

Is there a market for ideas?

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Motivation

- Markets for ideas & technology have high potential social returns
 - A single

Is there a Market for Ideas?

- We combine two distinct prior literatures
 - Economic analysis of the requirements & challenges of market design
 - Market Thickness, Lack of Congestion, Market Safety, and Repugnance
 - Markets for Technology
 - Non Excludability and Non Rivalry
- The nature of ideas undermines the market for ideas
- The most robust markets for ideas are those where ideas are free (repugnance)
- Formal intellectual property rights may not simply facilitate isolated transactions but play a crucial role in overcoming key challenges in establishing efficient markets for ideas
- *How does market failure in “innovation markets” impact effective competition policy towards innovation markets?*

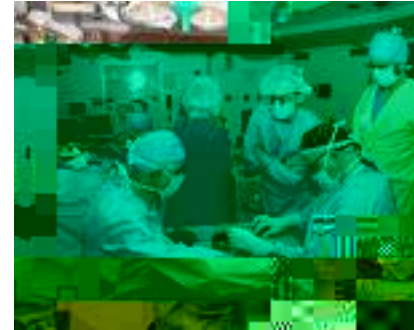
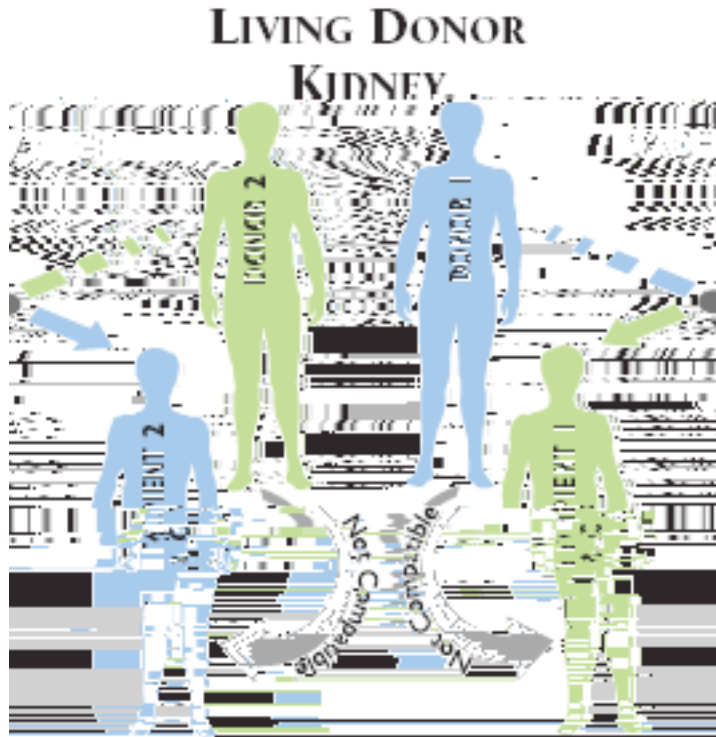
Outline

- **Lessons from Market Design**
- How does the nature of ideas impact the market for ideas?
- The impactimpact

Economists as Engineers

- While many facets of the game theory revolution were simply a theoretical exercise, key branches— most notably, mechanism design – offer powerful if abstract insights into the efficiency and limitations of alternative market allocation mechanisms when buyers and sellers possess private information
- Over the past twenty years, (some) game theorists have become deeply involved in practical market design
 - FCC Spectrum Auction (Wilson, Milgrom, McAfee, Kramton)
 - National Medical Resident Matching Program (Roth)
 - NYC and Boston Public School Choice programs (Roth)
 - Internet Advertising Position Auctions (Varian (Google), McAfee (Yahoo), Athey (Microsoft))
 - Etc....
- Rather than simply “apply” the theory, real world applications have opened up new insights into the requirements for efficient market operation, and raised new theoretical challenges

Kidney Exchange: Market Design in Action



While many kidney disease patients have willing donors, incompatible blood and antibody types limit donations. A market for voluntary living donor kidney exchange dramatically enhances the scope for donation, even though the market must operate in the complete absence of prices.

**What have we learned from market design?
(Roth,Hahn Lecture, 2007)**



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- Lessons from Market Design
- **How does the nature of ideas impact the market for ideas?**
- The impact of institutions on the market for ideas
- Repugnance in the market for ideas

The Nature of Ideas

- We focus on two categories of ideas which impact the challenge of market entry: **pre-market** and **post-market** ideas.

The Impact of Value Rivalry on the Market for Ideas

- In many cases, the value of accessing an idea by a potential buyer is highest if the “secret” is maintained between buyer and seller
 - Anton and Yao exploit this insight to examine the bargaining power available to an ideas producer in the case of bilateral exchange
- If the value of ideas is declining to users in the number of other users who use the idea, the ability of an ideas seller to expose that idea to multiple potential buyers for an exclusive sale declines
- Limitations on disclosure by sellers reduces the ability of buyers to evaluate the relative value of different ideas in the market
- *Value Rivalry*

Imagine a stock market in which buyers and sellers couldn't find out the prices at which anyone else sold a share of stock. If you wanted to buy (or sell) a share of stock, you would have to guess what it was worth.... Willing buyers and sellers would often miss each other. The price at which a sale did close would vary widely from sale to sale. And those who

The Impact of User Reproducibility on the Market for Ideas

- In many settings, an idea can be reproduced at essentially zero marginal cost, and there are significant limitations on whether the seller can control how users exploit or distribute the idea
 - The low MC of reproduction is a fundamental feature of information goods
- In an organized market, the first user/buyer has incentives to becoming a copier of the same idea (Boldrin and Levine). Competition between the initial ideas producer and the initial buyer will, under zero MC, result in a zero price.
- This expectation of a zero price induces an externality among buyers about who should “subsidize” the first purchase, undermining the effective operation of a market with price > 0
- *User Reproducibility* results in a failure of market safety. Individuals have incentives to engage in strategic behavior that undermines the social welfare arising from market allocation.



