

## INTRODUCTION

In early February 2007, Stephanie Lenz's eighteen-month-old son, Holden, started dancing. Pushing a walker across her kitchen floor, Holden started moving to the distinctive beat of a song by Prince (that's the current name of the artist formerly known as Prince), "Let's Go Crazy." Holden had heard the song a couple of weeks before while the family watched the Super Bowl. The beat had obviously stuck. So when he heard the song again, he did what any sensible eighteen-month-old would do—he accepted Prince's invitation and went "crazy" to the beat, in the clumsy but insanely cute way that any precocious eighteen-month-old would.

Holden's mom, understandably, thought the scene hilarious. She grabbed her camcorder and captured the dance digitally. For twenty-nine seconds, she had the priceless image of Holden dancing, with the barely discernible Prince playing on a radio somewhere in the background.

Lenz wanted her parents to see the film. But it's a bit hard to e-mail a 20-megabyte video file to anyone, including your relatives. So she did what any sensible citizen of the twenty-first cen-

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tury would do: she uploaded the file to YouTube and e-mailed her relatives the link. They watched the video scores of times, no doubt sharing the link with friends and colleagues at work. It was a perfect YouTube moment: a community of laughs around a homemade video, readily shared with anyone who wanted to watch.

Sometime over the next four months, however, someone not a friend of Stephanie Lenz also watched Holden dance. That someone worked for Universal Music Group. Universal either owns or administers some of the copyrights of Prince. And Universal has a long history of aggressively defending the copyrights of its authors. In 1976, it was one of the lead plaintiffs suing Sony for the "pirate technology" now known as the VCR. In 2000, it was one of about ten companies suing Eric Corely and his magazine, *2600*, for publishing a link to a site that contained code that could enable someone to play a DVD on Linux. And now, in 2007, Universal would continue its crusade against copyright piracy by threatening Stephanie Lenz. It fired off a letter to YouTube demanding that it remove the unauthorized performance of Prince's music. YouTube, to avoid liability itself, complied.

This sort of thing happens all the time today. Companies like YouTube are deluged with demands to remove material from their systems. No doubt a significant portion of those demands are fair and justified. If you're Viacom, funding a new television series with high-priced ads, it is perfectly understandable that when a perfect copy of the latest episode is made available on YouTube, you would be keen to have it taken down. Copyright law gives Viacom that power by giving it a quick and inexpensive way to get the YouTube of the world to help it protect its rights.

The Prince song on Lenz's video, however, was something completely different. First, the quality of the recording was terrible. No

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one would download Lenz's video to avoid paying Prince for his music. Likewise, neither Prince nor Universal was in the business of selling the right to video-cam your baby dancing to their music. There is no market in licensing music to amateur video. Thus, there was no plausible way in which Prince or Universal was being harmed by Stephanie Lenz's sharing this video of her kid dancing with her family, friends, and whoever else saw it. Some parents might well be terrified by how deeply commercial culture had penetrated the brain of their eighteen-month-old. Stephanie Lenz just thought it cute.

Not cute, however, from Lenz's perspective at least, was the notice she received from YouTube that it was removing her video. What had she done wrong? Lenz wondered. What possible rule—assuming, as she did, that the rules regulating culture and her (what we call "copyright") were sensible rules—could her maternal gloating have broken? She pressed that question through a number of channels until it found its way to the Electronic Frontier Foundation (on whose board I sat until the beginning of 2008).

The EFF handles lots of cases like this. The lawyers thought this case would quickly go away. They filed a counternotice, asserting that no rights of Universal or Prince were violated, and that Stephanie Lenz certainly had the right to show her baby dancing. The response was routine. No one expected anything more would come of it.

But something did. The lawyers at Universal were not going to back down. There was a principle at stake here. Ms. Lenz was not permitted to share this bit of captured culture. They would insist—indeed, would threaten her with this claim directly—that sharing this home movie was willful copyright infringement. Under the

laws of the United States, Ms. Lenz was risking a \$150,000 fine for sharing her home movie.

We'll have plenty of time to consider the particulars of a copyright claim like this in the pages that follow. For now, put those particulars aside. Instead, I want to you imagine the conference room at Universal where the decision was made to threaten Stephanie Lenz with a federal lawsuit. Picture the meeting: four, maybe more, participants. Most of them lawyers, billing hundreds of dollars an hour. All of them wearing thousand-dollar suits, sitting around looking serious, drinking coffee brewed by an assistant, reading a memo drafted by a first-year associate about the various rights that had been violated by the pirate, Stephanie Lenz. After thirty minutes, maybe an hour, the executives come to their solemn decision. A meeting that cost Universal \$10,000? \$50,000? (when you count the value of the lawyers' time, and the time to prepare the legal materials); a meeting resolved to invoke the laws of Congress against a mother merely giddy with love for her eighteen-month-old.

Picture all that, and then ask yourself: How is it that sensible people, people no doubt educated at some of the best universities and law schools in the country, would come to think it a sane use of corporate resources to threaten the mother of a dancing eighteen-month-old? What is it that allows these lawyers and executives to take a case like this seriously, to believe there's some important social or corporate reason to deploy the federal scheme of regulation called copyright to stop the spread of these images and music? "Let's Go Crazy"? Indeed! What has brought the American legal system to the point that such behavior by a leading corporation is considered anything but "crazy"? Or to put it the other

way around, who have we become that such behavior seems sane to anyone?

**Near the center of London**, in a courtyard named Mason's Yard, there is a modern-looking cement building called White Cube. In a previous life, it was an electricity substation. Today it is an art gallery.

In late August 2007, I entered the gallery and walked to the basement. A large black curtain separated the stairs from an exhibit. When I passed through the curtain, I saw on one wall of the huge black room twenty-five plasma displays, one set next to the other, in portrait orientation. Each display was a window into a studio. In each studio was a fan of John Lennon. Twenty-five fans—three women, twenty-two men, fifteen wearing T-shirts (both men and women), one wearing a tie (man). All twenty-five were singing the vocal track, from the first song to the last, without pause, from John Lennon's first solo album, *John Lennon/Plastic Ono Band* (1970). The exhibit looped the video again and again, for eight hours a day, six days a week, throughout the summer of 2007.

These fans were ordinary Brits. Very ordinary. None were beautiful. None were very young. They had no makeup. They were twenty-five Lennon fanatics, selected from over six hundred who had applied to sing this tribute to their favorite artist.

London was not the only city with an exhibit like this. Three related installations had been made in three different countries. In Jamaica, *Legend (A Portrait of Bob Marley)* featured thirty fans singing Marley's *Legend* album. In Berlin, *King (A Portrait of Michael Jackson)* had sixteen fans singing the whole of *Thriller*. And in Italy,

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thirty fans of Madonna gathered for *Queen (A Portrait of Madonna)*, a tribute to the queen of pop. *Working Class Hero (A Portrait of John Lennon)* was just the latest in the series. The young South African artist who had created it, Candice Breitz, was considering making more.

I'm not one to be moved by John Lennon's solo work. Yet as I sat in that pitch-black room, watching these fans sing his music, I was overwhelmed with emotion. Like a mother holding her baby for the first time, or a boy reaching out to take his father's hand, or a daughter turning to kiss her father as her wedding begins, each of these fans conveyed an extraordinary and contagious emotion. They were not fantastic singers. Often someone would miss the timing or forget the words. But you could see that this music and its creator were among the most important things in these people's lives. Who knows why? Who knows what their particular associations were? But it was clear that this album was just about the most important creative work these fans knew. Their performance was a celebration of this part of their lives. That was its point: not so much about Lennon, but about the people whose lives Lennon had touched.

Throughout her career Breitz has focused upon the relationship between mainstream culture—from blockbuster movies to pop music—and the audience who experiences it. As she explained to me, the idea is to shift the focus away from those people who are usually perceived as creators so as to give some space, some room, to those people who absorb cultural products—whether it's music or movies or whatever the case may be. And to think a little bit about what happens once music or a movie has been distributed: how it may get absorbed into the lives into the very being of the people who listen to it or watch it.<sup>1</sup>

Each of us connects differently. The connection runs deep in some; it skips across the surface in others. Sometimes it catches us and pulls us along. Sometimes it changes us completely. Again, Breitz:

Even the most broadly distributed, most market-inflected music comes to have a very specific and local meaning for people according to where it is that they're hearing it or at what moment in their life they're hearing it. What goes hand in hand with the moment of reception is a dimension of personal translation.

This "reception," she continued, "involves... interpretation or translation." That act "is creative." Active. Engaged. Yet, it's easy for us to miss the active in the mere watching. It's rude to turn around and watch people watch a movie. It's a crime to try to film them singing in the shower. We live in a world infused with commercial culture, yet we rarely see how it touches us, and how we process it as it touches us.

