The End of Ownership

Personal Property in the Digital Economy

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Imagine you walk into your local haberdashery in search of some new hats. You try on a few bowlers, some deerstalkers, a pork pie hat, even a fez or two. After settling on a favorite, you take note of the price tag—$100—and make your way to the counter to pay. On your way to the cashier, you notice some language printed inside the brim. It reads:

THIS HAT IS LICENSED, NOT SOLD. BY PAYING THE ASKING PRICE, YOU ARE ENTITLED TO WEAR THIS HAT AS OFTEN AS YOU LIKE. YOU MAY RETAIN POSSESSION OF THE HAT INDEFINITELY, BUT YOU ARE NOT PERMITTED TO RESELL, LEND, OR OTHERWISE TRANSFER IT WITHOUT THE EXPRESS PERMISSION OF THE MANUFACTURER.

What should we make of this language? There are at least three ways we might think about the legal impact of this sort of notice. First, it might mean, as the hat maker probably intends, that you don't own the hat after forking over your $100. The notice could transform a deal that looks like a sale—a transfer of ownership from one party to another—into something less—mere permission to possess and use the hat. Second, the notice might form the basis of a contract. By buying the hat, you would become its owner, but you would also be promising not to transfer it. You would have the power to resell it as a matter of property law, but you might have to pay damages under the contract if your transfer causes provable harm to the manufacturer. Third, the notice might be utterly ineffectual as a legal document. It could still confuse or intimidate some hat owners, dissuading them from loaning or reselling their chapeaus. But as a legal matter, it wouldn't impose any obligations or restrict your behavior.

Regardless of which of these interpretations is right, most of us would find this sort of language surprising. Puzzled, we might ask the sales clerk for an explanation. Or maybe we would simply refuse to buy a hat so burdened by unreasonable demands. What many of us fail to notice, however, is that we encounter this sort of language on a nearly daily basis. It is attached to both digital and tangible goods that we assume, rightly or wrongly, we are buying. The boxed software you purchase, the apps and games you download, the digital books, music, and movies you buy, your smartphone, and even your car all come bundled with similar restrictions. But this language is typically buried within the thousands of words of terms and conditions, liability waivers, warranty information, and prohibitions on the development of nuclear weapons—no, really[1]—that make up End User License Agreements, where it blends into the informational white noise most of us are skilled at ignoring.

In the simplest terms, a license is a grant of permission to engage in some behavior that would otherwise be prohibited. You need a license to drive a car, a radio station needs a license to broadcast over the public airwaves, and James Bond needs a license to kill, all for the same reason. Without permission, those activities are against the law. Sometimes that permission comes from the government, and other times from private parties. If you enter your neighbor's property without a license, you are a trespasser; with a license, you are an invited guest.

But modern license agreements have evolved into something else altogether. They create private regulatory schemes that impose all manner of obligations and restrictions, often without meaningful notice, much less assent. And in the process, licenses effectively rewrite the balance between creators and the public that our IP laws are meant to maintain. They are an effort to redefine sales, which transfer ownership to the buyer, as something more like conditional grants of access.

A troubling number of courts have embraced these efforts. They have decided that products remain the property of IP rights holders even after an apparent sale, so long as the license recites the proper incantations. You may have paid for the CD-ROM containing your favorite software program, but according to this reasoning, that plastic disc belongs to the software maker, not you. And your use of it is constrained not by the public law of copyright, but the private law of the license. This way of thinking has its strongest foothold in the world of computer software, but it is unlikely to remain confined to that corner of the economy. The licensing mentality has already spread to digital media and, just as problematically, to tangible goods.

By allowing license terms to redefine transactions and strip consumers of ownership, courts are taking power away from the public lawmaking process and vesting it in the hands of private IP rights holders. Licenses function as a form of privately made law that allows rights holders to modify, supplement, and contravene IP law at the expense of the customers who pay for their products.

The Fine Print

So what do licenses actually say? Most of us have no idea, and for good reason. License agreements are long, inscrutable, and full of bad news. They are the Lars von Trier films of legal documents. The form and substance of license agreements discourage consumers from reading them, which perversely reinforces their worst attributes.

Let's start with their length. The current iTunes Terms and Conditions are over 19,000 words, translating into fifty-six pages of fine print, longer than *Macbeth*.[2] Not to be outdone, PayPal's terms weigh in at 36,000 words, besting *Hamlet* by a wide margin. The demands of these prolix legal documents are jaw-dropping. Take Adobe's Flash, a software platform installed on millions of computers each day. Assume the average user can read the 3,500-word Flash license in ten minutes—a generous assumption given the dense legalese in which it is written. If everyone who installed Flash in a single day read the license, it would require collectively over 1,500 years of human attention. That's true every single day, for just one software product.[3] Imagine what would happen if you tried to read every license you encountered.[4]

Regardless of their length, license agreements are hard to comprehend. They are documents drafted by lawyers, and their primary function is to define legal rights and limit liability, not to communicate clearly and effectively. As a result they are overflowing with defined terms, technical jargon, unnatural turns of phrase, and complex sentence structure. Unlike the accessible and simple marketing language used to sell products, the legal language that defines those transactions—or claims to at least—often requires a postgraduate education to understand.[5]

The length and complexity of license agreements mean that they impose significant costs on the public. Reading and understanding a license requires lots of time and mental energy. For most people, simply wading through the terms won't be enough to actually understand the license. You might need to do some independent research or consult a lawyer—a suggestion some licenses make, presumably with a straight face. But often the cost of reading the license outweighs the value of the product. Who in their right mind would read a 19,000-word license before making a 99-cent purchase from iTunes?

Not surprisingly, the vast majority of us simply throw up our hands and ignore licenses altogether. One recent study shows that as few as one out of a thousand software shoppers even glanced at the text of license agreements. And most who did spent only a few seconds perusing the terms.[6] Even Chief Justice John Roberts, hardly known for his casual disregard for legal obligations, can't be bothered to read EULAs.[7] It hardly seems fair to expect more from the average person.

License terms are not negotiable. So there's little to gain from a careful reading. Suppose you carefully examine the Flash license and find some objectionable term. Perhaps it limits you to a single installation of the program or disclaims liability for damage to your computer. What exactly are you going to do about it? Adobe is not going to negotiate a new license with you. They won't even entertain the idea. So your choice is simple. Either use the product—and live with the license—or don't. Take it or leave it.

