How digitization is changing everything

The Economics of Regulation and Competition
Dr. Tunç Durmaz
Econ. Dept. - Yildiz Technical University

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How digitization is changing everything

- The digitization of society is at the heart of economic and social changes in the 21st century
  - We increasingly shop and do our banking online
  - Read news on websites
  - Use Uber
  - Carpool using BlaBlaCar
  - Reserve accommodation through Airbnb
- In this class, we are going to focus on strategies of digital companies and challenges involved in regulating these markets.
  - Two-sided platforms are at the core of the analysis.
    - They enable different sellers and buyers OR supply and demand to meet and interact.
    - They are large and growing in importance
    - The five largest global companies are two-sided platforms:
      - APPLE, GOOGLE, MICROSOFT, FACEBOOK, AMAZON…
    - (As of 2017) Seven of ten largest startups are also two-sided platforms as of 2017
  - We are going to their business model and try to understand whether these businesses are making us better off.

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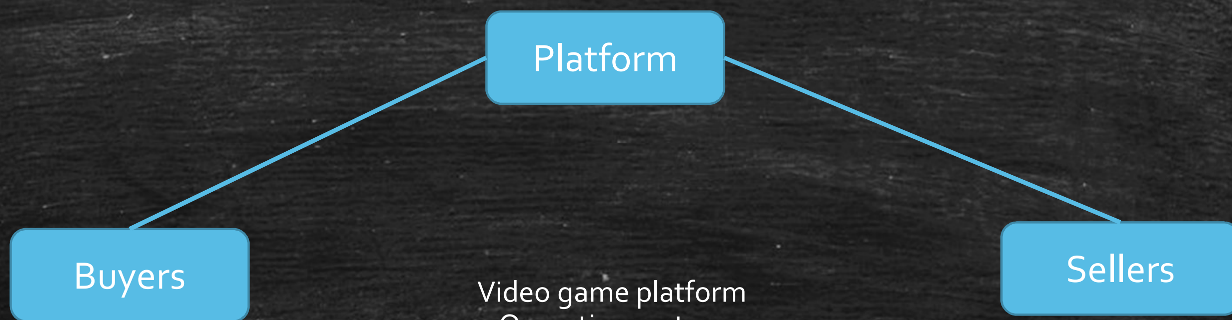
- Two-sided platforms



Video game platform
Operating system
Portals, newspapers, TV
Debit and credit cards
Sharing economy (Uber, Airbnb, OpenTable)

Gamers
Users
“Eyeballs”
Cardholders
Consumers

Game developers
Application developers
Advertisers
Merchants
Car drivers, home owners

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- Platforms: guardians of the digital economy

YOUR Visa card
PlayStation
Google
WhatsApp
The real estate agent
HAVE MORE IN COMMON THAN YOU THINK

- They are all examples of two-sided markets
  - A two-sided market is one in which an intermediary (Visa, Sony, Alphabet, Facebook, the real estate agency) enables sellers and buyers to interact
- These platforms bring together different communities of users seeking to interact with each other
  - Players and developers in the case of video industry
  - The users of operating systems (Windows, Android, Linux, OSX or iOS) and application developers
  - Users and advertisers in the case of search engines and media
  - Holders of bank cards and merchants in the case of card transactions

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- These platforms bring together these groups and provide a technological interface which allow them to interact
- The ease of finding suppliers leads to trade that would otherwise be unimaginable. It often causes prices to fall by putting suppliers in competition with each other
- However, this is not always the case. For example, prices of rare goods such as secondhand books, for which the demand is little, are often more expensive online!
  - Those who are prepared to pay for such niche products are prepared to pay a lot to acquire them
  - Whereas, those who come across them by chance in a bookshop or a garage sale tend not to be prepared to pay as much

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- The economics of two-sided markets provide a theory that sheds light on the behavior of companies in all these disparate markets. This theory is used as much by management as well as by competition authorities.
- THE BUSINESS MODEL:
  - These platforms have two communities of users, and the challenge is to find a viable economic model that ensures that both participate.
  - Every two sided platform faces a chicken-and-egg problem.
  - A manufacturer of videogame consoles must attract both players and developers of videogames
  - Players want a wide choice of games
  - Developers want to reach the broadest possible market
  - The console manufacturer wants to simulate enthusiasm on both sides

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- The economics of two-sided markets
- THE BUSINESS MODEL:
  - These platforms have two communities of users, and the challenge is to find a viable economic model that ensures that both participate.
  - Every two sided platform faces a chicken-and-egg problem.
  - Media organizations face the same problem
  - Because to create a sustainable business model, they must capture the attention of audiences and also interest advertisers.
  - For payment systems such as American Express, PayPal, and Visa, the goal is to attract consumers and simultaneously ensure that merchants will accept their methodology of payment.
  - All these activities make it essential to get two categories of customers on board by taking advantage of their respective interests.