As Breitz explained this to me, I wondered about its source in her. Where did it come from? I asked her. In part, it was African.

In African and other oral cultures, this is how culture has traditionally functioned. In the absence of written culture, stories and histories were shared communally between performers and their audiences, giving rise to version after version, each new version surpassing the last as it incorporated the contributions and feedback of the audience, each new version layered with new details and twists as it was inflected through the collective. This was never thought of as copying or stealing or intellectual-property theft but accepted as the natural way in which culture evolves and

develops and moves forward. As each new layer of interpretation was painted onto the story or the song, it was enriched rather than depleted by those layers.

But this reality is not unique to oral cultures. In Breitiz's view, it is "how the artistic process works" generally.

This process of making meaning may be more blatant in the practice of certain artists than it is in the practice of others. Artists who work with found footage, for example, blatantly reflect on the absorptive logic of the creative process. But I would argue that every work of art comes into being through a similar process, no matter how subtly. No artist works in a vacuum. Every artist reflects—consciously or not—on what has come before and what is happening parallel to his or her practice.

This understanding of culture, and the artist's relationship to culture, led directly to the particular work I was watching at White Cube. As she described to me,

these works are based on a pretty simple premise: there are enough images and representations of superstars and celebrities in the world. Rather than creating more images of people who are already overrepresented, rather than literally making another image of a Madonna or a John Lennon, I wanted to reflect on the other side of the equation, on what goes into the making of celebrity.

I realized I needed to turn the camera 180 degrees, away from those who are usually in the public eye—those who already have

a strong voice and presence on the screen or stage—towards those on the other side of the screen or stage, the audience members who attend concerts, watch movies, and buy CDs.

Towards those who are usually—incorrectly, in my opinion—conceived of as mere absorbers of culture rather than being recognized as having the potential to reflect culture creatively.

Prior to *Working Class Hero*, the similar installations had all been well received. After seeing *Legend*, for example, Bob Marley's widow, Rita, decided to incorporate permanently a copy in the inventory of the Bob Marley Museum in Kingston, where she had arranged an opening showing at the museum, inviting all thirty performers and their families from across Jamaica to come to the museum to celebrate its celebration of her husband.

But with the portrait of Lennon, the reception wasn't quite so warm. At White Cube's request, Breitiz had set out to secure permission from the copyright holders of *John Lennon/Plastic Ono Band* prior to the first installations of the work at nonprofit museums in Newcastle and Vienna. Breitiz wrote Yoko Ono to secure that permission. After a couple of months, she received a response from one of Ms. Ono's lawyers. "We are not able to grant the use of Mr. Lennon's image for your project," the e-mail informed. But Breitiz didn't want permission to use Lennon's image. She wanted permission to engage with twenty-five fans singing his music. When Breitiz responded with that correction, the lawyer informed her that he had not in fact personally reviewed her proposal. He was simply relaying the fact that Ms. Ono was not willing to grant the rights requested. A major international curator who knew Yoko and was a supporter of Breitiz's work intervened on Breitiz's behalf,

suggesting that, as he understood the situation, Breitiz could in fact have paid for the relevant copyrights and gone ahead with the project, but that out of respect, she was seeking Ono's permission and understanding. Ms. Ono wanted to hear more, but she disagreed with the curator about her freedom to make a cover without permission. "Permission," Ono insisted, "was vital, legally."

The curator described the proposal again. Ono asked to see it in writing. After reviewing it, her lawyers informed Breitiz that she could use *John Lennon/Plastic Ono Band* in her project, but:

Please note, clearance for the use of the actual musical compositions must be secured from the relevant publishers.<sup>2</sup>

Relieved (however naively), Breitiz then asked White Cube's lawyers to start the process of securing "clearance" from the copy-right holders for the compositions. Three months later, the lawyers representing Sony (holder of the rights to ten of the eleven songs on the album) quoted a standard fee of approximately \$45,000 for one month's exhibition. Sony knew this was too much but wanted to set a baseline for the negotiations that would follow. They requested that the artist let them know the largest sum that she could afford. They wanted to see the project's budget.

Time, however, was running short. The exhibit was scheduled to open in Newcastle in a matter of weeks. After being pressed, the lawyers agreed to permit the work to be shown at this nonprofit institution without an agreement. They did the same for a nonprofit venue in Vienna three months later, but mentioned that Ms. Ono's lawyers wanted a formal agreement before any further exhibitions could go ahead.

A year after the request was originally made, it had still not been resolved. At the time of this writing, more than two years after the initial response, and after literally hundreds of hours of the lawyers', the museum executives', and Breitiz's time, the rights holders have still not come to a final agreement. No one seems to have noticed that the value of the time spent dickering over these rights far exceeded any possible licensing fee. Economics didn't matter. A principle was at stake. As Ms. Ono had put it, "permission was vital, legally" before the love of twenty-five fans for the work of John Lennon could be explored publicly by another artist.

Gregg Gillis is a twenty-five-year-old biomedical engineer from Pittsburgh. He is also one of the hottest new artists in an emerging genre of music called "mash-up" or "remix." Girl Talk is the name of his one-man (and one-machine) band. That band has now produced three CDs. The best known, *Night Ripper*, was named one of the year's best by *Rolling Stone* and *Pitchfork*. In March 2007, his local congressman, Democrat Michael Doyle, took to the floor of the House to praise this "local guy made good" and his new form of art.

"New" because Girl Talk is essentially a mix of many samples drawn from many other artists. *Night Ripper*, for example, remixes between 200 and 250 samples from 167 artists. "In one example," Doyle explained on the floor of the House, "[Girl Talk] blended Elton John, Notorious B.I.G., and Destiny's Child all in the span of 30 seconds." Doyle was proud of this hometown wonder. He invited his colleagues to "take a step back" to look at this new form of art. "Maybe mash-ups," Doyle speculated, "are a transformative new art

that expands the consumer's experience and doesn't compete with what an artist has made available on iTunes or at the CD store."

Doyle's comments helped fuel a flurry of media attention to Girl Talk. That, in turn, helped fuel some real anxiety among Girl Talk's distributors. For the defining feature of this mash-up genre is that the samples are remixed without any permission from the original artists. And if you ask any lawyer representing any label in America, he or she would quickly Ono-ize: "Permission is vital, legally." Thus, as Gillis practices it, Girl Talk is a crime. Apple pulled *Night Ripper* from the iTunes Music Store. eMusic had done the same a few weeks before. Indeed, one CD factory had refused even to press the CD.

Gillis had begun with music at the age of fifteen. Listening to electronic experimental music on a local radio station, he "discovered this world of people that could press buttons and make noise on pedals and perform it live." "It kind of blew my mind," he told me. At the age of sixteen he "formed a noise band—noise meaning very avant-garde music" for the time.<sup>3</sup>

Over the years, "avant-garde" moved from analog to digital—aka computers. Girl Talk the band was born in late 2000 on a Toshiba originally purchased for college. Gillis loaded the machine with audio tracks and loops. Then, using a program called AudioMulch, he would order and remix the tracks to prepare for a performance. I've seen Girl Talk perform live; his shows are as brilliant as his recorded remixes.

It wasn't long into the life of Girl Talk, however, that the shadow of Law Talk began to grow. Gillis recognized that his form of creativity didn't yet have the blessing of the law. Yet he told me, "I was never that fearful... I guess I was a little naive, but at the same time, it was just the world I existed in where you see these things

every day. [And you] know you're going to be selling such a small number of albums that no one will probably ever take notice of it." There were of course famous cases where people did "take notice." Negativland, a band we'll see more of later in this book, had had a famous run-in with U2 and Casey Kasem after it remixed a recording of Kasem introducing the band on *American Top 40*. Gillis knew about this run-in. But as he explained to me in a way that reminded me of the days when I too thought the law was simply justice written nicely,

I feel the same exact way now that I felt then. I think, just morally, that the music wasn't really hurting anyone. And there's no way anyone was buying my CD instead of someone else's [that I had sampled]. And... it clearly wasn't affecting the market. This wasn't something like a bootlegging case. I felt like if someone really had a problem with this then we could stop doing it. But I didn't see why anyone should.

Why anyone "should" was a question I couldn't answer. That someone would was a prediction too obvious to make. The "problem" would be raised not directly, but indirectly; not by filing a lawsuit against Girl Talk, but by calling up iTunes or another distributor and asking questions that made the distributor stop its distribution, and thus forcing this artist, and this art form, into obscurity. The "problem" of Girl Talk would be solved by making sure that any success of Girl Talk was limited. Keep it in Pittsburgh, and dampen the demand wherever you can, and maybe the "problem" would go away.