Intentionally or not, rights holders and retailers have managed to nearly universally dissuade their customers from reading the terms that purportedly govern their purchases. And if the public rationally avoids investigating licenses, there is little marketplace incentive to offer more consumer-friendly terms. Better terms would simply go unnoticed. When software maker PC Pitstop included language in its license offering a cash prize to the first user to notice the clause, it took nearly four months before someone collected the $1,000.[8]

When high-quality products are indistinguishable from poor ones, we get what economists call a market for lemons.[9] Even though car buyers would pay more for a vehicle with no mechanical issues, they often can't tell a reliable used car from a clunker destined to break down in a steaming heap in a week or two. And since they can't sort the good deals from the bad ones, they are only willing to pay a price corresponding to a low-quality car. But if buyers aren't willing to fork over extra money for a high-quality car, used car dealers have every reason to stock their lots with the cheapest cars available. So despite the fact that buyers would pay a premium for high-quality cars, the market fails to supply them.[10]

For the same reasons, most EULAs are lemons. Licensors have lots of information about what their licenses say. They drafted them after all. But the average person has very little information. This information asymmetry breeds disengagement and distrust. And if companies don't gain any advantage in the marketplace from more consumer-friendly licenses, that only serves to further entrench unfavorable terms. Once license terms are adopted, they have a way of spreading. In part, their viral nature is about saving time. Few licenses are drafted from scratch. Lawyers copy and paste liberally. When Google initially released its Chrome browser, the license read in part: "You give Google a perpetual, irrevocable, worldwide, royalty-free, and non-exclusive license to reproduce, adapt, modify, translate, publish, publicly perform, publicly display and distribute any Content which you submit, post or display on or through, [Google's products, software, services and web sites]."[11]

That would mean Google could publish every email you send, every photo you share, and every password you enter using Chrome. Of course, that's not what Google meant. It quickly updated the license to clarify that users retain copyright in the content they generate. Google's explanation for this mishap? "We try to use the same set of legal terms … for many of our products. Sometimes … this means that the legal terms for a specific product may include terms that don't apply well to the use of that product."[12] In other words, Google was a bit sloppy in copying from its existing licenses.

Somewhat less innocently, the uniformity in license terms is partly about safety in numbers.[13] Once a term becomes standardized, its inclusion becomes a strategy for reducing competitive risk. A company that adopts industry standard terms guarantees that it is no worse off than its competitors.[14] Combined with the lemon problem, this sort of soft collusion helps ensure that we don't see robust competition on the basis of consumer-friendly license terms.

Instead, we see a growing list of standard terms, almost none of which add to a product's value from the perspective of users. Some restrict what you can do with the products you purchase. These include limits on making backup copies, prohibitions on bad reviews, provisions permanently tying a product to a particular device, and bans on reverse engineering—the process of discovering how a product works through observing it in action.[15] Other terms eliminate legal rights and remedies. These include limitations on liability, bars to class action suits, and mandatory arbitration clauses.[16] And if the licensor neglected to include some one-sided term it later deems useful, many licenses give the drafter the option to change the terms of the EULA at any time.[17]

But for our purposes, the most important license provisions are ones that try to redefine ownership and limit the transfer of the products we purchase. Across the board, nearly every license agreement for digital content—software, games, music, movies, and books—declares that the product is licensed, not sold. As Apple informs its customers, "the software products made available through the App Store … are licensed, not sold, to you."[18] Microsoft says the same thing: "We do not sell our software or your copy of it—we only license it."[19] Amazon's Kindle store follows suit as well: "Kindle Content is licensed, not sold, to you by the Content Provider."[20] Sony's PlayStation license states: "All Software is licensed, not sold, which means you acquire rights to use the Software ... but you do not acquire ownership of the Software."[21] The same sort of terms are increasingly attached to hardware devices with embedded software. Most of these licenses preclude you from reselling, lending, renting, or otherwise transferring their purchases.

There are two ways to interpret these kinds of terms. They might stand for the uncontroversial—and frankly obvious—proposition that when you buy a product like Microsoft Office software or an iPhone, you are not acquiring all of the copyright, patent, and trademark rights in that product. To which we say, duh. But these licenses typically mean something beyond that. They mean that you don't own the thing you buy. You don't own and can't transfer the plastic disc, the digital file, or the physical copy of the code embedded in your phone. So when retailers and record labels tell you that the song you purchased is licensed, not sold, they mean two things—you don't own the copyright in the song and you don't own the file you downloaded.

Despite this effort to define downloads of digital media as licenses rather than sales, rights holders take a very different position when it comes time to pay artists. Most recording contracts distinguish between sales—historically, of CDs and other physical media—and licenses—to use a song in a commercial, for example. A recording artist would be owed a small royalty for each sale, say 15 percent, and a much higher rate for each license, more like 50 percent. To minimize the payments owed to artists, record labels have insisted in lawsuits filed by Eminem and others that iTunes and Amazon transactions are in fact sales, not licenses.[22] Of course, that's not what their EULAs tell us. To understand how they benefit from that strategic characterization, we need to take a step back and consider how the licensing model first developed.

The Origins of the EULA

The EULA got its start in the software industry. In the early days of computing, hardware and software were typically bundled together. Software was a means of boosting hardware sales; markets for standalone software products had yet to develop. IBM was among the first companies to unbundle its hardware and software. But unlike its mainframes, its software code was easy to copy. IBM viewed existing intellectual property protections—patents, copyrights, and trade secrets—as either ineffective or too uncertain.

So it "coupled the copyright with a license and counted on the license to provide the real protection" against copying.[23]

At the time, IBM had legitimate concerns. Intellectual property law was decades away from unambiguous copyright or patent protection for software.[24] Even after the Copyright Act was amended in 1980 to explicitly recognize software as protected subject matter, developers worried about the dangers of rental. Since every PC is a copying machine, if Microsoft Word could be rented as easily and cheaply as a VHS copy of *Airplane!*, illicit copying could do real harm. At the urging of the software industry, Congress addressed that worry with the Computer Software Rental Amendment Act, which prohibited the rental of most software programs.[25]

But licensing is about more than guarding against legal uncertainty and the threat of infringement. Strategically, a business model premised on "licensing" products gave the software industry far greater control over downstream uses than other IP-intensive industries. Book publishers, record labels, and movie studios tried for decades to find a reliable and efficient means of stamping out unwanted competition by controlling secondary markets. By insisting that end users did not own the copies they bought, the software industry achieved that elusive goal and much more.

