

IEEE P1817 Standard for Consumer-ownable Digital Personal Property

Consumer Ownership

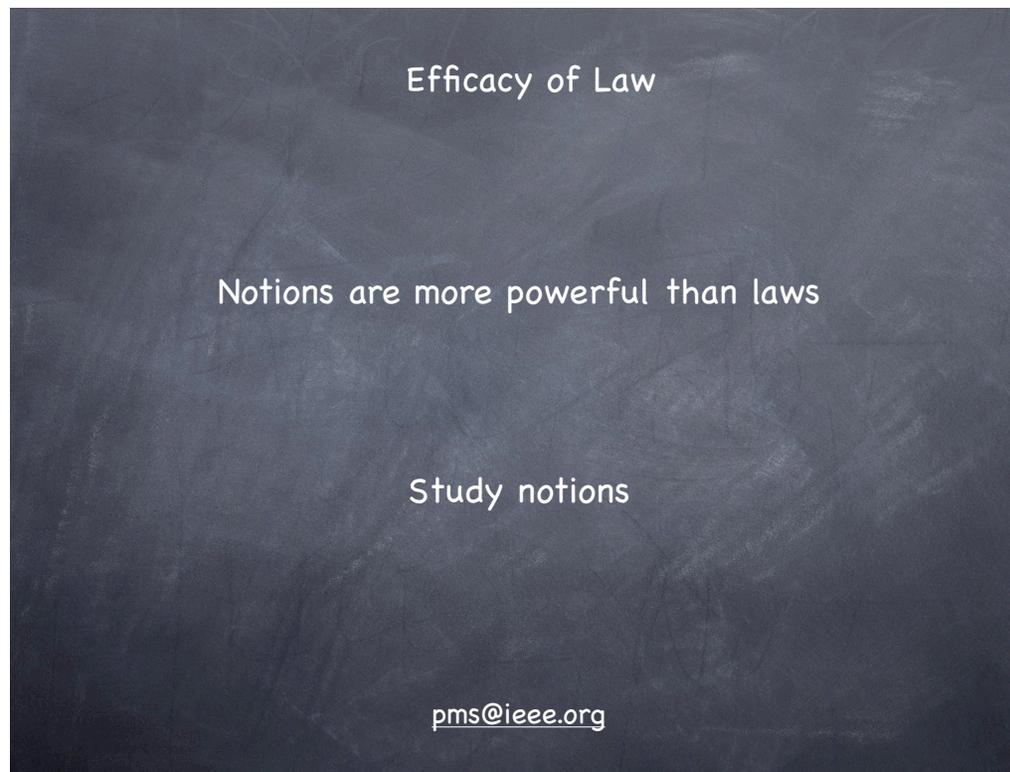


Paul Sweazey, Chair, IEEE P1817

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Hi. My name is Paul. I'm going to talk about consumer ownership, not just of tangible personal property, but of downloadable, digital personal property.



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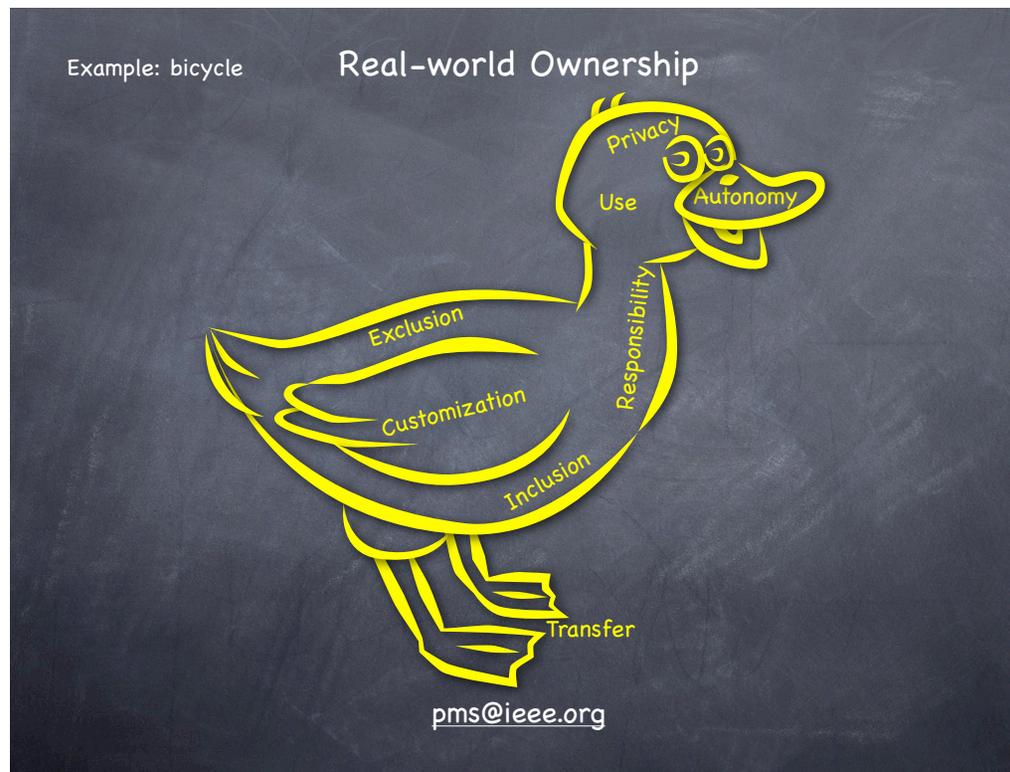
Here is my (rather safe) theory about the efficacy of laws and legal instruments. A law that strays too far from the collective notion of humanity, regarding what is fair, is a law that will not be honored.

Notions are more powerful than laws. To know what laws humans will respect, study their notions of justice. You can't legislate a change to human nature. **Study** notions.



3

Can you define the consumer notion what ownership means, or what personal property is? We aren't looking for a legal definition, but still a precise **human** definition. I'll show you a definition by employing the **duck** test. If it looks like a duck, waddles like a duck, and quacks like a duck, then it must be a duck. Let's define the ownership duck.

