2. DOCTOROW'S SECOND LAW

Fame Won't Make You Rich, But You Can't Get Paid Without It

SO DIGITAL LOCKS can't stop copying—in fact, they only make things worse. So how *should* artists think about unauthorized copies of their work? Can we just treat copies as advertising?

Well, yes and no.

Tim O'Reilly is the founder and publisher of O'Reilly Media, one of the largest tech-book publishers in the world. O'Reilly Media puts on some of the world's best-loved technology conferences, and generally serves as a hub of technology know-how for people all over. Tim O'Reilly is known for many things: he cowrote one of the first UNIX manuals, he popularized the term "Web 2.0." He's also famous for saying "*Obscurity is a far greater threat to authors and creative artists than piracy*."

I happen to agree with Tim on this point, but I worry that many folks who read those words decide that what Tim is saying is "Once you're famous, you'll be rich." If you read closely, you'll see that this isn't what he's saying. He's saying something like "Artists need to worry about fame before they worry about fortune." Recognition is one of many necessary preconditions for artistic success: luck, talent, and an indefatigable drive to succeed that lasts through the years and years it takes to get noticed, build a following, or get onto the radar of an important promoter, gatekeeper, or investor are a few of the others.

Does copying benefit anyone besides famous creators?

The copyright debate is filled with lies, damned lies, and piracy statistics. Figuring out whether unfettered Internet copying has helped or hurt an artist is a challenge—if you're trying to compare actual sales to sales in an imaginary world where it's possible to control copies, you have to agree to a lot of other assumptions. How many other imaginary-world artists are competing for your artist's audience's attention? Does the Internet still somehow exist as a promotional medium (without allowing uncontrolled copying)? Are we going to imagine that Top 40 radio is still the powerhouse it once was? Are we going to assume that people are still buying digital products—MP3s from Amazon, videos from iTunes, games from Steam—or are we going to assume that these things disappear, too?

But one charge is that being copied helps you make money only if you're already famous. Fans sent voluntary payments to

Radiohead for their pay-what-you-like smash-hit album *In Rainbows* only because a label had already spent a fortune building Radiohead's following for them.

Let's be clear: no one's going to give you money if they don't know you exist, so being famous (however you got there) will increase the likelihood that you'll get some money for your work. But artists have also found avenues to fame *and* fortune by giving stuff away—Jonathan Coulton, the now-legendary nerd troubadour who is probably best known for his song "Still Alive," the closing theme to the Valve game *Portal*, is one such example.

While working as a programmer, Coulton undertook to write, perform, record, and post a song to his website as a free podcast every week for a year. He also sold the songs as DRM-free MP3s, and encouraged his fans who didn't need the MP3s to consider donating to him through PayPal. ("Already Stole It? No Problem," his website says, before pointing to a PayPal link.) Coulton called the project "Thing a Week," and he acquired quite a following through it. Midway through the year he went out on tour, selling CDs and related swag. As his following grew, so did a number of fun and lucrative commissions—the *Portal* song that catapulted him to still-greater recognition being one of them.

Further, you can have all those things without being a "commercial success" through the simple expedient of being a commercial dunderhead who spends money faster than he makes it.

So, yeah, being famous won't—in itself—make you rich. But if nobody knows about your work, nobody's going to buy it.

The thing is that nearly everything that nearly everyone tries to get rich from a career in the arts fails. The major record labels, TV and movie studios, and publishers freely admit this. It's the reason they take such a big slice of the price of our media, relative to the creator's share—they have to invest in a *lot* of failures to get one "success." Looking at it that way, we can enumerate a few people for whom free copying has worked, and a lot of people for whom it hasn't worked. And we can name a few people for whom controlling copies—in the pre-Internet era—worked, and lots for whom it failed.

Fame isn't money. You can't pay for a plane ticket with fame. You can't pay for your kids' braces with fame. You can't pay for a copy of this book with fame. (Unless you're famous as a reviewer, in which case you can.)

But if you're in the arts, you'll never get money without some kind of fame. People can't give you money for your art unless they know it and you exist. They might *still* decide not to give you money for your art at that point, but without fame, they don't even have to make the decision. The Internet, fundamentally, is a thing that gives them a chance to do that.

Does this benefit anyone besides obscure creators?

If obscurity is a bigger problem than piracy, does that mean that obscure artists are the only ones who stand to benefit from the fact that digital locks can't last on the Internet?

