Plateformes et algorithme

Plateformes
Sites collaboratifs, marketplaces, réseaux sociaux...
Comment ils influencent nos choix

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Geography of platforms

Headquarters location 170 platforms with market caps of $1 billion or more

Source: P. Evans, Platform database, Center for Global Enterprise, 2016
A rough taxonomy

Material Assets

Capital
- Airbnb
- blablacar
- tracktor

Jobs:
- Task rabbit
- Uber

Work

Immaterial Assets

Content
- Youtube
- Twitter

Innovation
- Tensorflow
- Github
New species of organization?

- Individual
- Decision locus
- Collective
- Agent
- Market
- Clan
- Coordination level
- Centralized
- Platform
- Bureaucracy
The economics and virtuous circle of platforms

Externalité de réseau

Amateurs become producer and under exploited asset are new resources.

CrowdSourcing

Reputation Market

Selection, signals and trust

Multiside markets

Cross externalities

Being able to associate people and objets efficiently

Matching Market

Cognitive challenge and the prescription logic

Long tail economics

Scope Economics and the inventory competition

The critical size
# Enable or control (Agiu 2014)

## Table 1: Examples

<table>
<thead>
<tr>
<th></th>
<th>Transferable decisions</th>
<th>Non-transferable investment decisions made by professionals</th>
<th>Non-transferable investment decisions made by the firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hair salons</td>
<td>investments in equipment and uniforms; advertising of individual professionals’ services to customers (online and offline)</td>
<td>effort regarding service quality and/or customer experience (friendliness, before and after service, etc.)</td>
<td>investments in maintenance of the salon (cleanliness, signage), common washing and coloring facilities and advertising of the salon to customers; training and guidance provided to professionals</td>
</tr>
<tr>
<td>Uber &amp; Lyft vs. traditional taxi companies</td>
<td>quality, maintenance and cleanliness of car subject to minimal requirements; work schedule</td>
<td>customer service (e.g. friendliness, politeness); investment in local information</td>
<td>advertising the service (company) to customers; investments in the quality of the corresponding app and back-end infrastructure (e.g. payment processing, dispatch system)</td>
</tr>
<tr>
<td>Elance-oDesk vs. traditional staffing and outsourcing agencies (e.g. Adecco, Infosys)</td>
<td>advertising of individual professionals services; work schedule and scope</td>
<td>investments in development of skills and expertise; effort put into understanding and responding to customer needs; effort supplied in the provision of the service</td>
<td>investments in the (online) infrastructure that allows communication and monitoring by the client; investment in payment functionality; advertising the firm to corporate clients</td>
</tr>
<tr>
<td>Hospitals &amp; their clinics</td>
<td>equipment; support staff; work schedule and scope; advertising of individual clinics services</td>
<td>investments in development of skills and expertise; customer service; effort supplied in the provision of the service</td>
<td>development and maintenance of common infrastructure (e.g. physical space, common staff, any shared equipment); advertising the hospital (e.g. website)</td>
</tr>
<tr>
<td>Coursera vs. University of Phoenix</td>
<td>curriculum design (topics, length, assessment); advertising of individual instructors and courses</td>
<td>quality of content and its delivery; effort put into understanding and responding to students needs</td>
<td>investments in online infrastructure for content delivery, interactions, feedback and evaluations (both ways); advertising the brand</td>
</tr>
<tr>
<td>eBay Motors vs. Beepi</td>
<td>advertising and presentation of individual cars; after-sale customer service and guarantees</td>
<td>quality and/or maintenance of the product</td>
<td>investments in the website and related infrastructure (e.g. payment system, fulfillment, delivery, customer service, etc.); advertising of the website to users</td>
</tr>
</tbody>
</table>
« Par « gouvernementalité », j’entends l’ensemble constitué par les institutions, les procédures, analyses et réflexions, les calculs et les tactiques qui permettent d’exercer cette forme bien spécifique, quoique très complexe, de pouvoir, qui a pour cible principale la population, pour forme majeure de savoir l’économie politique, pour instrument technique essentiel les dispositifs de sécurité. » Michel Foucault
Population : a key concept

- More than **crowd**:
  - A quasi-body (not only the aggregation of individuals)
  - But overdetermination through technological objectivation.

- But less than a **community**
  - Heterogeneous agents: human being, institutions, machines and ghosts
  - Individual interactions are a big part, but no need of sense of belonging, or identity.
Flickr : taguer pour accroître l'intérêt
Note: Figure reports the number of users opening the Uber app each minute over the course of March 21, 2015 (in red), as well as the sum of total requests for Uber rides in 15-minute intervals over the same time period (blue circles), and the number of “active” UberX driver-partners within the same geospatial box (noted above) each minute (green line). In this case, “active” means they were either open and ready to accept a trip, en route to pick up a passenger, or on trip with a passenger. Pure volume counts have been normalized to a pre-surge baseline, defined as the average of values between 9:00 and 9:30 PM that
Fig. 1. Mean number of positive (Upper) and negative (Lower) emotion words (per cent) per control and experimental condition. Error bars represent standard error.
How to build a recommendation system
Netflix: algorithmic architecture and metrics

The Netflix Recommender System: Algorithms, Business Value, and Innovation
Grades and ranking

Figure 5: TripAdvisor vs. Airbnb ranks for cross-listed properties. Properties within city are ranked first by star-rating, then by number of reviews, and remaining ties are broken lexicographically.
From Algorithmic governementality to Governance of algorithm

Redevabilité algorithmic accountability; retro-engineering; regulation; (codetermination)

Affordance and appropriation; technical debt; adversial learning.

Selection biaises; Hétérogénéity; Polarisation; Ségregation;

Surveillance, recommandation, Notifications, Ranking..
A word about revenues

Figure 29: Earnings in months with and without platform earnings

- **Labor Platforms**
  - Months with no platform earnings: $3,628
  - Months with platform earnings: $3,639

- **Capital Platforms**
  - Months with no platform earnings: $4,454
  - Months with platform earnings: $4,747

Source: JPMorgan Chase Institute
« platformization »

- Do traditional organizations could transform themselves as platforms? (ACCOR, MAIF)
- How traditional organizations could partially integrate platforms approach (after sales,...)? (ie: Sosh, Leroy-merlin)
- How small business could integrate the platformscape (ie: Construction industry)?
- Do platforms are a new layer in the organization ecology (when Ikea sell through Amazon)?

• **Is it the end?** (of firms and markets)