Moral and Legal Accountability for General-Purpose Technologies

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Motivation

A paradox

- Why do *other* uses affect liability for *this* use?

- Don't *more* uses = *more* harms = *more* liability?

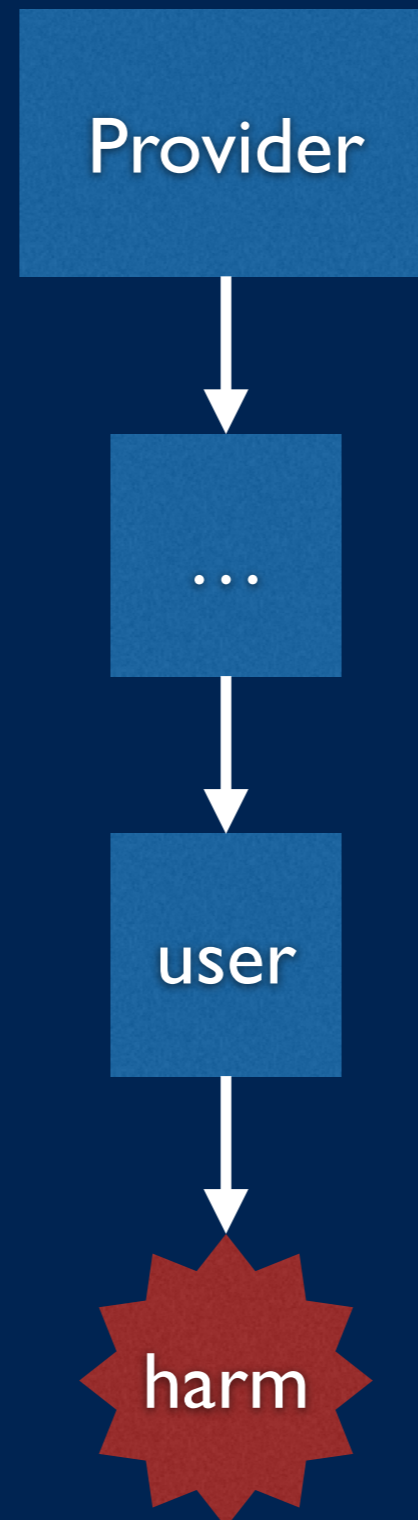# Generality

Definitions

A *general-purpose* technology

(1) *has diverse affordances*: i.e., it can be applied to a wide range of uses

(2) *for others*: i.e., those uses are made by downstream actors

A *technology* is made available by a *provider* to *users*

The best version of the general-purpose argument

- Imposing liability for harmful uses would threaten the technology's availability for beneficial uses

- A general-purpose technology:

  - Is more distant from harmful uses (*vertical*)

  - Has more beneficial uses (*horizontal*)

