

Information Economy, Business and Society

Christophe Benavent
Master Iren

1. vendredi 15 septembre - Introduction
2. vendredi 22 septembre -
 - a. Scale, scope and networks externalities (“the winner take all”) - The long tail (Christiansen)
 - b. Information as signal (Akerloff, 69) and the ranking economy - Reputation system
3. vendredi 1er octobre :
 - a. Information as signal (Akerloff, 69) and the ranking economy - Reputation system
 - b. Zero marginal cost economies (Al Varian) and pricing (Bomsel) -Freemium and subscription economy.
4. vendredi 8 octobre :
 - a. Multisided markets (Complementors) (Tirole, Agiu) , C2C markets and the collaborative economy.
 - b. Matching markets (Al Roth) and recommandation systems
5. vendredi 15 octobre
 - a. AI economics (Brynjolfsson, mc Afee) - Work productivity question (Autor) . job platforms
6. vendredi 22 octobre : Case presentations.
7. Vendredi 29 octobre.



SCIENTIFIC PUBLISHING ECOSYSTEM

RESEARCH & DISCOVERY

RESEARCHER / SCIENTIST	INSTITUTION	FUNDER / GOVT AGENCY
ACTIONS	ACTIONS	ACTIONS
<ul style="list-style-type: none"> Secure grants / funding Conduct research / experiments Collaborate Manage & analyze data Exchange ideas Analyze data from tools (e.g., almetrics) 	<ul style="list-style-type: none"> Manage research budgets Secure grants for research Provide library support Host research results / data Report and track funds Balance support for senior & junior researchers Analyze data from tools (e.g., almetrics) 	<ul style="list-style-type: none"> Sort/evaluate proposals Find research / award grants Set research policies Use researchers Raise funds Provide support for established / junior researchers Analyze data from tools (e.g., almetrics)
INVESTMENTS	INVESTMENTS	INVESTMENTS
<ul style="list-style-type: none"> Set funds aside for conferences Invest time in collaboration Invest in research materials Invest in memberships 	<ul style="list-style-type: none"> Invest in collaboration platforms Invest in research databases / platforms Invest in benchmarking tools Invest in text / data mining tools Fund labs / salaries 	<ul style="list-style-type: none"> Pay and develop staff Host trainings Find research grants Allocate block grants to institutions Set policy agenda
Rewards	Rewards	Rewards
<ul style="list-style-type: none"> Enhanced reputation Career advancement / tenure Improved peer network Potential new funding 	<ul style="list-style-type: none"> Solve global issues Attract top jobs Attract talent Attract more students Attract more research funding Keep government and administration happy Raise reputation 	<ul style="list-style-type: none"> Fulfill mission and related goals Keep government and administration happy Secure additional funding to provide more grants
WHAT KEEPS ME UP AT NIGHT	WHAT KEEPS ME UP AT NIGHT	WHAT KEEPS ME UP AT NIGHT
<ul style="list-style-type: none"> Lack of funding opportunities Not complying with OA mandates Broad English language Lack of funding for developing countries How to collaborate with Chinese peers No incentives for research productivity Flawed rankings Administrative and teaching loads Success measured by publishing in high impact journals 	<ul style="list-style-type: none"> Solve global issues Attract top jobs Attract talent Attract more students Attract more research funding Keep government and administration happy Raise reputation 	<ul style="list-style-type: none"> Creating funding opportunities Ensuring that funding supports our goals Bias towards English language Increasing competition from Chinese peers Flawed rankings Securing funding for rare diseases Political and fiscal pressures on government funding

TOOLS AND SERVICES

Examples of open-source tools for gene research & discovery are: reference genome and collaboration software [Mendelley, F-DNC Workspaces, openSNP, Zenodo]; diagnostic lab tools such as ClinVar, OneGene, genotyping software (GATK), dbSNP, PennSeq; bioinformatics networks (ResearchGate, Academic, arXiv, figshare, ORCID, FigDB); bioinformatics tools (e.g. Galaxy, Sanger, Bio2RDF, Sumatra, CECI, WebLogo, Dimensions, Synthesis of Discovery, VIVO, ARX, etc.). Note also, bioRxiv, a preprint server of preprints, ConferenceGrid [Meetup.com], and a specific field I forgot about, non-pathogenic variants (gnomAD, dbSNP, etc.), and other bioinformatics resources.

POST-PUBLICATION

RESEARCHER/SCIENTIST	INSTITUTION	FUNDER/GOV'T AGENCY
ACTIONS <ul style="list-style-type: none"> Post article Share content Market content Track impact Track analytics 	ACTIONS <ul style="list-style-type: none"> Make articles accessible Archive articles/data Mine data sets Track usage statistics Ensure datasets are registered in CRIS 	ACTIONS <ul style="list-style-type: none"> Measure impact of article Seek additional funding opportunities Check for compliance
INVESTMENTS <ul style="list-style-type: none"> Time/effort 	INVESTMENTS <ul style="list-style-type: none"> Subscription costs Library system technology costs Archiving costs Staffing costs Licensing costs 	INVESTMENTS <ul style="list-style-type: none"> Time/effort Staffing costs
Rewards <ul style="list-style-type: none"> Advance science / solve global issues Enhanced reputation Career advancement/tenure 	Rewards <ul style="list-style-type: none"> Advance science / solve global issues Attract talent Attract more students Attract more research funding Raise reputation 	Rewards <ul style="list-style-type: none"> Advance science / solve global issues Attract more funding Raise reputation
WHAT KEEPS ME UP AT NIGHT <ul style="list-style-type: none"> Ensuring post-publication compliance 	WHAT KEEPS ME UP AT NIGHT <ul style="list-style-type: none"> Ensuring post-publication compliance 	WHAT KEEPS ME UP AT NIGHT <ul style="list-style-type: none"> Incomplete impact data