Gillis agrees the problem is going away. But for a very different reason. For the thing that Gillis does well, Gillis explained to me,

everyone will soon do. Everyone, at least, who is passionate about music. Or, at least, everyone passionate about music and under the age of thirty.

We're living in this remix culture. This appropriation time where any grade-school kid has a copy of Photoshop and can download a picture of George Bush and manipulate his face how they want and send it to their friends. And that's just what they do. Well, more and more people have noticed a huge increase in the amount of people who just do remixes of songs. Every single Top 40 hit that comes on the radio, so many young kids are just grabbing it and doing a remix of it. The software is going to become more and more easy to use. It's going to become more like Photoshop when it's on every computer. Every single P. Diddy song that comes out, there's going to be ten-year-old kids doing remixes and then putting them on the Internet.

"But why is this good?" I asked Gillis.

It's good because it is, in essence, just free culture. Ideas impact data, manipulated and treated and passed along. I think it's just great on a creative level that everyone is so involved with the music that they like.... You don't have to be a traditional musician. You get a lot of raw ideas and stuff from people outside of the box who haven't taken guitar lessons their whole life. I just think it's great for music.

And, Gillis believes, it is also great for the record industry as well: "From a financial perspective, this is how the music industry

can thrive in the future... this interactivity with the albums. Treat it more like a game and less like a product."

Gillis's point in the end, however, was not about reasons. It was about a practice. Or about the practice of this generation. "People are going to be forced—lawyers and... older politicians—to face this reality: that everyone is making this music and that most music is derived from previous ideas. And that almost all pop music is made from other people's source material. And that it's not a bad thing. It doesn't mean you can't make original content."

All it means—today, at least—is that you can't make this content legally. "Permission is vital, legally," even if today it is impossible to obtain.

**Silvia0 is a successful Colombian artist.** For a time she was a songwriter and recording star, making CDs to be sold in the normal channels of Colombian pop music. In the late 1990s, she suffered a tragic personal loss, and took some time away from performing. When she returned to creating music, a close friend and developer for Adobe convinced her to try something different.

I saw her describe the experience outside a beautiful museum near Bogotá, at the launch of Creative Commons Colombia. (We'll see more of Creative Commons later. Suffice it to say for now that the nonprofit provides free copyright licenses to enable artists to mark their creative work with the freedoms they want it to carry. These licenses are then translated, or "ported," into jurisdictions around the world. When that porting is complete, the country "launches," making the new localized licenses available.) About a hundred people, mainly artists and twentysomethings, were gathered in an

amphitheater next to the museum. SilviaO spoke in Spanish. A translator sitting next to me carried her words into English.

She told a story of donating an a cappella track titled “Nada Nada” (“Nothing Nothing”) to a site Creative Commons runs called ccMixer. ccMixer was intended as a kind of Friendster for music. People were asked to upload tracks. As those tracks got remixed, the new tracks would keep a reference to the old. So you could see, for example, that a certain track was made by remixing two other tracks. And you could see that four other people had remixed that track.

SilviaO’s track was a beautiful rendition of a song sung in Spanish, described on the ccMixer site as the story of “a girl not changing her ideas, dreams or way of life after engaging in a relationship.” A few days after the track was uploaded, however, a famous mixer citizen, fourstones, remixed it—cutting up the Spanish into totally incomprehensible (but beautiful) gibberish, and retitling the mix “Treatment for Mutilation.”

As she stood before those who had come to celebrate Creative Commons Colombia and described this “mutilation,” I, the chairman of Creative Commons, began to sweat. I was certain she was about to attack remix creativity. A remixer had totally destroyed the meaning of her contribution. I was certain this was to become a condemnation of the freedom that I had thought we were all there to celebrate.

To my extraordinary surprise and obvious relief, however, SilviaO had no condemnation to share. She instead described how the experience had totally changed how she thought about creating music. Sure, the words were no longer meaningful. But the sound had taken on new meaning. As she told me later, “the song

became more jazzy, and it opened the gate to understanding that maybe it was going to be more to treat my voice as an instrument and something completely independent from lyrics than I was used to before.”<sup>34</sup>

Inspired by that remix, she wrote another track to be layered onto the first. Since then, she has added song after song to the ccMixer collection. Unlike Breitz’s work or Girl Talk, all these remixes were legal. If “permission is vital, legally,” then with this work, permission had already been given. The Creative Commons licenses had shifted the copyright baseline through the voluntary acts of copyright holders.

And for SilviaO, the act of creating had changed. Before, she sat in a studio, crafting work that would be broadcast, one to many. Now she was in a conversation with other artists, providing content they would add to, and adding content back. “I’m more talking with the musicians right now,” she told me, “because I’m releasing my work and I know for sure, for many of them, they don’t understand not even the words I am saying. [But] my voice is just another instrument, so all the options that they are playing with are completely their own. So there is more freedom.... My voice,” she explained, “was just a little bit—it was just a little part of the huge process that is happening now with this kind of creation. I was a little bit more free, because I didn’t know how they were reacting.”

“I became,” she whispered, “a little bit more courageous.”

**If I asked you to shut your eyes and think about “the copyright wars,” your mind would not likely run to artists or creators like these.**

Peer-to-peer file sharing is the enemy in the “copyright wars.” Kids “stealing” stuff with a computer is the target. The war is not about new forms of creativity, not about artists making new art. Congress has not been pushed to criminalize Girl Talk.

But every war has its collateral damage. These creators are just one type of collateral damage from this war. The extreme of regulation that copyright law has become makes it difficult, and sometimes impossible, for a wide range of creativity that any free society—if it thought about it for just a second—would allow to exist, legally. In a state of war, however, we can’t be lax. We can’t forgive infractions that might at a different time not even be noticed. Think “eighty-year-old grandma being manhandled by TSA agents,” and you’re in the frame for this war as well.

Collateral damage is the focus of this book. I want to put a spotlight on the stuff no one wants to kill—the most interesting, the very best of what these new technologies make possible. If the war simply ended tomorrow, what forms of creativity could we expect? What good could we realize, and encourage, and learn from?

I then want to spotlight the damage we’re not thinking enough about—the harm to a generation from rendering criminal what comes naturally to them. What does it do to them? What do they then do to us?

I answer these questions by drawing a map of the change in what we could call cultures of creativity. That map begins at the turn of the last century. It is painted with fears from then about what our culture was becoming. Most of those fears proved correct. But they help us understand why much of what we seem to fear today is nothing to fear at all. We’re seeing a return of something

we were before. We should celebrate that return, and the prosperity it promises. We should use it as a reason to reform the rules that render criminal most of what your kids do with their computers. Most of all, we should learn something from it—about us, and about the nature of creativity.

technologies for creating and distributing music that didn't fit well within this old model of protection. With these new technologies, and for the first time in history, a musical composition could be turned into a form that a machine could play—the player piano, for example, or a phonograph. Once encoded, copies of this new musical work could be duplicated at a very low cost. A new industry of “mechanical music” thus began to spread across the country. For the first time in human history, with a player piano or a phonograph, ordinary citizens could access a wide range of music on demand. This was a power only kings had had before. Now everyone with an Edison or an Aeolian was a king.

The problem for composers, however, was that they didn't share in the wealth from this new form of access. Mechanical music may have in one sense “copied” their work. But as most courts interpreted the Copyright Act, whatever “copy” these machines made was not the sort of copy regulated by the law. This angered many composers. Some, such as Sousa, resolved to do something about it. His trip to Capitol Hill was just one part of his extensive (and ultimately successful) campaign.

My interest in Sousa's testimony, however, has little to do with his (to us, today) obviously sensible plea. It is instead a point that may have been obvious to him, then, but that has largely been forgotten by us, now. For as well as complaining about the “piracy” of mechanical music, Sousa also complained about the cultural emptiness that mechanical music would create. As he testified:

When I was a boy . . . in front of every house in the summer evenings you would find young people together singing the songs of the day or the old songs. Today you hear these infernal machines

going night and day. We will not have a vocal cord left. The vocal cords will be eliminated by a process of evolution, as was the tail of man when he came from the ape.<sup>2</sup>

“We will not have a vocal cord left.”

John Philip Sousa was obviously not offering a prediction about the evolution of the human voice box. He was describing how a technology—“these infernal machines”—would change our relationship to culture. These “machines,” Sousa feared, would lead us away from what elsewhere he praised as “amateur” culture. We would become just consumers of culture, not also producers. We would become practiced in selecting what we wanted to hear, but not practiced in producing stuff for others to hear.

So why would one of America's most prominent professional musicians criticize the loss of amateur music?

Sousa's fear was not that the quality of music would decline as less was produced by amateurs and more by professionals. Instead, his fear was that culture would become less *democratic*: not in the sense that people would vote about what is, or is not, good culture, but in a sense that MIT professor Eric von Hippel means when he argues that innovation today is becoming more “democratized.”<sup>3</sup> In the world Sousa feared, fewer and fewer would have the access to instruments, or the capacity, to create or add to the culture around them; more and more would simply consume what had been created elsewhere. Culture would become the product of an elite, even if this elite, this cultural monarchy, was still beloved by the people.