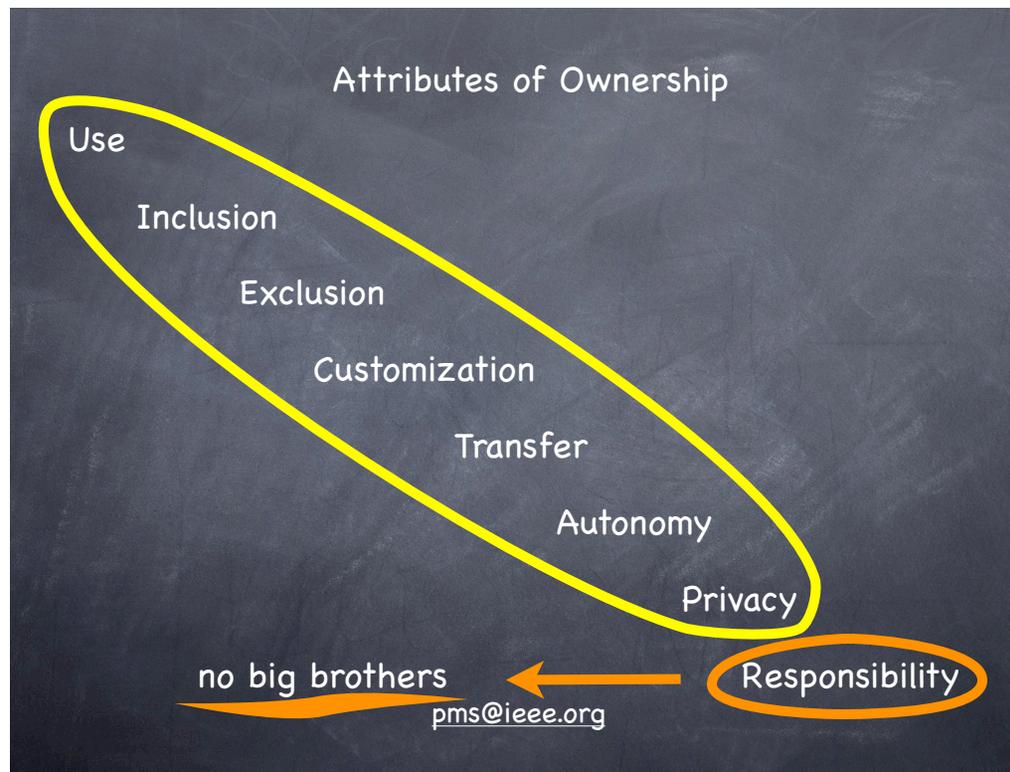


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A kid owns a bicycle. He can **use** it for whatever he wants, for transportation or acrobatics or blocking the front door. He can let anyone ride it (**inclusion**), he can say, “You can’t ride it” (**exclusion**), he can remove the fenders or add a headlamp or let rust grow all over it (**customization**), and he can give it to his younger sibling or sell it to a stranger (**transfer**).

Once he grows up his parents won’t be able to tell him what he can and can’t do with his bike (**autonomy**) or monitor his actions (**privacy**). He can risk losing his bike by leaving it out overnight or lending it to the friend of a friend (**responsibility**).

This is the Ownership Duck.



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Just by imagining a kid and a bicycle, we have a pretty formal looking definition for our notion of ownership. **U**se, **i**nclusion, **e**xclusion, **c**ustomization, **t**ransfer, **a**utonomy, **p**rivacy, and **r**esponsibility. All of **these**, with the exception of responsibility, are freedoms. And **responsibility** is a natural consequence of the risky freedom: **no big brothers**.

Sometimes we abridge these rights in the interest of public safety or our general welfare, but which of these would you consider to be not necessary, or not fundamental, to what it means for you to own something?

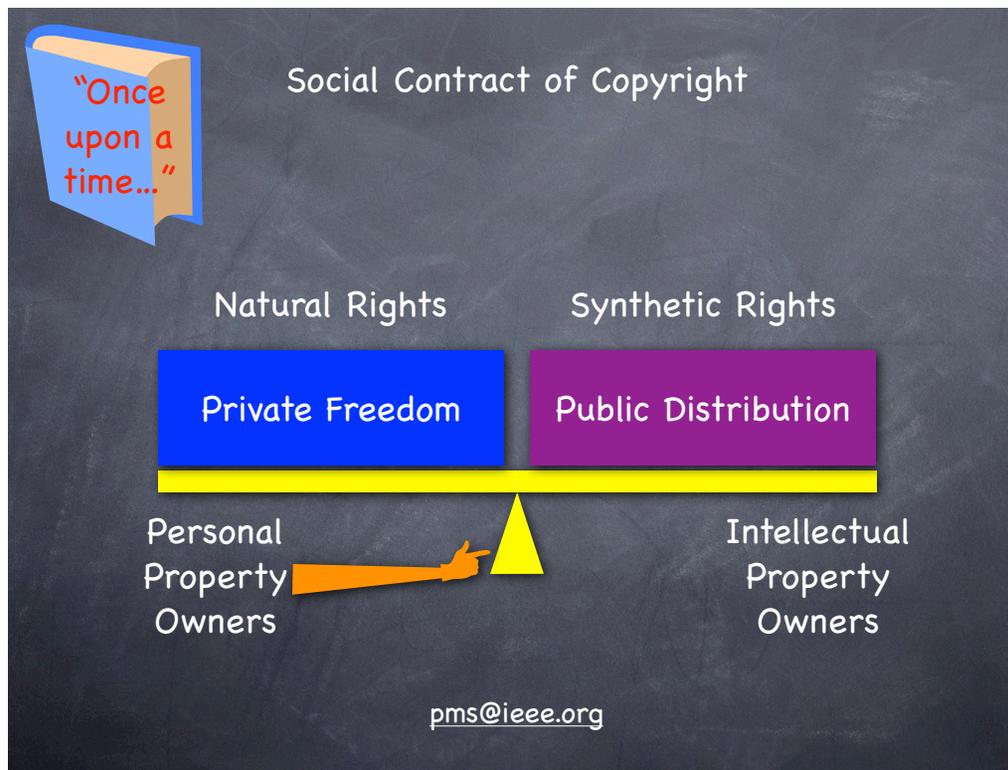
You already know this list — intuitively.



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A book is a consumer-ownable object, **even** though it contains a recording of an intellectual property. While we don't own the IP, the whole point of the book is to let us own — as **personal** property — a **private instance** of intellectual property. We do not forego our natural personal property right of **unconstrained usage**; we **abridge** it by limiting our behavior to **private use**, and we grant to the **IP owner** the right of public **dissemination** — public distribution.

We consumers decide for ourselves where to **draw** the line between private and public.



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The validity of copyright is based on an implicit social contract — a **balance** of abridged **natural rights** and temporary **synthetic rights** for the benefit of society: we **personal property owners** grant to **intellectual property owners** the right of **public distribution**, whereas we retain **private freedom** in our use of the **physical product** and the **IP** within it.

