuits will double every year. He originally proposed this in 1965, and said it would likely continue for 10 years, but it has been an accurate prediction for much longer than that. The decrease in size and increase in number of components on a chip has correlated closely with the increase of speed and power of computers. This exponential increase in computing power allows for the cloud to exist. Though we are approaching a limit to the decrease in size of transistors that may cause Moore's Law to no longer be accurate, it has served as an important way to predict future computing power for the past 40 years.

[7] *See* Daniel Gervais, *The Tangled Web of UGC: Making Copyright Sense of User-Generated Content*, 11 VAND. J. ENT. & TECH. L. 841 (2009)).

[8] *See* NIST Cloud Computing Definition v15, *available at* http://csrc.nist.gov/groups/SNS/cloud-computing/cloud-def-v15.doc.

the cloud. The scope of the impact of this infrastructural shift is something that one grasps almost intuitively. Let us look at it more closely.

II REGULATING THE CLOUD

2.1 Regulating the Internet

The principal difficulty of regulating the Internet stems from the fact that it was architected using packet switching technology and the ubiquitous Internet Protocol. This makes it independent of the underlying hardware and thus makes it much harder to control than a mainframe-based or hub-and-spoke network with a single brain.[9] In fact, the Internet was precisely that: A shift from a central or mainframe architecture to a client-server architecture in which the Internet basically serves to transport data and allow computers to have an identity (an IP address).[10] During the last fifteen years, regulators at various levels have thus been attempting to regulate what amounted "only" to a communication system, that is, a neutral infrastructure to transmit packets of bits from one computer to another. Controlling *that* Internet meant controlling information as it was moving between the computers of individual users. This raised a number of issues. For example, when trying to enforce copyright in content stored in files on those computers, copyright law had to spar with privacy considerations.[11]

Then the attention turned to Web 2.0 and the increasing importance of social networking sites and the use of the network to connect people according to their affinities.[12] Web 2.0 was a sign of things to come. More content stored on FaceBook, Flickr or YouTube's servers and, increasingly, use of all manner of new devices used to connect to and modify that content.

2.2 The Cloud: The Global Meme Factory

Human culture include songs, stories, but also habits, skills, technologies, scientific theories, bogus medical treatments, financial systems and organizations.[13] All these bits of human culture tend to be

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[9] *See generally* James Boyle, *Foucault in Cyberspace: Surveillance, Sovereignty, and Hardwired Censors*, 66 U. CIN. L. REV. 177 (1997).

[10] This is usually described as the "Transport Layer" and the "Internet Layer." *See* NICHOLAS CARR, THE BIG SWITCH: REWIRING THE WORLD, FROM EDISON TO GOOGLE 54-55 (2008).

[11] The Sony Rootkit debacle comes to mind. *See* Lilian Edwards, *Coding Privacy*, 84 CHI.-KENT L. REV. 861, 869 (2010); and William Jeremy Robison, *Free At What Cost?: Cloud Computing Privacy Under The Stored Communications Act*, 98 GEO. L.J. 1195, 1233-1235 (2010).

[12] I noted several years ago in an unpublished piece that this had profound social justice implications, as citizens are no longer confronted with information about all sides of an issue, but rather look for information sources that too often reaffirm preconceived notions and possibly prejudiced views. This makes for a much poorer political and public debate. See Daniel Gervais, *Democracy, Technology and Social Justice* (2003), available at http://aix1.uottawa.ca/~dgervais/publications/Gervais%20DemocracyTechnology%20and%20Social%20Justice.pdf

[13] *See* Susan Blackmore, *The Third Replicator*, N.Y. TIMES, Aug. 22, 2010, at 2.

imitated and adapted. As such, they are what Dawkins referred to as *memes*, that is, "something imitated." [14]

The Cloud--once the necessary bandwidth is there to empower it fully-- will link all our computers and other digital devices to a virtually infinite array of content and ways to access, process and add to that content, whether as information, entertainment, or both.[15] Naturally, digital availability is a prerequisite to enter the Cloud. However, the ongoing digitization of large swaths of our pre-digital culture means that most cultural products are or soon will be available.[16] This type of generalized access to entire repertories of cultural products is not new, but the Cloud makes it a reality, a de facto rule, for almost all cultural production and anyone with Internet access on a mobile phone, computer or other device and soon, WIFI humans with Internet devices embedded or worn by people (contact lenses, eyeglasses, ear implants etc.).[17]

There will be more to imitate, and more ways to imitate. Hundreds of millions of Internet users are downloading, altering, mixing, uploading, and/or making available audio, video, and text content on personal web pages, social sites, or using peer-to-peer technology to allow others to access content on their computer.[18] On the positive side of the technology ledger, therefore, Cloud availability means that a new space is open for almost all cultures to access and adapt cultural artifacts from their own sphere and most if not all others. They can speak, and share.