TOOLS AND SERVICES
Examples of organizations that serve post-publication era: Altmetric, Plum Analytics¹⁴, reputation management (Kudos), library storage, text & data in living books, document delivery (RightFind, Research Base), AI services (Sococo, ScienceQuip), where crop experts (IFPRI), library system (Inflibnet), social media, institutional networks (ResearchGate, Academia.edu), archiving software (LOCKSS), library technology (ILS), data collection of posters/conferences.

The diagram illustrates the six phases of the research lifecycle, arranged in a circle around a central white circle labeled "DATA".

- RESEARCH & DISCOVERY** (Top Left, Teal)
- AUTHORING & RESEARCH OUTPUT** (Top Right, Dark Blue)
- PEER REVIEW** (Right, Teal)
- PUBLISH & DISTRIBUTE** (Bottom, Green)
- PUBLISH-TO-PUBLICATION** (Bottom Left, Orange)
- DATA** (Center, White)



AUTHORING & RESEARCH OUTPUT

ACTIONS	INSTITUTION	FUNDER/GOV'T AGENCY	PUBLISHER
<ul style="list-style-type: none"> Research publishers Submit and revise manuscript/ patent/standard Sugested peer reviewers Collaborate write up results Seek pre-submission guidance 	<p>ACTIONS</p> <ul style="list-style-type: none"> Self-publish research Host supplemental data Support peer review & editorial services Provide access to content Review tools like Symplectic and Jure <p>INVESTMENTS</p> <ul style="list-style-type: none"> Participate Invest in collaboration tools Invest in research databases/platforms Invest in benchmarking tools Invest staff time for OA Invest in text/data mining tools <p>REWARDS</p> <ul style="list-style-type: none"> Solve social issues Attract talent Attract more students Attract more research funding Raise reputation Advance science/ knowledge <p>WHAT KEEPS ME UP AT NIGHT</p> <ul style="list-style-type: none"> Pressure on researchers/ talent Understanding open science practices Support for non-native English speakers Pressure on library budgets 	<p>ACTIONS</p> <ul style="list-style-type: none"> Provide submission platform Provide block grants for OA Track compliance with funder mandates Fund further research Publicize funded research Set funding policies <p>INVESTMENTS</p> <ul style="list-style-type: none"> Invest in submission platforms Raise and track funding <p>REWARDS</p> <ul style="list-style-type: none"> Provide access to articles / data sets Enable sharing of research Recognition for advancement of science <p>WHAT KEEPS ME UP AT NIGHT</p> <ul style="list-style-type: none"> Pressure to ensure open science Understanding open science processes Pressure of faulty research on our reputation 	<p>ACTIONS</p> <ul style="list-style-type: none"> Provide submission/product platforms Provide authoring/ collaboration tools Sign OA agreements Provide pre-submission guidance <p>INVESTMENTS</p> <ul style="list-style-type: none"> Invest in research/ collaboration platforms Invest staff time in pre- submission activities Invest in reviewer networks Invest staff time for OA <p>REWARDS</p> <ul style="list-style-type: none"> Increase engagement with authors Enter new products Attract new customers Expand society membership Raise reputation Develop scientific networks Drive revenue Advance science/knowledge <p>WHAT KEEPS ME UP AT NIGHT</p> <ul style="list-style-type: none"> Pressure on publishing ecosystem Understanding open science processes Support for non-native English speakers Competition for top talent

TOOLS AND SERVICES
Examples of open-source libraries for engineering & research, available as editing services (Hedgehog, SketchUp), rendering, reference manager and collaboration software (Mendeley, EndNote, Worksheets, OneNote, AuthorIt, Overleaf), measured and shareable geospatial (Mapbox, QGIS), hosting services for academic (GitHub, Zenodo) and research datasets (OpenAIRE, Figshare, ELSI).