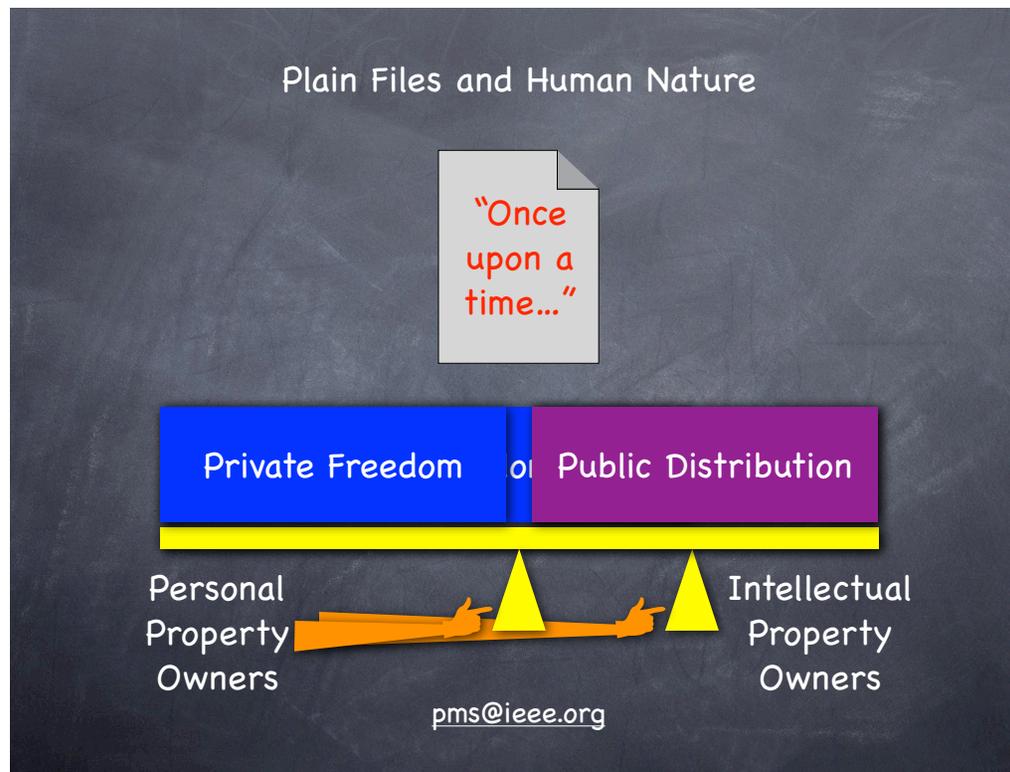
And people draw their **own line** between public and private, not IP owners. That is the social contract that makes copyright fair and acceptable. Copyright would never have succeeded if it required sacrificing private freedom.



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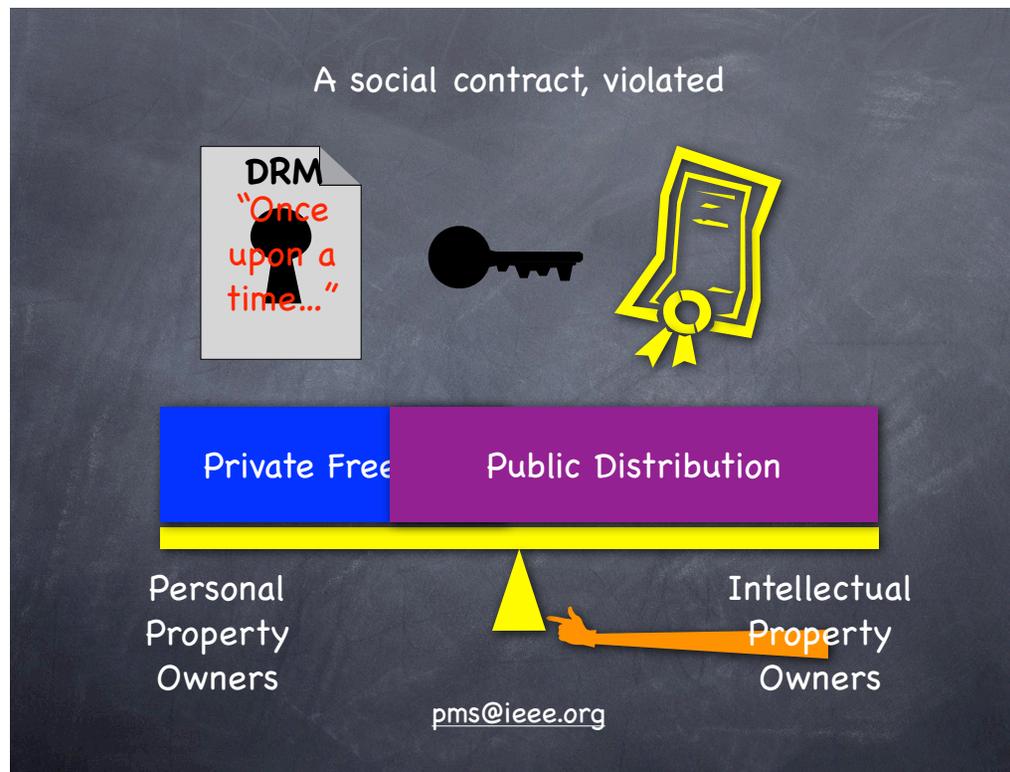
Now let's talk about downloadable products — movies, music, books, games. The delivery method isn't really important, but it is convenient that when we say "**downloadable**", everyone understands that there isn't a particular, singular, physical object for us consumers to own.

When we buy and download, IP owners aren't providing the **recording** medium, just the data to be recorded.



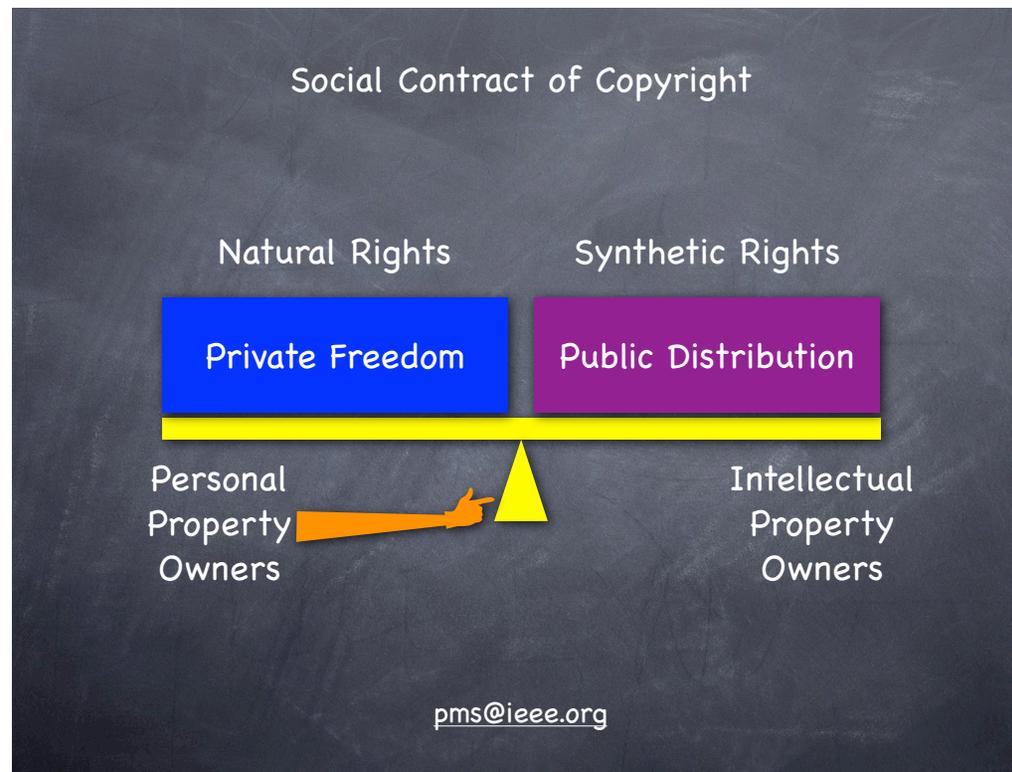
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We all know perfectly well what the problems are with distributing **plain** files. The economic balance is **disturbed** as IP owners lose their exclusive control over public distribution.