Indeed, he believed this change was already happening. As he recounted:

Last summer... I was in one of the biggest yacht harbors of the world, and I did not hear a voice the whole summer. Every yacht had a gramophone, a phonograph, an Aeolian, or something of the kind. They were playing Sousa marches, and that was all right, as to the artistic side of it, but they were not paying for them, and, furthermore, they were not helping the technical development of music.<sup>4</sup>

This decline in participation, Sousa argued, would translate into a decline in the spread of tools to create music:

This wide love for the art springs from the singing school, secular or sacred; from the village band, and from the study of those instruments that are nearest the people. There are more pianos, violins, guitars, mandolins, and banjos among the working classes of America than in all the rest of the world, and the presence of these instruments in the homes has given employment to enormous numbers of teachers who have patiently taught the children and inculcated a love for music throughout the various communities.<sup>5</sup>

"And what is the result" of this loss of "amateurs"? Sousa asked.

The child becomes indifferent to practice, for when music can be heard in the homes without the labor of study and close application, and without the slow process of acquiring a technique, it will be simply a question of time when the amateur disappears entirely.... [*The tide of amateurism cannot but recede, until there will be left only the mechanical device and the professional executant.*<sup>6</sup>

"The tide of amateurism cannot but recede"—a bad thing, this professional believed, for music and for culture.

Sousa was romanticizing culture in a way that might remind the student of American history of Thomas Jefferson. Jefferson romanticized the yeoman farmer.<sup>7</sup> He would be sickened by the modern corporate farm that has displaced his yeoman hero. But his reputation would have little to do with the efficiency of food production, or even the quality of the food produced. Instead, he would object to the effect of this change on our democracy. Jefferson believed that the ethic of a yeoman farmer—one practiced in the discipline of creating according to an economy of discipline, as any farmer on the edge of civilization in eighteenth-century America would—was critical to democratic self-governance. Yeoman self-sufficiency was thus not a virtue because it was an efficient way to make food. Yeoman self-sufficiency was a virtue because of what it did to the self, and in turn, what it did to democratic society, the union of many individual selves.

Sousa's take on culture was similar. His fear was not that culture, or the actual quality of the music produced in a culture, would be less. His fear was that people would be less connected to, and hence practiced in, creating that culture. Amateurism, to this professional, was a virtue—not because it produced great music, but because it produced a musical culture: a love for, and an appreciation of, the music he re-created, a respect for the music he played, and hence a connection to a democratic culture. If you want to respect Yo-Yo Ma, try playing a cello. If you want to understand how great great music is, try performing it with a collection of amateurs.

## RW Culture Versus RO Culture

In the language of today's computer geeks, we could call the culture that Sousa celebrated a "Read/Write" ("RW") culture.\* in Sousa's world (a world he'd insist included all of humanity from the beginning of human civilization), ordinary citizens "read" their culture by listening to it or by reading representations of it (e.g., musical scores). This reading, however, is not enough. Instead, they (or at least the "young people of the day") add to the culture they read by creating and re-creating the culture around them. They do this re-creating using the same tools the professional uses—the "pianos, violins, guitars, mandolins, and banjos"—as well as tools given to them by nature—"vocal cords." Culture in this world is flat; it is shared person to person.<sup>8</sup> As MIT professor Henry Jenkins puts it in his extraordinary book, *Convergence Culture*, "[T]he story of American arts in the 19th century might be told in terms of the mixing, matching, and merging of folk traditions taken from various indigenous and immigrant populations."<sup>9</sup>

Sousa's fear was that this RW culture would disappear, be displaced by—to continue the geek-speak metaphor—an increasingly "Read/Only" ("RO") culture: a culture less practiced in performance, or amateur creativity, and more comfortable (think: couch) with simple consumption. The fear was not absolute: no one feared that all nonprofessional creativity would disappear. But certainly its

\* The analogy is to the permissions that might attach to a particular file on a computer. If the user has "RW" permissions, then he is allowed to both read the file and make changes to it. If he has "Read/Only" permissions, he is allowed only to read the file.

significance and place within ordinary society would change. RW creativity would become less significant; RO culture, more.

As one reflects upon the history of culture in the twentieth century, at least within what we call the "developed world," it's hard not to conclude that Sousa was right. Never before in the history of human culture had the production of culture been as professionalized. Never before had its production become as concentrated. Never before had the "vocal cords" of ordinary citizens been as effectively displaced, and displaced, as Sousa feared, by these "infernal machines." The twentieth century was the first time in the history of human culture when popular culture had become professionalized, and when the people were taught to defer to the professional.

The "machines" that made this change possible worked their magic through tokens of RO culture—recordings, or performances captured in some tangible form, and then duplicated and sold by an increasingly concentrated "recording" industry. At first, these tokens were physical—player-piano rolls, then quickly phonographs. In 1903, "the Aeolian Company had more than 9,000 [player-piano] roll titles in their catalog, adding 200 titles per month."<sup>10</sup> During the 1910s, "perhaps 5% of players sold were reproducing pianos." At one point in the 1920s, a majority of the pianos made in America had a player unit included.<sup>11</sup>

Phonographs shared a similar growth. In 1899, 151,000 phonographs were produced in the United States.<sup>12</sup> Fifteen years later, that number had more than tripled (to approximately 500,000 units). Record sales in 1914 were more than 27 million.<sup>13</sup> But for most of the 1920s, sales stayed above 100 million copies.<sup>14</sup> By the late 1920s, between 33 percent and 50 percent of all households had a record player.<sup>15</sup> Nineteen twenty-nine was the peak for record sales

in the United States<sup>16</sup> before the Depression burst this and many other cultural bubbles.

But as radio technology improved, physical tokens of RO culture faced competition from tokens that were more virtual—what we call “broadcasts.” To compete, phonograph manufacturers cut prices. “In 1925, Victor dropped the price of its \$1.50 single-side Red Seal records to 90 cents, and cut its \$1.00 records to 65 cents.”<sup>17</sup> But as Philip Meza describes, “the price cuts did not work, and sales continued to fall.... In 1919, 2.2 million phonographs were sold. In 1922, fewer than 600,000....”<sup>18</sup>

Competition drove the producers of physical tokens to produce higher-quality tokens. That in turn drove the demand for higher-quality radio—a demand that inspired Edwin Howard Armstrong to invent, the FCC to allow, and RCA to deploy FM radio.<sup>19</sup> Radio, however, soon faced its own competition from a new form of broadcast—television. The cycle then continued.

The twentieth century was thus a time of a happy competition among RO technologies. Each cycle produced a better technology; each better technology was soon bested by something else. The record faced competition from tapes and CDs; the radio, from television and VCRs; VCRs, from DVDs and the Internet.

By the turn of the twenty-first century, this competition had produced extraordinary access to a wide range of culture. Never before had so much been available to so many. It also produced an enormously valuable industry for the American economy and others. In 2002, the publishing industry alone (excluding the Internet) had revenues close to \$250 billion.<sup>20</sup> In the same year, the revenue for broadcasting (again excluding the Internet) was almost \$75 billion.<sup>21</sup> The revenue to the motion-picture and sound-recording

industries was close to \$80 billion.<sup>22</sup> And according to the Motion Picture Association of America,

Core Copyright industries are responsible for an estimated 6% of the nation's total GDP totaling \$626 billion a year. Copyright industries had an annual employment growth rate of 3.19% per year—a rate more than double the annual employment growth rate achieved by the economy as a whole.<sup>23</sup>

RO culture had thus brought jobs to millions. It had built superstars who spoke powerfully to millions. And it had come to define what most of us understood culture, or at least “popular culture,” to be.

## Limits in Regulation

Before RO culture carries us away, however, return for a moment to Sousa. For there was a second aspect to the culture that Sousa described that we should also notice here. This was the relationship between culture and the particular form through which we regulate culture—copyright law. It was about the limits on that regulation.

For his time, Sousa was a copyright extremist. He had come to Washington to push for (what was perceived by many to be) a radical increase in the reach of copyright. The push was opposed by many in the business world and many antiregulation idealists.

Yet Sousa's extremism still knew an important limit, a place where copyright law would reach too far. That limit got revealed

midway through his testimony. As he testified Sousa was interrupted by Congressman Frank Dunklee Currier, a Republican from New Hampshire. After Sousa described the "young people together singing the songs of the day and the old songs," Currier asked:

Currier: Since the time you speak of, when they used to be singing in the streets... the law has been [changed]... to prohibit that. Is not that so?