Culture may be defined as the *store of meanings* that we have available to make sense of and critique our world (think of meanings embedded in films, music, books, and newer formats of cultural dissemination). At no point in history has there been a wider and more open store. This should lead to more global or at least non-geographically bounded memes to emerge.[19] Songwriters and designers have access and are influenced by "foreign" memes in a way that might make "foreignness" itself a very different--and much more relative--notion. Internet blogs and other dematerialized cultural scenes will lead to small memes, such as catch-phrases, but more portentous ones, such as beliefs to emerge and spread.

However, in a world with fewer familiar or at least traditional landmarks to guide us, the role of *intermediation* in our process to interpret and define our life and our world will increase exponentially.

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[14] RICHARD DAWKINS, THE SELFISH GENE, 2d ed., 192 (1989).

[15] See Bernard Golden, The Skinny Straw: Cloud Computing's Bottleneck and How to Address It, Aug. 6, 2009, CIO Drilldowns, available at http://www.cio.com/article/499137/The_Skinny_Straw_Cloud_Computing_s_Bottleneck_and_How_to_Address_It

[16] The Google Book project is a good example. See Pamela Samuelson *Google Book Search and the Future of Books in Cyberspace* 94 Minn. L. Rev. 1308 (2010).

[17] A Bedouin should be connected to the same web of communications as people in Cairo, New York and London. In the space of a decade, mobile phones, Wi-Fi, broadband internet, satellite and digital television have become commonplace, if not ubiquitous. That has brought in its wake a culture of mass self-expression on a scale never seen before, which has the potential to touch and connect us all and to change how we relate to one another through culture ... We will also be equipped with more tools to allow us to make our own contribution, to post our photograph or composition. (LB, 19-23)

[18] *See* Daniel Gervais, *The Tangled Web of UGC: Making Copyright Sense of User-Generated Content*, 11 Vand. J. Ent. & Tech. L. 841, 845-46 (2009).

[19] *See* JEB FOWLES, ADVERTISING AND POPULAR CULTURE 23 (1996).

To take a concrete example, in theory the Cloud should makes it easier for students, who by now are all born digital, to apprehend their world and fashion a personality reflecting a more global or "ageographic" perspective, if they so wish. The intermediation tools they use may not help them get there. Still, global should be the natural order of things on the Internet-- though language and geographical preference software are fighting this infrastructural ability to truly offer the world to us on any device.

Another entry on the positive side of our ledger, Cloud content can be manipulated, mashed up or remixed, and new forms of creation are thus increasingly possible. Then the modified and adapted Cloud content adds to the Cloud, where it also resides, snowballing into billions of new creations.

"Available" does not mean free. Copyright and/or technology can restrict access and/or price something beyond one's reach, especially if price discrimination is absent. But a proper licensing structure can make the global meme factory work. Nor does available mean universal. In an ironic twist in the emergence of a supposedly global Cloud, technology increasingly limits access to a number of cultural products with a higher commercial value based on where the user is physically located.[20] This *should* allow companies to price-discriminate and broaden access but, in my anecdotal experience at least, very few actually do.[21] Again, a properly calibrated licensing structure combined with appropriate limitations and exceptions can significantly ameliorate outcomes.

2.3 Regulatory challenges specific to the Cloud

Regulating any technology that is still inchoate is a hard challenge. Hence, one of the factors that makes Cloud regulation difficult is that the target is moving and may in evolve in response to, and resist, attempts to regulate it.[22] Here, however, a countervailing force is that the Cloud may in some ways be easier to regulate because access to it, and its operation, require huge investments. Internet Service Providers, server farms, and, more importantly perhaps, companies that will lead us to content, including Google and other search engines, are easier to locate. Regulations would seem easier to enforce than when the targets are hundreds of millions of individual personal computers.

