1. (Re)creativity: how creativity lives

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I come from California, the land of the technology-obsessed. It's also the land of Hollywood, where the people are Hollywood-obsessed. But in this chapter, I would like to ask you to forget about technology and to forget about Hollywood, and to focus instead upon culture. In particular, upon how culture gets created and how culture gets spread, and about the relationship between authors and readers. My aim is to remind us about the importance of both at a time when the importance of one has been forgotten.

In 1865, Lewis Carroll published the extraordinary work, *Alice's Adventures in Wonderland.* Sometime in the twentieth century (it depends upon where you are), the Carroll's copyright expired, and the work passed into the public domain. In 2001, as a demonstration of its new E-Book Reader technology, Adobe created an e-book version of this public domain text. The e-book was produced from a text created by the Gutenberg Project, a project designed to make works in the public domain available for free on the Internet.

But when *Alice's Adventures* got translated into its Adobe E-Book version, the freedoms of the public domain had mysteriously disappeared. There was a button on the very first page that listed the 'permissions' that ran with the book. If you clicked on that button, you were given a list of 'permissions' that were in fact restrictions on the uses you could make of *Alice's Adventures in Wonderland*. So, for example, the permission reported that 'no text selections can be copied from this book to the clipboard'. It reported that 'no printing is permitted on this book'. It reported, 'This book cannot be lent or given to someone else.' It reported, 'This book cannot be given to someone else.' And finally, the permissions reported, 'This book cannot be read aloud.'

This final 'permission' was too much for the community that gathers around the Internet. A firestorm broke out, as Adobe was asked to explain how it could be distributing a public domain children's book but restrict the right to read the book aloud. Adobe responded, 'Don't be silly. Obviously, we don't intend to restrict the ability of people to read a book aloud. We instead simply intend to indicate that the technology of the E-Book Reader is not permitted to be used to read the book aloud.'

The distinction was lost on most, but the 'silliness' was important not so much because of the substance of Adobe's restriction, but because of growing

anxiety about the way technology might affect culture – anxiety about both how technology might affect the writing of culture and, more importantly, how it might affect its reading. Or put differently, how technology might affect the creativity of culture, and how technology might affect how that creativity gets remixed.

Think a bit about this concept of 'remix'. Think a bit about 'remix' in particular before technology got into the mix. Think about it before Hollywood got into the mix.

By 'remix', I mean a very familiar idea. We begin with some creative work – work which some author produced by mixing bits of culture and his own creativity together. That work is then remixed by others, through the addition of other creative work, or even through simple criticism of that work. This is remix. And in this sense, life is remix. In this sense, culture is remix. Knowledge is remix. Politics is remix. Remix is how we create. Remix is how we recreate. Remix is how we are human, and how we as humans make culture.

Now most of us are familiar with the ways writers remix. For example, the Brothers Grimm took folk tales from their tradition, and they ported those stories to a more popular style for their time. They were successful remixers. Indeed so successful were they at remixing that they thought everyone was just a remixer. Thus when the Grimm Brothers grabbed some of H.C. Andersen's stories, believing they were simple remixes of Danish stories, Andersen had to inform them that his stories were his alone, though no doubt informed by a tradition that was not his alone. And perhaps most famously in the United States, Walt Disney was a successful remixer. He too took creativity from many, including the Brothers Grimm and H.C. Anderson. He too remixed them to fit the work of each within the culture for which he was producing. Thus with the Grimms, Disney remixed their bloody, moralistic stories into something much nicer. With H.C. Andersen's 'The Little Mermaid', which is not that bloody, and not sufficiently moralistic for many of Andersen's critics, he made a happy story from an unhappy tale. And most profitably, Disney took the creativity of a creator called Buster Keaton, in a work called *Steamboat Bill, Jr.* – a work that had no blood and was absolutely amoral – and turned that work into something called *Steamboat Willie*. In each case Disney was a remixer, taking the creativity of others and producing it, updating it, translating it into creativity that his culture, a culture of his age, could accept.

