

Platform Business Model of the Digital Economy

Happy New Year and welcome to the second installment of my Column on Digital Transformation. This month I'm going to try something new. We'll start off by looking at one of the prominent digital business models, then examine this model through the lens of digital transformation foundations and finally look at the architectural implications of that.

Platform Business Model

Across the industry, there are many different ideas of what a platform is. Different sources site 3, 8, 12 or more platform models, ranging from traditional technology platforms, like Windows or Linux, to application platforms, like SAP and Salesforce, Platform-as-a-Service models like Microsoft Azure or WSO2, and even "Digital Business Platforms" identified by analyst firms like IDC and Gartner. However, in this article we're not talking about any of the above platforms. Instead, we will examine the Platform Business Model.

- A *platform business model* focuses on facilitating interactions across a large number of participants. These interactions could take the form of short-term transactions like connecting buyers and sellers or they could involve formation of longer-term relationships or collaboration to achieve a shared outcome.
- The role of the platform business is to provide a governance structure and a set of standards and capabilities that facilitate interactions at scale so that network effects can be unleashed.

I find the following high-level categories to be good descriptions that capture the characteristics of many of the platform business models:

- *Aggregation platforms* bring together a collection of resources and help users to connect with the most appropriate resources. These platforms tend to be transaction-oriented: Express a need, find something that satisfies it, transact the exchange, and move on. Marketplace and broker platforms like eBay and Etsy are good examples. Aggregation platforms tend to operate on a hub-and-spoke model whereby the platform owner and organizer brokers all of the transactions.
- *Social platforms* bring together people and help to support engagement among those with common interests. Facebook is a leading example. Social platforms tend to foster networks of relationships rather than hub-and-spoke interactions.

- *Mobilization* platforms bring people or organizations together to accomplish something beyond the capabilities of any individual participant such as extended business processes like supply networks or distribution operations.

One of the things that distinguishes these business model platforms from other platforms is that they are “multi-sided”. Multi-sided platforms create value primarily by enabling direct interactions between two or more participant groups. Figure 1 shows a mind-map representation of multi-sided platforms from Dr. Murat Uenlue’s excellent Blog: Platform Business Model [Part 1]: The Most Revolutionary Business Model Right Now, <https://www.innovationtactics.com/platform-business-model-2/>.

