

# Anatomizing Intermediaries

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# What makes different intermediaries different?

- ✦ Perhaps “intermediaries” is a useful category.
- ✦ But we should also be careful not to overemphasize their commonalities.
- ✦ I’ll spend the next few minutes anatomizing online intermediaries—asking what makes them distinctive.
- ✦ Following Paul’s request, I’ll focus on Facebook privacy and YouTube copyright issues.

# Four broad headings

- I. The kinds of risks they pose
- II. How much power they possess
- III. How well market forces can address those risks
- IV. How well regulation can address those risks

# I. Risks

# Unfair Terms

- ✦ An intermediary with undue power might be able to dictate unfair terms to its users.
  - ✦ This includes excessive pricing.
  - ✦ And oppressive non-economic terms, like copyright.
  - ✦ Note the digital-divide issues with the poorest users.
- ✦ Facebook has had regular blow-ups about its user agreement; YouTube has had less trouble here.

# Mishandling data

- ✦ An intermediary trusted with user data can abuse it.
  - ✦ It could lose data (as in the Microsoft/Sidekick case).
  - ✦ It could alter data (think about health records).
  - ✦ It could misroute data (e.g. credit-card breaches).
- ✦ Facebook's privacy issues are all about this problem; YouTube removes audio tracks from "infringing" videos.

# Bias

- ✦ An intermediary that offers a service to many users could unfairly favor some of those users over others.
  - ✦ E.g. eHarmony refused to make same-sex matches.
  - ✦ Or a virtual world could nerf a character class.
  - ✦ Some bias is essential—think of a spam filter.
- ✦ Facebook's complexity leads to regular cries of bias; YouTube sells "featured" placement.

# Harmful user conduct

- ✦ Intermediaries amplify their users' ability to cause harm.
  - ✦ AutoAdmit gave haters a platform.
  - ✦ Google helps you find bomb-making instructions.
  - ✦ The Pirate Bay undermines copyright
  - ✦ And so on.
- ✦ Some of these harms are in the eye of the beholder.

# No service

- ✦ An intermediary could refuse to provide its service at all.
  - ✦ We shouldn't forget that their work is mostly good!
  - ✦ Overregulation is also a risky outcome.
  - ✦ Orderly, well-warned shutdowns are vastly preferable to simply turning the servers off one night.
- ✦ Facebook and YouTube are both doing okay, but remember the Geocities and Weblogs.com shutdowns.

## II. Power

# Sensitivity

- ✦ How sensitive or important is the data it handles?
  - ✦ World of Warcraft is pretty low down on the scale.
  - ✦ And electronic medical records are pretty high up.
  - ✦ Facebook handles a lot of personal information; YouTube videos are less worrisome.

# Visibility

- ✦ How visible are your activities to the intermediary?
  - ✦ The more it understands, the worse it can eff you up.
- ✦ Your searches are very visible to Google.
- ✦ Your ISP has to do more work to tell what you're up to.
- ✦ Facebook and YouTube are both very able to tell what you're doing, although Facebook actions are often socially coded and video is harder to scan than text.

# User interactions

- ✦ If so, bias issues are all but inevitable.
  - ✦ And also possibly insoluble, even in theory.
- ✦ Facebook has these issues in spades, since their site is built around social interactions.
- ✦ YouTube does have its share of “worst video ever,” but it mostly just serves up videos.

# Public and private

- ✦ Intermediaries that create “private” spaces raise the danger that information will leak outwards.
  - ✦ Think of teachers who’re fired over Facebook posts.
- ✦ Whereas intermediaries that are “public” more easily cause harm to third parties.
  - ✦ Think of the Star Wars Kid video.

# III. Markets

# *Ex ante* choice

- ✦ The more choices users have up front, the easier it is for them to avoid poorly behaved intermediaries.
- ✦ But query how easy it is for them to evaluate the level of quality of service before they start using it.
  - ✦ Search engines are easy to check out; enterprise-level database systems are hard.
- ✦ Facebook and YouTube are both competing in very crowded spaces here.

# *Ex post* choice

- ✦ How easy is it for users to change horses midstream?
  - ✦ Specific investments make it hard to switch.
  - ✦ So does difficulty in getting your data out.
  - ✦ As do network effects
- ✦ Facebook is more locked-in than YouTube, since your social network is so heavily embedded in the site.

# Necessity

- ✦ How well can users get by without the intermediary?
  - ✦ ISPs are highly necessary
  - ✦ Online maps are useful, but less essential
  - ✦ 4chan is many things, but “necessary” isn’t one
- ✦ Facebook and YouTube are at the less necessary end, although video hosting is becoming a building block

# Platforms

- ✦ Is the intermediary a platform?
  - ✦ That is, do many other intermediaries depend on its network layer, or on its APIs, or on its business?
- ✦ The deeper you are, the further your tentacles of spread, and the more likely that you have users who don't realize how dependent they are on you.
- ✦ Facebook is making a big platform play with its APIs; YouTube took off because of its easy embedding.

# IV. Regulation

# Transparency

- ✦ How easy is it to tell what the intermediary is doing?
  - ✦ Services are less transparent than local software.
  - ✦ Closed source is less transparent than open.
  - ✦ Secret acts are less transparent than disclosed ones.
- ✦ Facebook's algorithms are inscrutable—no one knows how it picks what stories to put in your News Feed.
- ✦ YouTube search is tricky, but hosting is very visible.

# Complexity

- ✦ How complex are the intermediary's operations You can't regulate what you can't understand.
- ✦ Storage and hosting are pretty clear-cut.
- ✦ An ISP's job—slinging packets around—sounds simple, but has hidden technical dimensions.
- ✦ Search engines can be remarkably intricate.
- ✦ A regulator could never fully specify how Facebook should work, but YouTube has a simpler model.

# Scale

- ✦ The more users and data an intermediary works with, the greater the burdens of regulatory compliance.
  - ✦ An ISP faces a potentially gargantuan traffic flow and has a strong § 512(a) immunity.
  - ✦ Whereas a web host has a smaller burden and a correspondingly weaker § 512(c) immunity.
- ✦ Facebook is immense, at over 200 million users.
- ✦ YouTube's traffic load is mind-bogglingly titanic.

# Recap

## **Risks**

- Unfair terms
- Mishandled data
- Bias
- Harmful user conduct
- No service

## **Power**

- Sensitivity
- Visibility
- User interactions
- Public / private

## **Markets**

- Ex ante* choice
- Ex post* choice
- Necessity
- Platforms

## **Regulation**

- Transparency
- Complexity
- Scale