

ECON-C5100 Digital Markets

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Lecture 1: Introduction

The square and the tower



Market square in Siena, Italy. Source: Tuscany, Beautiful Everywhere.

Mix of *basic economics* in a digital world

- Efficiency
- Preferences

plus *Network externalities*

and some introductory *Industrial Organization (IO)*

- Strategic behavior of firms
- Impacts to markets and regulation

Guidelines for the course:

- Check the course policies slides from MyCourses or the short video from Panopto

Of lectures:

- Aim to keep things concise
- Q&A at the end

Primary channel for discussion is Presemo, presemo.aalto.fi/digimar

You can email me for any questions or to book a virtual meeting

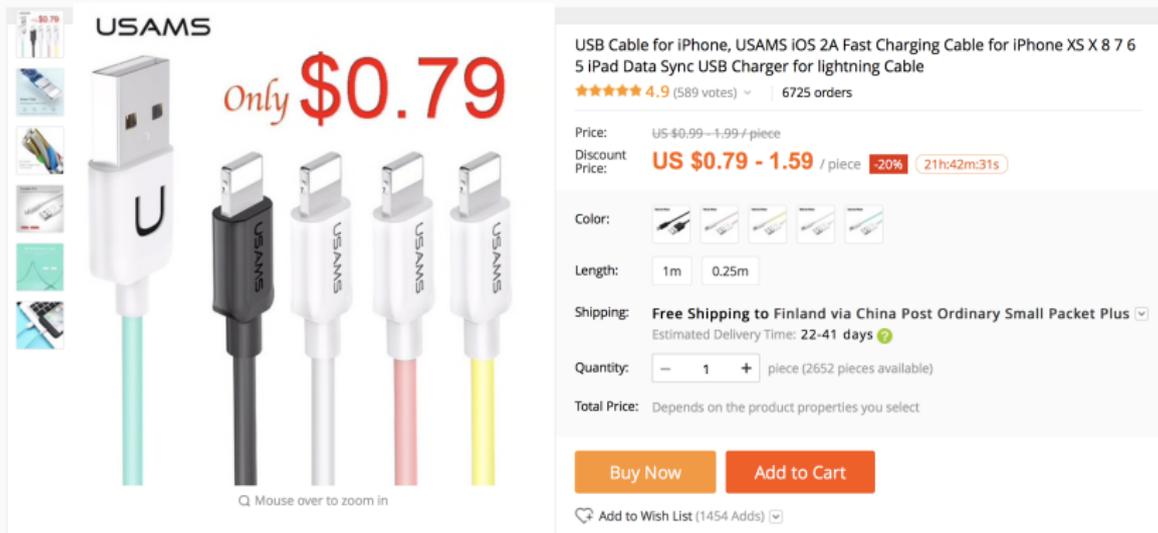
First lecture

- Start with market efficiency

Second lecture

- Preferences and data

Phantom packages



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Q Mouse over to zoom in

Figure: Aliexpress.com.

Digital markets offer several channels for improved efficiency:

- The usual suspects:
 - Lower transaction costs
 - Lower search costs
 - Lower replication costs
- But also need to consider
 - Lower tracking costs
 - Lower verification costs
- Much of the course will be spent on these topics in detail, but we start already today

In-class exercise: Search costs game

Take note of three things:

1. B if you are a buyer and S if you are a seller
 - If your first name has odd number of letters you are B
 - If your first name has even number of letters you are S
2. Your private value for the item, i.e. the maximum price you are willing to pay or the minimum price you are willing to sell the item
 - Take the alphabet ordinal number of the first letter of your first name ($A = 1, B = 2, \dots$), use a proxy if needed.
3. The item you want to trade:
 - Apple, if you are an Aalto econ major
 - Orange, if you are not an Aalto econ major

As an example, livo gets you S and 9 from the first two points

In-class exercise: Search costs game

- Your task is to maximize your payoff from the trade:
 - If you want to buy an item, find someone willing to sell the same item with the lowest price you can
 - If you want to sell an item, find someone willing to buy the same item with the highest price you can
 - The payoff from your trade is the difference between the price you can find and your private value
 - If you cannot buy or sell your item, you get nothing
- As an example, if Ivo can sell his orange for 10, his payoff is 1
- The game will continue for x minutes

In-class exercise: Starts now!

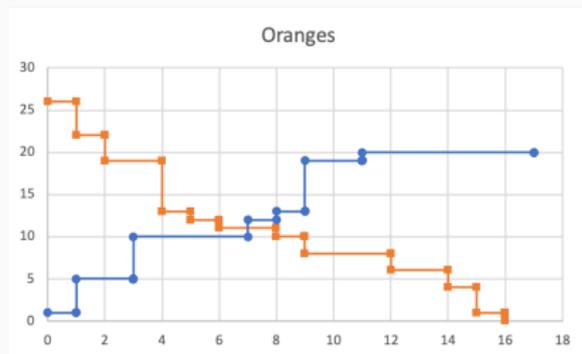
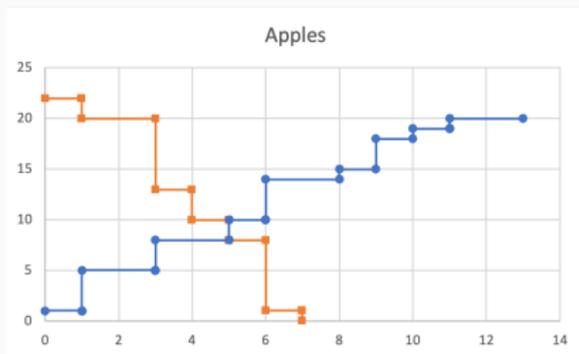
Game is run in Presemo presemo.aalto.fi/digimar

Use the Marketplace chat

Try and close the best deal you can

In-class exercise: Search costs game

Now let's organize differently. . .