PEER REVIEW

RESEARCHER/SCIENTIST	INSTITUTION	FUNDER/GOV'T AGENCY	PUBLISHER
ACTIONS	INSTITUTION	ACTIONS	ACTIONS
<ul style="list-style-type: none"> • Research editorial requirements • Submit and revise manuscripts • Suggest peer reviewers • Seek OA funding once accepted • Provide peer review • Participate in / create new societies/networks 	INVESTMENTS <ul style="list-style-type: none"> • Invest time in submitting/revising manuscripts • Fund APCs and/or seek funding after acceptance 	INVESTMENTS <ul style="list-style-type: none"> • Pay editorial staff • Pay staff to manage APCs • Pay OA charges upon acceptance • Invest in repositories • Pay staff to handle repositories 	INVESTMENTS <ul style="list-style-type: none"> • Invest time in tracking compliance • Track grants and funding • Invest in altmetrics
Rewards		Rewards	Rewards
<ul style="list-style-type: none"> • Enhanced reputation • Career advancement / tenure • Improved peer network • Advance knowledge in field • Compensation for peer review [when available] 		<ul style="list-style-type: none"> • Provide access to articles / data sets • Enable sharing of research • Recognition for advancement of science 	<ul style="list-style-type: none"> • Expert scientific networks and brand recognition • Identify research that fits editorial goals • Uncover new talent • Expand society membership • Achieve high-quality research evolution
WHAT KEEPS ME UP AT NIGHT	WHAT KEEPS ME UP AT NIGHT	WHAT KEEPS ME UP AT NIGHT	WHAT KEEPS ME UP AT NIGHT
<ul style="list-style-type: none"> • Lack of peer review transparency • Flawed peer review process • Requests to peer review • No formal recognition for peer review • Pressure on APC funding for research 	<ul style="list-style-type: none"> • Funder restrictions supporting OA • Flawed peer review process • Pressure on APC block grants 	<ul style="list-style-type: none"> • Slow peer review practices of publishers • Underfunded OA publishing infrastructure of publishers 	<ul style="list-style-type: none"> • Funders' restrictions to publish in OA • Short funder funding cycles or

Examples of organizations that serve peer review and workflow software (ScholarOne, BioMedCentral, Editorial Manager, Manuscript Central, Manuscript Central, BioMedCentral, AuthorAid); over review tools (EduSIS Reviewer, StateReview, Publons), Open Access journal workflows and management tools (EightBall, propria systems, ApacNet); identifying experts in a specific field (Expert Lookout), repositories and tools for discovery, curation, analytics, etc. (DSpace).

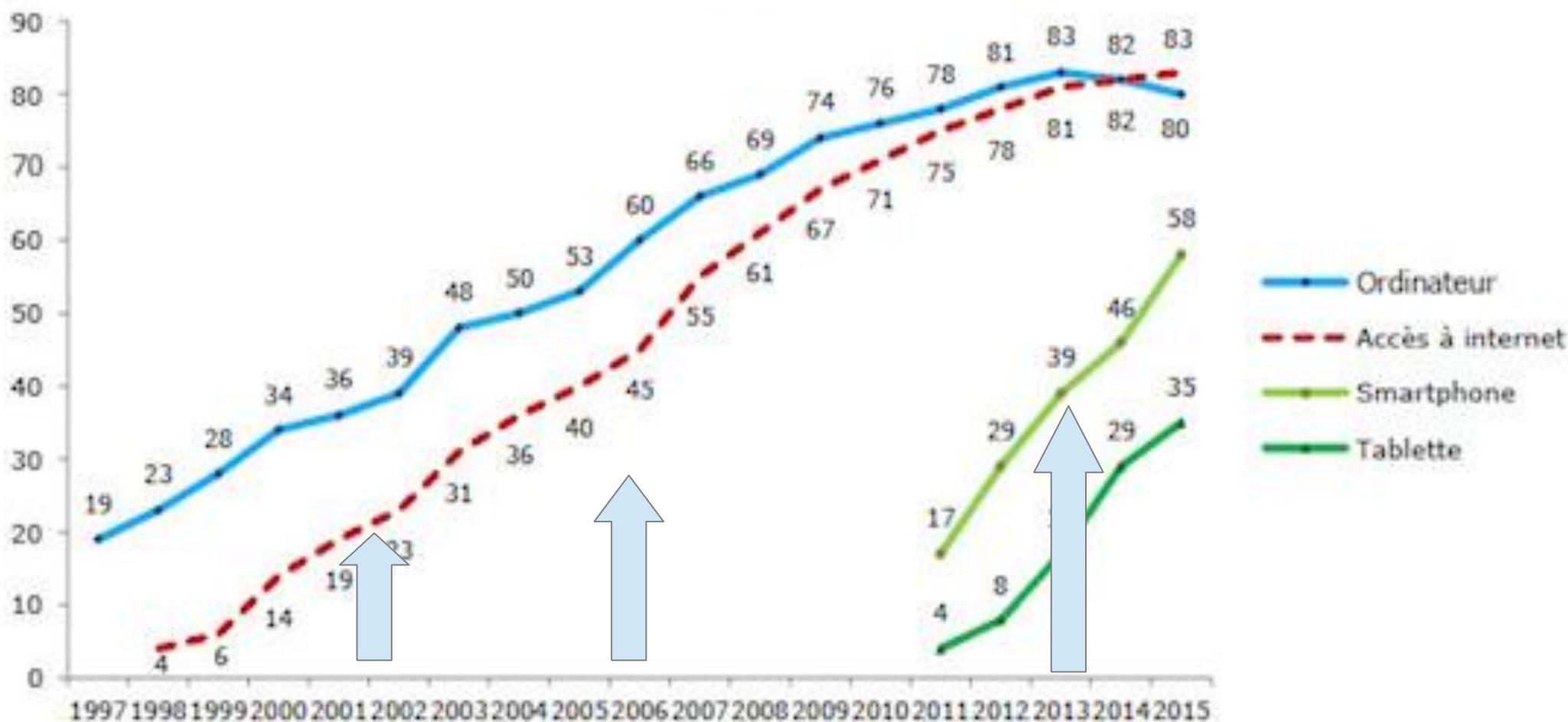
A short story of digital transformation

A personal history :