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- The economics of two-sided markets
- THE BUSINESS MODEL:
  - After a certain amount of trial and error, a new business model has emerged
  - Let's use the language of economics to explain this first
    - The economic model depends on
      - Elasticity of demand
        - For each side of the market, this is a measure reflecting how many users (in %) the platform loses when it raises the price by 1%
      - Externalities between the different sides of the market (more specific to two-sided markets)
        - Users benefit from the presence of those on the other side of the market
          - That is; there are externalities between the two groups
        - If one side of the market benefits a lot from interactions with the other side, then the platform can charge more to the former and less to the latter side to make it attractive to join!

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        - If one side of the market benefits a lot from interactions with the other side, then the platform can charge more to the former and less to the latter side to make it attractive to join!
        - Which side has the lowest elasticity of demand? The platform provider needs to know which side is most interested in the service

- Platforms grow thanks to the very low prices on one side of the market, which attract users on that side, and enables the platform to earn revenues on the other side!
- In some cases, one side of the market might not pay anything, or might even be subsidized, the other side paying for both

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- The economics of two-sided markets
  - For example,
    - Radio stations and websites do not ask their audiences to pay
    - All revenue comes from advertising

    - Google benefit from its numerous free services (search engine, email, maps, YouTube, and so on)
      - The presence of the users attracts advertisers who can present their wars on the platform in a targeted way
      - Advertisers pay very large sums for this privilege
    - The payment card sector
      - When a consumer makes a payment by American Express card, American Express makes a profit from the commission it charges the seller: MERCHANT FEE
        - This fee is deducted from the merchant price

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- The economics of two-sided markets
  - The payment card sector
    - When a consumer makes a payment by American Express card, American Express makes a profit from the commission it charges the seller: MERCHANT FEE
      - This fee is deducted from the merchant price
      - This explains why cards are often provided for free or even at a negative price if they also give air miles or rebates in cash to the card user
    - To summarize, this business model consists in providing consumers with cheap debit or credit cards and making merchants pay a percentage on each transaction
    - The merchants are interested in accepting cards even they are costly
      - Otherwise, they risk losing customers

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- A different business model: Platforms as regulators
- Classic and Two-sided organizations
  - Why platforms differ from classic markets?
  - Take the example of the classic/vertical business model of the pharmaceutical industry
    - Increasingly innovative drugs produced by entrepreneurial biotech companies
    - These companies have no
      - Comparative advantage in development
      - Clinical trials
      - Securing approval from the regulatory authorities
      - Manufacturing
      - Marketing
    - They sell their patents, grants exclusive licenses or are acquired by a large company such as Bayer, Aventis, Novartis, Pfizer or GlaxoSmithKline
    - In every case a single pharmaceutical company will market the drug (why?)
    - A biotech company will therefore take care to create a downstream monopoly that maximizes profits from selling the drug

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– A different business model: Platforms as regulators

- Why platforms differ from classic markets?
  - Compare the platform model with the vertical model