That's the remix of the writer. Less familiar however is the remix of the reader. You watch a movie – for example Michael Moore's *Fahrenheit 9/11* – and then you whine to your friends about either how it's the best movie you've ever seen or the worst movie ever made. By that act, you're remixing Michael Moore's creativity into your life, and sharing that remix with others. And both acts help construct, or reconstruct, a culture. Or you choose to watch Walt

Disney rather than reading H.C. Andersen. That too is a choice about how a culture will get remixed, and thus remade. Every act of consuming culture is an act of constructing culture. Through both, cultures get made. Every act of reading and choosing and criticizing and praising past culture is an act through which present culture gets made.

Now in our tradition, this practice of remix is 'free'. Free as in unregulated. It is completely free for the reader; it is essentially free for the writer.

As a reader, you don't need permission to criticize Michael Moore. You don't need authorization from Disney to recommend his *Little Mermaid* over H.C. Andersen's. The acts of reader-remix are unregulated by the law. Indeed because the law of copyright regulates (in its essence) 'copies', and because the ordinary use of copyrighted works by readers does not produce a copy, the remix of the reader is by design free of legal constraint. No doubt books and movies cost money to buy. So the reader is constrained in that narrow economic sense. But even here the constraint is mitigated by institutions like libraries or free TV. And in any case, the regulation of an economic constraint is different from the regulation of a legal constraint.

The writer faces more constraints. He too is within our tradition free to remix, but not as free as the reader. For the writer, some types of remix are unfree because they are expensive. And some types of remix are unfree because they are constrained by law.

For example Alfred Hitchcock's 1954 movie, *Rear Window*, was based upon an earlier short story by Woolrich, titled 'Had to Be Murder'. Hitchcock was thus constrained in his ability to remix Woolrich's story in two different ways. First, because the technology of filmmaking was expensive, his remixing was expensive. And second, because Woolrich's story was still under copyright, Hitchcock's remix needed the permission of the copyright holder. He was thus not free to remix it without the permission of the copyright holder. In both senses then, Hitchcock was constrained. And in this sense he was less free to remix than his reader. But in my view these constraints on the writer have historically been both limited and reasonable. To the extent that the constraints were economic constraints, they reflected real scarcity within a market. To the extent that they were legal constraints, for most of our history they were relatively limited.

These constraints depend upon technology. Indeed we could say that the difference between the reader and writer depends upon technology. Hitchcock was constrained by the costs of making a film. But that constraint for him was manageable; for a reader, or even another filmmaker, that cost would have been disabling.

In the past 15 years we've seen a radical change in technology. The emergence of digital technology has meant a radical change in the way culture gets made and spread and remixed. That change in turn is changing the opportunity

for remixing culture. It is expanding that opportunity, by closing the gap between reader and writer.

So for example the Beatles produced an album called the *White Album* that inspired the musician Jay-Z to produce an album called the *Black Album*. And that album inspired a musician called DJ Danger Mouse to produce the *Gray Album*, which was literally a synthesis of the tracks of the *White Album* and the *Black Album*. Without the changes of digital technology, this form of creativity would not have been possible.

Or consider the changes in the context of film. In 2004, the film *Tarnation* was debuted at Cannes. It was said by many to 'wow' Cannes. This film cost $218 to make. The director had been given an iMac by his friends, and using film that he had shot through his whole life, he produced a film that was of such a quality to win awards at many international festivals, as well as rave attention at Cannes.

Or perhaps most important have been the examples of remix using digital technologies in the area of politics. It is of course impossible to describe the power of these creations in written form. That is in fact the point. But there has been an explosion of creative political commentary, using images and sounds from the culture around us, remixed using digital technologies to either artistic or political end. None is more powerful than a remix of Lionel Richie's 'Endless Love', as a duet with President Bush and Prime Minister Blair (available at http://atmo.se).

In all of these examples, the point to recognize is the potential that this change in technology creates. Anyone with a $1500 computer has the opportunity to take sounds and images from the culture around us and remix them in a way that produces culture differently – that changes, that is, the way that culture gets remixed by changing the creative potential and, most importantly, the democratic potential of this culture. These new technologies change the freedom to speak by changing the power to speak, making that power different; no longer just a broadcast democracy but increasingly a bottom-up democracy; no longer just *New York Times* democracy, but increasingly a blog democracy; no longer just the few speaking to the many, but increasingly peer to peer.