Sousa: No, sir; you could always do it.

Currier: Any public performance is prohibited, is it not, by that law?

Sousa: You would not call that a public performance.

Currier: But any public performance is prohibited by the law of 1897?

Sousa: Not that I know of at all. I have never known that it was unlawful to get together and sing.<sup>24</sup>

Though the record doesn't indicate it, one imagines laughter followed Sousa's comment. And anyway, Currier was not being serious. He was not a copyright extremist. Indeed, quite the opposite. Currier was an "intellectual property" skeptic, unconvinced of the need for this government-backed monopoly to interfere with inventions or the arts. The aim of his question was to embarrass Sousa for Sousa's (from Currier's view) extremism.<sup>25</sup> He wanted to suggest the law had already gone too far and didn't need to go any further.

The effort backfired. Sousa didn't believe that every use of culture should be regulated. Indeed, he thought it ridiculous to imagine a world where it was "unlawful to get together and sing." That part of culture (a critical part if amateur culture was to survive)

must be left unregulated, Sousa believed, even if another part of culture (the part where commercial entities profited from creative works) needed to be regulated more. Even for this extremist, copyright law had a limit.

Keep these two ideas in mind as we turn to the argument that follows: one, the importance of "amateur" creativity, producing an RW culture; two, the importance of limits in the reach of copyright's regulation, leaving free from regulation this amateur creativity.

In the balance of this book, my hope is to revive these two Sousarian sensibilities. As we look back at our history, the dominance of the radically different culture (and the culture of regulating culture) of the last forty years is likely to obscure the view of a much longer tradition that lived before it. That much longer tradition has value for us today. For the conditions that made its best part possible are now returning. And ironically for Mr. Sousa, they are returning precisely because of a new generation of (as professional musicians today call them) "infernal machines." These new infernal machines, however, will enable an RW culture again. And if permitted by the industries that now dominate the production of culture (and that exercise enormous control over Congress, which regulates that culture), they could also encourage an enormous growth in economic opportunity for both the professional and the amateur, and for all those who benefit from both forms of creativity.

age the revival of the RW creativity that Sousa celebrated. Finally, I describe the most interesting change that I believe we're going to see—the "hybrid"—that will increasingly define the industries of culture and innovation. All three changes, if allowed, will be valuable and important. All three should be encouraged.

## TWO

# CULTURES OF OUR FUTURE

The "copyright wars" have lead many to believe that the choice we face is all or nothing. Either Hollywood will win or "the Net" will win. Either we're about to lose something important that we've been, or we're going to kill something valuable that we could be. Whoever wins, the other must lose.

This simple framing creates a profound confusion. For there need be no trade-off between the past and the future. Instead, all the evidence promises an extraordinary synthesis of the past and the present to create a phenomenally more prosperous future. This future need not be either less RO or more RW: it could be both. And much more interesting (to those focused on the economy, at least), this future could see the emergence of a form of economic enterprise that has been relatively rare in our past, but that promises extraordinary economic opportunity: what I call the "hybrid."

In the chapters that follow, I want to map this future. I start with what simply continues the twentieth century—a story of how the Internet extends RO culture beyond the unavoidable limits of twentieth-century technology. I then show just how the same technologies that encourage RO culture could also encour-

## THREE

## RO, EXTENDED

There's a part of culture that we simply consume. We listen to music. We watch a movie. We read a book. With each, we're not expected to do much more than simply consume.\* We might hum along with the music. We might reenact a dance from a movie. Or we might quote a passage from the book in a letter to a friend. But in the main, this kind of culture is experienced through the act of consumption. There's a beginning, a middle, and an end to that consumption. Once we've finished it, we put the work away.

This is the stuff at the core of RO culture. And while of course the stuff was not born with the "infernal machines" that Sousa lamented (in our tradition it was Gutenberg who gave birth to the most significant spread of tokens of RO culture), my focus for the moment will be on the RO culture that Sousa did lament: the tokens of RO culture that get processed and performed by machines, capturing and spreading music, and the spoken word, and eventually, images and film.

\* Of course, as Candice Breitz and many others argue, there's nothing "simple" in consuming, but put those complications aside for the moment.

For most of the twentieth century, these tokens were analog. They all therefore shared certain limitations: first, any (consumer-generated) copy was inferior to the original; and second, the technologies to enable a consumer to copy an RO token were extremely rare. No doubt there were recording studios aplenty in Nashville and Motown. But for the ordinary consumer, RO tokens were to be played, not manipulated. And while they might legally be shared, every lending meant at least a temporary loss for the lender. If you borrowed my LPs, I didn't have them. If you used my record player to play Bach, I couldn't listen to Mozart.

These are the inherent—we could say "natural"—limitations of analog technology. From the consumer's perspective, they were bugs. No consumer ever bought a record player because he couldn't copy the records.

But from the perspective of the content industry, these limitations in analog technology were not bugs. They were features. They were aspects of the technology that made the content industry possible. For this nature limited the opportunity for consumers to compete with producers (by "sharing"). And its imperfections drove demand for each new generation of technology. Record companies thus sold bits of culture, embedded in vinyl records, then in eight-track tapes, then in cassette tapes, and then in CDs. With each new format, there was a wave of new demand (often for the very same work). The same with film. Film companies distributed films to theaters, and then films to videocassettes, and then films to DVDs. The business model of both these distributors of RO culture depended upon controlling the distribution of copies of culture. The nature of analog tokens of RO culture supported this business model by making it very difficult to do much differently.

The law supported this business model. The law, for example, forbade a consumer from making ten thousand copies of his favorite LP to share with his friends.<sup>1</sup> But it wasn't really the law that mattered most in stopping this form of "piracy." It was the economics of making a copy in the world of analog technology. At least among consumers, it was this nature of the LP that really limited the consumer's ability to be anything other than "a consumer."

## Nature Remade

Digital technology changed this "nature." With the introduction of digital tokens of RO culture and, more important, with the widespread availability of technologies that could manipulate digital tokens of RO culture, digital technology removed the constraints that had bound culture to particular analog tokens of RO culture. As I've described in a different context,<sup>2</sup> we could say that while the *code* of an LP record protected it from duplication, the *code* of a digital copy of that record does not. The *code* of an analog video-cassette effectively limited the number of times it could be played (before the tape wore out, for example). The *code* of a digital copy of that film does not. The "natural" constraints of the analog world were abolished by the birth of digital technology. What before was both impossible and illegal is now just illegal.

When the content industry recognized this change, it was terrified. Digital tokens of RO culture would no longer conspire with the content industry to protect that industry's business model. Unlike analog technologies and analog tokens of RO culture, digital technologies would instead conspire with the enemy—at least, the enemy of this particular business model. By the mid-1990s, the

industry came to fully recognize this enemy. By the late 1990s, it had hatched a strategy to fight it.

And thus were born the copyright wars. In September 1995, the content industry, working with the U.S. Department of Commerce, began to map a strategy for protecting a business model from digital technologies.<sup>3</sup> In 1997 and 1998, that strategy was implemented in a series of new laws designed to extend the life of copyrighted work,<sup>4</sup> strengthen the criminal penalties for copyright infringement,<sup>5</sup> and punish the use of technologies that tried to circumvent digital locks placed on digital content.<sup>6</sup>

This legislation was soon complemented by aggressive litigation. First the lawyers targeted commercial entities like MP3.com and Napster.<sup>7</sup> Then they targeted ordinary citizens, charging them with downloading music or enabling others to do the same.<sup>8</sup> The federal system was flooded with claims based upon federal copyright law. According to one site that monitors lawsuits filed by the Recording Industry Association of America, as of June 2006, the RIAA had sued 17,587 people, including a twelve-year-old girl and a dead grandmother.<sup>9</sup> A year later, the RIAA had sent around 2,500 prelitigation letters to twenty-three more universities across the nation, threatening action based upon students' allegedly illegal downloading of copyrighted content.<sup>10</sup> These aggressive legal threats have coincided with a 250 percent increase in copyright litigation in the federal courts in six years.<sup>11</sup> A similar pattern has spread overseas. The International Federation of the Phonographic Industry (European cousin to the RIAA) reported suing more than ten thousand people in eighteen countries by the end of 2006. It promised many more suits in 2007.<sup>12</sup>

By the turn of the century, the industry's view had become simple and dire: As never before (at least since the last time),<sup>13</sup> the content industry was threatened by new technologies. And unless

the government launched a massive effort to regulate the use and spread of these technologies, the rise of digital technologies would mean the fall of much of the content industry.