Not at all. It just means that for famous people, *obscurity* isn't the problem that the Internet helps to solve. The Internet does more than make obscure things famous, after all: it also solves many other parts of the money puzzle. For example, the Internet makes it possible for a famous creator to directly distribute copies of his work to his audience without spending everything he brings in on marketing. That's what Louis C.K. did in late 2011—when he was arguably the hottest comic in the world. He paid about thirty-two thousand dollars to develop a website and about a hundred and seventy thousand dollars to make a professional recording of a show with all-new material, then put that video online for five dollars, without DRM. He made over a million dollars in the first two weeks. After his expenses and the transaction fees charged by PayPal, he had about seven hundred fifty thousand dollars of that first million left over. He proceeded to split it between himself, his staff, and five separate charities. C.K. showed that the absence of digital locks wasn't a disincentive to pay him. By performing an act of public generosity and trust, he inspired a million bucks' worth of reciprocal generosity and trust.

2.1

Good at Spreading Copies, Good at Spreading Fame

THERE'S NO GOOD way to stop the spread of information on the Internet. If you've ever been unfortunate enough to attract a kook-enemy who posts all kinds of crazy conspiracy theories about you on the web, you'll have discovered that once the stuff is out there, it's very difficult to remove. Indeed, making a big stink about objectionable material often attracts *more* attention to it, because everyone wants to know what's so salacious that they shouldn't be allowed to see it. Mike Masnick of Techdirt coined the term "Streisand effect" to describe this phenomenon, after Barbra Streisand objected to an aerial shot of her house being included in a survey of coastal erosion in California. She sued the photographer for fifty million dollars, and in the process turned a picture that virtually no one had ever seen (the photo had been downloaded six times, before the lawsuit) into an icon of Internet photography.

Today, if you find yourself in Ms. Streisand's shoes, you might be tempted to turn to Internet "reputation managers" who'll charge you money to try to make the unwanted information disappear. They tend to employ a combination of search-engine tricks, heavy-handed legal threats, and intimidation. Save your money; most of those guys are ripoff artists. If the record industry and the movie industry and the TV industry and the publishing industry can't stop information from being disseminated, what are these pipsqueaks going to do?

We can't stop copying on the Internet, because the Internet is a copying machine. Literally. There is no way to communicate on the Internet without sending copies. You might think you're "loading" a web page, but what's really happening is that a copy is being placed on your computer, which then displays it in your browser. (Actually, in the case of a web page, there are probably *hundreds* of copies made in response to your click. You click and the page you requested is copied to server RAM, to routers, to caches, to more routers, to your network router, to your computer's network buffer, to your computer's drive cache, to your computer's RAM, to your computer's video buffer, and then to the screen.) The entertainment industry sometimes tries to argue that "streams" aren't copies, as in "You can buy the stream for a dollar, or download a copy for five dollars." But there is no such thing as a "stream" in this sense of the word. Streams *are* downloads. Your computer downloads the stream from a media server, and makes several more copies of the data before you get to see or hear it. Then the streaming software deletes the data before it can be saved to your hard drive.

This is a lot less neat than "You can buy a copy for five dollars, or you can just look at the movie once for one dollar." Every pixel of every frame that you watch, every sound wave in that song you listened to, spent some time on your computer. The difference between "streaming" and "downloading" is whether your program gives you a "Save As" button.

But all is not lost. As Barbra Streisand, Jonathan Coulton, Louis C.K., and innumerable others have discovered, the Internet isn't just a copying machine, it's an *audience machine*.

2.2
An Audience Machine

TECHNOLOGICAL INTERMEDIARIES LIKE online stores and distributors have used digital locks to shift market power from creators to themselves. These intermediaries were able to lock in, and hence own, the audience for the work they have for sale.

But intermediaries aren't one-dimensional villains. They act as gatekeepers, deciding whom to exclude and whom to admit, but they do so because they think they know what the audience wants.

It's not surprising that creators have a love-hate relationship with intermediaries. If Blockbuster Video—once the largest chain of video-rental stores in the world—decided that your movie wasn't up to snuff, or was too risqué for Middle America, your movie would, for all intents and purposes, die. On the other hand, if Blockbuster *loved* your movie, and featured it prominently in its marketing and in-store displays, if its clerks talked it up to everyone who came through the door, you'd have it made.

In some ways, digital-lock laws have reproduced that situation on the Internet. Once a market is established by a few digitally locked-in players, those intermediaries become increasingly powerful, and can flex their muscle to creators' and investors' detriment or benefit.

But the Internet has also *weakened* the power of intermediaries by increasing the number of ways that audiences can be united with creative works. When there's only one cable operator in town, that cable operator can call all the shots; add a satellite provider, and creators may get a slightly better deal (though it's amazing how quickly two competitors can independently arrive at near-identical abusive and nonnegotiable terms).

It's when you open the Internet to all the ways of connecting audiences to creators that things really start to change. Creators have never enjoyed a wider, more diverse, less united, and more pliable set of intermediaries than we have today. From YouTube to Twitter, Facebook to WordPress, Wikia to Tumblr and many, many (many, many, many, *many*) others, there have never been more ways for works and audiences to come together.