The reader becomes the writer in this world, and the writer in this world becomes a reader. For as cultures get spread without a distributor standing in the middle, the way cultures get made and remade changes.

In this sense, technology has exploded the potential for remix. But that potential is now threatened by two other effects technology has produced. One effect is the most obvious: the explosion in the 'piracy' of copyrighted material. And the second effect will follow from the first: the reaction to this 'piracy'.

The first effect is the explosion in content shared without the permission

of the copyright holder. This piracy has inspired a 'war', a war which Jack Valenti has referred to as his 'own terrorist war' (apparently the terrorists are our children). This war has induced the creation of new weapons, of both law and technology, designed to protect intellectual property by effectively disabling the Internet's original design. Rather than facilitating the efficient spread of content, these weapons disable the efficient spread of content. We thus break the way the Internet was designed to protect Hollywood from the threat that this technology presents.

But while the Internet in practice has weakened the reach of copyright law, in principle the network radically expands the reach of copyright law. To see the point, think for example about a book. If you imagine all the uses of a book in the world before digital technologies, many of these uses were essentially unregulated. If you read a book, that's an unregulated use, because to read a book is not to produce a copy. If you give someone a book, that's an unregulated use, because to give someone a book is not to produce a copy. If you sell someone a book, that's an unregulated use, because to sell somebody a book is not to produce a copy. If you sleep on a book, that's an unregulated use, because to sleep on a book does not produce a copy. These ordinary uses of these bits of culture are, before the Internet, free. Then at the core of these uses is a set of uses which are properly regulated by the law. For example if you publish, it requires the permission of the copyright owner, because to publish a book is to invade a proper exclusive right protected by copyright.

Enter the Internet, where every act is a copy. Now, magically, without the resolution of any legislative body, actions that before were presumptively free are now by default regulated. Ordinary uses of culture become controlled, and new uses of culture using these digital technologies become essentially illegal. Thus remix in this culture is rendered illegal, because in a world where all uses produce a copy, and in a world where all copies are copies of presumptively copyrighted material, one needs permission first, and this permission is not coming.

So for example DJ Dangermouse knew the Beatles never give permission to remix their work. Jonathan Caouette, the director of *Tarnation*, discovered that while his film cost $218 to make, it would cost $400 000 to clear the rights to the images and sounds used in the background of the film. In these cases and many others, the consequence of the way the law regulates today is that permission is required and yet permission is not coming, rendering much of this creativity illegal.

Illegality doesn't stop this form of creativity. But it does stop our schools from teaching this kind of literacy, and it does slow the spread of technologies for facilitating it – as manufacturers fear liability from the misuse of their technologies.

But over time however this illegality will be converted into impossibility.

For today, the rule renders these forms of creativity illegal. Tomorrow, as the technology of digital rights management (DRM) becomes increasingly embedded in the infrastructure of our culture, the capacity to engage in these forms of creative re-expression will be removed. DRM, designed to protect against 'piracy', will have the (perhaps unintended) effect of blocking this form of digital remix.

This consequence for DRM is not well understood. When DRM technology was first proposed as a response to 'piracy', there was a battle about whether 'fair use' would be preserved. But the 'fair use' at issue in those debates was the right to make multiple copies of a particular work. It was not the right to engage in remix. That earlier battle has produced a modern settlement. The settlement will produce a world where we will have strong digital rights management technologies, but a liberal 'fair use' policy where by 'fair use' the law means the right to make a limited number of copies within your own home. So for example you have the right to buy creative work and with that right we'll include the right to make X free copies within the home.

This compromise of course solves the architecture of revenue problem for creative industries from the nineteenth and twentieth centuries – industries that depended upon controlling copies. But it destroys the potential for digital remix. For the same tools used to lock down culture to prevent 'piracy' are tools that will make it effectively impossible to remix culture – at least without the permission of the culture owner, and again, that permission is not coming.