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So IP owners employ digital rights management (**DRM**), they control **encryption keys** to limit consumer behavior, and they apply end user **license** agreements — contracts — to legally limit consumers beyond what copyright law would support. It may be understandable, but their methods to control **public** distribution encroach on people's **private** behavior. Against the will of consumers, **IP owners**, decide where private behavior **ends** and public distribution begins. DRM violates consumer sensibilities by honoring a synthetic right over a natural right.



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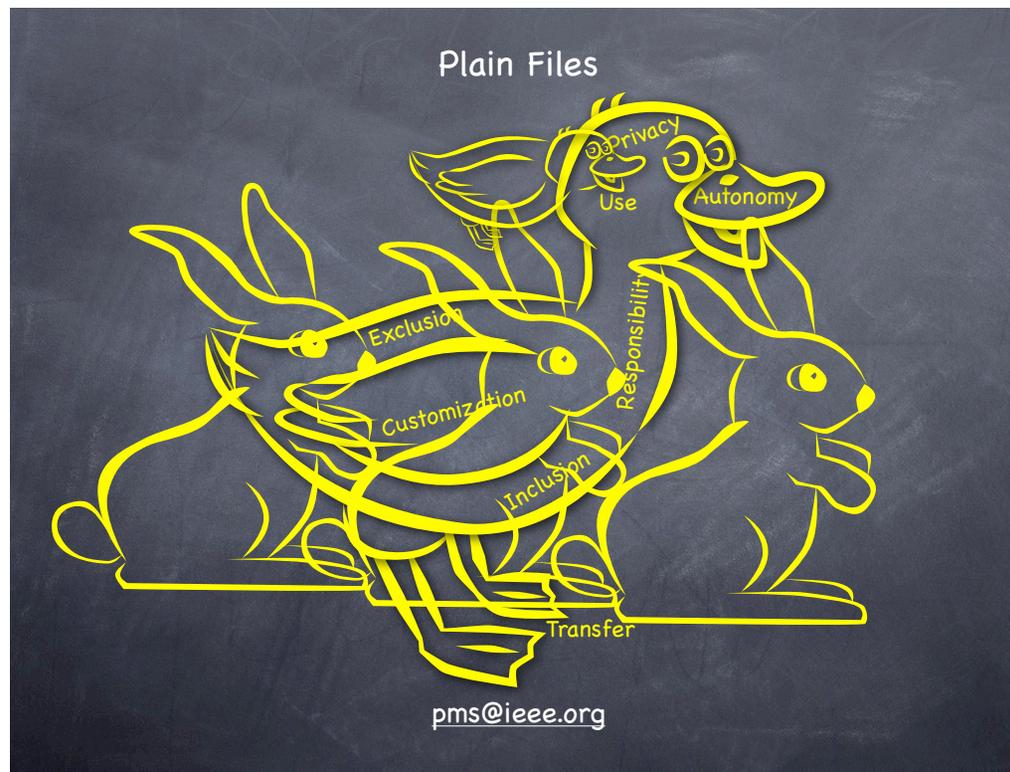
This is the picture that leads consumers to honor copyright. Any viable solution to the sale of downloaded products must preserve this balance. The **synthetic** must not supersede the **natural**, or else the public will reject it.



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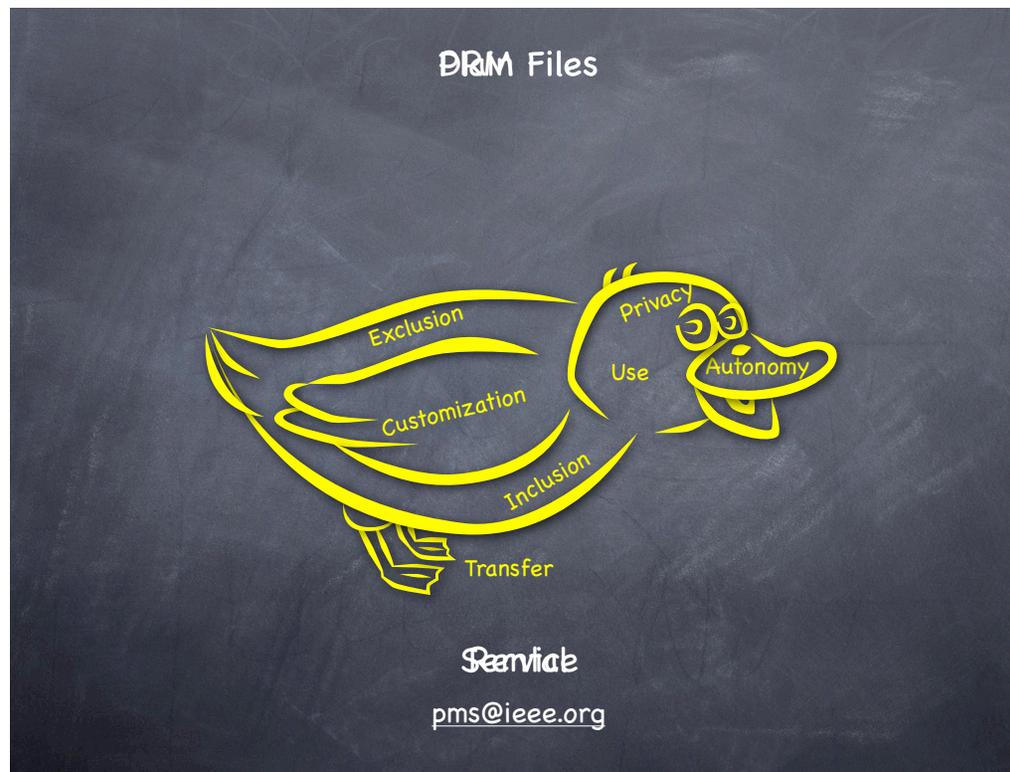
The thought that corporations or governments could ban all consumer ownership is make-believe, of course. Now consider today's actual digital marketplace: **licensed** services, unowned products, virtually no intent to grant actual ownership. Two epidemics result: (1) **not-for-profit** ripping and file sharing, and (2) **for-profit** counterfeiting. Why? To get **Big-Brother-free** goods.

The lesson? **Ownership happens** (or the nearest practical approximation of ownership), whether you want it to or not.