This is bad news if you're a success from the pre-Internet era, with a business model married tightly to the intermediaries who serve your markets. You might know to the penny what it will cost you to put a movie into theatrical distribution, or get a book into the endcaps in every chain store in the country. You're accustomed to being able to run a cost-benefit analysis: "A certain number of people will go to the movies every weekend. If I get one screen in every multiplex, I'll sell at least *x* tickets, and make *y* dollars."

In the age of disorganized and diverse intermediaries, you can still price out the endcaps, the payola for radio airplay, the theatrical distribution buyout. But you can't know what it's worth. There are lots of ways to buy books today that don't involve endcaps (or stores!). There are lots of ways to see movies today that don't involve cinemas or renting DVDs. You might still be able to guarantee that you'll get the lion's share of one channel or another, but you can't predict how much of the market will use that channel on any given day. Which makes it damned hard to grow your multibillion-dollar media empire by 3 percent quarter-on-quarter and keep your stockholders happy.

But if you're a creator who never got the time of day from one of the great imperial powers, this is your time. Where once you had no means of reaching an audience without the assistance of the industry-dominating megacompanies, now you have *hundreds* of ways to do it without them.

Of course, it bears repeating that reaching an audience isn't the same as convincing them that you have anything they want to see.

And if they do want to see (or hear, or read, or play) what you've got, they may not be willing to part with money to do that. But:

- No one can decide whether your stuff is worth money until they see it; and
- they can't see it until they know it exists.

Reaching audiences is a task of surpassing, almost mystical significance and difficulty. It's the problem shared by street-corner preachers, Madison Avenue mad men, spammers, and artists. Anything that makes it cheaper to reach a new audience necessarily increases the overall audience you can reach. And every new audience increases the chance of finding one that'll pay you.

Leverage

Generally, recording artists start off with a pretty rotten deal. The standard record contract gives control over "masters" (the master recordings, key to royalties and reissues down the line) to the label. Labels also deduct charges for "breakage" (physical merchandise that is damaged in shipping) from artists' sales, including from digital sales where there is no physical merchandise to be damaged. And labels bargain for a 7 percent royalty payout on "sales" and a 50 percent payout on "licenses," but class iTunes downloads and other digital transactions (which are licenses—according to iTunes, you don't own the iTunes music you buy) as sales, keeping 93 percent of the revenue from each ninety-nine-cent track, rather than 50 percent, which is what the actual contract says they should get.

And in an example of what can only be called theft, the labels used to run "third-shift" pressings of CDs in the dead of night, which were off the artists' books, and sell those CDs without *any* payment to artists. As noted copyright scholar William Patry documents in his book *How to Fix Copyright*, this routine, industry-wide practice was ended only when the Sarbanes-Oxley Act made company executives criminally responsible for false accounting statements.

This rotten deal is largely nonnegotiable, especially for new artists. Even famous and successful acts, who represent a major source of revenue for the labels, usually can't renegotiate the deals they signed starting out. A musician who has satisfied the terms of his initial deal and become a success can threaten to leave his label unless he gets a better deal the next time around, but he's not going to get control over his masters from the original contract. He's not going to get paid what he's owed on the iTunes sales of his last record.

The reason the deal is nonnegotiable is that it is industry-wide. There are only three major record labels, and they all offer the same rotten terms to their new artists. When you're the only game in town, you get to make up the rules, and tilt them to your benefit. It's a little like the old Lily Tomlin bit from *Saturday Night Live*: "So, the next time you complain about your phone service, why don't you try using two Dixie cups with a string? We don't care. We don't have to. We're the Phone Company."

Even for very successful artists, a new contract negotiation was always bounded by the "two Dixie cups and a string" ultimatum. As in, "None of the Big Three are going to give you what you're asking for. And if you don't like it, try getting your music to your audience without us."

Now, though, the explosion in Internet intermediaries has created a wild, fecund, and often confusing ecosystem of audience-reaching systems. There have never been more ways for audiences to be exposed to sound recordings, nor more ways for money to be made off this exposure. And when there's more than one game in town, the rules are up for negotiation.

That's where Radiohead's *In Rainbows* and Nine Inch Nails' *Ghosts I–IV* come in. These massive indie smashes changed the upper boundary of a successful artist's contract renegotiation, because they showed that it's possible for a successful artist to make more money outside of the label system than in it. As a result, the labels were forced to open up their terms for their most successful artists.

But does that matter to someone who *isn't* a success? Sure, though not in the same way. Perhaps you've been gutting out a musical career for years, and, finally on the verge of getting a record deal. The existence of successful indie business models—and not just for creators who were made famous through the traditional system, either—means that the labels you negotiate with understand that you could plausibly go it alone.