Because one might fear the emergence of de facto monopolistic tendencies--even though not all monopolies are abused--governments might want to intervene from a competition policy perspective to ensure that there are several "clouds." There will be, as one can plainly see, a major tension between two regulatory reflexes, however: (a) supporting a reduction in the number of control points on the Internet (a few Guardians of the Cloud as easier targets); and (b) ensuring a sufficient degree of competition (i.e., multiple clouds).

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[20] Examples, such as NetFlix which, as of this writing, is still unavailable outside the US and Canada. *See* www.netflix.com.

[21] This seems a sad yet highly intuitive market reality. Building a pricing system that can efficiently price discriminate will cost more, and likely target lower capacity markets. Why would Amazon want to spend money to develop the ability to sell $1 Kindle download to readers in poorer countries? If this is true is would support the need for non-commercial digital libraries, perhaps with government support, at least in the form of regulation. See CHARLES LEADBEATER, CLOUD CULTURE, 15-16.

[22] *See* Daniel Gervais, *The Regulation of Inchoate Technology*, 47 HOUS. L. REV. 665 (2010).

The risks are real and some observers are already close to a call to digital arms. Referring to the now defunct Google Book Settlement as a precursor of a future Google-dominated Cloud, Charles Leadbeater noted that "this possibility, a vastly enhanced global space for cultural expression, is threatened by intransigent vested interests, hungry new monopolists and governments intent on reasserting control over the unruly web. Judge Chin's court is a microcosm for the arguments that will rage over the control of culture globally in the decades to come. " [23]

The potential abuses that might arise if the Cloud is left entirely unchecked have yet to materialize on a scale that would warrant massive regulatory interventions. Additionally, the nature of the optimal remedies may not be easily determined. If, for instance, one were to decide that Google is abusing its de facto monopoly on digitized books, would compulsory access be the best solution? Or should public libraries digitize their own books? While the former seems easier, the optimality of remedies may reside in the latter. For example, public librarians around the world may be far better equipped to determine which books or other content to make available from their own culture. Librarians—non-judicial public resources--might greatly improve not just access but the quality of the Cloud in ways that a "cloud capitalist" and judges might not.

The most significant risk I see is defective or suboptimal intermediation in Cloud access and content generation. Because *everything* is or will be available in the Cloud, technology will necessarily be used to locate and manipulate content. Some of it seems benign, like a Google search results page, but even that implies a neutrality and efficiency of the results. Google already uses AdWords to complement "natural" search results. Should neutrality (or the "naturalness") of search results be regulated? If so, how? Some might suggest that having multiple intermediaries might be a better option, trusting competition to lead users to intermediaries offering better results. [24]

Several technologies used to manage our relations with the Cloud are not quite as benign as search engines. In fact, some are inherently problematic. First, as Amazon and Google users know all too well, *the Cloud knows you*. And the more one uploads to and interfaces with the Cloud, the more it knows you. When technology suggests content, it may interrupt a chain of events (initiated by a user's search) that might have led one to a completely different place. They reinforce the past but at the potential expense of different futures. When Amazon suggests a book for instance, one may end up buying that book and not wander in a different cultural "direction." In other words, they might expose each of us to "more of the same." Then again, it may be that those suggestions will incrementally broaden a consumer's cultural geography. Whether this is a positive development overall should be tested empirically by social scientists. In McLuhanesque terms, however, it seems fair to say that intermediation is the new content, and intermediates the guardians of the Cloud.

The commercial paradigm of the Cloud is not one of scarcity of supply. It is in fact exactly the opposite.[25] What is happening is a shift similar to the shift from mechanical to quantum physics. Let us call it

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[23] Leadbeater, Cloud Culture, above, at 16

[24] See P Samuelson, note 16 above

[25] In an unpublished Note, I had argued the following:

"quantum market economics" for the content industries. The first "law" of the new environment is probably that *the value of an information object on the Internet is not derived from its scarcity but rather from the fact that those who value it most will find it*. The preference-dictating algorithms mentioned above are based on a user's past. They assume that a user will value what she valued in the past and keep her in your "value zone." However, serendipitous Cloud wanderings--a la Thoreau in his woods—might have led to things her to value cultural products she did not know. The Cloud, like park rangers, wants you to stay on the marked path, where it knows you.