The numbers then were at least consistent with the content industry's argument: By the first half of 2002, world sales of recorded music had fallen by 9.2 percent in dollar value, and unit shipments were down 11.2 percent. Worldwide, the recording industry suffered its third straight year of declining sales. Sony told investors it expected music revenues to fall an additional 13–15 percent in 2003: "In the United States, sales had also declined steadily over the previous three years, with sales of recorded music falling 8.2 percent in dollar value and 11.2 percent in unit shipments."<sup>14</sup> The labels blamed "piracy" for "an estimated \$5 billion loss in 2002" alone.<sup>15</sup> More recent statistics are, if anything, worse.<sup>16</sup>

Most in the industry—at least circa 2002—believed that "piracy" was unavoidable given the "nature" of digital technologies. Most thus believed the industry faced a choice: drive digital to the periphery and save the industry, or allow it to become mainstream, and watch the industry fail.

### Re-remaking Nature

Then Steve Jobs taught them differently. For at the height of the frenzy of this war against "piracy," Jobs demonstrated in practice what many had been arguing in theory: that the only *nature* of digital technology is that it conforms to how it is coded. The technologies of the Internet were originally coded in a way that enabled free, and perfect, copies, that nature could be changed by a different code, with different permissions built in. Thus, digital

tokens of RO culture could be recoded with at least enough control to restore a market in their distribution. That market could, Jobs demonstrated, compete effectively with the "free" distribution of the Internet.

The iTunes Music Store was the proof. Launched in 2003, more than 1 billion songs were downloaded within three years, 2.5 billion within four.<sup>17</sup> And while iTunes music was digital, iTunes tokens of digital culture contained a technology to limit their (re)distribution. Code (called FairPlay, a kind of Digital Rights Management, or DRM technology) was used to remake the code of digital tokens of RO culture. This remade code was enough to get a reluctant content industry to play along.

Apple's iTunes wasn't the first to embed DRM in content.<sup>18</sup> It was just the smartest. Jobs understood that the record companies would demand some control. The success of iTunes (and more important, of the iPod conveniently tied to it) came from the fact that "some control" could be less than "perfect control." You couldn't *easily* spread iTunes content to everyone on the Web—though if you hunted around a bit on the Net, you'd find all the code you could want to liberate iTunes. DRM was just a speed bump: it slowed illegal use just enough to get the labels to buy in.

I'm not saying it was Jobs's genius alone that brought the content industry around. An important legal lever was being deployed at the same time in the Napster case. Recall that the record companies had sued Napster because of the "piracy" it enabled. Napster had countersued the record labels, charging that they had an agreement among themselves not to sell content to the digital platform.<sup>19</sup> The labels needed cover from this charge, and an experiment with an operating system holding no more than 5 percent of the market seemed safe enough. Thus was iTunes born.

But whatever the motivation, or the mix of motivations, iTunes' success supported the idea that a wide range of content might be sold digitally on the same model that defined the content industry of the twentieth century: by metering the number of copies sold. iTunes quickly expanded its offerings to books, then music videos and TV shows, and, finally, movies. Others followed a similar path—offering different models for selling culture, but all still *selling* culture nonetheless. eMusic convinced independent labels to sell downloads without any DRM. Rhapsody sold DRM'd downloads in a subscription model. The key with each successful example was to find a balance between access and control that would satisfy both the consumers and the creators. This mix of models soon convinced a skeptical industry that RO culture had a twenty-first-century future. And soon into the century, there was a revival of investment to find ways to better spread and exploit an RO market in a digital age.

The potential is not hard to envision; the businesses are just beginning to emerge now. If the twentieth century made culture generally accessible, the twenty-first will make it universally accessible. As the cost of inventory drops, the mix of inventory increases—the lesson of the Long Tail, which we'll consider more in chapter 6. As the mix increases, the diversity of culture that can flourish in the digital age grows. Think of all the books in the Library of Congress. Now imagine the same diversity of music, video, and images. And then imagine all of it accessible, in an instant, by anyone, anywhere. No doubt there are lots of hurdles to overcome to get to this world. But the hurdles are not technical. As we'll see in chapter 9, they are just regulatory. And if these regulatory burdens can be reduced, a new industry of RO culture can flourish. A hundred years from now, if it is allowed to flourish, we will see its relation-

ship to the twentieth century as we see the relationship between the Boeing 777 and the work of the Wright brothers or Alberto Santos-Dumont. This is the extraordinary potential for RO culture in a digital age.

## Recoding Us

As these businesses grow, they change not only business. They also change us. They change how we think about access to culture. They change what we take for granted.

For example: during the twentieth century, our access to television and movies was different from our access to books. With television and movies, the viewer had to conform his schedule to the schedule of the distributor. So much was required by the technology; so much came to seem natural. "Channels" were tools to *channel* people into watching one mix of content rather than another. A smart scheduler tried to keep an audience by varying the mix so as to prevent the "viewer" from wandering to another channel.

During the same period, however, books were accessed differently. With books, the "natural" expectation (in the twentieth century at least) was that the content was accessible on our schedule. When we walked into a library, we expected to get what we wanted, then. If the library didn't have it, we expected it to get what we wanted relatively quickly through interlibrary loan. If a librarian had told you as you entered the library, "I'm sorry, in the afternoon we offer only nonfiction. If you'd like to read some fiction, come back after five p.m.," you would have been incensed. The idea that the library gets to say when and what I read is outrageous. Or put differently, it would have been considered outrageous for any

library or bookstore or publisher to exercise the same control over access to books that television stations and film distributors exercised over film and video.

In the twenty-first century, television and movies will be book-ified. Or again, our expectations about how we should be able to access video content will be the same as the expectations we have today about access to books. The idea that you would conform your schedule to a distributor's will seem increasingly ridiculous. The idea that you would have to wait till "prime time" to watch prime television will seem just fascist. Freedom will mean freedom to choose to watch what you want when you want, just as freedom to read means the freedom to read what you want when you want. In both cases, not necessarily *for free*. But in both cases, according to your schedule, not the schedule of someone else.

We can see this most clearly in our kids, who think it "just dumb" that an episode of a favorite TV series is not available whenever they want to see it. And even older sorts begin to understand this sense, as the DVRs like ReplayTV and TiVo become increasingly common. More and more, even to old folks like me, it seems astonishing to remember a time when to watch a television show, you had to synchronize your schedule to the schedule of the broadcaster. Absurd that if you missed an episode, that was it. There was no chance—at least that season—for a repeat.

The expectation of access on demand builds slowly, and it builds differently across generations. But at a certain point, perfect access (meaning the ability to get whatever you want whenever you want it) will seem obvious. And when it seems obvious, anything that resists that expectation will seem ridiculous. Ridiculous, in turn, makes many of us willing to break the rules that restrict access. Even the good become pirates in a world where the rules seem absurd.

I saw this dynamic in myself with the 2007 Academy Awards. For weird and accidental reasons (meaning, I don't hang out with movie stars), I had two friends nominated for an Oscar in 2007. I was thus desperate to watch the awards. But that year, I was on sabbatical in Germany, and not desperate enough to get up at 3 a.m. to watch hours of Hollywood self-promotion. So I programmed a VCR to record the show, and went to bed expecting to awaken and watch the results.

I'm not a technical genius, but I'm also not an idiot. Nonetheless, as seems always to be the case, the VCR didn't record. So though I could read that both of my friends had indeed won Oscars, I was extremely disappointed that I couldn't watch them win.

My first reaction was to turn to the Web site of the Academy Awards. The site had fancy advertisements that changed with every click you made, and tons of content. They must, I thought, have video of the awards ceremony available to be streamed. It's 2007, I thought. And the Academy Awards ceremony is a wasting asset: while many will care about the program in February 2007, almost no one will care in March.

But the site didn't have the actual ceremony available for free (or "free," since all content on the site was run with ads surrounding it) or even to purchase. So I turned to iTunes, willing to pay whatever it would charge to download the awards ceremony. But again, no luck. iTunes didn't have it. I then extended my search to a number of other obvious places where the program might be for sale. Yet again, no luck.

So then I did something I just don't do—I went to YouTube to see who might have at least clips that might show my friends accepting their awards. Within five minutes, I had found clips with both friends, which I watched with utter joy.

Many people did the same as I (though I take it not for the same reason). And many took those clips and blogged them—adding commentary, or criticism, or praise for the works celebrated at the awards. I did too, adding links to the YouTube clips on my blog in an entry the next day bragging about my Oscar-winning friends. But then I read about legal action being initiated against bloggers and YouTube users who had distributed parts of the awards. And while, as a lawyer, I understood precisely the claim the content owners had, as a citizen of the twenty-first century, I was still astonished. Though this instinct can't be justified as a matter of (at least today's) law, it is the essence of practical reason in the digital age: if you don't want your stuff stolen, make it easily available. YouTube is a picture of unmet demand. And indeed, when I've tried to find clips of important breaking news on YouTube, the only times I've failed have been when the content provider has made the same content available on its own site. Access is the mantra of the YouTube generation. Not necessarily free access. Access.