It also means that there are a multiplicity of companies who *aren't* traditional labels who are in a position to offer you a better deal than you could get from the old take-it-or-leave-it label system. Ironically, some of these companies' success is largely due to the labels' own business models. Decades of mergers and acquisitions across every part of the entertainment industry (print publishing, games, music, TV, and film) have led to massive layoffs of talented production staff, and a massive reliance on outside contractors who are mostly composed of ex-in-house talent—and who can now go to work for the indies, too.

In other words, the entertainment companies gobbled each other up, fired most of their staff, and now hire them back on a job-by-job basis as contractors. This means that in many cases, literally the exact same people are available for hire to spunky startups with disruptive business models. If you sign with an indie label today, there's every chance that you'll be recorded, mixed, and mastered by the same engineers and producers, in the same studio, that you would have been working with if you'd gone with a major. What's more, your album can be packaged, marketed, and publicized by the same people who'd have done that part of the job, too. The proprietary advantage once enjoyed by companies who assembled teams under their own roofs and used them only on their own products has been surrendered in the rush to attain some semblance of "lean, efficient" flexibility.

Streaming services

The latest poster children for the impact of leverage on artists' fortunes are the streaming music services—Last.fm, Spotify, Pandora, and the like. When Internet streaming started, the rules for paying royalties were unclear. Anyone could set up a streaming service so long as they escrowed some money for royalties, which would be paid once the rates were worked out.

In 2007, the Copyright Royalty Board—widely viewed as a creature of the Recording Industry Association of America and its member labels—handed down the new royalty system, and nearly all the streaming services disappeared. Hundreds of independently curated channels offered through services like iTunes, some hosted by famous DJs and musicians, shut themselves down. The new streaming rules made it nearly impossible for such services to exist—though they did allow radio broadcasters to set up streaming services at huge discounts.

Since then, a small handful of dominant streaming companies has emerged. These companies hand over gigantic sums of money to the music industry—far more per song than radio stations have ever paid—but nearly all of it is retained by the record labels, leading many musicians to accuse the services of ripping them off.

The reality is that streaming services offer copyright holders a much better deal than radio ever did. For one thing, radio pays royalties only to composers, while streaming services pay both performers and composers. That's right: musicians get *nothing* from U.S. radio play, and never have. Only the songwriters are entitled to a royalty. One major source of confusion is the relationship between a radio broadcast and a stream. A radio broadcast reaches an entire city or region, and has millions of potentail listeners; radio stations, nevertheless, pay a single rate for their whole audience. By contrast, *every person* who listens to a stream is accounted for separately. The per-play royalty from streaming services is thus much lower than the equivalent rate for radio—but that's because streaming pays per song *and* per person.

The problem with streaming isn't that it doesn't pay copyright holders.

It's that the labels have stacked the deck so that they are entitled to the lion's share of the money. They've done this by reducing the pool of streaming services to a tractable handful that could then be strong-armed into giving preferential treatment to the majors through direct deals that are opaque to musicians and subject to abusive accounting practices. In many cases, the majors now take huge income guarantees, or even equity, from the streaming services—money that covers their artist-royalty obligations and then some, leaving them with massive profits they're under no obligation to share with their musicians, and often don't. Merlin, a nonprofit rights agency that arranges deals with streaming services for many independent labels, found that the income guarantee offered to them by one streaming service amounted to *six times* what they would ultimately have earned through royalties alone. Deals like that are how the bulk of the payments that streaming services send out end up staying in the pockets of the labels.

2.3

Getting People to Care About Your Work

IT USED TO be that one of the most substantial advertisements for a book was the book itself. Sitting on a shelf at a bookstore, or in a spinner rack at an airport magazine stand or a grocery store, the book and its cover were positioned to draw people in. It makes sense: after all, everyone who wanted books knew that the way to get them was to go to bookstores. That meant that everyone in a bookstore was interested in books. The customers delivered themselves to the products, and shopped through a finite set of items until they located the ones that suited them.

People still go to bookstores, and video stores, and music stores. But all these sectors are in sharp decline, and in many cases the most significant channel for creative work is now the Internet. Customers don't necessarily deliver themselves to "stores"—virtual or physical—and when they do, the titles on offer are rarely the neatly curated, finite, and browsable selections that once dominated.

The shelves, instead, are nearly infinite. Browsing has been augmented by search algorithms and automated recommendation systems. And the number of ways for customers to discover new work has exploded.

Word of mouth has always been a creator's best friend. Recommendations from personally trusted sources were a surefire way to sell products. When I worked in a bookstore, one of the most reliable indicators of an imminent sale was two friends entering the store together, and one of them picking up a book and handing it to the other with the words "Oh, you've *got* to read this; you'll *love* it."

