

Lecture 02 - Platform ecosystems, Key concepts & foundations

Multisided Platforms – Lecture Notes

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1. Introduction

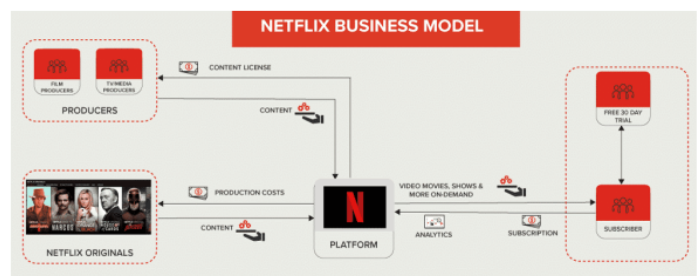
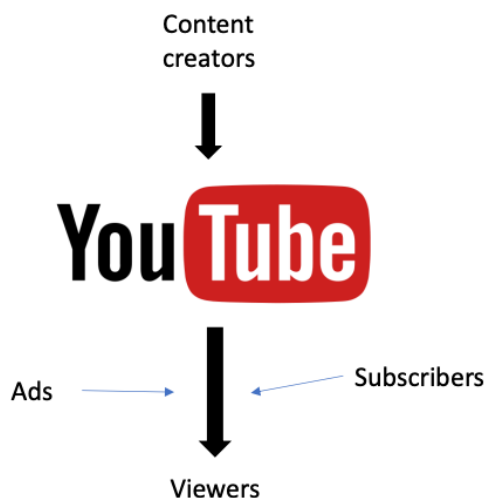
- 5 of the 10 most valuable companies (2024) use a **platform model**.
- **Lecture topics:**
 - Platform definitions and types
 - Network effects
 - Key drivers:
 - Multihoming
 - Niche players
 - Entry barriers
 - Disintermediation

2. Definitions and Key Concepts

What is a Platform?

- Platforms connect people/organizations, enabling new forms of interaction and innovation.
- Platforms = **Multisided ecosystems** (Cusumano et al., 2019).

