#### Thesis Presentation

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### Overview

- Piracy
- 2 Cost side innovation
- 3 Discounting

## Questions

Does uniform enforcement of copyright increase innovation?

What kind of mechanism does social value enable?

Who benefits from piracy?

Is the incentive to improve the product independent of network value?

Does profit maximization under monopoly neccesarily have averse effects on welfare?

Situational facts: Intellectual property allows firms to block access by both producers and consumers.

Digital goods have only fixed costs, marginal costs are zero.

Claims: The intellectual property claim is that the ability to limit entry increases the incentive to innovate.

Claims 2: If only one firm sells the asset, this decreases welfare.

Does uniform enforcement of copyright increase innovation?

Causal Mechanism: Piracy can sometimes increase the payoff of projects

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What kind of mechanism does social value enable? Social value is a substitute for competition

Causal Mechanism: If the number of agents consuming a product increases its value, monopolist must try and expand its market



Who benefits from piracy? The firm can benefit and always consumers with a lower willingness to pay

Causal Mechanism: The firm can benefit by including lower willingness to pay agents by charging higher willingness to pay agents more

Is the incentive to improve the product independent of network value? No

Causal Mechanism: A high network value can be a substitute to innovation

# Questions

Does the alienability of assets have a uniform effect (increases incentives)?

Do existing firms always have an incentive to allow buyouts? Why does successful innovation usually mean buyouts?

A firm is considering whether to invest in a project that will give profits with higher probability but take more time or a project that has a lower probability of giving profits but can achieve profits earlier.

An existing firm can decide whether to purchase the entrant or not

Claims: The intellectual property claim is that the ability to limit entry increases the incentive to innovate.

Claims 2: If only one firm sells the asset, this decreases welfare.

Does the alienability of assets have a uniform effect (increases incentives)? No

Causal Mechanism: The entrant does more damage to the incumbent than he gains in periods of intermediate development causing the incumbent to have a higher willingness to pay for those periods

Do existing firms always have an incentive to allow buyouts? No

Causal Mechanism: The allowing buyouts can cause blackmail and pursuing of damage maximizing projects instead of profit maximizing

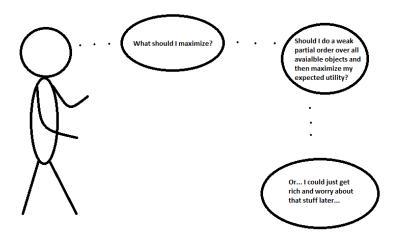
Why does successful innovation usually mean buyouts? Because innovators purposefully choose projects with the intent of being bought out

Causal Mechanism: Entrants will prefer correlated projects

### Questions

- 1) Why do agents have different ways of discounting?
- 2) How do we reconcile the normative method of discounting (exponential) and the descriptive method (hyperbolic)?
- 3) Can we draw out new falsifiable predictions from a unified framework?

# The problem situation: What do agents do?



- Fact 1) Agents wealths can grow in different ways
- Fact 2) They have different wealth levels
- Fact 3) Choices can affect future choices

Fact 4) Agents in economics have preferences that are independent of their environment, strict strategy/preference dichotomy

Fact 5) Biological agents preferences are adaptations, if it were concious it would be a strategy.

Why do agents have different ways of discounting? Agents discount because they maximize growth which depends on the environment

Causal Mechanism: Growth depends on the kind of process that the agents face, which means their heterogeneity can be explained by the variation in their environment

How do we reconcile the normative method of discounting (exponential) and the descriptive method (hyperbolic)? It depends on the agents time horizon

Causal Mechanism:

Multiplicative + Fixed = Exponential Discounting Additive + Adaptive = Hyperbolic

Can we draw out new falsifiable predictions from a unified framework? Yes

#### Causal Mechanism:

 $\mbox{Additive} + \mbox{Fixed} = \mbox{Highest payout} \rightarrow \mbox{unconstrained capacity} \\ \mbox{and unscaleable project based firms don't discount} \\$ 

Multiplicative + Adaptive = Hybrid  $\rightarrow$  constrained capacity with projects that depends on scale discount the most

→ Wealth of agents can affect their discounting