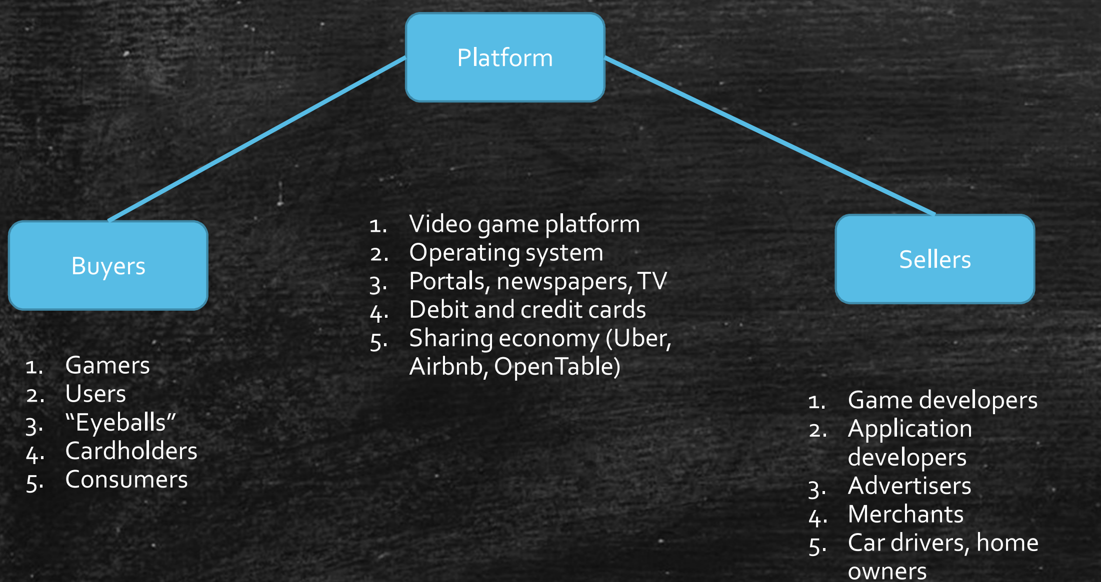
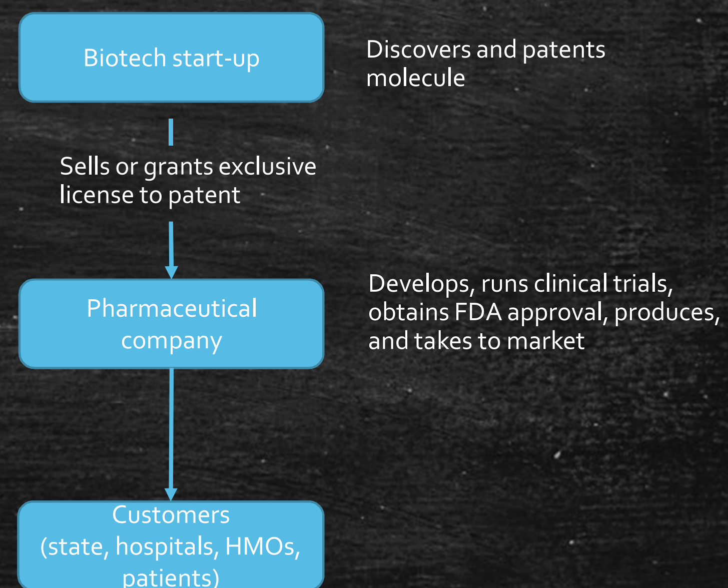


***Figure**: The classical/vertical model*



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- A different business model: Platforms as regulators
    - A two-sided platform interacts with the seller and customer. Thus, the platform cares about the customers' interests.
        - A satisfied customer will pay more to the platform!
        - Or will be more inclined to return
        - Not philanthropy!
  - Competition among sellers
    - A platform is usually not hostile to competition among sellers; e.g., WINDOWS
    - The competition drives down prices and improves quality, making the platform more attractive to customers
    - It is as if the platform granted licenses to several sellers
    - It is more concerned with protecting the buyer's interests than the biotech startup of the vertical model

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- A different business model: Platforms as regulators
  - Price regulation
    - Platforms sometimes regulate the prices that sellers can ask
      - Apple, music sales; the company limited the charge for downloads to 0.99$ per track and 9.99$ per album
      - Payment card platforms frequently forbid merchants from charging extra for payments by card
  - Monitoring
    - To protect customers, platforms try to keep undesirable counterparties from accessing the platform
      - Nightclubs and dating agencies screen their customers at the entrance.
      - Apple monitors the quality of the applications on the App Store
      - Facebook employs numerous people to keep an ere out for the offensive content and behavior
  - Providing Information
    - Platforms protect users by providing them with information about the reliability of sellers through a rating system.
    - Platforms sometimes also have quasi-judicial function

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- A different business model: Platforms as regulators
  - Sharing economy
    - It has adopted all these strategies
      - Uber

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- The challenges two-sided markets pose for competition policy
  - Reviewing the competition policy
    - What should we think about two-sided platforms' technology and marketing practices?
    - The traditional reasoning set out in competition law is no longer valid
    - A regulator who does not bear in mind the unusual nature of a two-sided market may incorrectly Comden low pricing as predator or high pricing as excessive even though these pricing structures are adopted even by the smallest platforms entering the market
    - A regulator should refrain from mechanically applying the classical principles of competition policy where they are simply not applicable.
    - New guidelines for competition policy as adopted to two-sided markets would require that the two sides of the market are considered together
  - Farewell to competition law in these sectors?
    - Although applying competition policy to two-sided markets requires care, it would be wrong to conclude that the sectors they serve should be abandoned to a sort of legal no-go zone into which competition law does not venture

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– Don’t forget to read from pages 393 to 400 in Chapter 14.