YouTube vs Netflix



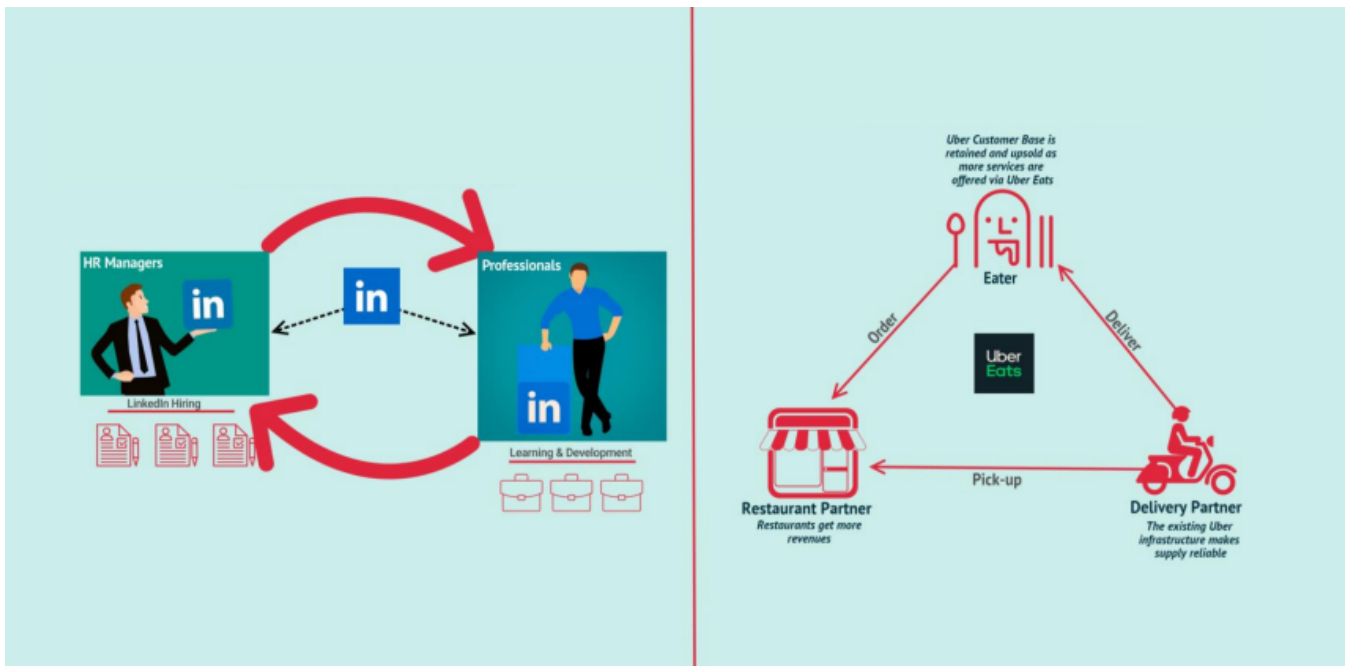
By Gary Fox

What is a “Side”?

- A distinct stakeholder group that the platform connects.
- Each side is a customer (e.g., providers and users).

Examples:

- **Facebook**: Users, advertisers, developers
- **Airbnb**: Hosts, guests
- **iOS**: Developers, end users
- **PlayStation/Xbox**: Gamers, developers
- **PayPal/Vipps**: Consumers, merchants



3. Are Platforms New?

- **No** – Examples from pre-digital age:
 - Shopping malls
 - Job fairs
 - Magazines
- **Digital tech** (e.g., mobile, cloud, broadband) supercharged platform growth.

Note: Not all digital businesses are multisided.

- **Netflix (original)**: one-sided (pipeline model)
- **YouTube**: multisided (creators, viewers, advertisers)

4. Platforms vs Traditional Businesses

Key Differences

- Platforms often lack physical assets.
- Scale more efficiently.
- Can profit by subsidizing one side of the platform.

Subsidy Side vs Money Side

- **Subsidy side**: receives free access or is paid
- **Money side**: charged enough to sustain platform

Examples:

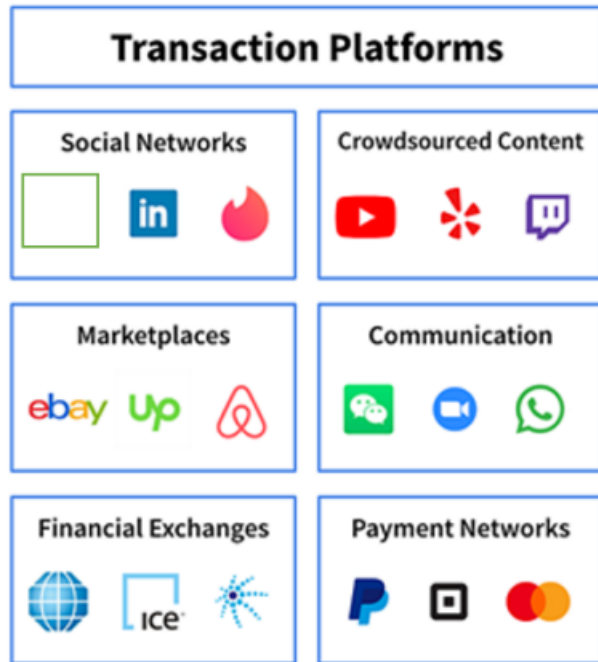
- **Google**: Users (subsidy), Advertisers (money)
- **Finn. No**: Job seekers (subsidy), Employers (money)
- **Foodora**: Consumers (subsidy), Restaurants (money)

5. Platform Types (Applico)

Transaction Platforms

- Facilitate **exchanges** between different user groups.

- E.g., Uber, Etsy, Airbnb, OpenTable



Innovation Platforms

- Offer **technological infrastructure** for others to build upon.
- E.g., Android, iOS, Photoshop, game consoles



Similarities

- Multisided structure
- Benefit from **network effects**
- Build **ecosystems** involving many participants