This is not necessarily bad. In a world where everything is in the Cloud, the inescapable truth is that the value of a particular cultural artifact is an amalgamation derived from the number of users connected with that content they themselves value individually. Networks effects create huge value. And the individual connections that lead to the emergence of Cloud value are established by the intermediaries. Whether they are benign and "natural" in establishing those connections or whether they will guide you according to (completely understandable) revenue-maximizing goals, intermediaries will become the true Guardians of the Cloud, the Global Meme Factory, our culture(s).

III COPYRIGHT & THE CLOUD

3.1 Value of copyright content

It seems self-evident (at least to observers not part of the entertainment industry!) that the Cloud is not the commercial equivalent of selling physical goods. Yet, laws are called upon to maintain the scarcity paradigm. Let us consider why this makes little sense. In a store, one browses a finite selection. The store typically sells a limited number of categories of goods. There is usually signage to help the consumer make a selection. Some of this is replicated online of course.[26] However, the impact is different, and so should the metrics be. Aggregate (commercial) value on the Internet, as I noted in the previous section, is derived from connecting people with content they value individually. An MP3 downloaded on a computer may be counted as a form of piracy worth $2, but the reality is that *the user assigns the value* or "utility" in economic parlance. The user may have downloaded a song "just because" and never listened to it. Perhaps it was recommended by a friend, downloaded, listened to once and then quickly forgotten. This music has little or no Cloud value if all users treat it that way and if those who might like it are not connected to it. Conversely, if the Cloud can connect a user with a song (and/or an artist)—whether from down the street or the other side of the planet--that has value for that user and that she did not know, then that user becomes a fan and value-generator. He or she may buy music, tickets, merchandise, and ultimately become a social site spokesperson for the artist. Then, and only then, does the music have "cloud value."

"While opinions and studies--both the data they use and their analysis--are open to disagreement, the fact remains that the laws of physics that applied to the sale of physical copies of records, CDs and the like do not seem to apply to the Internet, which seems counterintuitive to market experts trying to apply traditional rules such as scarcity of supply. There is no scarcity of supply here. Nor are traditional laws of pricing of physical goods directly applicable because the market for authorized music is competing with 'free.' See D. Gervais, The Role of Copyright Collectives in Web 2.0 Music Markets (2007), available at http://works.bepress.com/daniel_gervais/11/ (accessed January 11, 2010)

[26] Online advertising is at least as prevalent as it is in other media.

There is little doubt that the best way to maximize value on the Internet is *not* to try to control all individual uses. Value is created when connections are made between content and those who value it not when content is locked up and pseudo-scarcity created. But old habits die hard indeed, and this one (control) may not die--at least not until the industry as we know it is gone and replaced. A number of important stakeholders, including songwriters seem to agree. [27] An optimal solution would likely leverage networks effects and maximize value by maximizing connections between content and those who value it, which includes allowing no-value or little value connections to be established probably as a multiple of the connections that do bring value. In very concrete terms, it may be that ten people will download a file for one who will truly appreciate it. But to find that one, it is thus sometimes better to allow the ten. This is hardly reconcilable with models trying to replicate physical scarcity of online supply.

The Cloud is designed to provide access to "everything," in a world that is always online without, the need to make local copies. We are not there yet, and "Internet everywhere" is far from being a reality. Access is also possible using cell phones and other proprietary networks. As we move away from an open architecture based on the Internet Protocol to more proprietary access and access on demand as a rule, it will become easier for the entertainment industry write large to live its ultimate dream, complete "fared use"[28], a dream in which each use is ultimately linked to a micro-payment, or possibly part of a contractually and strictly technologically cabined subscription-based pricing model.