Digital technologies will thus shift the expectations surrounding access. Those changes will change other markets as well. Think of the iPod—perfectly integrating all forms of RO culture into a single device. That integration will increasingly lead us to see the device not as music player, or video player, but as a universal access point, facilitating simple access to whatever we want whenever we want. Many devices will compete to become this device. And that competition is certain to produce an extraordinarily efficient tool to facilitate, and meter, and police our access to a wide range of culture.

This change, in turn, will change other markets as well. Think about a hotel room: at high-quality hotels, there is now fierce competition to provide extremely high-quality televisions. *Why* is

beyond me. What chance is there that in the thirty minutes I have before I go to sleep I will find something just starting on the 150 channels the hotel provides that I actually want to watch? From my perspective, at least, this \$2,000 flat-screen television is a useless suck of space in a hotel room.

But as the universal access devices I've described get perfected, the same competition that drives hotels to spend thousands to give me beautiful access to the shopping channel will drive them to provide a simple way to connect my access device to their projector. Count on a future of simple docking devices that amplify or project content accessed through an iPod-like device. Hotels (and restaurants, airplanes, and bars) will then focus on supplying great infrastructure. The iUser brings the content.

Users will thus demand access at any time, to everything (think: Library of Congress). And technologies will develop to provide or meter or police that access (think: the iPod, 2020). But then which of these three models for access will it be? Will these devices simply provide access, either by simply holding the content, or by enabling the user to tune into a particular channel? Or like a jukebox, will they meter access, deducting a fee for every download or play? Or like a soldier at a military base, will they monitor the content being accessed, and block access without the proper credentials?

The easy, and to some degree true, answer is that they will do all three. But the interesting part is how significant the first of those three will be, and how insignificant the third. My sense is that digital technology will enable market support for a much wider range of "free" content than anyone expects now (where "free" simply means without charge); and digital technologies will continue to resist models that depend upon the heavy policing by its owners to protect against "unauthorized use." The quick disappearance of

DRM for music is evidence of the latter point.<sup>20</sup> I, however, want to focus here on the former.

The model for commercial broadcasting in the twentieth century was ad-supported “free” content. The limitations of the technology of the twentieth century restricted the ways in which ads might support free content. Programs were interrupted. Ads that roughly matched the demographic of the program’s audience were broadcast. In a world of relatively few channels, those ads had sufficient penetration to make them pay (both the networks and the advertiser).

The limits in that technology are obvious: The advertiser has to broadcast to a wide range of people; the ability to target ads is relatively weak. The advertiser can’t really know who saw the ad or what they did when they saw it. And the advertiser is constantly aware that his message is viewed as an intrusion. When ads came every thirty minutes or so, for many, they were a welcome break. But when 25 percent of broadcasting time is advertisement, they are a perpetual annoyance. (Indeed, at this frequency, you can begin to understand why there’s a market to buy “free” TV: if eighteen minutes of every hour is advertisements, then even if you value your time at the minimum wage, it would pay to spend \$1.99 to avoid watching the commercials.)

But just as the limitations of analog RO culture were eliminated by digital technologies, so too the limitations of twentieth-century advertising can be eliminated by twenty-first-century digital technology. And as the lessons of this change get spread, content providers will increasingly recognize that free access pays. Free access is a means to gather extremely valuable data about the viewer. That data can translate into much more effective advertising techniques.

The point is obvious when you think about Amazon. Amazon

knows me intimately because it watches me more carefully than does any thing or person in the world. No one could pick a better list of things I’m likely to want to buy. That’s because Amazon sees what I buy. It learns from the patterns of other customers what the sort who buys as I do is likely to want to buy next. It has built a thick profile of my preferences. And I’m very happy to listen to it when it suggests something I might be interested in.

So imagine a network with the same data about you. (I know, privacy alarms are going off, and that’s an important issue of course, but it’s not the issue for this book.)<sup>21</sup> Imagine that by watching all the YouTube clips you browsed through or the shows you actually paused to watch, the network began to build a profile of your preferences as rich as Amazon’s. And as it developed this profile, this network could now market more effectively than any network today. Access is what produces this value. Limiting access limits it.

This third point will be recognized soon, and not because dweeby professors write about it. That’s the great thing about markets: there’s never a need to lecture a competitive market. Markets are driven to find value through competition with others. No doubt, every age will be marked with battles waged by the previous generation’s giants. But the giants always fall to a better way of making money. And the RO culture that digital technologies will support will provide lots of new ways for content producers to make money. “As if by an invisible hand,” this market will radically change the nature of access to culture in the next ten years. As a result, our children will be unable to understand a world where Thursday at 10 p.m. was more significant in cultural terms than Friday at 5 a.m.

By invoking Adam Smith’s “invisible hand,” I don’t mean to say that policy makers have nothing to worry about here. Smith’s

*Wealth of Nations* teaches us about the phenomenal power of markets to adjust. But these markets adjust, as Yochai Benkler's *The Wealth of Networks* powerfully teaches, in light of the baseline allocation of rights. Policy makers must assure that rights are not allocated in a way that distorts or weakens competition. A costly overlay of spectrum rights, for example, or an inefficient market of copyrights, can stifle competition and drive markets to unnecessary concentration. These factors must be regulated by policy makers. They will not be "solved" by an invisible hand.

But for my purposes here, the most important policy mistake is one that stifles the Sousarian instinct: a policy driven by the view that the only way to protect RO culture is to render RW culture illegal. That choice is a false choice. In the next chapter, I want to sketch a future for RW culture that might motivate us to see just why we should avoid this false choice.

## FOUR

## RW, REVIVED

One of my closest (if most complicated) friends at college was an English major. He was also a brilliant writer. Indeed, in every class in which writing was the measure, he did as well as one possibly could. In every other class, he, well, didn't.

Ben's writing had a certain style. Were it music, we'd call it sampling. Were it painting, it would be called collage. Were it digital, we'd call it remix. Every paragraph was constructed through quotes. The essay might be about Hemingway or Proust. But he built the argument by clipping quotes from the authors he was discussing. Their words made his argument.

And he was rewarded for it. Indeed, in the circles for which he was writing, the talent and care that his style evinced were a measure of his understanding. He succeeded not simply by stringing quotes together. He succeeded because the salience of the quotes, in context, made a point that his words alone would not. And his selection demonstrated knowledge beyond the message of the text. Only the most careful reader could construct from the text he read another text that explained it. Ben's writing showed he was an

insanely careful reader. His intensely careful reading made him a beautiful writer.

Ben's style is rewarded not just in English seminars. It is the essence of good writing in the law. A great brief seems to say nothing on its own. Everything is drawn from cases that went before, presented as if the argument now presented is in fact nothing new. Here again, the words of others are used to make a point the others didn't directly make. Old cases are remixed. The remix is meant to do something new. (Appropriately enough, Ben is now a lawyer.)

In both instances, of course, citation is required. But the cite is always sufficient payment. And no one who writes for a living actually believes that any permission beyond that simple payment should ever be required. Had Ben written the estate of Ernest Hemingway to ask for permission to quote *For Whom the Bell Tolls* in his college essays, lawyers at the estate would have been annoyed, more than anything else. What weirdo, they would have wondered, thinks you need permission to quote in an essay?

So here's the question I want you to focus on as we begin this chapter: Why is it "weird" to think that you need permission to quote? Why would (or should) we be "outraged" if the law required us to ask Al Gore for permission when we wanted to include a quote from his book *The Assault on Reason* in an essay? Why is an author annoyed (rather than honored) when a high school student calls to ask for permission to quote?

The answer, I suggest, has lots to do with the "nature" of writing. Writing, in the traditional sense of words placed on paper, is the ultimate form of democratic creativity, where, again, "democratic" doesn't mean people vote, but instead means that everyone within a society has access to the means to write. We teach everyone

to write—in theory, if not in practice. We understand quoting is an essential part of that writing. It would be impossible to construct and support that practice if permission were required every time a quote was made. The freedom to quote, and to build upon, the words of others is taken for granted by everyone who writes. Or put differently, the freedom that Ben took for granted is perfectly natural in a world where everyone can write.

## Writing Beyond Words

Words, obviously, are not the only form of expression that can be remixed in Ben's way. If we can quote text from Hemingway's *For Whom the Bell Tolls* in an essay, we can quote a section from Sam Wood's film of Hemingway's *For Whom the Bell Tolls* in a film. Or if we can quote lyrics from a Bob Dylan song in a piece about Vietnam, we can quote a recording of Bob Dylan singing those lyrics in a video about that war. The act is the same; only the source is different. And the measures of fairness could also be the same: Is it really just a quote? Is it properly attributed? And so on.