If you don't own a copy, you aren't entitled to resell or otherwise transfer it. That is just as true for software as it is for hardcover books. But because of the nature of software, ownership is even more crucial. Using software creates copies. If you install code on your hard drive, you've made a copy. If you run the program, you've created a copy in your computer's memory—at least according to some courts.[26] Unlike an analog book, a copy of a software program is virtually worthless without the right to make copies.[27] Congress understood that fact when it extended copyright protection to software in 1980. So it enacted a new broader set of exhaustion protections for software buyers.

Section 117 of the Copyright Act gives owners of copies of computer programs a number of important rights. First, it allows them to create "essential step" copies—copies necessary to run the program.[28] Second, it lets owners modify a program—to fix bugs, or add new features for example.[29] Third, it permits the creation of archival copies to guard against degradation and accidental deletion.[30] Section 117 also gives an owner expanded rights to transfer both the original copy they purchase and any unmodified essential step and archival copies.[31] The statute imposes two intuitive caveats on transfers. All rights to those copies must be transferred together as a single bundle. That is, the owner can't sell their original copy on eBay and their archival copies to a neighbor. And once the owner transfers those rights, any copies still in their possession have to be destroyed.

So long as the user is recognized as the owner, section 117 does its job. But by denying the existence of a sale, license agreements undermine these congressionally crafted consumer protections. If all you get when you fork over your cash is a license, you are at the mercy of the software maker. Your rights to transfer the copy, to make backups, even to install and use the software are determined by the text of the license, not by federal law or common sense.

Licenses displace the laws Congress created to secure consumer property rights. And by doing so, licenses make themselves an indispensable part of every software transaction.[32] If we accept the idea that the license prevents the transfer of ownership to the user, the license becomes the sole source of the rights to install and use the program. Without the license, the user can't do anything at all with their copy, aside from glare at it in frustration. Of course, if it weren't for the license's insistence that no sale has occurred, users wouldn't need permission to make those customary uses of the program in the first place. Those rights are already provided for in the Copyright Act.

In the software industry, these licenses have become commonplace, but these efforts to privately redefine consumer rights have spread to digital books, movies, and music—not to mention consumer electronics, home appliances, and farm equipment. As with software, the use, storage, or transfer of digital media products often requires the creation of additional copies. And just like software, these digital goods are encumbered by licenses that attempt to strip away property rights. But digital media aren't covered by the expanded statutory exhaustion rights that apply to software. So even if consumers can prove they own the digital files they acquire, they still need a license to make the copies necessary to use them. If ownership doesn't entitle you to actually use your property, ownership doesn't mean much.

If we accept the licensing model, we bow to private regulations that redefine consumer rights and impose conditions and restrictions on our use of the things we buy. Those constraints on our freedom aren't the product of self-governance. They are dictated by private actors driven by their own self-interest. The license agreement, in short, has us over the proverbial barrel.

But we shouldn't be so quick to accept the idea that license agreements define our rights. There are two ways of explaining the legal force of EULAs, both of which are flawed. First, we can treat them as contracts. But shoehorning contemporary consumer licenses into contract law requires us to toss out the basic rules and justifications for creating and enforcing contracts. More important, the contract model fundamentally misunderstands what's going on when rights holders claim they are licensing their products. The second approach recognizes that licenses aren't really about promises; instead, they are creatures of property law. But when we view licenses through the lens of property, it turns out rights holders often don't have the power that they assert over us. The notion that a license can strip buyers of their property rights is false.

The EULA as Contract

Most of us can remember signing a contract—closing on a home, signing a business loan, leasing a car, or perhaps entering into an employment contract. But very few of us would conjure up an image of installing software, downloading an ebook, or buying a new kitchen appliance as an example of a binding legal agreement. We tend to associate contracts with something more notable. Our common conception of contract formation involves substantial stakes and some formal process that clues us into the seriousness of the situation. There is probably a long document with lots of places to sign and initial. There might be someone walking you through the major provisions. Perhaps there are even lawyers in the room. But EULAs are of no moment. They are ubiquitous, an unnoticed part of the most mundane of modern tasks.[33] So we treat them like casual annoyances rather than binding obligations. Nonetheless, when courts are confronted with license agreements, they typically think about them as contracts.

Contract law reflects the deep moral intuition that we should be held accountable for the promises we make. By putting us on the hook for the harm we cause when we fail to live up to our word, the law encourages promise making and promise keeping. And when we can trust others to make reliable commitments, society works better. We can coordinate our actions, plan for the future, avoid costly protections against unscrupulous behavior, and preserve valuable relationships.

But it only makes sense to hold people to their word when they know that they are entering into a binding agreement and understand the terms. Traditionally, contract law had built-in mechanisms to make sure contracts reflected the mutual intent of the parties. But those checks on contract formation are broken. Today, many courts are willing to enforce terms that consumers do not understand, did not read, have never seen, and to which they simply didn't agree, so long as there is some constructive notice of their existence. It is this mutant form of contract law that embraces the EULA.

Under the classic model, forming a contract requires mutual assent to the terms by the parties—typically established through an offer by one party and its acceptance by the other—and what the law calls "consideration." To form the basis of a contract, an offer has to be definite and needs to reflect all of the terms central to the deal. Imagine your neighbor rings your doorbell and proposes to "sell you some stuff." Appealing though it may be, that suggestion doesn't function as an offer. You can't sensibly agree to such an amorphous deal. At the very least, you'd need to know what stuff and at what price.

Then your neighbor clarifies, "I'll sell you my creepy antique mannequin collection for $500." Fan though you are of moldy, dead-eyed, department store dummies, the price strikes you as steep. You reply, "You've got a deal for $350." Even though you expressed your willingness to buy the collection, this is not an acceptance of your neighbor's offer. Acceptance requires agreement on all material terms like price and quantity.

Assuming you agree on all the important points of the deal, acceptance of a contract can take many forms. You and your neighbor could type up the terms and sign them. But most contracts can be formed orally, no writing required. Contracts can also be accepted through your actions. Your neighbor could say something like, "Think it over. If you agree, leave the money in my mailbox." By dropping off the payment, you'd be accepting the terms of the deal.