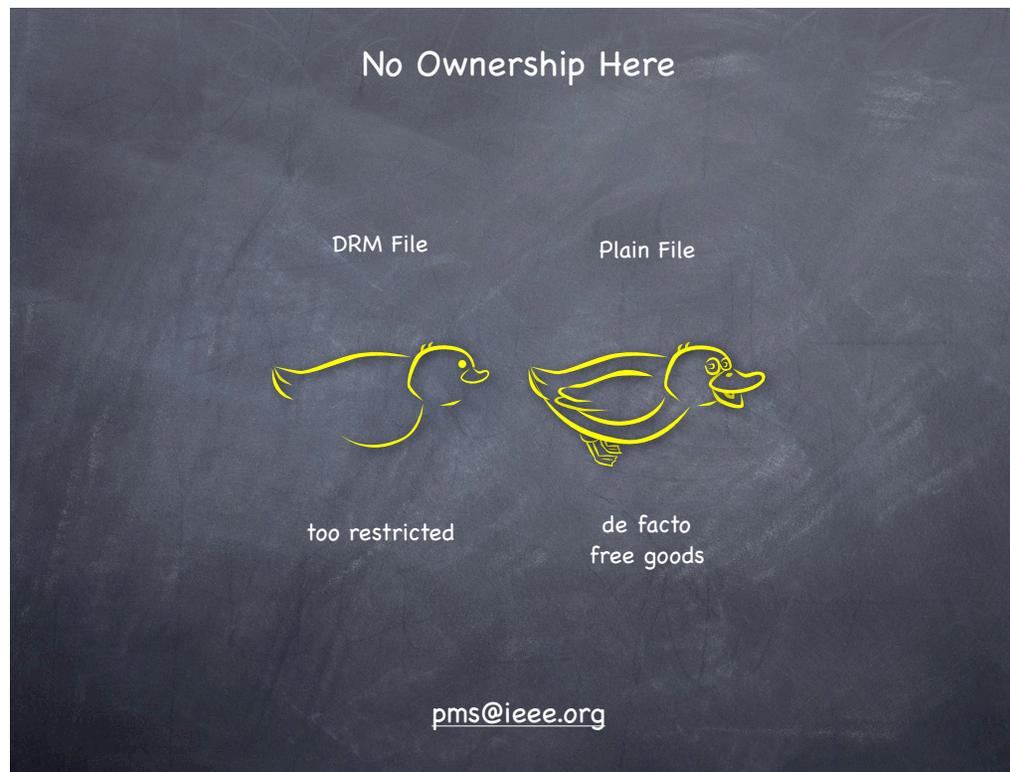
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Let's talk plain files. We can share with strangers without losing what we bought. **No risking** your neck... **responsibility** is missing. This plain-file bird still **flies** for users: it just makes for a **chintzy gift** and has no resale value. And it can **reproduce** like rabbits!



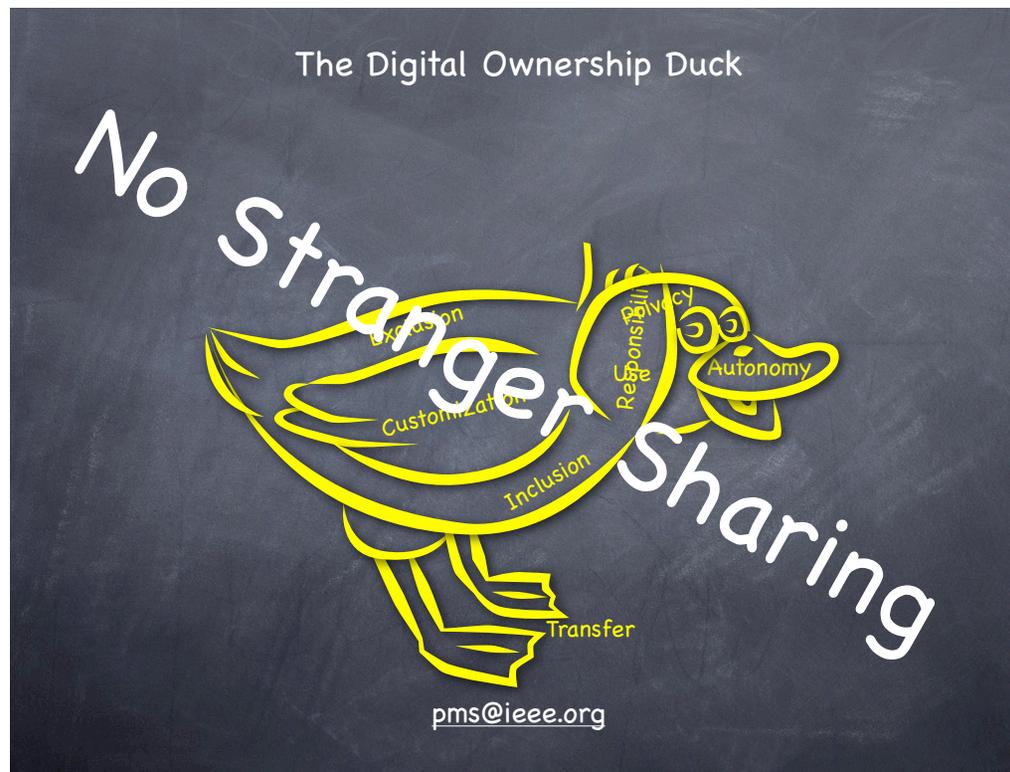
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So suppliers start with a plain file, then **apply** DRM. It **watches** what you do. It **tells you** what you can and can't do. It **bans** things that owners do. It **looks** like... rental, an unowned and unownable object optimized for a **service**. When we fillet the duck with DRM we get a service, not ownership.



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If this is all we have – DRM files and plain files – then we CAN'T deliver ownership. **DRM files** restrict you, and **plain files** are as free as air – de facto public goods.



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What is missing from this plain-file bird to make it an ownership duck?
The consumer must put **his neck** on the line. **Sharing with strangers**
must guarantee losing what you share.



Mitch Singer, CTO
Sony Pictures Entertainment

“We all shared music with our friends growing up, making copies and compilations from albums and cassettes. And I think what this disruption meant to the music industry was it was really the first time that strangers started sharing music, and that’s when the problems started to arise in the music industry.