The Internet is practically made of word of mouth. Telecommunications has always been bigger than entertainment. U.S.

telecommunications businesses—companies that let people talk to other people—brought in $750 billion in 2011. The U.S. entertainment sector, in 2012, brought in $480 billion.

Content isn't king. Conversation is.

2.4

Content Isn't King

PEOPLE USE THE Internet to communicate with others about everything that matters to them. There isn't really such a thing as a "channel for content" and a "channel for talking about content"—on the Internet, the same video-hosting services that offer the best place to post (potentially infringing) clips of commercial video are *also* the best places to post legitimate videos of people talking about the commercial videos they love. Twitter isn't just a place for posting links to potentially infringing downloads of copyrighted material—it's also the place where people post links to long discussions of the copyrighted material they love, recommending it to other people.

What's more, these services are also the place where people talk about *everything else*. A conversational, social medium where you're allowed to talk only about music—and not your life and times—will be stilted and unconversational. Even the most dedicated, topical forums on highly technical subjects—cancer therapy, high-energy physics—inevitably coexist with nearby forums for "chatter" about pop culture, personal thoughts, and idle chitchat.

Indeed, this is practically the Internet's origin story: the U.S. government created a military and scientific network for information sharing, and its users promptly started a *Star Trek* discussion forum. Tim Berners-Lee created the World Wide Web for sharing high-energy physics papers, and its users promptly started posting pictures of their cats, their failed cake-baking adventures, and the titanic snowfall that had just been dumped outside their lab windows. And then they, too, started arguing about *Star Trek*.

Sociable conversation is the inevitable product of socializing. Sociable conversation is the way that human beings establish trusted relationships among themselves. And sociable conversation among trusted parties is where invaluable recommendations for creative works arise ("Did you see X on TV last night?"). On the Internet, every medium is first a medium for social conversation and secondarily a specialized forum for some other purpose. Anything we do to make it more expensive and difficult to create, host, and link to new mediums also makes it harder to have the social conversations that turn random strangers into paying customers for creative work.

How Do I Get People to Pay Me?

CONVERTING AUDIENCE APPRECIATION into something you can use to pay for your kids' braces is the crucial task for any artist. There are shelves full of MBA-program case studies and countless online seminars from various successes and would-be successes enumerating theories about how to do it. Nearly everyone who tries their techniques will fail—that's just the way of it—but there are several approaches that still make sense in the Internet era. The following overview is a guide to how the basic strategies of creative business have worked in the past, and how they've been successfully adapted to today's Internet-era reality.

1. YOU CAN SELL A PHYSICAL COPY OF YOUR ART

You (or a publisher, a label, or a studio) can still make a DVD, a CD, a book, a USB stick, a print, a sculpture, or some other tangible embodiment of your creation. You can charge money to own these things, or to rent them. It's not always easy to keep physical stuff from being taken without payment—a cat burglar may be waiting to steal your painting out of your studio right now!—but it's infinitely easier than keeping people from making digital copies and distributing them without your permission. You're probably familiar with this business model. It's an oldie, but a goodie.

2. YOU CAN SELL ADS

Before the net, getting an advertiser was hard, but the high barrier to entry kept the prices *charged to advertisers* high. So a newspaper, if successful, could make a lot of money from the space it gave over to ads. Today, newspapers—and other traditional media—make a lot less that way. But that's not because the process of finding advertisements to run against your content has gotten harder.

The Internet has made it easier than ever to get money for displaying ads around your stuff. But easiness isn't all there is to it. Now that there are lots of places for advertisers to go, all of which are competing for the same ads, the price an advertiser needs to pay has gone down. This has been offset somewhat by the rise in companies looking to advertise—it's gotten easier to do that, too!—but as any newspaper publisher will tell you, the increase in demand hasn't kept up with the increase in supply.

The fundamental problem that "traditional media" is having is that its business was structured around expensive, resource-intensive undertakings and paying large dividends to investors. Newspapers bought purpose-built buildings in central New York and Tokyo; radio networks took over enormous towers next door to them; record labels built multimillion-dollar studios and employed titanic numbers of administrators, talent scouts, managers, and so forth.

The net makes it possible to do things more cheaply. For one thing, the actual production costs for media have fallen drastically. It's not *easy* to do professional typesetting, but if you know how to do it, you can make it happen with the computer under your arm, and you can pocket the difference between the cost of a computer you already own and the cost

Costs and creativity

"Cost disease" is an economic concept that is vital to understanding the relationship between labor costs and the arts. First described by William J. Baumol in the 1960s, cost disease describes the way that technology seems to drive up the cost of "services." (In econo-jargon, performing music and writing books are both "services.")

