

FSEM 1111 Computer Security – from a Free Software Perspective

Christian Grothoff

`christian@grothoff.org`

`http://grothoff.org/christian/`

Property and Ownership

Property designates things about which an entity has exclusive rights.

Ownership is the state of exclusive rights and control over property.

What can be Property?

- Inanimate objects (including land) – but not air?
- Living beings – except humans?
- Information – except in human memory?

Ownership commonly includes the right to transfer ownership.

Initial Acquisition

Transfer of ownership raises the question of how one could acquire unowned resources in the first place.

- For physical resources, libertarian doctrine on initial acquisition basically amounts to “first come, first served”
- Initial acquisition is seen as an entrepreneurial function. The initial owner is “rewarded” not for his work, but for his good judgement (which resulted in moving things from lower value to a higher value).

Example: A jug of water is more valuable in the Sahara

than on the shores of the Nile. Moving it there adds value.

Critique

How anybody can acquire title over previously unowned material is a foundational question, and thus of the utmost importance.

FCFS is a simplistic answer that is historically inaccurate: almost all property derives from the spoils of war.

Even if FCFS were historically true, would it have been just if our grandparents (between them) had used and destroyed of all the world's natural resources (leaving future generations (us!) with nothing)?

Ownership and Responsibility

- Ownership implies responsibility, for actions regarding the property.
- An application of this, to limit ownership risks, is to form a new entity to purchase, own and operate each property.
- “Corporation: An ingenious device for obtaining profit without individual responsibility.” –Ambrose Bierce, The Devil’s Dictionary

Patents: Ideas as Property

- A patent is a property right granted for a fixed period of time in exchange for the disclosure of an invention
- An invention is a new object, process, or technique
- Inventions do not need to be useful or practical
- The patent owner has the right to exclude others from making, using, selling or importing the patented invention (for the term of the patent)

Using Patents

- A patent is merely an exclusionary right
 - Using an invention may require use of other inventions
- ⇒ Having a patent does not imply that one can exploit the patent, other patents may restrict the owner!

Social Justification

Patents provide:

- Incentives for research and development
- Disclosure of innovations to the public
- Incentives for productization (no competition)
- Incentives to develop alternatives (broad exploration of possibilities)

Problems

- Independent invention not permitted
- Patents stifle competition
- Fragmented rights prevent anyone from operating
- Patents favor large corporations

Submarine Patents

- Patents are awarded to first inventor registering with the patent office
- Date of application counts for being first
- Date of award counts as start date of patent's term
- Submarine patents delay start date by amending the patent before award actually happens
- This was possible with USPTO for a long time, but cannot be done anymore

Software Patents

- Mathematics cannot be invented
- ⇒ Algorithms cannot be patented
- Traditional approach I: copyright the software
 - Traditional approach II: patent a device and patent the software as part of that device

USPTO

- Patent applications are costly
- ⇒ USPTO one of the few government offices that make money
- USPTO has an incentive to grant patents easily
- ⇒ Greater good (damage to economy) is ignored!

Trademarks: Words as Property

- A trademark is a distinctive sign which is used to uniquely identify the source of products.
- Trademarks can comprise of combinations of words and images.
- Trademarks are established through use and/or registration.

Restrictions

- Trademarks apply to a particular business context
- Trademarks must be used and enforced – or they expire
- Trademarks should be distinctive
- Trademarks cannot be descriptive or generic (cannot trademark “The University” for an institute of higher education)

Social Justification

- Consumer Protection (know from whom you buy)
- Quality Control Incentive (maintain reputation)

Trademarks are Property?

- Trademarks can be sold
- In the US, trademarks can only be sold if accompanied by the sale of an underlying asset.

“Intellectual Property”

Term pushed by certain lobbying groups to refer to:

- Copyrights
- Trademarks
- Patents

However, none of these are captured well by this term.

Questions