Ironically, the repeated suggestions to license file-sharing in a environment that the music industry could have set up and loosely controlled but which it has continuously scorned by the recording industry will likely be the outcome, but with control wrestled away from the content provider and into the hands of the real guardians of the Cloud, the intermediaries. Google Music is coming.[29]

3.2 Licensing the Cloud

The traditional view of the exercise of copyright is binary: exclusive rights vs exceptions. This is reflected in most national laws and in European directives.[30] But there is, in fact, a very important and substantial middle ground, an area comprising compulsory licenses and collective management, in which right

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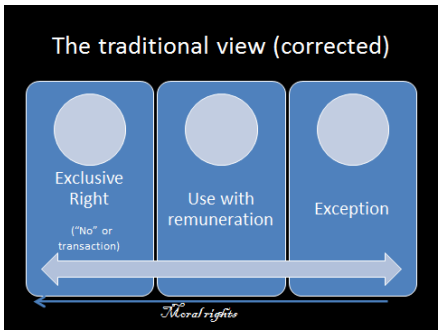
[27] See *The Songwriters Association of Canada's Proposal to Monetize the Non-commercial Sharing of Music* (January 2011), available http://www.songwriters.ca/Proposaldetailed.aspx.

[28] *See* Tom W. Bell, *Fair Use vs. Fared Use: The Impact of Automated Rights Management on Copyright's Fair Use Doctrine* 76 N.C. L. REV. 557 (1998).

[29] Actually it started as an experiment in China, but in market with basically no authorized market and still requiring behavior modifications. Not surprisingly it was not a huge success. *See* David Barboza and Brad Stone *China, Where U.S. Internet Companies Often Fail*, NEW YORK TIMES, Jan. 15, 2010, available at http://www.nytimes.com/2010/01/16/technology/16failure.html.

[30] For example, *Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society*, OJ L 167 , 22/06/2001 P. 0010 – 0019, contains rights in Articles 2, 3 and 4 and exceptions and limitations in article 5, in a section entitled, not surprisingly, "Rights and Exceptions". The Swedish *Copyright Act* (1960) is much closer to reality by recognizing quite explicitly rights, exceptions and uses with remuneration (the latter in arts 26k and foll. and arts 42 and foll.)

holders have, *de jure* or *de facto*, lost the ability to say no but not the right to be paid for the use of their works.[31] The picture looks like this:



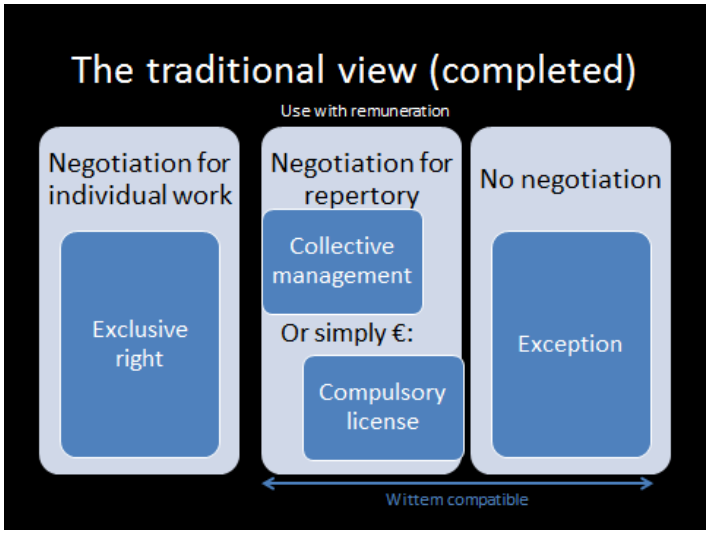
We see that the middle ground is much more than an aberration, an oversight or some species of *de minimis* case which one can proceed to ignore or relegate to a policy footnote. That middle is an integral part of what makes copyright work. My point is that we need to increase the scope and reach of this middle ground if we want copyright to work for online uses.[32]

In some cases, a negotiation may happen, and indeed it may occasionally be possible to refuse a license. However, most users who pay the required fee or tariff in this middle zone can use the licensed works, either contained in the repertory of the Collective Management Organization (CMO) or covered by a compulsory licensing scheme.[33]

[31] I will use the term "works" generically as including objects of neighbouring rights.

[32] I should note that the picture refers to economic (patrimonial) rights. Moral rights still apply to most uses—even where an exception might prevent the reach of any exclusive right or even right to be paid. Typically, the moral right of attribution is not absolute. It applies, as under art. 3 of the Swedish *Copyright Act,* "to the extent and in the manner required by proper usage".

[33] I also note that this approach seems compatible with the proposed European Copyright Code prepared by the Wittem Group. See www.copyrightcode.eu.