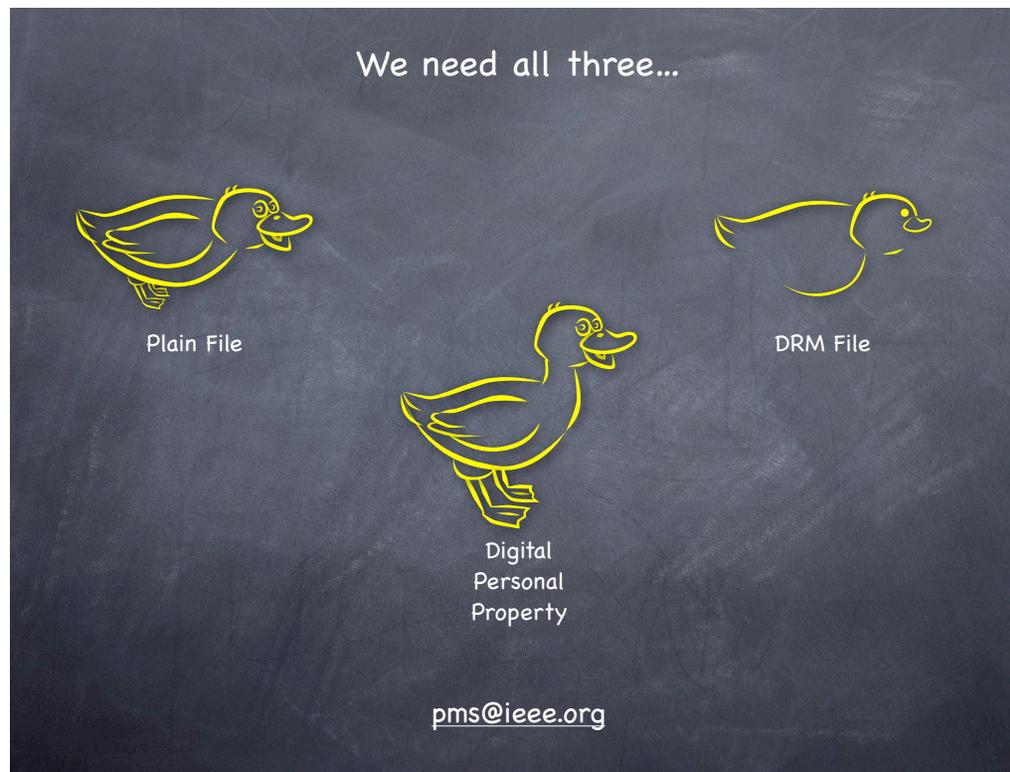
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Here is an excerpt of a talk that Sony Entertainment CTO, Mitch Singer, gave at Berkeley’s Boalt Law School in an introduction to what is now UltraViolet: He spoke of sharing music with friends and with **strangers**.

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We need all three: **plain** files (for example, with Creative Commons licenses), **DRM** for services, and **Digital** Personal Property for ownership.

I **realize** that lots of business people are hoping that, somehow, the people can be talked out of their silly notions about freedom of private behavior and convinced to renounce **plain** files for DRM files. It will never happen. I realize that most consumers would like to see **DRM disappear** from the planet and leave us with just plain files. It will never happen.

We have a choice: both DRM and plain files, or all three types.

The Ownership Media Player

- Freely copy and exchange content and keys
- No usage restrictions
- No sharing restrictions
- No stranger sharing
- No viral sharing with friends
- Detethered from suppliers
- Products outlive suppliers

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So what is this thing called digital personal property, which isn't a plain file and isn't a DRM file? I'll explain it by describing how consumers interact with DPP: an Ownership Media Player:

*It lets users freely copy and **exchange** content and keys between media players. It imposes no **usage** restrictions. And no **sharing** restrictions. And yet, for some reason users don't **share with strangers**. And they share no more widely with **friends** than they would share their tangible property. And suppliers lose all **tethers** to what they sell. And products **outlive** suppliers; they still work after the suppliers cease to exist.*



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The magic of the Ownership Player is founded upon two very non-technical, non-legal (in other words, very human) concepts. The first is **generosity**. If you own it, then you have every right to share it with whomever you wish. The second is **selfishness**. You get to decide who can't use your property. These concepts are implemented as two player functions — two buttons that may someday be as ubiquitous as the “play” button. Generosity is exercised by pressing the **GIVE** button, and selfishness (or self-interest, or caution) are exercised by clicking the **TAKE** button.

If you don't have the right and power to give and take at will, then you aren't an owner.

Enabling Human Nature

Grady Booch: "You can't automate love"

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I recently attended a lecture by IBM Fellow Grady Booch, who **said**: "You can't automate love. You can't automate generosity."

I would add the caution, "but you CAN use technology to block their exercise." Sometimes technology needs to just get out of the way.

The GIVE & TAKE Media Player

Use: A PLAY button

Inclusion: A GIVE button

Exclusion: A TAKE button

Use & Customization: Any new function or feature

Transfer: GIVE, then TAKE

Responsibility: The TAKE button and resale
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The Give & Take player is an Ownership Media Player, so let's see how the **attributes** of ownership are realized. **Use** is the PLAY button, but **Inclusion** is the GIVE button, and **Exclusion** is the TAKE button. Unfettered use and **customization** are any new functions or features that player makers can think of. **Transfer** is just a GIVE followed by a TAKE. And **Responsibility** comes from the power of every sharer to TAKE away or take back that which you share. And in the world of real digital personal property, resale is always legal.

GIVE & TAKE Autonomy and Privacy

No tether to the supply chain

Autonomy & Privacy: No tether to a consumer

Any and all copies tethered to each other

Digital Personal Property (DPP)
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What about autonomy and privacy? These **digital** personal properties (DPP) have no tether to the **supply chain** that creates or sells them. In fact, they have no tether to the **consumer** either. Instead, any and all copies are tethered to **each other** as a single composite product. Pressing the TAKE button makes them all unplayable except in the taker's player; TAKE collapses them back to a single product item.



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You share a **content** item with media player devices in your possession such as **TVs**, computers, smartphones, and eBook readers. **Select** what you want to share, then select the **players** to share with, then **hit** the give button, and those players **receive** playable copies.

That's not the end to sharing. Any one of those sharing **players** can also share more playable copies with player devices belonging to anyone else at all. There is no limit on how widely sharers can share.



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If you are wearing your consumer hat or are a provider of player devices and applications, **then** all of this sounds great, but if you are wearing your content supplier or copyright holder hat, **then** all of this sharing may seem incredibly dangerous.

So how do we discourage consumers from sharing with complete strangers?

Emulate the Physical World

- Risk of loss
- Trust
- The “TAKE” button

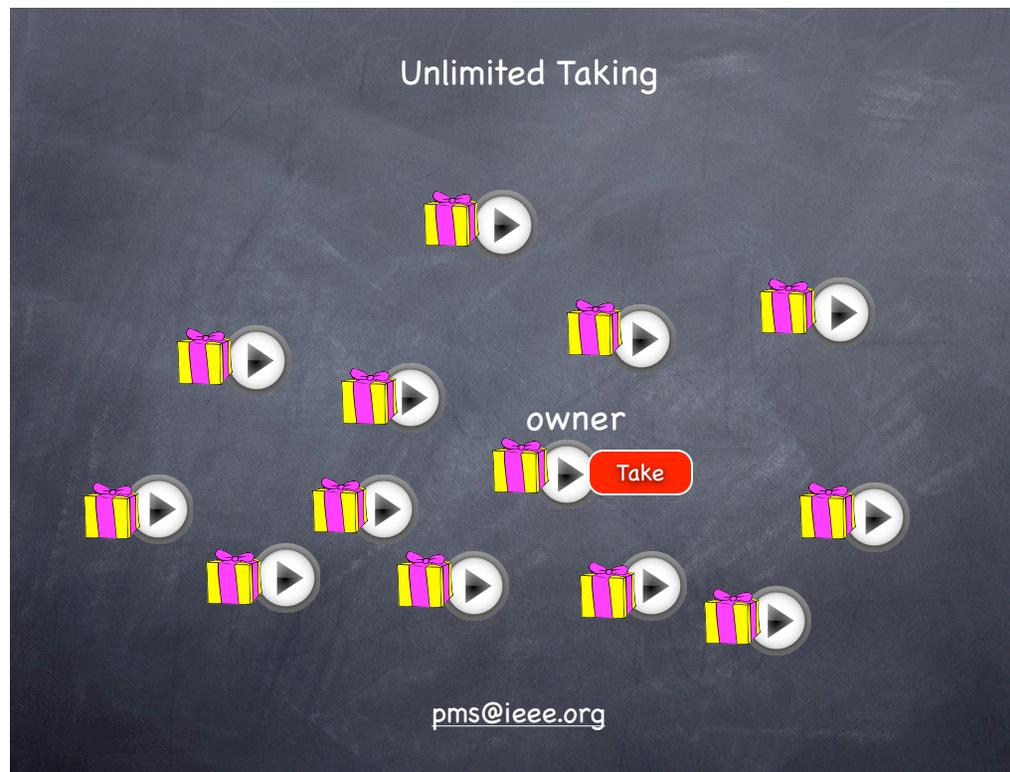
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The answer is to emulate the same mechanisms that inhibit stranger sharing of our physical possessions. So... Why don't you share your possessions with strangers? (**Risk** of loss.) How do you decide with whom to share? (**Trust**.)

