If Information is Property, Who Owns It?

Dept. of Electrical Engineering and Computer Science
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If Information is Property, Who Owns It?

- Think of how much information you got on the Internet.
- Your political views.
- Your academic work.
- Your grades.
- Your significant other. His/her satanist tendencies.
- Can you hide it?
If Information is Property, Who Owns It?

• There is lots of data.

• There is lots of threads.

• There is lots of computing power. And they sure can crunch the data well to get insights.
The Market for Information

- Large-scale commercial uses of personal information.
- Why would some people want to collect and use individual information large numbers of individuals?
- Assume that you are going to increase your chain of grocery stores by opening a new one in a new neighborhood.

What would be your plan to get customers?
The Market for Information

- What if you have information on what sort people shop in your stores, and what they buy.
- Shopping cards.
- If people buy spaghetti and sauce at the same time, place them closer to each other, perhaps in the same aisle.
- Knowing your customers, and their shopping patterns.

Retired people don’t buy often.
Students buy over the weekends.

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Advertising

- An ad on magazine.
- An ad on a website.
- Can people use my personal interests for effective marketing?
- Your past purchases.

Where do they get stored?
Who can make of use these transactions?
Advertising

- Contextual targeting.
- Behavioral targeting.
- XYZ targeting.
- If I am gonna see ads, they better be interesting to me.

*If you are going to interrupt me on my dinner, you better be selling me a trackpad, as they direly need one, and certainly not a Dr. Mattress.*
Privacy

- It looks cool. But are there any disadvantages?
- My personal information can be used illegally?
- Who does what with my personal info?
Toward Information as Property

- Think of information as a produced good.
- Who owns how much of it, how do we decide?
How not to protect privacy

- When you check your safe deposit box, they are still there.

vs.

You check the contents of a firm’s database to make sure that your information is still there.

Does this mean that you are safe?
How not to protect privacy

• What does not work:

let other people have information about you, and then try to enforce usage rules.
How to protect privacy

- Don’t share your secrets.
- Hardly achievable in current settings.
- How could you find a solution?
Property: personal information

- We may use computer technologies to enforce our property rights.
- Encryption is one such technology.