

# Digital Platforms Architecture: Interactions Design – Core & Extended

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# Digital Platform Architecture

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- Involves
  - Building a platform that invites participation & create significant value
  - Tools and services to be provided to ease interaction between producers and consumers
  - Designing technological infrastructure
  - Encouraging positive and minimizing negative network effects
- Difficult to identify a logical starting point
- Two ways of value exchange
  - By directly connecting the users
  - By establishing mechanisms for value exchange without any direct connection between users e.g., Blogpost, Youtube etc.

# Types of Exchanges: *value unit*

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- Exchange of information
  - All platforms exchange information, but not all exchange only information
  - One of the fundamental characteristics
  - E.g., Amazon, JustDial, Quora, Uber
- Exchange of goods or services
  - Each item exchanged among platform users
  - This exchange may occur through: the platform; specific tools provided by the platform to enable the exchange; outside of the platform
  - E.g., HackerEarth, Airbnb or Zomato
- Exchange of currency
  - Real currency (Paytm), Other forms of value like attention, fame, influence, reputation etc. (Likes, Followers)
  - Either on platform or through tools provided by the platform – required for monetization

# Goal of Platforms

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To bring together producers and consumers and engage them into these three forms of exchange:

- Exchange of information
- Exchange of goods and services
- Exchange of currency

# Platform Design: The Core Interaction

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- Exchange of value that attracts most users to the platform in the first place
- Single most important form of activity that takes place on a platform. E.g., LinkedIn
- Three key components:
  - The participants
  - The value unit
  - The filter
- Focus of the platform: To facilitate the core interaction

# Core Interaction

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## ➤ Participants

- Producer – Users who create value units; Consumer – Users who consume value units
- Side-switching is possible; Well-designed platforms enable and facilitate side-switching
- Different types of users may perform one role, i.e., producer or consumer. e.g., YouTube

## ➤ The value unit

- Information – Product/service listing information
- Technical challenge detail – Hacker Earth; Professional profiles – LinkedIn

## ➤ The filter

- An algorithmic, software-based tool used by the platform to enable the exchange of appropriate value units between users
- E.g., Airbnb - search query; Uber – location, occupancy;

# Core Interaction

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- Google search engine
- Facebook
  - Value units – status updates, pictures, comments, news feeds
- Platform Design
  - Decide on the core interaction, then decide on the participants, the value units, and the filters to make such core interactions possible
  - Over period interactions expand over time. For each interaction, this exercise is required
  - Design filters to deliver valuable units while blocking others – no control over production of value units

# Beyond the Core Interaction

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- New interactions
  - Long-term business plan – UberPool & Lyft Line
  - New interactions emerge from experience (Uber), and necessity (LinkedIn)
- Ways to generate new interactions
  - Changing the value unit exchanged between existing users – e.g., LinkedIn - posts
  - Introducing a new category of producers and consumers – e.g., LinkedIn recruiters
  - Curating members of an existing user group to create a new category of users – Instagram influencers, LinkedIn thought leaders

# Design to Scale

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- Frictionless entry
  - Ability of users to quickly and easily join a platform and begin participating in the value creation facilitated by the platform
  - Yahoo vs. Google
    - Primary task by employees (library-inspired database) vs. web page creators (Weblinks as the key sorting tool)
    - Page producers already consider what viewers want
- Both sides of the network should grow proportionally
  - Side-switching