Technology generally reduces the amount of labor needed to make physical things. Every year, automation drives down the number of human hours needed to assemble a car; and thus, every year, for the average buyer, cars tend to get more affordable, as their labor costs decrease.

Services are much harder to automate. Teaching a kid how to read, examining a patient, performing a sonata, or cooking a hamburger all take approximately the same amount of time now as they did a century ago. And since the people who do these jobs all expect to be able to buy cars and other manufactured goods, their wages can't be (fairly) discounted just because their "product" isn't getting cheaper as quickly as manufactured goods are. More often, in fact, their wages go up.

This is, incidentally, one of the key reasons that education and health care command ever-larger slices of developed countries' GDP—the machines and buildings get cheaper, but the people who operate them are a fixed cost.

This same dynamic impacts the arts. Whether you're writing a novel, performing a song, or painting a painting, there are some costs—both in time and money—that can't be reduced.

However, there are many parts of a creative living that *have* gotten vastly cheaper thanks to technology. Twenty years ago, I was the CIO of a successful documentary-film-production house. Our edit suite cost $250,000, and didn't even produce production-quality output—after films were edited on it, they had to be re-cut on a multimillion dollar system that we rented access to. Our cameras—digital betas—cost several times more than modern SLR and Red digital cameras, and produced footage that was nowhere near the same quality.

Today, you could replicate our whole setup for much less than ten thousand dollars. And that's not all: these days, when your crew goes on location, it can book its own plane tickets—no travel-agent fees—shop around for customs processing, save big money with Airbnb and hotel discounters, and so on.

The time filmmakers spend writing their scripts and recording their interviews and editing down their footage costs just as much as it ever did. But every other cost has gone down. These are the *capital* costs—the costs that you'd typically borrow or raise funds to cover. The stuff that you need time for has stayed fixed, but time is something you can provide on your own, without begging patrons or investors for help. Meanwhile, the cost of the stuff that you have to sell your soul and vision for—the cameras, the plane tickets, the hotel rooms and edit suites—has plummeted, and there is no bottom in sight.

Yes, it takes an orchestra the same number of hours today to perform a Mozart symphony as it did in the eighteenth century, but all the other costs of delivering that symphony to the greatest number of listeners are vastly cheaper today than they've ever been. Rehearsing and performing are the things that the orchestra can do for itself, while everything else is the stuff they have to sell their soul for. Cost disease hasn't reduced the cost of performing, but it has given musicians much more control over their destiny than they've ever had before.

of a huge typesetting shop full of specialized equipment that cost a million dollars twenty years ago. The hyperexpensive shots that George Lucas stuck into *Star Wars* in 1977 can be rendered cheerfully and without complaint by a used PC that your local high school is throwing away. That doesn't mean you, personally, know how to make it produce something as cool or lucrative as Lucas did, of course—but if you can, you have a lot more options than Lucas did back then for making money from it, because the cost is so low.

So if analog dollars have turned into digital dimes (as the critics of ad-supported media have it), there is the fact that it's possible to run a business that gets the same amount of advertising as its forebears at a fraction of the price. You can still profit from a much smaller income, as long as you have much smaller expenses, too.

3. YOU CAN SELL SWAG

There's no question that the market for certain embodiments of art has declined. For example, I've got no interest in ever acquiring a CD again—a CD isn't an asset, it's a liability. When I get a CD, I have to rip the disc, make sure the song titles and other metadata were correctly transferred, and then figure out how to get rid of the CD itself in a way that is both legal and environmentally responsible. (If you

xkcd

Randall Munroe is a funny guy and a moderately talented illustrator. Trained as a physicist, he started posting his humorous stick-figure doodles to his website, xkcd.com. (He says the name doesn't mean anything—it was just a four-letter .com domain he managed to snag before they were all snapped up by speculators.) Eventually, he began to produce a regular comic strip. He uses Creative Commons licenses on his comics that permit their unlimited noncommercial sharing. His strips have a heavy science/technology bent (the comic's strapline is "A webcomic of romance, sarcasm, math, and language"), and you see them posted on office doors in every university's math, science, and computer science departments. They're also liberally posted around research institutes like CERN, home of the Large Hadron Collider, and the Wellcome Trust Sanger Institute, one of the homes of the Human Genome Project.

But Randall can't eat the adulation of nerds. Instead, he sells swag. A *lot* of swag. Randy lives with his wife in a house whose living room has been converted into a ball pit. He and his friends sit in the ball pit and play video games all day. Three times a week, Randall draws and posts an xkcd comic. His other major chore is depositing checks from the company that sells his T-shirts and posters. He's living the dream.

