DS 593: Privacy in Practice

Open Source, DRM, and Right to Repair Continued

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News?

Image: The Verge; Getty Images

PODCASTS / DECODER

Illegally fired FTC commissioners on Meta, bribes, and fighting for privacy

Alvaro Bedoya and Rebecca Slaughter want to take their fight to the Supreme Court, and they think they can win.

by **Nilay Patel**
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10 Comments (10 New)

https://www.theverge.com/decoder-podcast-with-nilay-patel/657115/ftc-bedoya-slaughter-trump-fired-supreme-court-interview

Last time

- Open Source

Today

- DRM
- Right to Repair

The Fully Centralized World

Concerns in this scenario

- Our access to our data
- Awareness of how our data is being processed
- What we are able to do with our data

The current view of computing

- Client-Server
  - Powerful servers that we use our end-devices to communicate with
- Federated
  - A bit of a mix of client-server and server-server
- P2P
  - End-devices all communicating directly with each other

The current view of computing

- Client-Server
  - Powerful servers that we use our end-devices to communicate with
- Most common
- Where is the data being stored?
- Where is the data being processed?

The current view of computing

- Client-Server
  - Powerful servers that we use our end-devices to communicate with
- Client/user agents
  - Software that runs locally in coordination with the server code
  - Often opaque/proprietary

Concerns in this scenario

- Our access to our data
- Awareness of how our data is being processed
  - **Open source as a solution**
- What we are able to do with our data

Ownership vs Access

- Cassette tape collection but tape player breaks
- Software project with proprietary file format stops being supported
- Printer only works with a specific type of ink
- Old video game whose servers go offline
- Could FOSS help here as well?

Right to Repair

- Legal right for end-users to freely modify and repair devices and equipment
  - Interoperability

- When it comes to software, this critically intersects with open source

Why restrict right to repair

- Part of a broader desire to opposed to *Open Access*
- Alleged Safety Concerns
- Monetary interests
- Control over end-use

Digital Rights Management (DRM)

- Access control technologies to restrict legal access to content
- Primarily justified to prevent copyright infringement
- Fear of the “Analog Hole”

Types of DRM

- Product Keys
- Persistent Online Connection
- Encryption
- Copy and Runtime restrictions
- Watermarks

Complaints about DRM

- Little evidence that it actually stops copyright infringement
- Deteriorates user experience
- Can exacerbate vendor lock-in
- Requires significant surveillance apparatus
- DMCA

Digital Millenium Copyright Act (DMCA)

- Anti-Circumvention provisions
- Safe harbor provision
- Extremely potent tool for enforcing copyright
- What happens when you combine it with DRM?

DMCA Complaints

- Chills Free Expression and Scientific Research
- Jeopardizes Fair Use
- Impedes Competition and Innovation
- Computer Intrusion Laws

The Case of Apple

- Uses this provisions in conjunction to control apps on its devices
- Claims this is necessary for safety, with limited evidence
  - Bruce Schneier's letter to Senate Judiciary
- Used it to take down apps that do try to provide safety
  - Jailbreak detection
  - Privacy tools in China
  - Tool for organizing protests

Tivoization and GPLv3

GPL v3
Free Software
Free as in Freedom

Open Access and Aaron Swartz

JSTOR

creative commons

Other Examples

- 6 Strikes Program
- Blocking accessible reading tools
- UpCodes
- Internet Archive and “End of Term” archives

Bringing it all together

- We can’t have privacy without having control and awareness of how the tools we use work

- DRM and DMCA restrict the ability to exercise this right while giving the copyright holders significant control over users and their information
  - Necessitates lack of transparency and an adversarial relationship with users
  - Places them in the role of gatekeepers that decide what is best for users

Next Time

Frontiers of Privacy