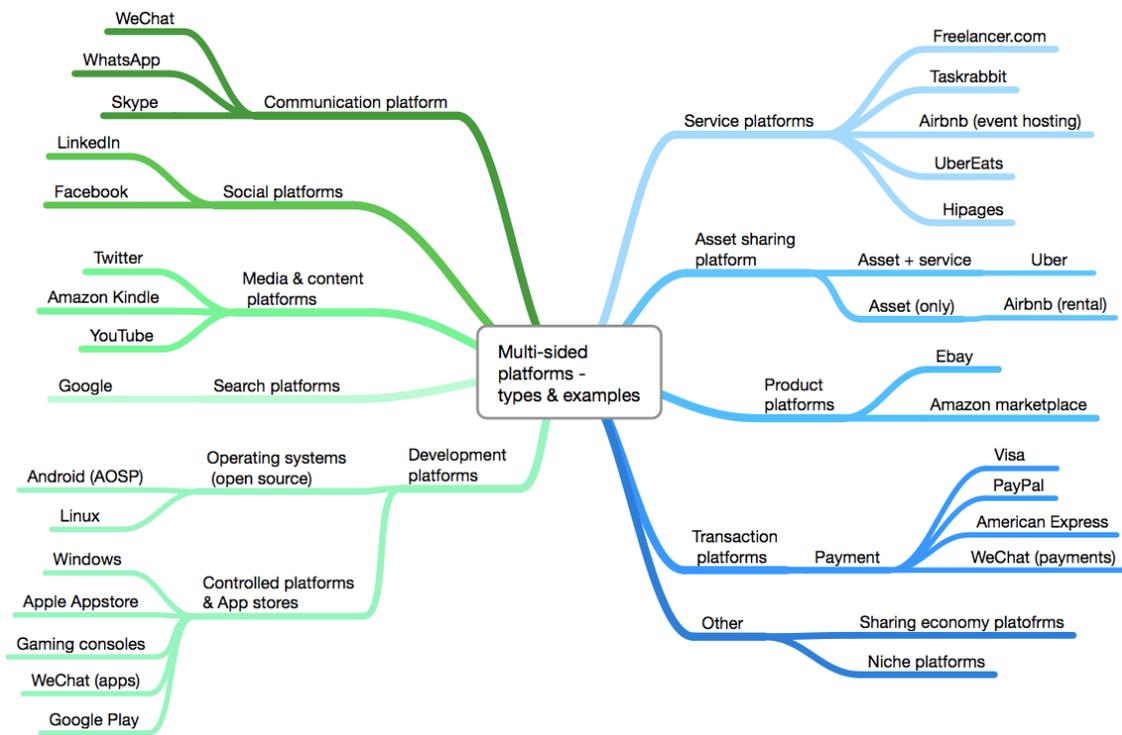


Figure 1 - Multi-sided Platform Classification

The book “Platform Revolution: How Networked Markets Are Transforming the Economy and How to Make Them Work for You” describe the basic structure of the platform as:

Participants + Value Unit + Filter = Core Interaction

- The *Participants* are the consumers and providers of the value unit.
- The *Value Unit* is what participants on one side of the platform create for others. For example, with Airbnb, the value unit is the listing of available properties.
- The *Filter* is how the other users find the Value Unit and is usually some sort of search interface. The filter is critical to the usability and desirability of the platform. Again, using Airbnb as the example, the company can use your

location and other criteria to filter the value units -- available properties -- and display them quickly and easily.

- The *Core Interaction* is the ultimate goal. It's where the consumer rents the flat, buys the book, pays for the ride -- whatever satisfies both participants and returns value to the platform, such as revenue.

According to the Platform Revolution, identifying your platform's Core Interaction is the "first and most important job... and then to define the Participants, the Value Units, and the Filters to make such core interactions possible. A valuable core interaction that is easy, even enjoyable, to engage in attracts participants and makes the emergence of positive network effects possible."

There are three main participants in the platform business model:

- *Consumers* – the participants that consume, and pay for, the value units
- *Providers* – the participants that provide, and get compensated for, the value units
- *Platform Owners* – the participants that provide the platform, manage the core interactions, implement the filter, and provide additional services that attract consumers and providers and make interaction via the platform easy and enjoyable

Each participant has a particular value proposition, for example, in a retail scenario:

- Consumers – easily identify items they need, choose among a variety of options, get meaningful recommendations that enhance the value of their interaction, purchase the items, and have them delivered quickly, all for a good price
- Providers – easily sell items through the platform, understand competitive pricing, get a comprehensive accounting of their platform business and insight into how to improve it, all for a good price
- Platform Owners – create and deliver value for consumers and providers in order to maximize the network effect and capture increasing volumes of value for the platform

While the consumers and providers have an important role to play, the success of the platform rests with the platform providers ability to create and capitalize on the network affect around the core interaction.

Digital Transformation Paradigm

When thinking about any digital business scenario, I like to frame it in terms of what I call the essential paradigm of digital transformation – **sense, compute, act**. How the organization senses the environment and manages the data, how it analyzes and learns from it, and then how it acts on it to affect outcomes. What differentiates the winners of digital platform businesses is how they leverage these aspects to deliver meaningful value-added actions that attract consumers and providers to the platform, maximizes the core interaction, and builds the network effect.

- *Sense* - *continuously collect data from multiple sources in real time*. For the platform provider, this means having a deep understanding of their consumers and providers, how they use the platform, how it is perceived in the micro and macro environments, their competition, etc.
- *Compute* – *aggregate and discover, analyze, learn, to gain insight and knowledge*. For the platform provider, this means understanding competitive

pricing, understanding consumer and provider behaviors, understanding market and environmental trends, identifying fraudulent or aberrant behaviors, etc.

- *Act – to create a comprehensive awareness of the state of the platform business, to augment human decision making, and to automate internal and external business and operational processes.* For the platform business, this means curating content and managing providers to ensure quality, making recommendations to consumers, optimizing just in time inventory, fulfillment and delivery processes, etc.