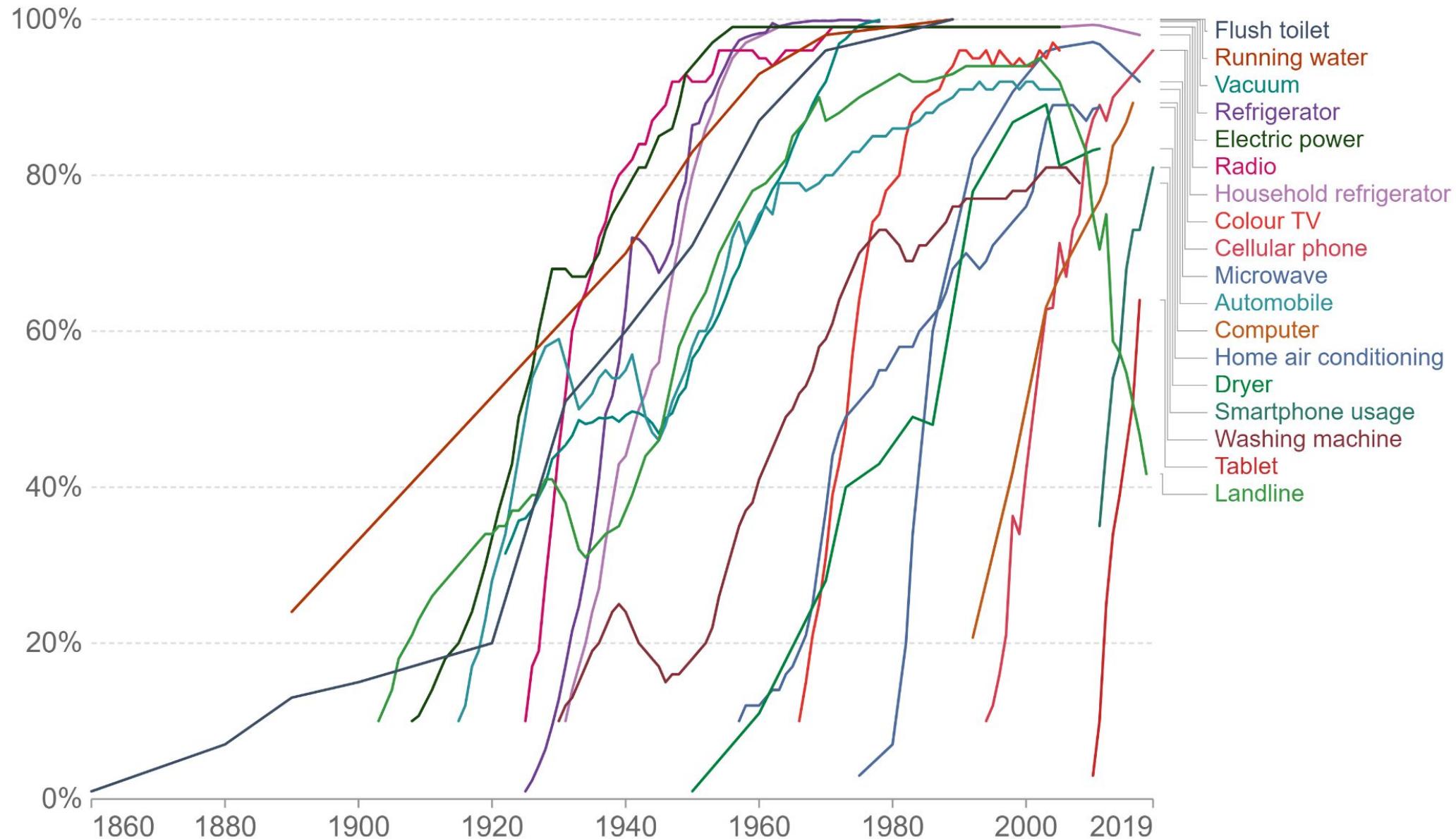
- *my first writing machine*
- *some sinclar experiment*
- *my first 13kg PC*
- ...
-

Le consommateur appareillé

Taux d'équipement et taux d'accès à internet
Champ : ensemble de la population de 12 ans et plus, en %