The problem here is not the technology. Nor is it something called 'copyright'. The problem is a regime of copyright not fit to the technology. The current regime of copyright is cumbersome, bloated, expensive and too lawyer-centric. It's a world where the costs of doing right are too high, and the scope of control is simply too great. It's a world where the limited exception to free use that copyright law used to impose is now the rule. It's a world where what before was a small amount of regulation in the creation and the spread of culture now covers all creativity and a great deal of the spread of culture. It is a radical change in the scope of regulation. Thus just when the technology could mean that anybody could engage the kind of creativity that Walt Disney did, the law intervenes to say that no one can do to Walt Disney what Walt Disney did to the Brothers Grimm. Or, we could say, no one could do to the Disney Corporation what Walt Disney did to H.C. Andersen. Technology enables; the law and technology disables.

Our response to this change should not be to reject the law. It should instead be to fit the law to the new technology. It should be to find ways to respect rights while making it easier to do what is right.

One idea to facilitate just this sort of change is the non-profit corporation that I run called Creative Commons. Creative Commons has as its objective a

simple way to mark content with the freedoms the creators intend the content to carry. If you go to our website, http://creativecommons.org, you are given a choice to publish creative work subject to a license you select. That license permits you to limit commercial uses of your work; it allows you to permit or not permit modifications of your work; and it allows you to say that if modifications of your work are allowed, then others should release their modifications under similarly free terms.

These choices produce a license. This license comes in three layers. One layer is a human-readable commons deed, which expresses, in terms understandable to any, the freedoms associated with the content. The second layer is a lawyer-readable license, designed to guarantee the freedoms that are expressed associated with the content. And the third layer is a machine-readable expression of the freedoms associated with the content, so that machines can begin to gather content on the basis of the freedoms.

These three layers are essential together. We have to make the freedoms associated with content on the net understandable, unchallengeable and usable. And by so marking content, we can encourage a wide range of creativity consistent with the underlying copyright law. Or put differently, we can encourage a kind of creativity that encourages others to build on the creative work of others, consistent with the underlying regime of intellectual property.

This project has been internationalized through the iCommons Project. In more than 60 countries around the world right now, iCommons is porting the legal code of this three-layer license, so that in those jurisdictions, you will be able to select a license appropriate to that jurisdiction, while guaranteeing a common framework understandable and portable to creators around the world.

This is of course just one project. But its aim suggests the more general point. We need to adapt the law to fit the opportunities of digital technology. Those opportunities are most important the chance these technologies give to a much wider range of creators. Some of these creators depend upon exclusive rights to sustain their creativity. Some do not. Our system of intellectual property protection should not make either kind of creativity impossible.

The existing regime of law and technology, encouraging the range of 'piracy' that it does, makes it hard for the first kind of creator to succeed. The succeeding regime of law and technology – regulating all uses and enforcing that regulation through DRM – will make it very hard for the second kind of creator to exist. We need not choose between these two forms of creator. We could have a regime that supported both.

In 1874, Hans Christian Andersen received a letter from a child in the United States. The letter thanked Andersen for his creativity, and it included a small amount of money. It was the first of many letters that Andersen would receive – all from children, all sending money, and all to his great embarrassment.

Andersen had been the target of a campaign in the United States to raise awareness about the 'pirate nation' that the United States was. Until 1891, the US did not protect foreign copyrights at all. This children campaign was a brilliant effort to create political demand for the United States to respect foreign creative work. It was an effort to bring the United States into the modern era, respecting the rights of creators.

When the US finally recognized the rights of foreign copyright owners, it was said to have matured as a nation. But the regime of copyright that secured that maturity was still essentially limited. The law throughout the nineteenth, and most of the twentieth centuries left ordinary uses of culture free. It didn't purport to regulate readers. And it only incidentally regulated writers. It no doubt created property for the authors, but that property did not enable the control of the readers.

Digital technologies have changed this balance. While on the one hand, they have exploded the opportunity for the reader to be the writer, on the other hand, they have inspired a movement to change that technology, so as to reassert control over the reader, and the writer, in a way that we have never known before.

The maturation of American copyright law in 1891 was a long overdue change. But this change in copyright law around the world, induced by the threat that 'piracy' presents, should be resisted. We have the chance to continue a tradition that writers have enjoyed through the creative work of more than just writers. The technology has democratized creativity. It has enabled a generation of Andersen creators – not privileged but talented; not just writers but readers.

Before we lose this opportunity, we should understand its potential. The democracy in a broad range of remix creativity is more valuable than the control these new technologies will enable. We need to resist this control, and experience this democracy.