Offer and acceptance are important because they provide strong evidence of mutual assent. A contract should reflect a "meeting of the minds" between the two parties. They should have a common understanding of what they are each required to do.

Finally, a contract requires consideration—something of value provided to induce the other party's participation. So in our antique mannequin example, your neighbor's consideration is the promise to transfer their collection to you. And your consideration is payment of the agreed-upon price. Imagine instead that your neighbor, in a generous mood, stops by and says, "I promise to give you my mannequin collection tomorrow." And you reply, "Sounds great." Since you've provided no consideration—you haven't obligated yourself to do anything—there's no contract. Your neighbor is free to change their mind tomorrow. It's your consideration that obliges the other party to hold up their end of the bargain.

When it comes to EULAs, many courts have essentially abandoned the traditional rules of contract formation. They enforce terms we find inside a package only after making a purchase. These terms don't require us to explicitly agree to anything. Simply using the product or even opening the packaging is enough to bind us. Then there's the now ubiquitous "I Agree" button. Of course, clicking that button is no guarantee of meaningful assent since almost no one reads the terms before reflexively "agreeing" to them. But courts enforce them anyway. Some courts have even gone so far as to bind parties to terms linked from a website, regardless of whether they ever saw them. Assent, such as it is, is manifested by merely visiting the site.

When parties don't see the terms of an agreement until after they make a purchase, when they never see the terms at all, or when they take no intentional steps to manifest assent, contract formation rules are stretched to their breaking point. As a result, a number of early courts refused to enforce EULAs.[34] But over time, courts grew to accept them. As Mark Lemley has explained, "A majority of courts now reject any requirement that a party take any action at all demonstrating agreement to or even awareness of terms in order to be bound by those terms."[35]

Judge Frank Easterbrook's opinion in *ProCD, Inc. v. Zeidenberg* is largely to blame for this distortion of contract law. ProCD sold a CD-ROM database of telephone listings to most customers for $150; it sold copies to retailers and other commercial users at a significantly higher price. In order to maintain this price discrimination strategy, ProCD included a license with the low-cost version that, among other things, prohibited commercial use of the database. The product packaging noted that it contained a license, but users had no opportunity to review its terms until after they purchased the software. Matthew Zeidenberg bought a copy of the database and posted it online, charging users a fee to access it. ProCD sued. Since copyright law does not protect purely factual compilations like lists of names and phone numbers, ProCD's claim was based on a breach of contract. The question for the court was whether the noncommercial use restriction was part of the agreement between ProCD and Zeidenberg.

For most consumer goods, the contract is formed at the time of initial purchase. Let's say you walk into your local hardware store to buy a shovel. You see one that looks suitable for your needs. It bears a $20 price tag. Even though it's not as formal as a loan document, contract law calls that an offer. You take the shovel to the checkout counter and tender the asking price. That's acceptance. A contract has been formed. But let's say that once you get home, the hardware store calls you and says, "You know that shovel you bought? Well, there are some additional strings attached. You can use it for ditch digging, but you can't use it for gardening. Gardening requires you to pay an extra $30 upgrade fee." After depleting your reserve of expletives and hanging up the phone, chances are you would feel no obligation to avoid planting some shrubbery with your new shovel. And no court in its right mind would disagree with you. It would recognize that phone call as an ineffective attempt to modify an existing contract.

Now imagine a slightly different scenario. While waiting in the checkout line, you notice a sticker on the handle of your shovel. It reads: "This shovel is subject to a license agreement. You will be notified of the full terms by phone after your purchase." Does this change things? Most of us would probably say no. Vague references to unknown terms cannot form the basis of a contract. But according to Judge Easterbrook, the fact that Zeidenberg was put on notice that the license terms were forthcoming, even if he had no idea what they were at the time of purchase, was enough to make them part of a binding legal agreement.

Easterbrook offered a number of justifications to soften the blow of his departure from the basic rules of contract formation. But rather than putting our minds at ease about enforcing these kinds of terms, each of Easterbrook's assurances underscores the legitimate worries of consumers. First, he suggests that if the license agreement is a contractual offer, you can always reject it. If you don't like the terms, you can simply return the software to the store. Anyone who has ever tried to get a refund from a retailer for opened software products can point out the obvious flaw in this reasoning.

Beyond these optimistic predictions about return policies, failure to take action is a problematic trigger for contract formation. If one day a neighbor walked up to you and said, "I propose to buy your house for $1. Failure to mow my lawn by tomorrow constitutes acceptance of my offer," we would be shocked if a court called that an enforceable agreement. But that's just what the court does in *ProCD*. Your failure to return the software constitutes acceptance. In treating inaction as assent, Easterbrook ignores the costs this sort of arrangement imposes on users. Under his view, software transactions require you to drive to a retail store, find the software you want, pay for it, take it home, and inspect the terms. If you don't like the terms, you have to drive back to the store, wait in line for a refund, explain why the box is open, and hope that the manager at the local big-box office supply store is willing to make an exception to its refund policy.

This reality is at odds with one of Easterbrook's chief defenses of enforcing EULAs—market efficiency. By standardizing agreements, the argument goes, we streamline the process of mass production and distribution. To go back to a requirement of individualized contracts, he says, would "return transactions to the horse-and-buggy era." Standardized mass contracts, in contrast, hold out the promise of drastically reducing transaction costs for sellers.

Easterbrook is right that standardized contracts lower costs for software makers. They draft one license, likely cobbled together from existing terms, and use it in thousands or even millions of transactions. No messy negotiations, no discussions, no explanations. Undoubtedly, that reduces costs within the software industry. And while it is generally true that reducing transaction costs is a good thing, here those costs are not eliminated. They are just shifted from sellers to buyers. In a world governed by EULAs, life is easier for software companies and much harder for all of us. We are the ones expected to read and understand page after page of license text. And those costs add up. The failure to account for them shows that Easterbrook is keenly concerned with transaction costs when they harm software makers, but remarkably insensitive to those costs when they are imposed on individuals.