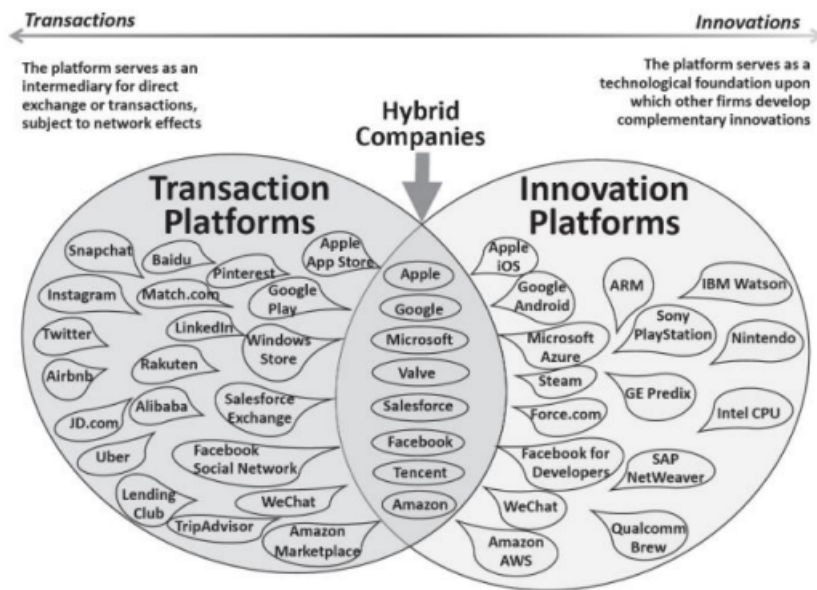
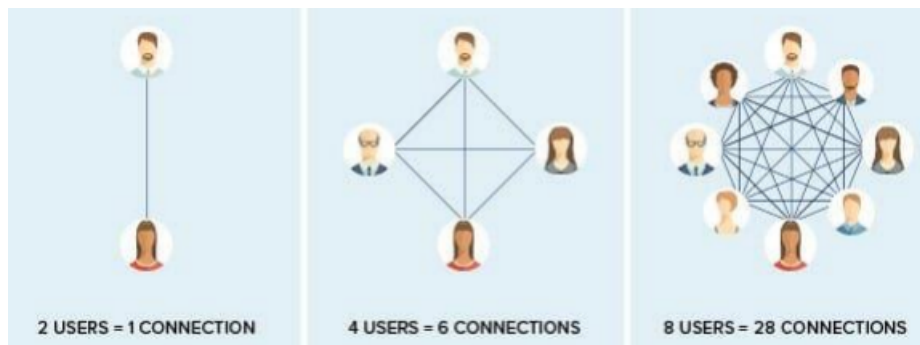


FIGURE 1-2: TWO BASIC PLATFORM TYPES*

6. Network Effects



Direct (One-sided)

- Value increases with more users (e.g., telephone, social media)

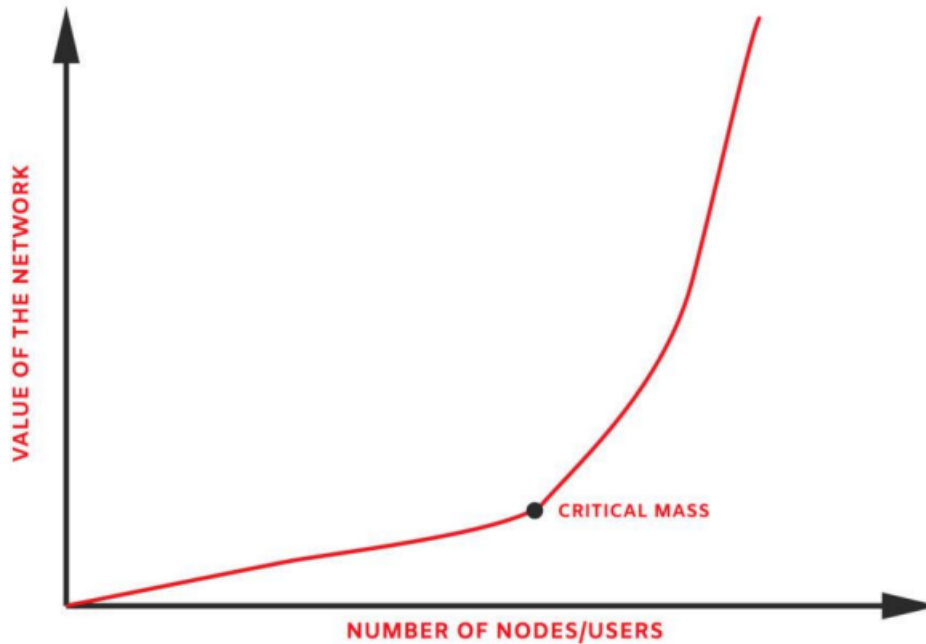
Indirect (Cross-sided)

