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Owned

Property, Privacy, and the New Digital Serfdom

Joshua A. T. Fairfield • Cambridge UP © 2017 • 260 pages

Management / Risk Management / Intellectual Property
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Take-Aways

- You own all your physical possessions outright. But despite what you may think, you own few of your digital items and have little control over them.
- Changes in technology alter the classic nature of tangible property.
- Digital technologies create intangible property.
- The Internet of Things (IOT) affects society and the economy by gathering and distributing personal information.
- In this way, the IOT fundamentally alters the definition of privacy.
- Property rights matter, because property supports human freedom, personal identity, self-expression and wealth creation.
- Recent court decisions apply copyright law to digital property in inappropriate ways.
- When individuals control their property, they control their lives.
- Bitcoins and the blockchain show how technology can revolutionize real property.
- Policy makers should strengthen individual ownership, revise laws and reduce contractual limitations.

Recommendation

Law professor Joshua A.T. Fairfield's fascinating – and at times downright scary – study of how digital technology changes property rights touches on real-world court cases as well as on game-world magical swords. Fairfield cautions that society faces a crisis as technology reshapes the complicated arena of property rights. He sounds the alarm about dangerous developments eroding those rights, discusses implications and solutions, and explains why all this matters and what to do about it. *getAbstract* recommends his timely warning to anyone concerned about property, privacy, digital culture and personal freedom.

Summary

Property, Digital and Otherwise

You own all your physical possessions outright. But despite what you may think, you own few of your digital items and have less control over them than over your other belongings. Digital technology is reshaping property rights.

There are three types of property: “traditional,” “smart” and “digital.” Traditional property rights let owners sell, destroy or repurpose their possessions. Smart property refers to property that software enhances. Digital property relates to objects that could include, for instance, a copy of a movie or a magical sword in an online game. What do people actually possess when they own digital property? What can sellers of digital items still do with them after they're sold?

“Property ownership as we know it is under attack and fading fast.”

Property rights allocate access to scarce resources. Private ownership enables people to build houses, develop businesses and lead autonomous lives. In the old feudal model, individuals didn't own the land on which they lived and worked; rulers and kings held all the real estate. The digital transformation returns property to a feudal model.

“Information about consumers became the currency of the Internet, and commercial surveillance became its funding model.”

Changes in technology alter the classic nature of tangible property. Digital technologies create intangible property. Early on, because judges couldn't physically touch digital objects, they applied intellectual property law to them. Complications arose: People could resell a physical CD but not a digital copy of the same music they'd purchased online and downloaded. This ambiguity has a negative impact on creators and consumers; it extends control rather than enabling creation.

Intellectual Property

Copyright protection falls under intellectual property law, which guards ideas in specific expressions, like songs. Copyright laws say that only creators have the right to make copies of their works. Since people distribute software by making copies, applying copyright law gives digital creators sweeping rights. Some

firms argue that when users turn on their computers, they automatically agree to seller stipulations, such as employing only approved repair technicians.

“We own and control fewer and fewer of the products that we must use to function in modern society.”

Firms apply technology to prevent buyers from copying the digital material they purchase. Restraints that firms impose on the use of digital objects benefit companies, not consumers. Sellers force customers to deal only with them. This changes what it means to sell something. Users essentially enter into contracts for the use of a digital item when installing software. By consenting to the user agreement, they concur that they’re making a copy, thus surrendering ownership rights without their explicit knowledge or understanding.

The Internet of Things

The Internet of Things (IoT) enables machines to communicate with one another without involving humans. Some estimates indicate that more than one trillion sensor-based devices will connect to the Internet or each other by 2025. A smart device will report where it is, what it’s doing and who is directing it. This transforms privacy and the nature of property.

“Technology itself is not the problem. The problem is when our devices serve the companies [that] made them rather than the people who purchased them.”

The network of IoT sensors will include cities, houses and workplaces. Robotics and “virtuality” will extend the IoT even further. At present, people control the sensors built into their homes. That may change if individuals sign away more of their rights. Consumers and corporations will clash over who controls the smart objects embedded in homes. Strengthening property rights now would give people more control over the information their connected devices broadcast.

“One really easy way to tell others that you claim something is to pick it up – to possess it.”

Traditional property serves as a “repository of wealth.” People buy houses, live in them and resell them, ideally for a profit. You can’t resell a digital object; it doesn’t protect your wealth. Traditional property is “decentralized and local,” while digital property is “centralized and global.” Traditional property rights, however, still govern elements of the IoT, like your headset.

Property Rights and Independence

When individuals control their property, they control their lives. Limiting property rights limits independence. Ongoing changes could transform people from autonomous citizens ruling their destinies to “digital tenants.” Imagine a pacemaker that uses smart technology: If the owner loses control of it, the result may be life threatening. Someone who buys a physical book may have it for life, but the owner of an ebook may find that the distributor erased it overnight.

“The Internet of Things creates an information-linked and information-responsive reality.”

Your possessions contribute to your identity and to how others see you. Losing sway over digital possessions may compromise the conventional notion of personal identity. If you no longer supervise the data about you, sellers may subject you to “price discrimination.” When companies know what you buy, they know what you can afford, and they can adjust online prices accordingly, just for you. Access to this data ensures that each item sells for the maximum amount possible to each unique buyer. This works against the poor, because it takes into account not just their ability to pay but also their lack of options.

Property and Privacy

Property has many benefits in and of itself that protect privacy. Traditional property contributes to privacy by placing limits on what non-owners can do, such as restrictions on search, seizure, and trespass. Ideally, property and privacy would exist in a mutually beneficial conceptual and legal relationship that participants enter into with care.