Next, Easterbrook gestures toward competition as a check on abusive license terms. If people are unhappy with a term that restricts how they can use a product, he speculates, surely competitors will offer more attractive terms to win them over. But the information asymmetry between users and license drafters makes it unlikely that the market will reflect consumer preferences. For the average user, the costs of researching license terms far outweigh the value of the goods at issue. The same is not true for the seller, who has the power to make certain that its license reflects its own best interests and has very strong incentives to do so. That dynamic all but ensures that competition will not result in more favorable terms. In fact, there is good reason to expect competition will lead to worse terms as companies look for ways to keep prices—the most obvious point of comparison—low.[36]

But even if competitive forces don't weed out unfair terms, Easterbrook reassures us, contract law will. The doctrine of unconscionability will prevent enforcement of EULAs if they are truly egregious. A contract is deemed unconscionable, and thus unenforceable, when one party enjoys superior bargaining power and the substance of the agreement is so one-sided that no reasonable person would agree to it. That's a tough standard to satisfy. This rule looks at both the process by which the contract was formed and its substantive terms to decide whether the apparent agreement of the parties should be set aside. In terms of process, take-it-or-leave-it contracts like EULAs, sometimes called contracts of adhesion, typically suggest unequal bargaining power. But by lending its enthusiastic seal of approval to the pay-now, terms-later EULA, the *ProCD* opinion makes the uphill battle to establish unconscionability even more difficult.

Finally, Easterbrook reminds us that contracts don't create rights against the world; they only create rights as between the parties to the agreement. So even if these contracts are enforced, their impact will be limited. In contrast to public law like property or copyright, a contract does not affect the rights of the public at large. As Easterbrook explains, "Someone who found a copy of SelectPhone on the street would not be affected by the shrinkwrap license."[37] In a formal sense, it is true that only parties to the contract are bound by it. But once we accept the distorted picture of contract formation endorsed by *ProCD*, we all become parties to these contracts, as even Easterbrook's own example shows. The stranger on the street who finds a copy of ProCD's product may not be bound the moment they pick it up. But once they install the program, "the software [will splash] the license on the screen and [will] not let him proceed without indicating acceptance."[38] Everyone who encounters the product is restricted in their use of it. Those restrictions travel with the product, much like the hypothetical restrictions on tuxedo rental forbidden by property law.

In the two decades since *ProCD*, EULAs have flourished. For the vast majority of us, these ubiquitous license terms are unnoticed, unread, and unreadable. The practice of entering into these so-called agreements has become automatic. We unthinkingly click "I Agree" when we buy a product online, when we download a new app on our phones, and when we log onto our online banking accounts. And thanks to lax standards for contract formation, we enter into binding legal obligations simply by visiting a website that links to a set of terms. By announcing their intention to bind you, the operator of any website can rope you into a contract. What used to require a meeting of the minds is now a unilateral exercise of power. Even after these one-sided agreements are formed, many allow the drafter to change the terms at any time without assent.

Under these circumstances, it is hardly surprising that people don't bother reading EULAs. Typically, the failure to read a contract is no excuse for breaking it. The law imposes a duty to read, and for good reason. When people know they are entering into an agreement, generally the reasonable thing to do is read it. Closing your eyes and plugging your ears doesn't get you off the hook. But the duty to read doesn't look quite so reasonable when the consumer has little reason to expect a contract is in the offing. And even when they do have reason to know a contract has been presented—when they confront the "I Agree" button—the duty to read should take into account the cost of studying the terms presented. If the duty to read is about making sure people behave reasonably, we might ask whether it is in fact reasonable to expect a consumer to read a *Macbeth*-length license before they make a 99-cent purchase.

So despite its widespread acceptance by courts, the notion that EULAs are enforceable contracts rests on a shaky foundation and leads to a slew of troubling consequences. But there's another way to think about the license agreement, one that more accurately captures how they function.

The EULA as Permission

If EULAs aren't contracts, what are they? The classic understanding of a license has nothing to do with mutual promises. A license is a pure expression of permission, one that requires no agreement to be effective. Let's say you are walking along a secluded country road and notice a picturesque lake in the distance. You decide to rest in the shade of a lakeside oak tree. But as you make your way closer, you see a sign that reads "No Trespassing." Despite your vigorous disagreement with being denied a peaceful afternoon in the shade, your assent, or lack thereof, is utterly irrelevant. You and the property owner don't have to agree that you keep out. The owner's assertion is all that matters. The same would be true if the sign read "Feel free to enjoy the shade, but absolutely no swimming." The moment you take a dip, you become a trespasser.

EULAs work in a similar way. The owner of an intellectual property right can define the circumstances under which others are allowed to use their creation. Sometimes they grant permission, other times they don't. And even though that permission might be memorialized in a written document, mutual assent isn't required for the limits on that grant of permission to be enforceable.[39] Let's say you write a hit song. General Motors comes to you and asks to put that song in a commercial. You tell them, "You can use my song, but only for ten seconds. And definitely not in a Buick ad." If they use a twelve-second clip of the song in a Buick Enclave commercial, they've infringed your copyright regardless of whether a contract was formed or not.

Nonetheless, most courts, commentators, and copyright holders continue to think of licenses as creatures of contract law. The free software movement is one notable exception. Developers of free software are committed to the idea that all users should be free to run software, study it, modify it, and redistribute it. Those core beliefs are reflected in free software licenses like the GNU General Public License, or GPL. Examples of free software products include the Firefox web browser, the Apache web server, and MySQL relational database software. As Eben Moglen, head of the Software Freedom Law Center and one of the drafters of the current version of the GPL explains, "Licenses are not contracts: the work's user is obliged to remain within the bounds of the license not because she voluntarily promised, but because she doesn't have any right to act at all except as the license permits."[40]

An approach that roots licenses in property law is preferable to one that treats them like contracts. It does away with the fiction of assent. That could make it easier for licensors to assert their wills, but it would also avoid the damage done to contract law by insisting that EULAs are enforceable agreements. So why don't we see more rights holders adopting this stance? One answer is path dependence. *ProCD* illuminated a clear and not particularly arduous path for enforcing license terms. Most rights holders—and their lawyers—are too risk-averse to rely on a sounder but largely untested argument.

The license-as-permission approach also helps clarify the relationship between the license and property ownership. A license does not—in fact, cannot—define property rights; it depends on predetermined property rights. A license is a tool that allows a property owner to control how others use a resource. Before a license can be effective, we have to know who owns what. If the party asserting the license doesn't own the property, the license is an empty gesture. If you post a "No Trespassing" sign in a city park, for example, it has no legal effect since that's not your property in the first place. If you don't own it, you can't license it. And the license itself cannot transfer ownership from one party to another. So before a valid license can exist, we have to know who owns the resource.

