On a humid day in June 1906, one of America’s favorite composers climbed the steps of the Library of Congress to testify about the status of copyright law in America. John Philip Sousa was a critic of the then relatively lax United States copyright system. He had come to Washington to ask that Congress “remedy a serious defect in the… law, which permits manufacturers and sellers of phonograph records… to appropriate for their own profit the best compositions of the American composer without paying a single cent therefor”—a form of “piracy” as he called it.¹

Sousa’s outrage is not hard to understand. Though he was a famous conductor, some of Sousa’s income came from the copyrights he had secured in the work he had composed and arranged. Those copyrights gave him an exclusive right to control the public performance of his work; any reproduction of sheet music to support that public performance; and any arrangements, or other work, “derived” from his original work. This mix of protections was crafted by Congress to reward artists for their creativity by creating incentives for artists to produce great new work.

The turn of the century, however, brought an explosion of
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.²

“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 rela-
tionship 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.”³ 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.¹

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.²

“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.⁶ [T]he tide of amateurism cannot but recede, until there will be left only the mechanical device and the professional executant.⁶
“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. He would be sickened by the modern corporate farm that has displaced his yeoman hero. But his repulsion 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. 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.”

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

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* 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.”10 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.11

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

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. 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 (excepting the Internet) had revenues close to $250 billion. In the same year, the revenue for broadcasting (again excepting the Internet) was almost $75 billion. The revenue to the motion-picture and sound-recording
industries was close to $80 billion. 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. 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.24

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.25 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.