Architectural Considerations

So, a successful platform business is not as simple as 'build it and they will come'. It's about creating an environment that attracts both consumer and providers to the platform better than the competition and building on the network effect. And, it's about optimizing the internal operations of the core interaction at scale. So, let's look at some sample architectural concerns:

- Goals: attract consumers, enable providers, optimize core interactions, facilitate fulfillment, sell more stuff
- Scale: be able to support large numbers of consumers, providers and transactions, and to grow as the network effect builds, potentially to hundreds of millions or more
- Security: ensure the confidentiality, integrity and availability of transactions and participant information. Proactively identify and respond to threats and mischievous or inappropriate behaviors
- Consumer: support discovery, search and attraction, community feedback, behavior monitoring and analysis, social monitoring, recommendation, service, ease of use
- Provider: self-service, API, pricing support, JIT inventory, service feedback
- Platform: transaction management, ecosystem management, governance, participant monitoring, content curation

Figure 2 shows a sample, high-level logical structure of the requirements for a platform business (ignoring typical operational items such as HR, Finance, etc.) that must be able to operate at scale. This could be used to spur discussion with business leaders, in conjunction with other models, such as a business model canvas, in order to capture requirements, get a big picture understanding, and solidify strategies.

The next step could be to follow a business architecture approach of creating value streams for consumers, providers, ecosystem and internal operations. The value streams and the logical structure below could then drive the development of a business capability map, where each stage of the value streams would be supported by a set of capabilities. Among other benefits, the capability map would facilitate the identification on commonality across the entire business platform in order optimize mapping to IT systems. Some commonality has been identified in the common core, but there is likely to be much more. And while the diagram below is not a capability map, but rather a visual way to capture the thought process of understanding the platform business model, each of these logical requirements would be supported by a set of capabilities identified in the actual capability map.

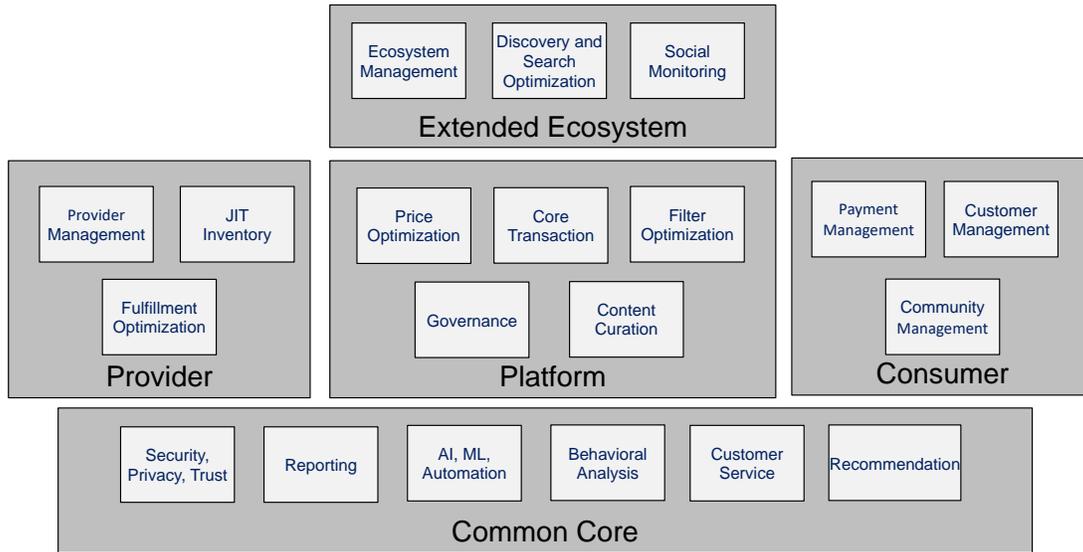


Figure 2 - Platform Business Logical Requirements

So, we started by looking at the definition and characteristics of the platform business model, and in particular the concepts of participants, value items, filters, and core interactions. Then, we applied the essential paradigm of digital transformation – sense, compute, act – to that model to identify a set of core requirements and digital opportunities. Finally, we looked at the platform from a logical architectural perspective as a first step in understanding the platform from multiple perspectives and working out implementation details and initiative. I’d love to hear your feedback on this approach. Write and tell me what you thought.

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