How do we introduce risk and trust into a system made of electronic circuits and digital bits?

The **answer** is the “TAKE” button.



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As soon as a content item becomes shared, the media players can't distinguish which player is the "owner". This makes sense, of course, because media players don't own anything – people do. Sharing people must agree on who among them is the real owner. Of all sharing players, the first one to have its "**take**" button clicked causes all other players to **cease** to share as soon as they detect the take – they **lose** the power to play their copies.

In other words, the person who first presses the take button becomes the **new**, sole, and de-facto owner of the content item.

The Power of “Take”

- No stranger sharing
- One product
- Transiently shared in circles of trust

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The “take” button is powerful. It introduces the risk of property loss – a risk that approaches **100%** when sharing with strangers. It assures that each sold product item represents a **single** product in the field that collapses to its essential, singular self, although it may be **transiently** shared within intimate circles of trusted sharers.

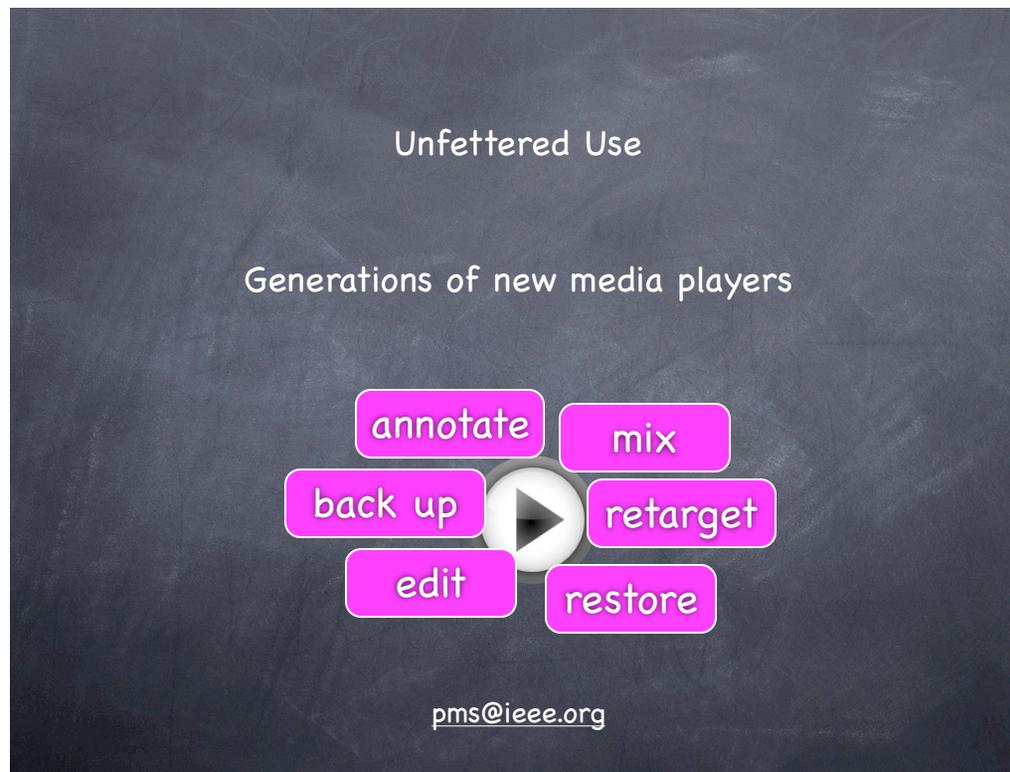
The Incredible Power of "Give & Take"

- Social capital (real loss and gain)
- Monetary value

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The “give” & “take” buttons together are incredibly powerful. They endow digital personal property with value as **social capital**, enabling consumers to truly give digital gifts corresponding to a giver’s loss and a receiver’s gain. And they preserve the real **monetary value** of digital products, enabling consumers to ethically give, donate, or resell their used property without increasing the number of products in the field.



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Of course, a player lets us play and pause, and we've added give and take, but "unfettered use" is a pretty open-ended pointer to player functions. "Unfettered use" indicates the opportunity for media player developers to innovate in any way they choose – it means generations upon **generations** of new hardware and new software player products that provide compelling new ways for consumers to interact with content and with people – ways not yet imagined, even by those who created the content in the first place. Player makers might add buttons like **back up**, **restore**, **retarget** (for other formats and encodings, perhaps ones that don't yet exist), **annotate** (write in the book margin), **edit** (G-rated versions for your kids), and **mix** (sound from here, video from there) – with all derived content equally subject to the same "take" buttons.