The requirement that the licensor have some property or statutory exclusive right is one reason the court in *ProCD* insisted that EULAs are contracts. ProCD's database of phone listings did not qualify for copyright protection; it was part of the public domain. As a result, ProCD had no legal right to exclude others from the information. It had no property to license. Contract law was the only way to impose restrictions on the use of what was essentially public property.

You can't use a license to prohibit joggers in the city park. Likewise, copyright holders can't use licenses to control behaviors that aren't within the scope of their statutory rights. But that doesn't stop them from trying. They try to prohibit things like negative reviews or reverse engineering—uses that are noninfringing and thus outside of their control. Those kinds of licenses are more like a "No Trespassing" sign that forbids you from describing the roadside lake to a friend. The lake's owner has property rights, but they just don't extend that far.

There are plenty of examples of valid copyright licenses. When a copyright holder grants permission to make a derivative work—say a novelist allows a movie studio to adapt a book into a film—that is squarely within the scope of the novelist's statutory rights. So are grants allowing the public performance of a play or the reproduction of a photograph in an ad campaign. Copyright holders can also license the distribution of copies that they own. If an artist lends—rather than sells—a sculpture to a museum, they can prohibit the museum from lending it to another institution. When they grant permission over uses within their statutory rights, copyright holders can give, withhold, or condition permission in all sorts of ways.

But not all rights related to a work belong to the copyright holder. Some are reserved for the public at large. Others are granted to owners of copies. One crucial function of the Copyright Act is to divvy up rights between creators and consumers. Without copyright law, the public could copy, distribute, and adapt every book, record, and film produced. But copyright law takes those rights away from the public and gives them to creators and their publishers. The public still has the right to make fair uses of protected works.[41] And eventually copyright expires, works enter the public domain, and the public is free to use them. But copyright law also carves out a set of rights for owners of copies of protected works. That's what the exhaustion rules embodied in sections 109 and 117 do. The law says that people who own copies have rights that the public at large doesn't. They can distribute their copies of books by reselling or lending them. They can publicly display their paintings. They can make backups and adaptations of their computer programs. Those are rights copyright holders would strongly prefer to control, but the Copyright Act gives them to purchasers instead.

By insisting that their products are licensed rather than sold, copyright holders are trying to get those rights back. The courts and Congress have decided certain rights belong to us, but the license is designed to overcome this default allocation of property rights. On the one hand, if we think of licenses as contracts, this transfer of property rights from copy owners to copyright holders makes some conceptual sense. Parties agree to transfer property rights all the time. You might agree to sell your house for a hefty sum, but that transfer depends on the mutual agreement of the parties. If, on the other hand, we think of a license as a pure expression of permission, a license attempting to reclaim exhaustion rights is about as effective as your neighbor declaring, over your strenuous objections, that they now own your spare bedroom. It just doesn't work.

When it enacted the exhaustion provisions in the Copyright Act, Congress intended to safeguard personal property rights. If that was the goal, it would be a very odd choice to allow copyright holders' unilateral edicts in the form of EULAs to eliminate those rights. It strikes us as highly unlikely that Congress went through the trouble of allocating rights to owners if those rights would ultimately be contingent on the kindness of copyright holders to refrain from reclaiming them.

Copyright holders assume that personal property rights are theirs to grant or withhold. And on some level, that is true. A copyright holder can choose not to release a work to the public at all. They can leave it in a vault collecting dust. Or they can choose to exhibit it publicly, but refuse to sell individual copies, as hip-hop group the Wu-Tang Clan did with a recent album that required fans to visit a museum to hear the single copy produced.[42] Copyright holders can choose to lease or rent their works to the public, but not sell them. But whether or not a transaction is a sale that transfers ownership can't be up to the rights holder alone. Understood properly, licenses that attempt to redefine consumer property rights in their purchases fail.

In part, that's because property law puts limits on the kinds of transactions the law will recognize. You can enter into a contract that obligates you to refrain from renting your tuxedo, but you can't sell a tuxedo with a no-rental restriction that is enforceable against the world. Allowing those kinds of idiosyncratic restrictions defeats one of the main benefits of personal property law—clear legal rules that reduce information costs. The economy would grind to a halt if every consumer transaction required a diligent investigation into the strings attached to every apparent sale. Instead, we need some objective basis for determining whether consumers are owners or not. But courts have struggled mightily to come up with a workable test for identifying sales.

Defining Ownership

So how can we tell whether or not a reader, listener, or user owns something? Too many courts, especially in cases dealing with software, have turned to license agreements, on the assumption that what they say goes. As long as the copyright holder recites some variation of the magic words "this is a license, not a sale," you don't own anything.[43] The better approach, which a number of courts have adopted, turns to some source of publicly made law. They might look to centuries-old common law property rules, or the rules governing the sale of goods outlined in the Uniform Commercial

Code,[44] or the internal rules of intellectual property law. These sources focus on objective facts about a transaction, not just the self-serving claims made in the license agreement.[45]

The Copyright Act, for example, grants copyright holders the exclusive right "to distribute copies … to the public by sale or other transfer of ownership, or by rental, lease, or lending." This language suggests that copyright law recognizes two kinds of transfers of copies. First, we have permanent transfers: sales or gifts. Second, we have temporary transfers: rental, lease, or lending. The first are transfers of ownership; the second are not. The question then becomes which of those two categories is a better fit in a particular circumstance. Plenty of transactions are easy enough to characterize as a rental, lease, or lending. You don't own the books you borrow from the library. And your Netflix subscription doesn't give you a property interest—personal, intellectual, or intangible—in the movies you watch. But when you pay a one-time fee for a copy of, or permanent access to, an ebook, game, or other digital media, that should be recognized as a sale that transfers ownership of a tangible or intangible asset.

Courts struggle to define and identify sales in large part because they can't decide whether to rely on the privately drafted declarations of copyright holders or facts about a transaction beyond the license. There is no better example of this floundering than a pair of cases argued on the same day in front of the same three-judge panel of the Court of Appeals for the Ninth Circuit, a court whose territory includes both Hollywood and Silicon Valley. Both cases involved the resale of copies despite license terms prohibiting transfer. And both cases turned on the question of copy ownership. If the defendants owned their copies, they were free to resell them. But if the copies were licensed, reselling them was an act of infringement. After years of inconsistent decisions, many hoped these cases would clarify the question of consumer ownership. Although the license agreements in both cases imposed nearly indistinguishable restrictions, the judges reached very different conclusions, relying on two incompatible approaches. In one case, ownership was determined on the basis of objective evidence about the nature of the transaction. In the other, the court relied solely on the pronouncements of the copyright holder.