Share of US households using specific technologies, 1860 to 2019



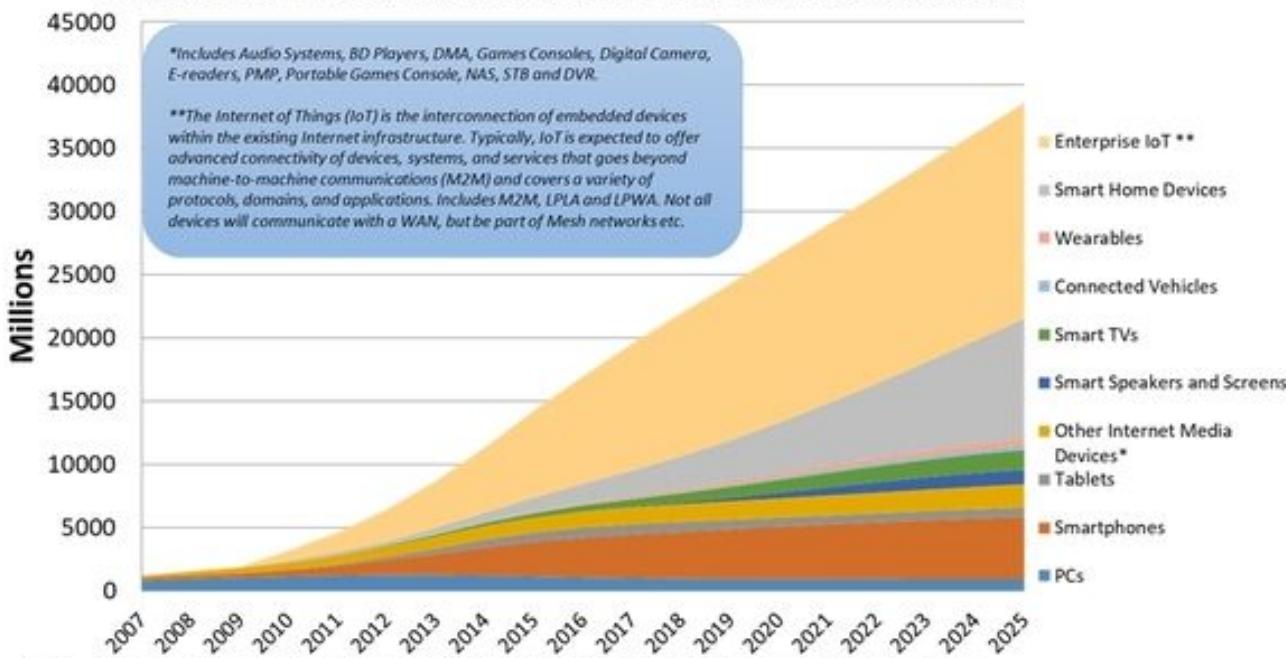
Source: Comin and Hobijn (2004) and others

Note: See the sources tab for definitions of adoption rates by technology.