“We should be able to invite people onto the digital equivalent of our front porches but boot them out if they...rummage through the digital equivalent of our refrigerator or bedroom.”

In legal tradition, people have reasonable expectations of privacy in some cases, such as inside their homes. Yet new sensor technology makes the boundaries of traditional property less precise. Techniques like thermal imaging can monitor what’s happening inside a house without anyone accessing it physically. With smart property, such as cars with GPS, the question of privacy grows more complex. In a US court ruling, the best argument for protecting privacy asserted the right to privacy itself and called for strengthening property rights. Only recently have courts articulated laws governing cybertrespass.

“Physical property encodes information about the number of people who can use it through the physical characteristic of rivalrousness.”

To safeguard privacy in the age of IoT, society should update and fortify regulations on property rights. The idea of homes as protectors of “intimate information” should extend into the digital realm. The law should treat smart objects like containers: Just as no one should be allowed to access your briefcase without your permission, no one should get the data in your phone or email without your approval. People should expect privacy in the objects they control, including digital objects. Regulators should upgrade the concept of privacy to cover data generated by smart objects.

Property and Information

Treating all digital or smart property as intellectual property is too narrow. That puts, for example, money and a downloaded song into the same category. Viewing all property as physical doesn’t work, either. Even the most traditional property isn’t merely physical: It includes information about relationships in time and space. Traditional property rights work well in the digital realm – and should apply there. Sound rules governing property work “horizontally”: They let people communicate information about property directly.

“Property cannot replace privacy rights, but it can bolster them.”

Property rights convey the owners’ wishes. Possessing something is an easy way to stake a claim to it, but possession isn’t enough; you need “provenance” and “vertical information.” Provenance documents the history of a resource and the context of how its ownership evolved. Vertical information, like a will, communicates who gets the property after the current owner. Property law – and legal cases involving it – simplify, clarify and streamline property’s informational attributes. They reduce the transaction costs related to property, ownership and exchange. Physicality doesn’t communicate everything about property, but it does communicate “the extent of property.” When an object lacks physical unity, buyers and sellers must negotiate the extent of ownership. Physicality conveys “rivalrousness” – that is, if one person owns something, another cannot own it simultaneously.

“Modularity”

The principle that Harvard law professor Henry Smith calls modularity would treat digital property like most physical property: as if it had a single owner. Applying property concepts to smart objects is easier than applying them to purely digital possessions, because these lack clear boundaries. Establishing ownership requires adding limitations, as people do with licenses. At its heart, property isn’t just physical. Recognizing that it is informational holds major implications for the future of property.

Property and the Blockchain

Bitcoin’s use of blockchain technology – or a cryptolledger – suggests ways that technology can revolutionize real property. Tracking digital resources used to be difficult, but the blockchain provides an encrypted log of transactions. Though bitcoins are as intangible as any other digital property, the blockchain keeps them secure and rivalrous – that is, having one owner at a time.

“Using the blockchain, we can recreate the power of everyday property in the online context.”

This lets people accurately track digital exchanges. The blockchain applies encryption to recordkeeping to remove threats of “double spending” or counterfeiting. The blockchain produces a completely secure ledger that is open to public inspection. People can exchange property online as easily as in the physical world. If this technology spreads, it will lower the cost of transactions. Because the system is so trustworthy, people can do less to monitor and ensure their dealings. Blockchain ledgers decentralize property and facilitate its exchange.

Setting Ownership Free

The early 21st-century “battleground” encompasses digital and smart property that belongs to consumers. Producers have long maintained a stranglehold that prevents users from benefiting from their property as they see fit. Consumers need to “jailbreak ownership,” which basically means freeing electronic devices from the constraints that manufacturers build into them to prevent users from changing the software and hardware. Four top-priority tasks for returning ownership to where it belongs include:

1. “Restore Ownership Rights to Property Owners”

Laws to update “smart and digital property ownership” would include the entitlements that digital ownership demands. “The right to hack” is an extension of well-established property owner claims. Just as homeowners can paint rooms, people should be able to remove unwanted programs from smartphones. This includes the ability to reject automatic software updates as well as the rights to resell any digital object, to run programs not made by the device’s makers and to use programs in new ways. Owning digital property should let you exclude other people from using it or gathering data through it.

2. “Reach the Limit of Contractual Licenses”

The current wording of user contracts gives program creators extensive permissions that should be curtailed. Anyone creating and selling a physical product has limited ability to tell buyers how to use that product. The same should be true for digital objects. Legislation must distinguish among the types of legal rights to digital objects. For example, breaking a contractual agreement may not have anything to do with copyright: Someone could cheat in a video game without violating the copyright.

3. “Make Minimum...Changes to Statutory Law”

Adjusting certain aspects of the US Digital Millennium Copyright Act of 1998 would let people modify their devices. For example, lawmakers should get rid of DMCA Section 1201, so people can tinker with their possessions. Digital rights management (DRM) should focus on illegal copying, not on personal use. The US Federal Arbitration Act keeps consumer cases out of the court system, so they don’t contribute to common law tradition. Legislators should reverse this practice to permit consumer arbitration cases to shape common law.

4. “Foster Technological Shifts to Jailbreak Ownership”

Regulations should support technology advances such as open source, root access and modularity, which let users set their devices free from the confines imposed by manufacturers. Make digital devices modular, so consumers can transfer components from machine to machine as they see fit. Large “first-party developers” like Google and Apple should champion digital user rights. Lawmakers should implement default rules to protect consumer privacy, such as making Do Not Track the standard default choice.

About the Author

Joshua A.T. Fairfield, JD, is a law professor at Washington and Lee University, where he specializes in technology and digital property.



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