UMG v. Augusto involved the resale of promotional CDs. Record labels frequently send free CDs to critics, bloggers, and other tastemakers. Inevitably, those CDs end up for sale at used record stores. Troy Augusto made his living buying used CDs—including the relatively rare and profitable promo CDs—from local record stores and reselling them on eBay. Augusto figured that since he owned the discs, he was entitled to resell them. But

Universal Music Group insisted that he didn't own the CDs because of a license printed on the discs. That license claimed that the discs remained the label's property, limited recipients to noncommercial use of the discs, and prohibited resale and transfer. Nonetheless, the Ninth Circuit held that ownership of the discs transferred to their recipients upon delivery and, eventually, to Augusto. Although it cast some doubt on whether the notice was enough to form a binding agreement, the court focused on Universal's method of distribution. Universal made no effort to keep track of the CDs it claimed to own once they were shipped. After dropping them in the mail, it had no control over how they were used or by whom. And Universal had no means of collecting the CDs it claimed it owned. The discs were under the control of the recipients, who were free as a practical matter to use them as they pleased.[46]

The other case, *Vernor v. Autodesk*, centered on the resale of software discs. Like UMG, Autodesk argued that the notice accompanying its software meant that end users who paid thousands of dollars for copies did not own those plastic discs. Autodesk merely "licensed" them. Rather than considering the kinds of factors they relied on in *Augusto* however, the judges created a three-part test that asked (1) whether the copyright holder called the transaction a license; (2) whether it restricted transfer of the software; and (3) whether it restricted use of the software. Since Autodesk's license terms contained the necessary language, the court concluded that Autodesk, not the end user, owned the discs.

The *Vernor* test is flawed.[47] It hinges entirely on self-serving proclamations from the copyright holder. By reciting the appropriate magic words, a rights holder can avoid a sale regardless of the objective reality of the transaction. Even if you pay a one-time price for an item you get to keep forever, as long as the license repeats a few key phrases, no sale has occurred. The test also begs the question. The reason we need to decide if there's been a sale is to know whether the buyer can transfer their property over the objection of the copyright holder. Under the court's test, copyright holders can defeat the buyer's property claim by objecting to resale and lending. But to an owner, those objections are irrelevant; so they don't help us answer the question of ownership. Again, that's because licenses depend on clear property rights; they don't define those rights.

We think there is a better way to answer the ownership question—one that is more accurate, reliable, and fair. As other courts have recognized, the economic reality of a transaction is the best guide to deciding whether a sale has occurred.[48] There are three considerations that offer strong indications of ownership: (1) the duration of consumer possession or access; (2)

the payment structure of the transaction; and (3) the characterization of the transaction communicated to the public.

Under the first factor, we follow the lead of the Court of Appeals for the Second Circuit, which said it would be "anomalous" to treat a user as anything less than an owner when their "degree of ownership of a copy is so complete that he may lawfully use it and keep it forever, or if so disposed, throw it in the trash." Under the second factor, someone who pays a one-time fee is more likely to be an owner than someone whose access depends on ongoing payments. If you need to pay a monthly fee to access a collection of movies, for example, you are a subscriber, not an owner. Under the third factor, we take into account the way a transaction is presented to the public. If a service is clearly advertised as a subscription, for example, ownership is harder to argue. The hard question here is what communications count. Copyright holders want their license terms to be dispositive. But as we all know, people rarely read them. More importantly, the fine print is often overshadowed by the simple language used to market digital media. Apple, Amazon, and others implore you to "Buy Now," "Purchase," and "Own It in HD." We think those kinds of statements are more important in establishing consumer expectations and should figure heavily in the determination of consumer rights.

If courts consistently thought through these considerations, they would reach conclusions about ownership that were fairer and more intuitive. More of us would own the products we buy and enjoy greater freedom to use and transfer them. It would also mean that rights holders would have a harder time configuring bespoke bundles of rights. That loss of flexibility could have an impact on price. Without the ability to tailor licenses, they argue, it will be more difficult for rights holders and retailers to tailor their prices. We interrogate those claims below.

Licensing and Price Discrimination

Licenses facilitate price discrimination. *ProCD v. Zeidenberg* illustrates this point well. ProCD wanted to sell its database to two different groups of customers at very different prices. Businesses like telemarketing companies were willing to pay high prices for ProCD's database. But the average person has less money to spend and less interest in a phone database. So the price had to be lower. If ProCD charged a high price, businesses would buy, but normal people wouldn't. If it charged a low price, both would buy, but ProCD would be leaving money on the table since businesses would have paid the higher price. The solution is price discrimination. Charge businesses high prices, and charge the average user low prices. By doing so, ProCD can maximize its profits.

From a seller's perspective, the ideal world would look something like this. Information about each potential customer's preferences, needs, buying habits, bank account, physical condition, and emotional state would give the seller real-time information about exactly how much they are willing to pay for a particular product. Running late? Expect higher gas prices. Parched after a long run? Expect to pay twice as much for that bottle of water. Just got paid? Phone battery about to die? Expect your Uber to cost twice as much. Expect those new shows you've been eyeing to cost a few dollars more. Despite the terabytes of consumer data collected in servers across the globe, the dream—or nightmare—of perfect price discrimination isn't yet a reality. But we seem to be on our way.[49] Google recently patented a technology that allows it to predict—leveraging the massive digital dossier it has compiled over the years—how likely a customer is to buy a particular product and adjust prices accordingly.[50] Not to be outdone, Facebook patented a technology that helps lenders discriminate based on borrowers' social connections.[51]

But there are other, less precise ways to discriminate. Sellers can offer slight variations of the same product at differing prices. Bulk sales are one familiar example. Buyers who are price sensitive can get a year's worth of ranch dressing at their local warehouse store. And those with more money to spend can buy a single bottle. Or think of airlines. Coach and first class passengers get essentially the same service—transportation from one city to another. But first-class passengers pay for bigger seats, better food, and more personal service. And airlines don't just divide customers into coach, business, or first; United, for example, relies on over twenty different fare classes, each defined by its own sets of perks and restrictions—and each with its own price.