Yet, however similar these acts of quoting may be, the norms governing them today are very different. Though I've not yet found anyone who can quite express why, any qualified Hollywood lawyer would tell you there's a fundamental difference between quoting Hemingway and quoting Sam Wood's version of Hemingway. The same with music: in an opinion by perhaps one of the twentieth century's worst federal judges, Judge Kevin Thomas Duffy, the court issued "stern" sanctions against rap artists who had sampled another musical recording. Wrote the judge,

"Thou shalt not steal" has been an admonition followed since the dawn of civilization. Unfortunately, in the modern world of business this admonition is not always followed. Indeed, the defendants in this action for copyright infringement would have this court believe that stealing is rampant in the music business and, for that reason, their conduct here should be excused. The conduct of the defendants herein, however, violates not only the Seventh Commandment, but also the copyright laws of this country.<sup>1</sup>

Whether justified or not, the norms governing these forms of expression are far more restrictive than the norms governing text. They admit none of the freedoms that any writer takes for granted when writing a college essay, or even an essay for the *New Yorker*. Why?

A complete answer to that question is beyond me, and therefore us, here. But we can make a start. There are obvious differences in these forms of expression. The most salient for our purposes is the democratic difference, historically, in these kinds of "writing." While writing with text is the stuff that everyone is taught to do, filmmaking and record making were, for most of the twentieth century, the stuff that professionals did. That meant it was easier to imagine a regime that required permission to quote with film and music. Such a regime was at least feasible, even if inefficient.

But what happens when writing with film (or music, or images, or every other form of "professional speech" from the twentieth century) becomes as democratic as writing with text? As Negativland's Don Joyce described to me, what happens when technology "democratiz[es] the technique and the attitude and the method [of creating] in a way that we haven't known before.... [I]n terms of collage, [what happens when] anybody can now be an artist"?<sup>2</sup>

What norms (and then law) will govern this kind of creativity? Should the norms we all take for granted from writing be applied to video? And music? Or should the norms from film be applied to text? Put differently: Should the "ask permission" norms be extended from film and music to text? Or should the norms of "quote freely, with attribution" spread from text to music and film?

At this point, some will resist the way I've carved up the choices. They will insist that the distinction is not between text on the one hand and film/music/images on the other. Instead, the distinction is between commercial or public presentations of text/film/music/images on the one hand, and private or noncommercial use of text/film/music/images on the other. No one expects my friend Ben to ask the Hemingway estate for permission to quote in a college essay, because no one is publishing (yet, at least) Ben's college essays. And in the same way, no one would expect Disney, for example, to have any problem with a father taking a clip from *Superman* and including it in a home movie, or with kids at a kindergarten painting Mickey Mouse on a wall.

Yet however sensible that distinction might seem, it is in fact not how the rules are being enforced just now. Again, Ben's freedom with text is the same whether it is a college essay or an article in the *New Yorker* (save perhaps if he's writing about poetry). And in fact, Disney has complained about kids at a kindergarten painting Mickey on a wall.<sup>3</sup> And in a setup by J. D. Lasica, every major studio except one insisted that a father has no right to include a clip of a major film in a home movie—even if that movie is never shown to anyone except the family—without paying thousands of dollars to do so.<sup>4</sup>

However sensible, the freedom to quote is not universal in the

noncommercial sphere. Instead, those in thousand-dollar suits typically insist that "permission is vital, legally."

Nor do I believe the freedom to quote should reach universally only in the noncommercial sphere. In my view, it should reach much broader than that. But before I can hope to make that normative argument stick, we should think more carefully about why this right to quote—or as I will call it, to remix—is a critical expression of creative freedom that in a broad range of contexts, no free society should restrict.

Remix is an essential act of RW creativity. It is the expression of a freedom to take "the songs of the day or the old songs" and create with them. In Sousa's time, the creativity was performance. The selection and arrangement expressed the creative ability of the singers. In our time, the creativity reaches far beyond performance alone. But in both contexts, the critical point to recognize is that the RW creativity does not compete with or weaken the market for the creative work that gets remixed. These markets are complementary, not competitive.

That fact alone, of course, does not show that both markets shouldn't be regulated (that is, governed by rules of copyright). But as we'll see in the next part of the book, there are important reasons why we should limit the regulation of copyright in the contexts in which RW creativity is likely to flourish most. These reasons reflect more than the profit of one, albeit important, industry; instead, they reflect upon a capacity for a generation to speak.

I start with a form of RW culture that is closest to our tradition of remixing texts. From that beginning, I will build to the more significant forms of remix now emerging. In the end, my aim is to draw all these forms together to point to a kind of speech that will

seem natural and familiar. And a kind of freedom that will feel inevitable.

## Remixed: Text

There is a thriving RW culture for texts on the Net just now. Its scope and reach and, most important, sophistication are far beyond what anyone imagined at the Internet's birth. Through technologies not even conceived of when this system began, this RW culture for texts has built an ecology of content and an economy of reputation. There is a system now that makes an extraordinary range of initially unfiltered content understandable, and that helps the reader recognize what he should trust, and what he should question.

We can describe this system in three layers. The first is the writing itself. This has evolved through two different lives. The first of these is obscure to many; the second is the ubiquitous "blog."

The first was something called Usenet. In 1979, two computer scientists at Duke, Tom Truscott and Jim Ellis, invented a distributed messaging system that enabled messages to be passed cheaply among thousands of computers worldwide. This was Usenet. Sometimes these messages were announcements; sometimes they were simply informational. But soon they became the location of increasingly interactive RW culture. As individuals realized they could simply hit a single button and post a comment or reply to thousands of computers worldwide, the temptation to speak could not be resisted. Usenet grew quickly, and passion around it grew quickly as well.

In 1994, a couple of lawyers changed all this. The firm Canter &

Siegel posted the first cross-group commercial message—aka spam—advertising its services. Thousands responded in anger, flaming the lawyers to get them to stop. But many others quickly copied Canter & Siegel. Other such scam quickly followed. Usenet became less and less a place where conversation could happen, and more and more a ghetto for gambling ads and other such scams (see also your e-mail in-box).<sup>5</sup>

Just about the time that Usenet was fading, the World Wide Web was rising. The Web's inventor, Tim Berners-Lee, was keen that the Web be a RW medium—what Benkler calls “the writable Web.”<sup>6</sup> He pushed people developing tools to implement Web protocols to design their tools in a way that would encourage both reading and writing.<sup>7</sup> At first, this effort failed. The real drive for the Web, its developers thought, would be businesses and other organizations that would want to publish content to the world. RO, not RW.

But as tools to simplify HTML coding matured, Berners-Lee's idea of a RW Internet became a reality. Web-logs, or blogs, soon started to proliferate at an explosive rate. In March 2003, the best-known service for tracking blogs, Technorati, found just 100,000 blogs. Six months later, that number had grown to 1 million. A year later, more than 4 million were listed.<sup>8</sup> Today there are more than 100 million blogs worldwide, with more than 15 added in the time it took you to read this sentence. According to Technorati, Japan is now the number one blogging language. And Farsi has just entered the top ten.<sup>9</sup>

When blogs began (and you can still see these early blogs using Brewster Kahle's “Wayback machine” at [archive.org](http://archive.org)), while they expressed RW creativity (since the norm for this form of writing encouraged heavy linking and citation), their RW character was

limited. Many were little more than a public diary: people (and some very weird people) posting their thoughts into an apparently empty void. Most were commentary on other public events. So the writing itself was RW, but the writing was experienced by an audience as RO.

Soon, however, in what Benkler calls the “second critical innovation of the writable Web,”<sup>10</sup> bloggers added a way for their audience to talk back. Comments became an integral part of blogging. Some of these comments were insightful, some were silly, some were designed simply to incite. But by adding a way to talk back, blogs changed how they were read.

This was the first layer of the Net's RW culture for text. Alone, however, this layer would be worth very little. How could you find anything of interest in this vast, undifferentiated sea of content? If you knew someone you trusted, maybe you'd read her blog. But why would you waste your time reading some random person's thoughts about anything at all?

The next two layers helped solve this problem. The first added some order to the blogosphere. It did so by adding not a taxonomy but, as Thomas Vander Wal puts it, a “folksonomy to this RW culture.”<sup>11</sup> Tags and ranking systems, such as [del.icio.us](http://del.icio.us), [Reddit](http://Reddit), and [Digg](http://Digg), enabled readers of a blog or news article to mark it for others to find or ignore. These marks added meaning to the post or story. They would help it get organized among the millions of others that were out there. Together these tools added a metalayer to the blogosphere, by providing, as *Wired* cofounder Kevin Kelly puts it, “a public annotation—like a keyword or category name that you hang on a file, Web page or picture.”<sup>12</sup> And as readers explore the Web, users leave marks that help others understand or find the same stuff.