Without appropriate licensing, each Internet user is simultaneously a potential infringer, a legitimate user and maybe also a re-user (new author) of copyright material. This is a problem at least at the policy level because copyright was not initially designed with individual users in mind. Instead, it was originally designed with professional authors and publishers and professional users (educators; libraries, etc.) in mind.[34]

The point is simply that individual users--those making mere consumptive uses of copyright material--were left to their own device and to various private copying exceptions.[35] Copyright was limited for two good reasons. First, because otherwise it might clash with privacy[36], although this was not always a binary proposition because sometimes private acts affect the commercial sphere.[37] Second because the right holder did not much care. The commercial end was achieved by means of pushing one legitimate copy into the private sphere of each user.

Against this backdrop, it might be worth discussing whether our *guiding policy assumption* should be that we say "no" (as a default position) because all works may be commercially exploited online and anything other than "no" interferes with normal exploitation. This was true of course in the era of commercial exploitation of tangible carriers, that is, until recently at least, when all uses other than private consumption were professional ones.[38]

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[34] See the *Statute of Anne*, 1710 (U.K.). I would add to this list "professional" pirates, that is, those for whom piracy on a commercial scale is a business.

[35] A well-known part of copyright doctrine. See Joseph Kohler, Das Autorrecht: eine zivilistische Abhandlung; Zugleich ein Beitrag zur Lehre vom Eigenthum, vom Miteigenthum, vom Rechtsgeschäft und vom IndivIbidualrecht. (Jena: G. Fischer, 1880), at p.230.

[36] As reflected in arts. 8 and 10 of the European Convention on Human Rights.

[37] See GEMA vs Grundig, 1955, BGH.

[38] Obviously, consumptive uses do not interfere with the market—they create the market.

My query is not new. Don't we ask the same question when a work is out of print or not commercially available? I suggest that our intuition in both cases is similar: copyright should not stand in the way of a use that has not commercial impact. Put differently, I am suggesting that our default position ("no") should be changed online. Why? Because we should assume that authors want to have their works used, and that many of them want attribution and remuneration. Hence, our default should be "yes but" instead of "no". Is this radical? Perhaps. It is based on the simple idea that our priority should be to maximize authorized uses or minimize unauthorized uses.[39] As a practical matter, our guiding assumption must might be informed by the difficulty and cost of actually enforcing a "no". The Internet is difficult to stop. It was designed that way.

In France, for example, the graduated response has lowered illegal activity but much less than anticipated, and it is driving certain users below the radar to technologies such Usenet accounts, the "DarkNet", cyberlockers, IP proxies etc. Interestingly, many of those technologies *require a monthly payment*, but none of the money is going not to songwriters, artists or other copyright holders.

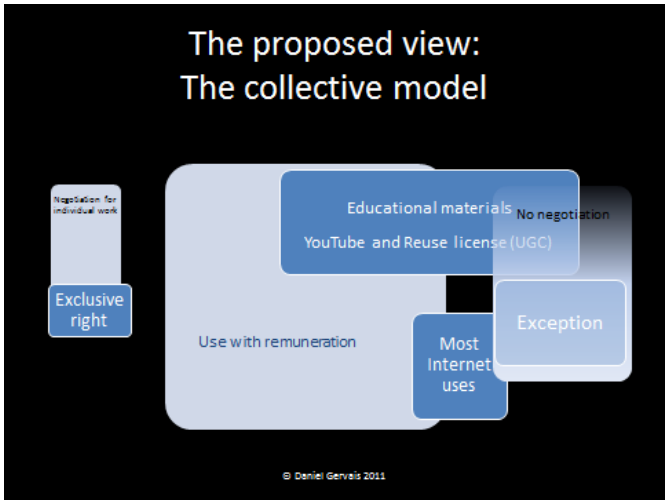
I suggest that an honest assessment is that three-strikes and similar measures have not increased industry income by much and that their costs on many levels, including the public's perception of copyright as evil, is too high a price to pay. Moreover, at bottom those efforts are misguided. Normatively, they are based on the traditional propertarian view that any use of copyright material without authorization is a *malum in se*, which must be stopped at all costs. This seems functionally at odds with the possibilities the Internet affords: a costless worldwide, social-network based distribution of copyright material. Historically, the enforcement mantra is also hard to reconcile with the many uses that were never "controlled"[40], but simply made against remuneration, such as broadcasting.