What's more, the more famous—the more *copied*—Randall's comics get, the more money he makes. He doesn't need to control or reduce copies. Good thing, because he knows he can't.

give it away after ripping it, it's probably not legal; if you throw it away after ripping it, it's *definitely* not environmentally responsible.) This is one reason that "piracy" statistics from the music industry are so misleading: they imply that every downloaded song is a lost sale, and that every lost sale is a lost sale of the whole album, not just the single. But if piracy vanished tomorrow, people like me wouldn't start buying CDs again. We don't want those liabilities in our lives. The best you could hope for is that a small fraction of today's downloaders would become iTunes or Amazon MP3 customers, which is a lot less commercially exciting than turning them into buyers of $17.99 CDs. There're those analog dollars/digital dimes again.

But there are plenty of high-margin physical goods that don't simply reproduce an artwork, but rather represent some *affinity* for it. T-shirts, posters, and every manner of tchotchke and gimcrack and gewgaw can be sold to fans who want a chance to express their identity by publicly displaying their taste in media. Some artists have also turned largely obsolete formats like CDs into swag by packaging them in elaborate, beautiful enclosures. For example, David Byrne and Brian Eno's *Everything That Happens Will Happen Today* album was released in a limited edition that included a CD, a DVD, and a miniature diorama train set with light-activated sound effects. (I have one and treasure it.)

What's more, this is the era of on-demand swag. Increasingly, T-shirts and other items can be made in very small batches, even one at a time, which allows creators to try out a lot of designs without committing a lot of capital, or ending up with an attic full of unsold merch.

4. YOU CAN SELL COMMISSIONS

Creators who are well loved for their work often attract commissions from companies and individuals. Rich people are infamous for commissioning fashion designers to produce one-of-a-kind outfits for important events; restaurateurs commission murals; advertising agencies commission commercial jingles; stock-art agencies commission pictures. I've written several commissioned science-fiction stories. Some were for textbooks that needed short fiction to accompany a technical passage; a few were for high-tech companies that were doing future-product planning and wanted fiction to spark their engineering discussion; one commission was sold off directly in exchange for an ad that accompanied the story on publication.

One way to think about commissioned work is that it represents the price of adjusting your creative priorities. For example, many

Madonna and the concert promoter

In 2007, the singer Madonna walked out on Warner Bros., her record label of twenty-four years, and signed a $120 million deal with Live Nation, a concert promoter, allowing it to take up distribution of her records and produce a string of incredibly lucrative mega-tours. Concert promoters don't particularly care if recorded music is paid for or copied freely, just so long as it's popular, because the more popular an artist is, the more the concert tickets are worth. In 2011, Madonna and Live Nation partnered with a label, a Universal division called Interscope, to release a new album, her first since 2008; the tour that followed far outearned the record itself.

free/open-source software creators work on programs and features just because they like the idea of them. But, having made a name for themselves as expert, high-quality software developers, these people attract commercial commissions from companies that have a need for a specific feature or program. So the programmer takes a break from working on her own priorities and turns her attention to someone else's, and pockets a commission in exchange.

There have always been creative agencies that specialize in this sort of commission, but increasingly artists can avail themselves of services like deviantART and other portfolio sites as a free or cheap way to hang out a shingle for potential clients.

5. YOU CAN SELL TICKETS

If you create things that can be performed, there is an ancient and honorable way of making money from them: you can perform them in a room with a door that closes. You station someone imposing at that door, and instruct that person to ask anyone who wants to come in to buy a ticket. If they don't buy a ticket, they don't get past the door.

2013 was history's top-grossing year for live music performance. This is a good time to be a live performer, not least because of all the ways the Internet supplies for getting the word out about shows. Now, not everyone is cut out to perform—I do a lot of touring and speaking, and it's hard work. I miss my family, I don't get enough sleep, and it's hard to keep up with my writing. But if it were easy, everyone would be doing it.

Back when records and radio were invented, many musicians hated them. "I'm a live performer," they said. "I do something as old and as holy as the first story told in front of the first fire. How dare you tell me that I am to be a mere clerk, doomed to sit in a back room while you *technicians* make my work available to my public?" That kind of mind-set leaves you driving taxis and flipping burgers.

Eighty years later, the spiritual descendants of the musicians who succeeded as recording artists have a different complaint. "I don't *perform*. I'm not a trained monkey. I am a white-collar worker. I labor indoors. When my work is done, I slide it under the door and some bourgeois man of commerce takes it out to the world. What right have you to tell me that in order to earn a living, I must become an itinerant *jongleur* who capers for others' amusement?"

In both cases, the refuseniks misunderstood how technologically determined their income was. Art is art, whether you make it with a computer-based mixing board or by banging two rocks together. But *industry* is all about technology. There was once a thriving lamplighting industry—people were paid to walk the streets with long, flaming poles that were used to light the wicks on public streetlamps at dusk. Those jobs were obliterated by the electric light. The tragedy of the lamplighters who failed to find another trade is real, and should never be dismissed, but that doesn't make electric lights immoral. When it comes to business, technology giveth and technology taketh away.