And discuss the results

Organizing markets: Before the 19th century



Figure: *Village Fair* by Gillis Mostaert, 1590 (via Wikimedia).

Organizing markets: Recent past

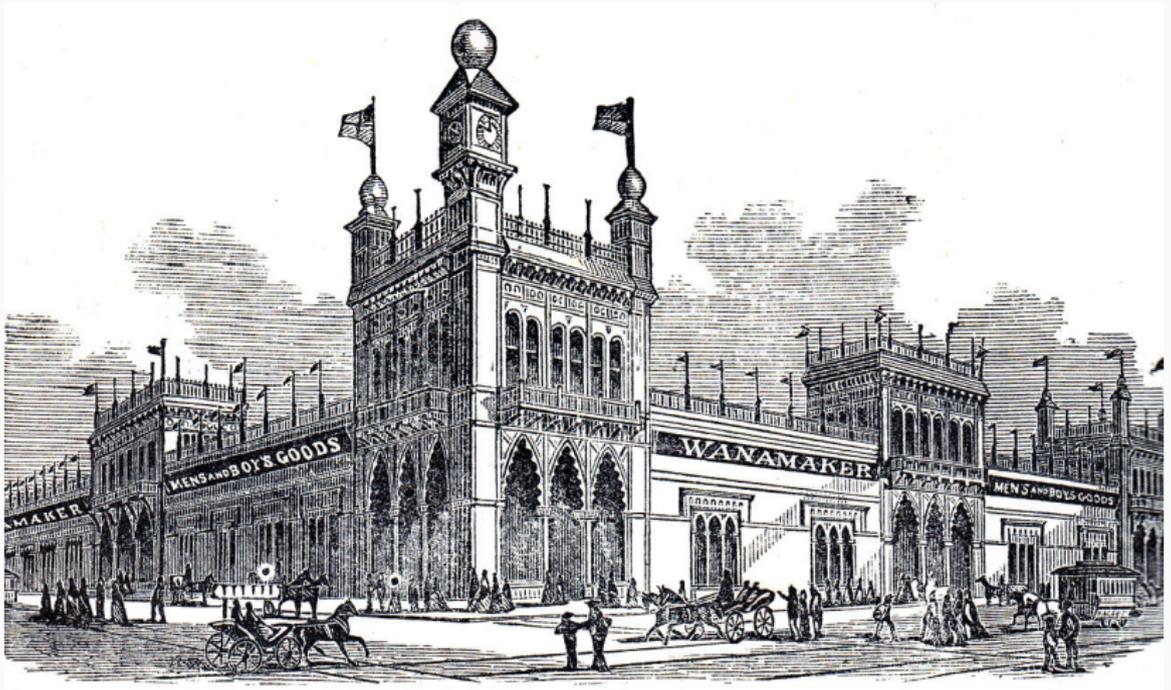


Figure: WikiCommons.

Organizing markets: Now



Figure: Alibaba.

Many new marketplaces operate as platforms

Why are platforms so popular as a business model?

- Economics of scale reduce transaction costs (e.g. Alibaba)
- Matching to reduce search costs (e.g. Amazon)
- Replication of effort through digital platforms (e.g. Apple iOS)
- Benefits from tracking users (e.g. Google)

In addition, *network effects* are going to be of crucial importance.

We will return to these mechanisms in more detail

- Institutional arrangements set the rules for “games” in marketplaces
- Marketplaces can have their own rules, e.g. stock exchanges
- Setting these rules is a question of market design, which we will return to in later lectures
- Even with no market specific rules, we have rules and regulation in place to set some boundary conditions
 - For example, environmental regulation, competition law, consumer protection law, copyright law, health and safety laws, labor laws etc.
- Online access to markets in other countries challenges the ability of local governments to regulate them

““

Why do you think that the ecosystems in the U.S.
have grown so big? –*Bengt Holmström*

””

Listen to [Common Good Summit: Regulation of Platforms](#) (have a look at least the clips from 36:10 to 40:30 and 47:00-49:50.)

Takeaways from today

- Digital marketplaces increase efficiency
 - Reduction of search costs and other frictions
- Market institutions matter
- We have the new market square
 - The tower? To be discussed

Materials for this week

Reading assignment 1:

- Athey, Susan and Michael Luca (2019) “Economists (and Economics) in Tech Companies”, Journal of Economic Perspectives. Read the whole article.
- Varian, H. (2012) “Revealed Preferences and its Applications”, Economic Journal. Read the Introduction and Section 2 for now.

Online resources (make sure you know these before you take Exercise 1):

- Make sure you know the basics of consumer choice: e.g. mru.org: [Consumer Choice](#) and/or www.core-econ.org 3.2-3.5, 3.7.1.
- and supply–demand equilibrium e.g. mru.org: [Supply, Demand, and Equilibrium](#) and/or www.core-econ.org 8.1, 8.2.

Preferences

- Preferences online
- Estimation and prediction