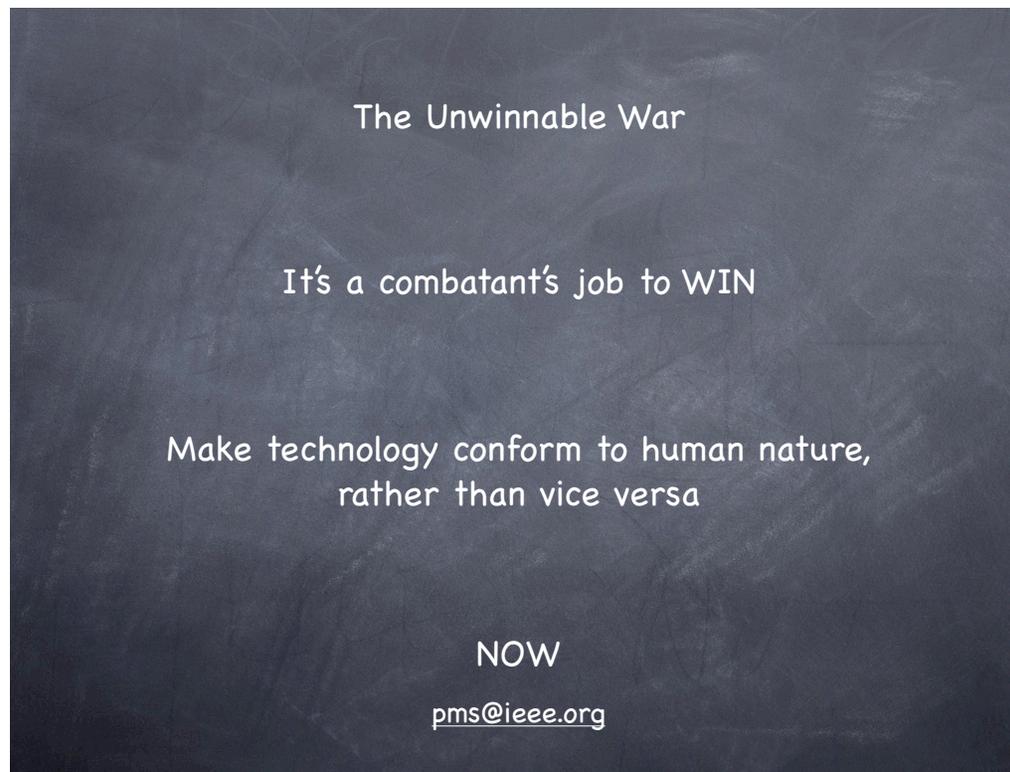
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The "Give & Take" player is the baseline for P1817-compliant media players. The "give" button enriches personal relationships through kindness and generosity. The "take" button puts, not a credit card number or software algorithm, but individual judgement front and center as the arbiter of the line between friends and strangers. (**Technology** conforming to Human Nature.) And the other functions are the reason why consumers choose one media player product over another.



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Let us analyze a war of the digital age – a war between the **defenders** of copyright and the **defenders** of free information exchange – between those who **resist** a wave of public disrespect for the law and those who **resist** unjust invasions into private behavior – between those who define the War as **DRM versus piracy** and those who think it’s **greed versus freedom**. In this “business war”, human lives are generally not at stake, but livelihoods and intellectual liberties are. This war is big because it involves pretty much the **entire human population**. But what the combatants have not acknowledged is that this war is simply **unwinnable** by either side, and therefore (paradoxically) is likely to continue for a long, long time.



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The thing about an unwinnable war is that it's next to impossible to convince the combatants to consider peace. That's because neither side is in danger of losing, and **it's their job** to try to win. The words of Upton Sinclair seem especially right for a business war, "It's difficult to get a man to understand something when his salary depends upon his not understanding it."

In other words, it isn't just a problem for all of us humans today, but it will haunt our grandchildren and our great grandchildren until, finally, some future generation decides to take the following grand step: to make technology **conform** to human nature, rather than vice versa.

I'm here to propose to you that a good time to end this war would be... **now**. My question for you is: Are you a combatant or a peacemaker? Do you wish to destroy copyright or do you just want it to return to its consumer-respectful function as an enabler for creativity and healthy commerce.

Aspirations for Humanity

- Restore “sharing is good”
- Honor authors, artists, creators

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It is our goal to help (for instance) movie studio executives to quit having to call their own children pirates and criminals. We'll give those kids music and video that they can actually share without embarrassing their parents. We're going to support parents who teach their children that **sharing** is a good and a kind act by extending sharing to the digital realm in a way that **honors** and respects the rights of authors and artists.

Room for Debate

- Counter to an open, global Internet society
- Counter to a vital, global Internet economy
- Inappropriate public policy advocacy
- All bits are free
- No need to own

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We see our work as “advancing technology for humanity” in a very real way. There are those who aren’t so sure. There are consumer advocates who feel that any time a digital product is not inherently re-publishable (that is, sharable with strangers), then it weakens their vision of an **open, global Internet society**. There are content creators and copyright holders who fear that our work weakens their vision of a **vital, global Internet economy**. There are P1817 Working Group members who worry that the Working Group may be acting as an **unauthorized advocate for public policy** – a role within the IEEE-USA that is reserved for the IPC or Intellectual Property Committee.

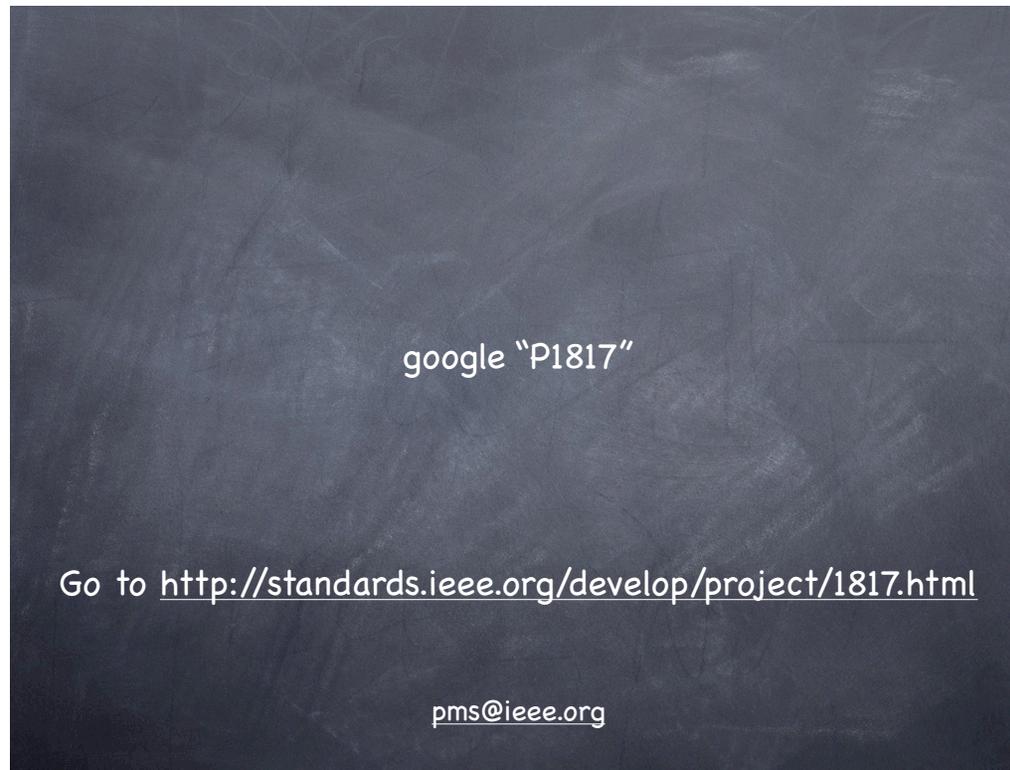
Still others think that we have “missed the window”, that humanity is already too comfortable with the idea that **all bits are free**. And others think that we have missed the window because the **consumer interest** to own digital things has passed, and that all related human needs can be fulfilled by DRM-protected rental and streaming subscription services.

These people are not wrong. All of these points of view have validity. And none is the whole story, any more than this presentation is absolute truth. But I believe that the world is a better and richer place with an ownable alternative to plain files that balances consumer and supplier interests.



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Here is a collection of cool things to talk about.



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The easiest way to find us is to **google** "P1817" or "Digital Personal Property"