6. YOU CAN ASK FOR DONATIONS

This may be the oldest business model there is for entertainers and artists: asking people around you to voluntarily give you money so you can go on making more of the stuff they already see and hear. Again, the Internet acts as a force multiplier here—you can ask more people, in more places, and accept their donations in more ways.

The Humble Indie Bundle is a wildly successful "pay-what-you-like" distributor of video games. Several times a year, the Humble Bundle people announce a new "bundle"—five to seven video games, all sold together. The games are shipped without any digital locks, and will play on Macs, PCs, and GNU/Linux computers. Customers are invited to name a fair price for the bundle, and are shown how much other customers are giving on average. To spur their competitive natures, buyers are given stats broken down by operating system: "You're on a Windows PC, and Windows users are giving an average of $40. Mac users are giving an average of $43, and Linux users are giving $48." Customers are also allowed to go back later and donate more money, if they feel like they underpaid. And even though people can pay anything, from zero dollars to thousands, the bundles typically make in excess of a million dollars each. Each customer specifies how much of their payment should go to a few charities nominated by the Humble project, and the rest of the money is divided up among the games' producers—a hundred thousand to three hundred thousand dollars each. Users also have the option to add a "tip" to Humble itself, to pay for the administration of future bundles, and that brings in enough to keep the lights on.

With my help, Humble has now branched out into e-books and comics, and further refined its sales pitch. Recent bundles have included an embeddable "widget" that each creator can put on his or her web page, as well as unique author-specific links. That way, Humble knows which artist's work got you interested in the bundle, and it's able to use that intelligence to prick at your competitive nature: "You're a fan of Author X. You and your fellow fans are giving an average of $54, which is well below the fans of the next-most popular author, Y, who are giving an average of $67." They'll soon do the same thing with automatically detected cities: "You're coming in from San Francisco. San Franciscans are ranked eighty-seventh in global payers; below Oslo, ranked eighty-sixth, where the average payment is $58."

Humble isn't the only innovative collector of donations. Kickstarter uses "crowdfunding" to raise money for creators—people solicit funds to complete a project, and make a pitch (text and video) explaining why donors should trust them to use the money wisely. Then they specify premiums and gifts to be given to exceptional donors—give ten dollars and I'll send you a postcard with a custom sketch; a hundred dollars gets you a custom portrait; ten thousand dollars gets you an original comic book starring you and your friends. Kickstarter has also been used as an effective means of collecting preorders before a production run: Give me fifteen dollars, and I'll send you a book. Once I have enough fifteen-dollar commitments in hand, I can have the books printed and ship them out.

Finally, you can always just stick a payment button on your website. Creators have varying luck with this strategy, but maybe you've got the right combination of audience, material, and pitch. One caveat: PayPal, the most popular payment processor online, has a well-deserved reputation as a high-handed, obstreperous bureaucracy that arbitrarily freezes its customers' accounts, often without recourse. Hardly a week goes by without some high-profile company, individual, or charity going public with their tale of PayPal woe. I haven't experienced this myself (yet), but I make a point of moving my funds from PayPal to a real bank account as quickly as possible, never leaving more than a few dollars in my PayPal account at any given time.

None of this precludes chasing the established patronage systems—arts-council and NEA grants, institutional money, private funding—but as patronage has gone mass and global, the chances of you finding someone or some group of people willing to fund your vision have radically expanded.

Molly Crabapple and the distributed patrons

Molly Crabapple is a talented painter who works in large-form canvases. She's the sort of painter who, in another era, might have worked through a gallery and an agent, trying to please wealthy people who might part with astronomical sums for her works. A few painters have made it that way, but most have failed.

Crabapple, though, turns out to have a real flair for crowdfunding. In 2011, she launched her "Week in Hell" project, where she locked herself in a hotel room for five days, papering the walls with poster-paper and then decorating every inch of the paper with illustration. The event was meant to commemorate her twenty-eighth birthday, and she sought to raise $4,500 on Kickstarter from fans who got to watch her draw on a live video feed and received pieces of illustrated paper. She raised $25,805.

In 2012, she sought $30,000 from her fans to rent a New York City storefront and paint nine giant paintings inspired by the Occupy Wall Street movement. Within a week, she had $55,000. By the time the project ended, she had $64,799 (including the $8,000 per painting she took in for the seven canvases she sold as part of the highest-level Kickstarter reward). Like many painters through history, Crabapple relies on patrons to pay her bills—but her patrons number in the thousands, and she needn't worry about the caprice or high-handedness of a few fat cats as she paints her way into history.