OurWorldInData.org/technology-adoption/ • CC BY

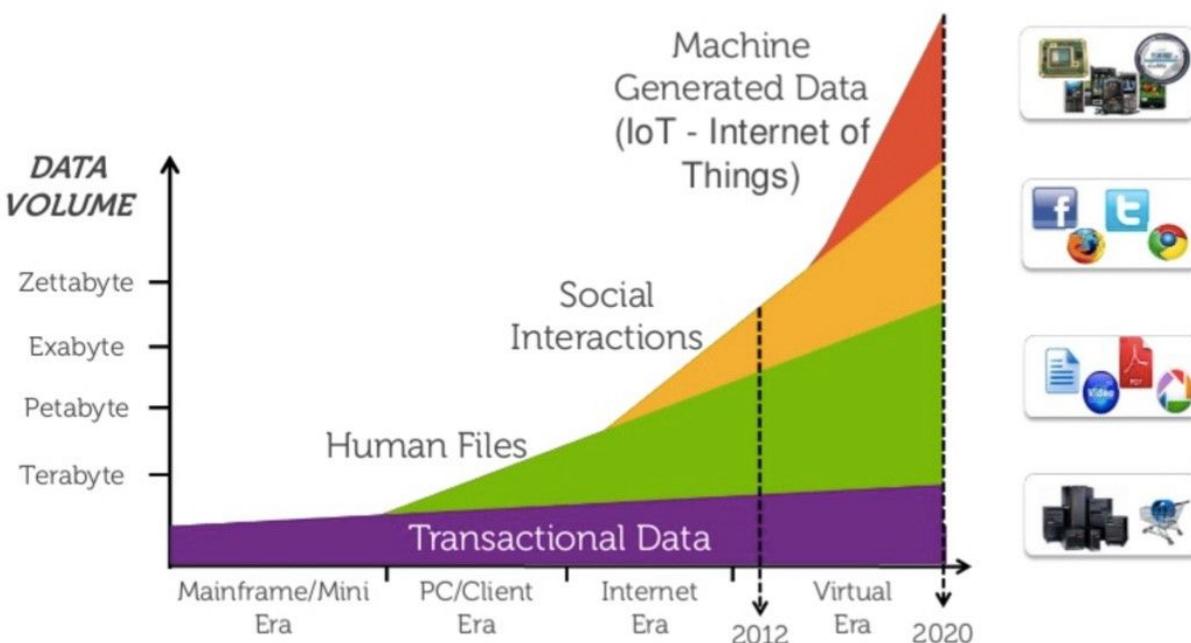
Data explosion

Global Connected and IoT Device Installed Base Forecast

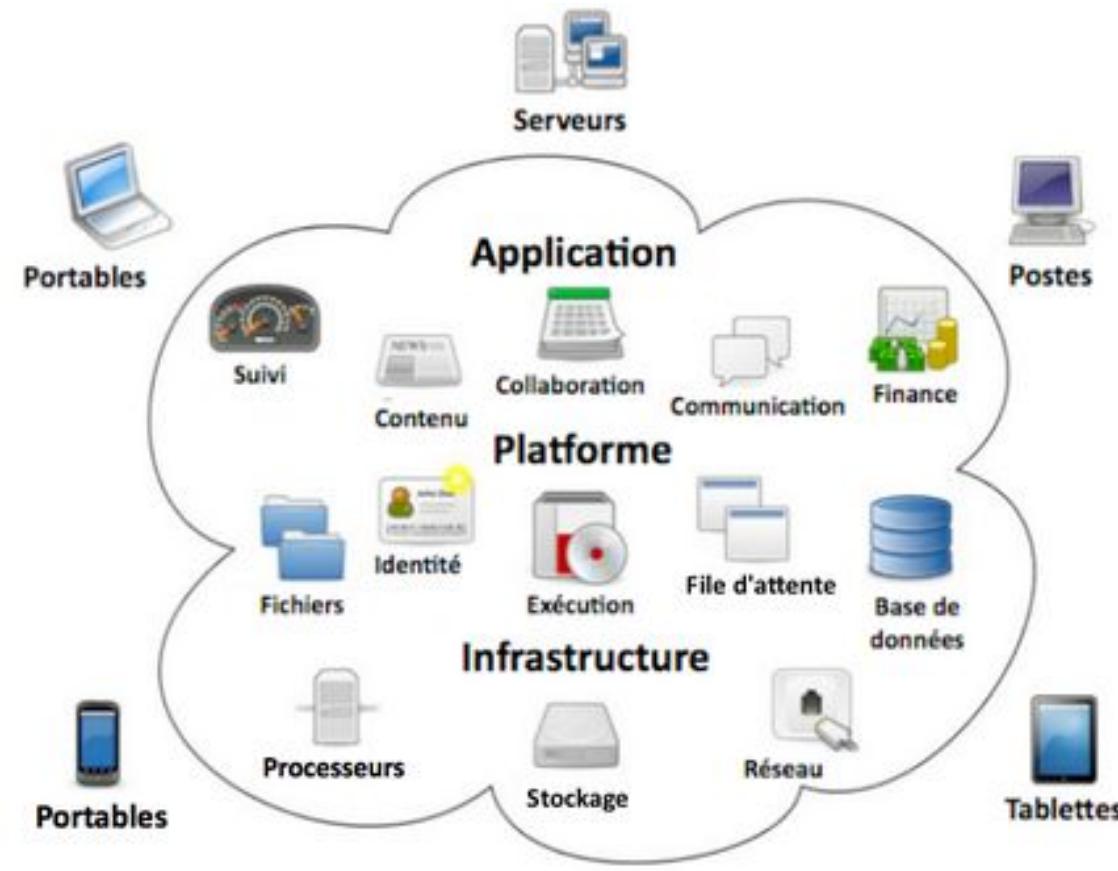


Source – Strategy Analytics research services, May 2019: IoT Strategies, Connected Home Devices, Connected Computing Devices, Wireless Smartphone Strategies, Wearable Device Ecosystem, Smart Home Strategies

The Explosion of Data



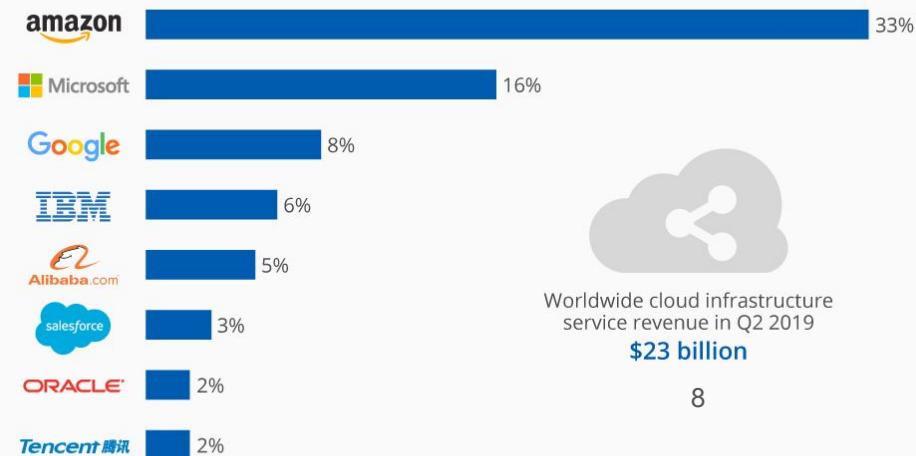
Nuages



le Nuage

Amazon Leads the Race to the Cloud

Worldwide market share of leading cloud infrastructure service providers in Q2 2019*