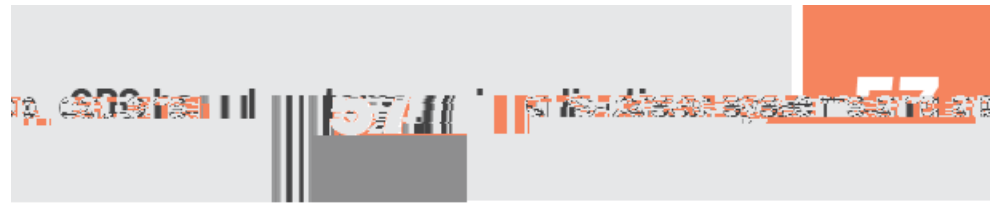


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The Impact of Intellectual Property Rights on the Market for Ideas

- Traditionally, formal IPR such as patents have been rated as having only a modest importance in capturing the rents from innovation (Levin, et al, 1986; Cohen, et al, 2003).
- Work on markets for technology have emphasized the crucial role of formal IPR in bilateral transactions by providing a means for contractibility and overcoming Arrow's disclosure problem (AFG, GHS)
- However, formal IPR play a new role in market design. They allow a single seller to disclose an idea to potential buyers (addressing value rivalry), and, through licensing restrictions, limit the scope of ideas purchase to limit future competition in the market for ideas (limiting the impact of user reproducibility)
 - In the absence of strong relational mechanisms, an efficient market for ideas depends on transforming underlying ideas into property rights



56

58

Featured IP Assets:

- US 6,211,822; US 6,278,404; US 6,593,879;
- US 6,594,582; US 6,760,664; US 6,844,856

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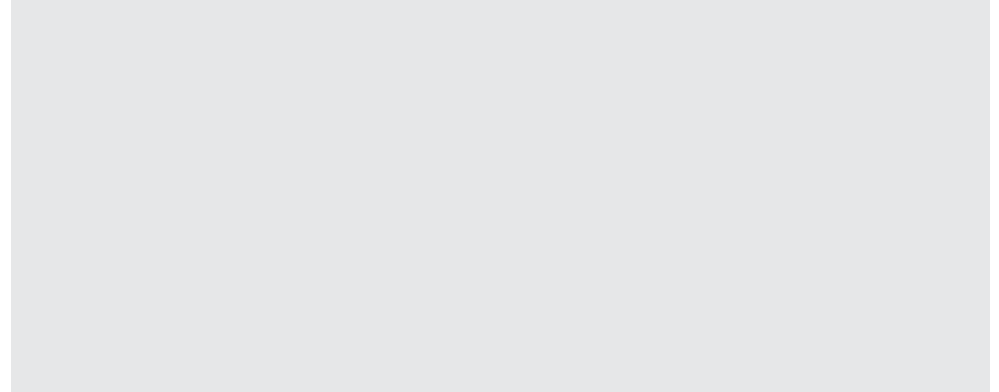
opening Bid: \$75,000

Listing Summary:

Ozym Torus Federal Services LLC is offering exclusive licenses in NASA-Goddard Space Flight Center's (GSFC) Patent Portfolio (PP) for the development and commercialization of a new technology for processing of data from the GSFC's Earth Observing Satellite (EOS) data archive. The technology is a new method for processing of data from the GSFC's EOS data archive. The technology is a new method for processing of data from the GSFC's EOS data archive. The technology is a new method for processing of data from the GSFC's EOS data archive.

GSFC's Patent Portfolio

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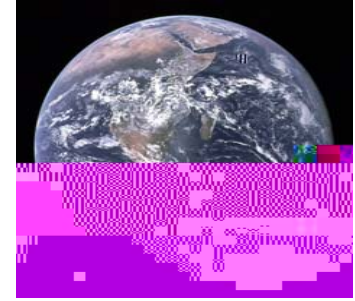


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Information Wants to be Free (Brand, 1984)



- In many settings, strong moral and values based arguments regarding the fact that the price of an idea should be identical to its marginal cost – zero
 - “From the consumer’s perspective, though, there is a huge difference between cheap and free. Give a product away and it can go viral. Charge a single cent for it and you’re in an entirely different business, one of clawing and scratching for every customer. The psychology of “free” is powerful indeed, as any marketer will tell you..... the truth is that zero is one market and any other price is another. In many cases, that's the difference between a great market and none at all.” (Chris Anderson)
 - While consumers are certainly interested in ideas at the lowest price, some of the strongest voices against prices for ideas are those who produce and supply ideas
- Most robust and active markets for formal ideas exchange are precisely those where the price of the ideas is equal to zero
 - Scientific norms in which the price of an idea is the “thin” property right of scientific credit is taken for granted, and seems like a natural approach
 - No room for micro payments, persistent failures of DRM & SW subscription models; no pushback against advertising supported models

Are Ideas a Repugnant Good?

- Repugnant goods are those for which there are strong social norms (or even legal constraints) on exchange at a positive price (or at all)
- *Should the following be permitted....*
- *Steve Jobs charging a price >> MC for the iPhone?*
- *A pharmaceutical firm charging a price >> MC for baldness treatment?*
- *A pharmaceutical firm charging a price >> MC for a malaria treatment discovered with public funds?*
- *The right for a record label to prohibit an artist from playing their own music, with heavy penalties for infringement?*
- *An auction between you and your health insurance company to exclusively access your genetic profile?*
- *Secret payments by the government to journalists and bloggers to express particular opinions as their own?*
- *The sale of credit for a discovery by a student to a faculty member?*