Vertical: more general-purpose = greater distance from harmful uses

Horizontal: more general-purpose = beneficial uses offset harmful ones
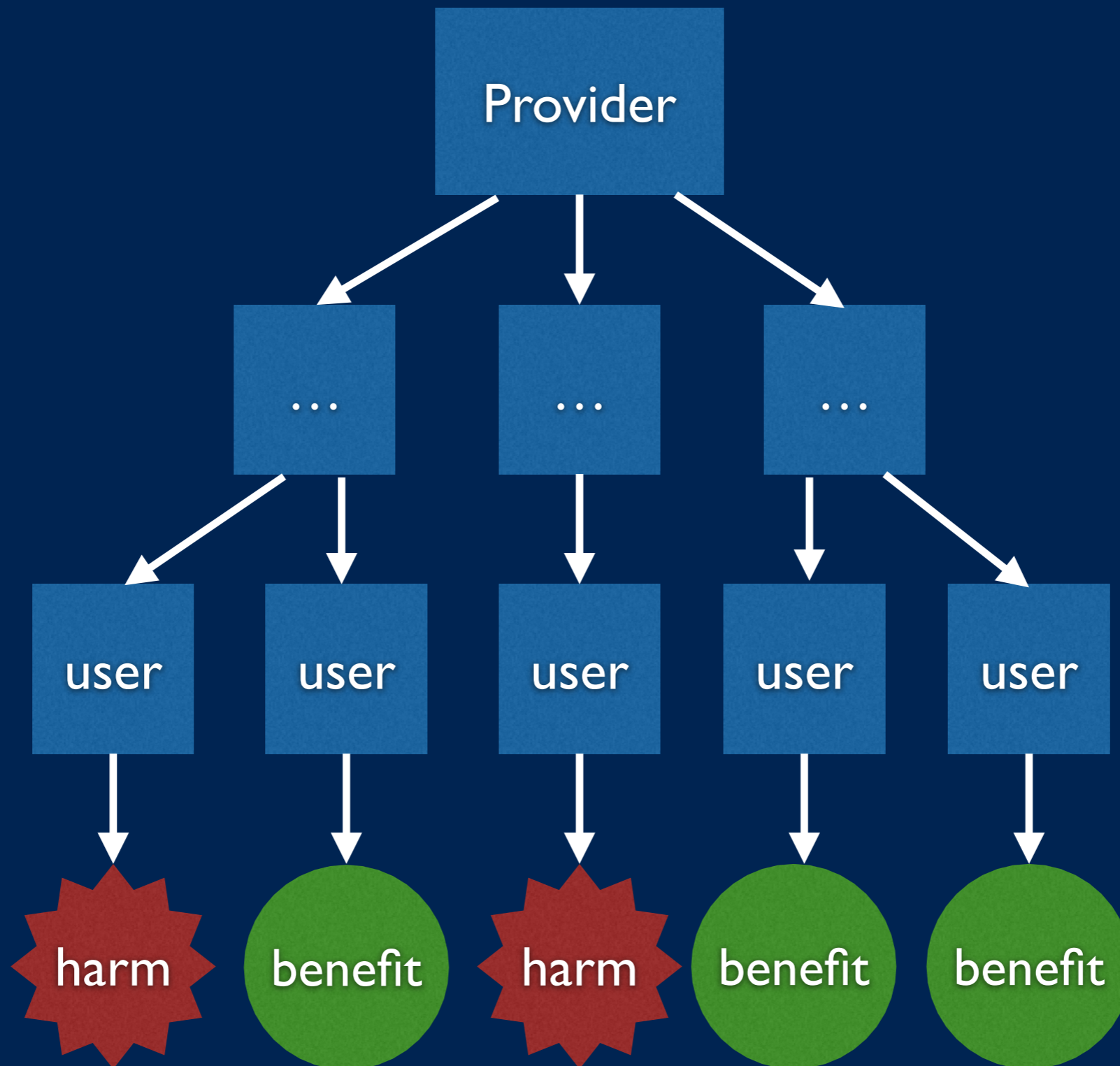
Related ideas

- Innovation theories:

  - Zittrain: *generativity*

  - Frischmann: *infrastructure*

  - Macroeconomists: *general-purpose technologies*

- Liability theories:

  - Dual-use technologies

  - Chilling effects

Assessing responsibility

A taxonomy of providers' responsibility for technology

	Vertical	Horizontal
Value	⬇ Contribution ⬆ Payment	Weight
Power	⬇ Control ⬆ Knowledge	Distinguishability

What we talk about when we talk about value

- "harm" and "benefit" are contested

- People disagree on:

  - *which uses* are harmful or beneficial

  - *how large* the harms or benefits are

  - *how to weigh* them against each other

- Our framework is modular with respect to any particular normative theory of harm and benefit

Contribution (downstream value)

- Did the technology *cause* the outcome?

- How much of the use's *cost* is due to the technology?

- How much of the use's *value* is due to the technology?

- How much of the use's *harm* is due to the technology?

- Are there *substitutes* for the technology?

Payment (upstream value)

- Does the provider receive *direct payment* from users?

- Does it receive *indirect payment* from other sources?

- Does it receive *non-monetary benefits*?

- Are payments linked to *individual uses*?

- Are payments *greater from harmful uses*?

Control (downstream power)

- Can the provider *modify* the technology's functionality on an ongoing basis?

- Does it have a *legal right* to control uses?

- Does it have *contracts* with users?

- Does it *disclaim* responsibility?

- Does it *discourage* or *promote* harmful uses?

- Did it *deliberately give* any of these abilities?

Knowledge (upstream power)

- Does the provider give *instructions* for harmful uses?

- Does its documentation or marketing *contemplate* them?

- Is there *public awareness* of them?

- Can the provider *surveil* uses of the technology?

- Does it have *partnernships* with users?

- Is the technology *actually used* in harmful ways?

- If so, does the provider have *actual knowledge* of them?

Weight (horizontal value)

- What are the *absolute magnitudes* of harmful and beneficial uses?

- What is the *relative balance* of harmful and beneficial uses?

- How could the balance *shift* over time?

- [NB: There can be normative disagreement on magnitudes and how to balance them]

Distinguishability (horizontal power)

- (Is there *consensus* on which uses are beneficial and harmful?)

- Are there *explicit rules* distinguishing beneficial and harmful uses?

  - Can they be implemented *technically*?

  - Can they be implemented *at scale*?

  - What are the *costs* of implementing them?

Questions