Worldwide cloud infrastructure service revenue in Q2 2019
\$23 billion

8

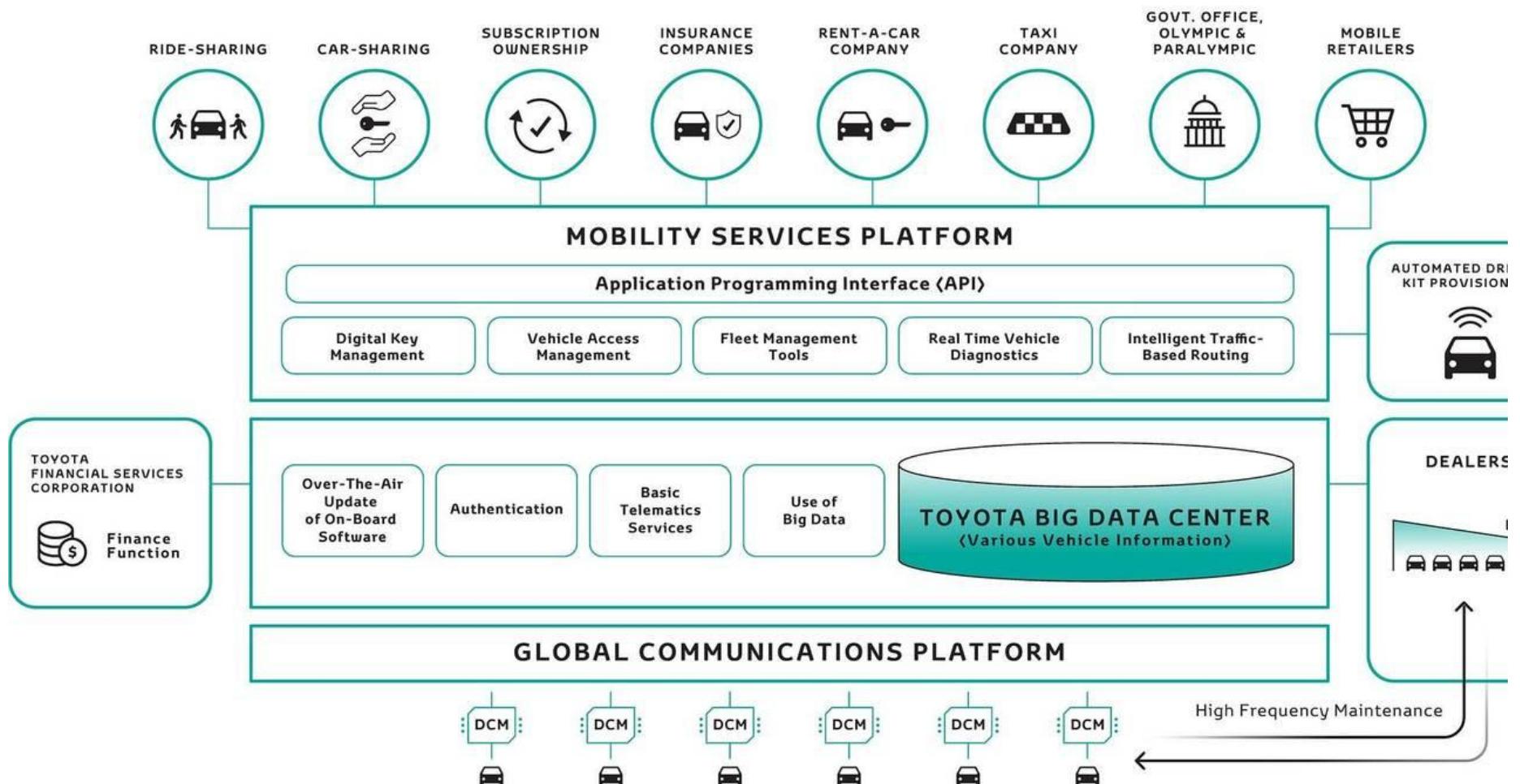
* includes platform as a service (PaaS) and infrastructure as a service (IaaS)
as well as hosted private cloud services

Source: Synergy Research Group

statista

A data system

l'automobile est un gros smartphone...



Industrie 4.0 is designating the 4th industrial revolution

Development stages of industrial manufacturing

First industrial revolution

1.0



Second industrial revolution

2.0



Third industrial revolution

3.0



Fourth industrial revolution?

4.0



1784

1923

1969

2014

Mechanical weaving loom

Introduction of mechanical production assets based on water and steam power

Introduction of a "moving" assembly line at Ford Motors

Introduction of mass production based on division of labor and electrical energy

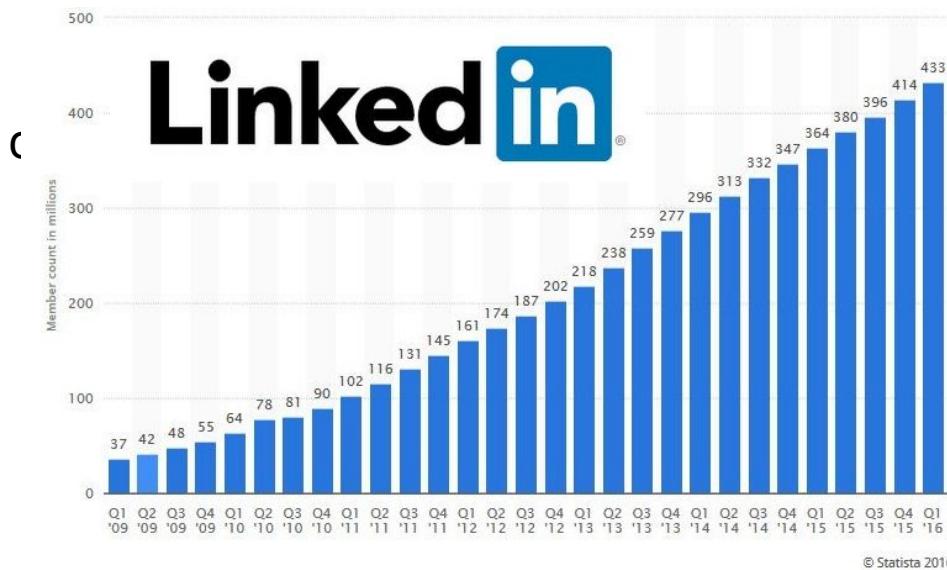
First programmable logic controller (PLC)