Sellers can also discriminate between different groups of consumers, determining prices on the basis of various demographic proxies for willingness to pay. That's what ProCD did when it divided the world into commercial and noncommercial users. That's what John Wiley tried to do when it divided the college textbook market into the United States and everyone else; what restaurants do with early bird specials; and what movie theaters do when they offer student discounts.

Resale can disrupt these carefully laid plans. Price discrimination depends on the ability to limit arbitrage—the practice of buying goods at low prices in one market, and selling them for more in another. If individuals can buy cheap copies of ProCD's database and sell them to commercial users, ProCD misses out on potential revenue. That's one reason rights holders prefer licenses to sales. With a license, there is no exhaustion, no property rights, no resale, and no arbitrage. They can be sure that their preferred pricing scheme won't be undermined by enterprising resellers. The question isn't why sellers want to put a stop to resale markets, it's whether we should let them.

Advocates of price discrimination argue that it benefits consumers, or at least that it can. First, price discrimination—the argument goes—can keep prices low by requiring wealthy buyers to subsidize more price-sensitive shoppers. Second, it creates incentives for product differentiation that increases consumer choice. We think there are good reasons to be skeptical of both of these theoretical upsides. We acknowledge that there are times when particular subsets of consumers benefit from price discrimination. But on the whole, it is a strategy that transfers money and control from the public to rights holders.

Let's think about price first. How does price discrimination keep prices low? Without price discrimination—as Judge Easterbrook argued—ProCD could be forced to raise its prices. Instead of selling its low-cost product for $150, it might have to raise the price to $200 to account for lost revenue from higher-priced sales to commercial users. This is essentially the same argument John Wiley made to the Supreme Court; if it couldn't discriminate against U.S. students through high prices, it would be forced to raise the prices for Thai students. These examples both show how price discrimination can help relatively poor consumers at the expense of wealthier ones. Assuming you support this redistribution of wealth, you might question whether these implicit subsidies should be entrusted to private actors or if instead they should be crafted through public debate and decision making.

Nor is it the case that price discrimination always favors the poor at the expense of the wealthy. The market for consumer credit, for example, is just the opposite. For the wealthy, credit is cheap and convenient. For the poor, it's anything but. Credit is expensive, and subsistence credit card users are among the industry's most profitable customers.[52] Mortgages, home loans, and even groceries cost more for poor families than rich ones.[53] Ultimately, which group benefits from price discrimination—rich or poor, domestic or foreign, young or old—depends on what's best for the seller. *ProPublica* recently reported that Asian families are charged higher prices by the test prep company Princeton Review, for example.[54] And a recent White House report noted that, as online intermediaries gather more information about us, these practices "raise the specter of 'redlining' in the digital economy—the potential to discriminate against the most vulnerable classes of our society under the guise of neutral algorithms."[55]

First and foremost, price discrimination is a strategy for maximizing the seller's profit at the expense of buyers. Imagine a market without price discrimination, one in which every buyer pays the same price for a given product. In that market, let's say this book costs $20. Readers who value it at less than $20 won't buy it. Don't worry, we won't be offended. Those that value it at $20 or more will buy it. Let's say you think this book is worth $25. When you buy it for $20, you realize a $5 surplus—the difference between your personal valuation of the book and the price you actually paid. Across the economy as a whole, that surplus is worth trillions of dollars to consumers.

To sellers, that surplus represents untapped revenue. The goal of price discrimination is to reduce the consumer surplus to zero. If you value the book at $25, that's what you pay, and not a penny less. As we are divided up into smaller groups, prices can be more carefully tailored to match our willingness to pay. When that happens, the consumer surplus goes down and sellers come away with more of our money. As the economist Louis Phlips put it, "Price discrimination aims at taking the entire consumer surplus away from all customers, if possible."[56] So to the extent we benefit from price discrimination, sellers see that fact as a bug, not a feature. Not surprisingly, most people are wary of price discrimination. A University of Pennsylvania study found consumers overwhelmingly object to price discrimination, viewing it as morally wrong and legally suspect.[57]

That's not to say we shouldn't care about affordability and making products available to those with fewer resources. But we think the secondary markets for resale and lending that exhaustion makes possible are a better way to achieve that goal. Secondary markets keep prices down more efficiently, more reliably, and without the collateral damage of price discrimination.[58]

The second argument in favor of price discrimination is that it increases the number of options in the marketplace. Because it encourages product differentiation, price discrimination results in increased consumer choice. Think of the array of options available on a new car. Each accessory you add creates a slightly different product, one customized for you. And it's not just big ticket items. Nike and Converse now let shoppers customize every square inch of their shoes.[59] You can even buy M&Ms bearing the message or image of your choice. Custom products aside, a trip down any aisle at the grocery store reveals the staggering number of choices. Crest, for example, sells forty-one varieties of toothpaste in the United States alone.[60]

When we make important decisions—which house to buy or what college to attend—an ample supply of choices can be helpful. But for more mundane choices, an overabundance of options leaves us in a market that is more difficult to navigate.[61] The surfeit of product features, ingredients, sizes, and quantities—each with their own impact on price—can undermine our ability to draw comparisons between products and make informed decisions. By increasing the cost of information, customization can make it harder to know whether you are paying a fair price and increases the risk of buyer's remorse. Licenses are a perfect vehicle for this sort of price discrimination. They allow nearly infinite flexibility to craft whatever combination of rights a seller can imagine. If there's reason to think some consumers will pay more for a license that lets them read their ebooks in the bathtub, it's easy enough to capture that surplus. And since license terms are rarely read or fully understood, they reinforce the opaque nature of pricing.

We are not opposed to consumer choice. In fact, we think meaningful options are crucial to the functioning of markets for digital goods. But there comes a point at which additional choices do more harm than good. For obvious and important product attributes—like whether you are buying a movie directed by Jean-Luc Godard or one starring Jean-Claude Van Damme—the more choices, the better. But when it comes to nearly indistinguishable variations between license agreements, additional options harm the public on the whole. We aren't suggesting a one-size-fits-all solution that requires everyone to own the media they consume and the devices they use. We do think, however, that rental and subscription models offer clear, easy to understand alternatives and considerable flexibility. Netflix, for example, charges one price for individual users and another for its family plan. And unlike licenses, rentals and subscriptions don't result in ambiguity about whether a sale has occurred. As we detail in the next chapter, licenses create considerable uncertainty about precisely what we get for our money.