3.3 Suggestions

Let me begin with music. My suggestion is that we should license unlimited personal and non-commercial use. Simply put, this means licensing current behaviour. *It would more than replace lost income*. It would also be transparent and lead to a fair allocation of revenue. Let us do some quick math. If we assume that 150 MM subscribers in the EU would pay $5 /month (which is much cheaper than USENET accounts being used in France), this would mean revenues of $10-12 billion/ year.

[39] A point I have made steadily since at least 1998. See for example Daniel Gervais, Copyright and eCommerce, in Melvin Simensky, Lanning Bryer, Neil J. Wilkof (eds), Intellectual Property in the Global Marketplace, 2001 Update. (New York: John Wiley & Sons, Feb. 2002)

[40] In the sense that no work-by-work transaction is required.



Why do this via or with the help of collectives? Because the *source* of licensing matters. According to a credible Canadian survey conducted in 2011, 69% of Internet subscribers (72% of households with teenagers) would pay a monthly fee for music "file-sharing"; and when asked those users *chose* $5/month (hence my 5 € suggestion). It is also relevant that 98% of respondents said they had a favourable view of songwriters and performers; but only 14% had a favourable view of record companies ("labels"). We can thus post that the source and type of licensing matters. A clear majority of respondents said that knowing where the funds will go would guide their decision to pay.[41]

For works other than music, different answers emerge. Commercial movies do not need this type of licensing, and the fight against piracy will continue and is likely to pay dividends as more material becomes available from legitimate sources. Why does it make sense here and not for music? Because the unauthorized uses are more marginal. NetFlix and other commercial players are reducing the space occupied by torrents. Those torrent ("shared") files are not the main mode of access to audio-visual content.

Music is not necessarily alone, however. There is a huge orphan works issue for many other types of works, such as non-professional texts, photographs and images. The Extended Collective License (ECL) might be helpful in this context. The ECL emerged as part of the revision of the copyright laws of the Nordic countries in the 1960s. It was extended to some digital uses in Denmark.[42] The policy issues at play are important. First, full coverage seems essential for mass uses (that is, we must solve the orphan works and long tail issues). The ECL is not always appropriate. Indeed, the Danish parliament rejected the ECL where digital uses and licenses available (newspapers). An opt-out is possible though in some cases mostly theoretical because the right holder is then back to impracticable individual licensing.[43]

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[41] The survey is available at www.songwriters.ca.
[42] Arts 13, 14, 16b and 50 of the Danish Copyright Act.
[43] *Ibid*, art. 50.

It boils down to this. The challenge is to move Internet users from free to "pay." Making file-sharing "more illegal" does not seem to work well and likely won't absent licensing of observed mass behaviour. Perhaps the idea is to create an incentive to pay just be like buying insurance. More importantly perhaps, it is a sad day for authors when the main economic driver of cultural production is the fear of lawsuits. We must urgently reverse the trend and infuse the debate with strong normative vectors favouring payment for good, not to avoid bad.

Licensing opponents who want to retain access for free often mention that with more licensing, the scope of exceptions and limitations will necessarily be reduced. In fact, *licensing is a interface between exclusive rights and exceptions and limitations*. For example, parties to a license may agree to disagree on the exact scope of exceptions. An agreement between right holders and users that some uses need to be licensed and that they can agree on a price, sets the fact that some uses may be in a grey area between exception and exclusive rights to naught. Transaction costs are reduced and predictability increased.

My suggestions are tentative of course. However, I do think that collective licensing is destined to grow. In fact, I would suggest that, if it should fail, then the Internet as a market for copyright material is likely to fail. Collective management could also add some much needed measure of transparency to the financial flows and perhaps lead to positive allocative changes for creators. Collective management should be part of the solution but it must be efficient and professional. When done correctly, collective management can solve or reduce the transaction cost issues, and thus allow viable alternatives to "free" to emerge, where free is not normatively supported. More accurately, I mean here free to refer to price, not access because collective management does not prevent access. It merely empowers reasonable financial flows to professional creators and I submit, in closing, that we are better off (that is, general welfare is increased) by having our most talented authors be able to live and allow us to benefit from their craft.