- One group's size increases value for another
 - E.g., more Uber drivers → better for passengers

Critical Mass

- Self-sustaining growth point

- Important milestone for platform viability



Negative Network Effects

- Overcrowding reduces value
 - E.g., Facebook clutter, bandwidth congestion

7. “Winner Takes All”? (Not Always)

- **First Mover → Network Effect → Market Dominance?**
 - Sometimes true, but not always

Failed First Movers:

- Friendster/MySpace → Facebook
- Netscape/IE → Chrome
- Symbian/BlackBerry → iOS/Android

Key Insight:

- **Network effects** are not automatic
- Strategic decisions still crucial

8. Key Market Drivers

A. Multihoming

- Users/providers use multiple platforms for same purpose.

Reasons:

- Promotions, functionality, social context

Consequences:

- Weakens network effects and slows growth

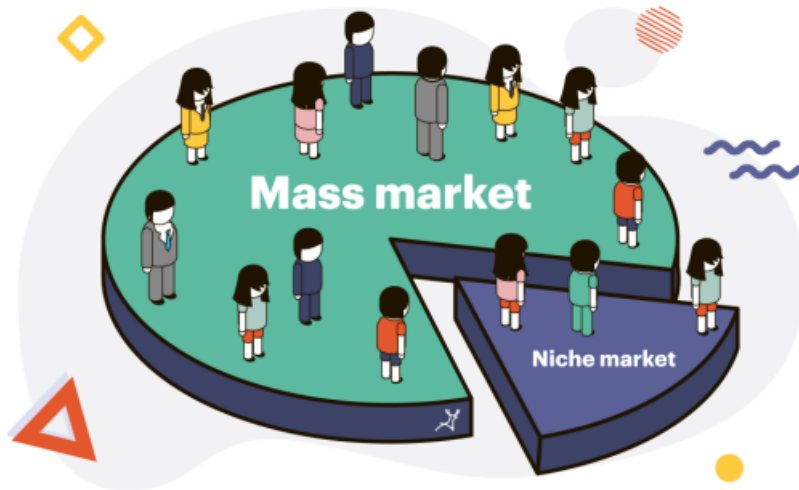
How to reduce it:

- Build ecosystems (e.g., Alibaba: Taobao, AliPay)
- Use proprietary standards (Apple)
- Loyalty programs (Uber, Expedia)
- Exclusive content or services

Reducing multihoming on one side may increase it on another.

B. Niche Players

- Specialize in specific markets or users
- Fragment network → reduce winner-takes-all likelihood
 - E.g., Upwork vs niche freelancing sites



C. Disintermediation

- When users bypass the platform after connecting once.
 - E.g., hiring a tutor or cleaner directly instead of through the platform.

D. Entry Barriers

- Obstacles for new entrants.
- **Types:**
 - Legal (patents)
 - Strategic (pricing, lock-in)
 - Technical (infrastructure)
 - Brand loyalty

High barriers = protection from competition

Low barriers = increased competition

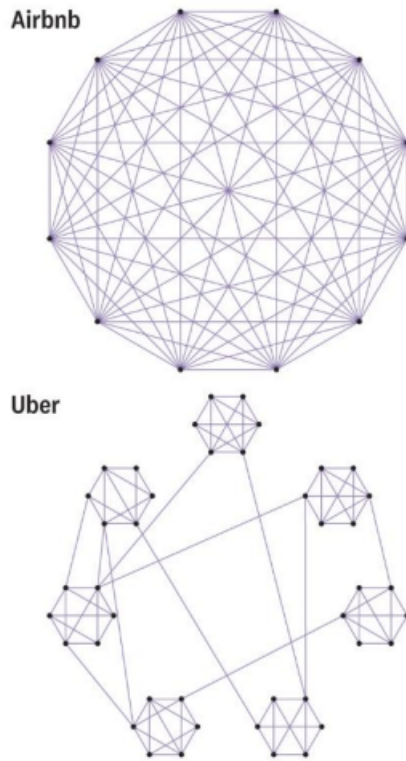
E. Network Structure & Clustering

- Structure affects market dominance

Examples:

- **Uber:** Fragmented city clusters → easier to disrupt

- **Airbnb**: Global cluster → more defensible

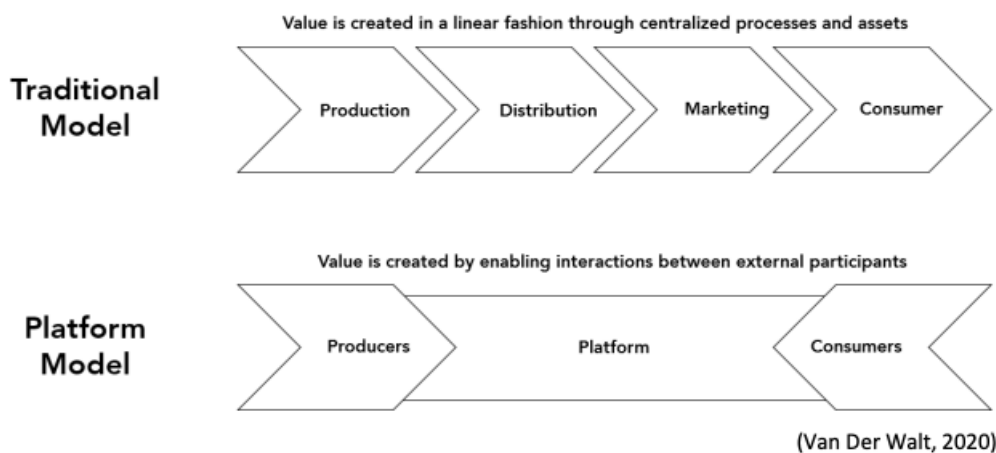


Zhu and Iansiti (2019)

9. Summary: What Drives Platform Success?

- Strength of **network effects**
- Difficulty of **multihoming**
- Degree of **niche competition**
- **Defensibility** of the network structure
- Risk of **disintermediation**
- Level of **entry barriers**

Differences Between Multisided and Traditional (One-Sided/Pipeline) Businesses



1. Value Creation Model

- **Traditional (Pipeline) Businesses:**
 - Value is created **linearly** through a controlled production and distribution chain.
 - The company creates the product/service and delivers it directly to the end user.
- **Multisided Platforms:**

- Value is created by **facilitating interactions** between two or more independent groups (e.g., buyers and sellers).
 - The platform enables value exchange between users without producing the core product/service itself.
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2. Role of Users

- **Traditional:** Users are typically **end consumers** only.
 - **Multisided:** Users can be both **producers and consumers** (e.g., Airbnb hosts and guests, YouTube creators and viewers).
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3. Ownership of Assets

- **Traditional:** Often **own or control** the key assets (e.g., inventory, production facilities).
 - **Multisided:** Frequently **do not own** the assets involved in the value exchange (e.g., Uber doesn't own cars, Airbnb doesn't own property).
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4. Scaling and Growth

- **Traditional:** Scaling usually requires **proportional increases** in production, staff, and logistics.
 - **Multisided:** Can scale **rapidly and cheaply** through network effects as more users join.
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5. Revenue Models

- **Traditional:** Revenue comes directly from **selling products/services** to customers.
 - **Multisided:** Revenue often comes from **charging one side** of the platform, while **subsidizing the other** (e.g., free users, paid advertisers).
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6. Network Effects

- **Traditional:** Rarely benefit from network effects.
 - **Multisided:** **Heavily dependent** on both direct and indirect **network effects** to grow and sustain value.
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7. Customer Segmentation

- **Traditional:** Usually deal with **a single customer segment**.
 - **Multisided:** Must balance and serve **multiple interdependent customer groups**.
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Summary Table

Feature	Traditional (Pipeline)	Multisided Platform
Value creation	Linear	Interaction-based
Asset ownership	Often owned	Often not owned
Scaling	Costly and incremental	Rapid and low-cost
Users	Consumers only	Multiple sides (producers/consumers)
Revenue model	Single-sided	Multi-sided (subsidy/money side)
Network effects	Rare	Central to success
Customer base	Single group	Multiple, interdependent