Introduction of electronics and IT for higher automation of production

Real time, self optimizing connected systems



Modèle de Bass



Parameters:

Estimate Std. Error t value Pr(>|t|)

M 5.695e+02 5.297e+01 10.752 1.17e-10

P 8.744e-03 9.511e-04 9.193 2.47e-09 ***

Q 1.098e-01 1.459e-02 7.529 9.07e-08 ***

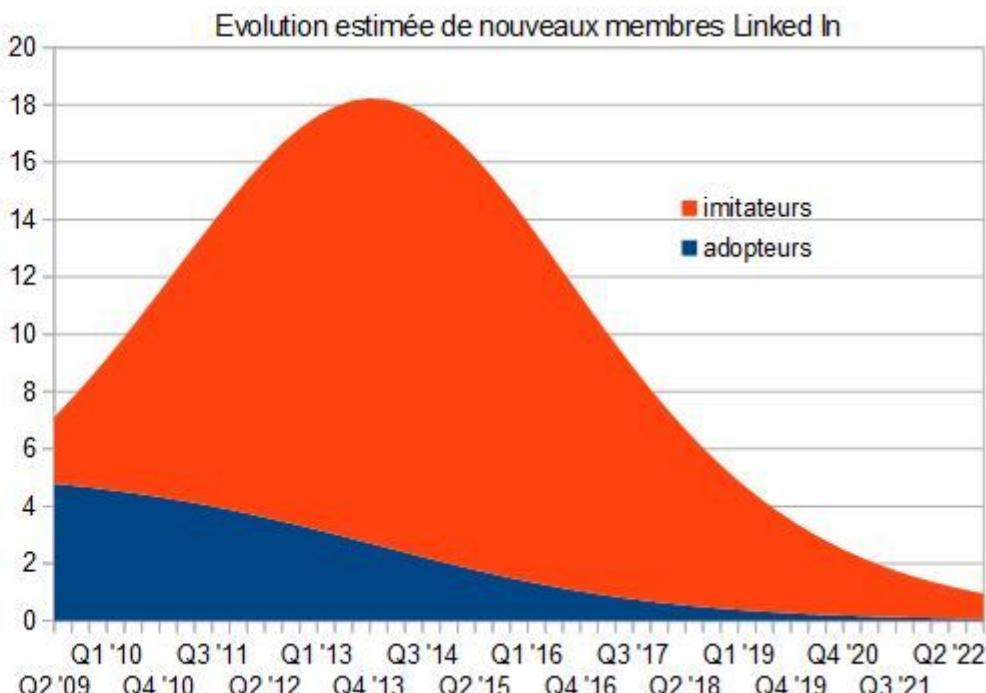
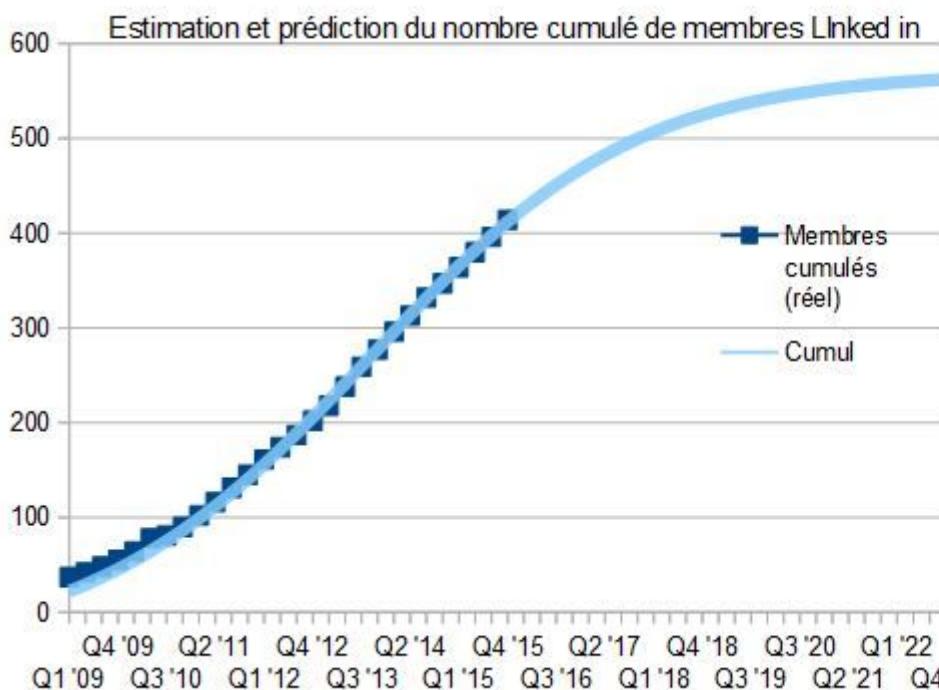
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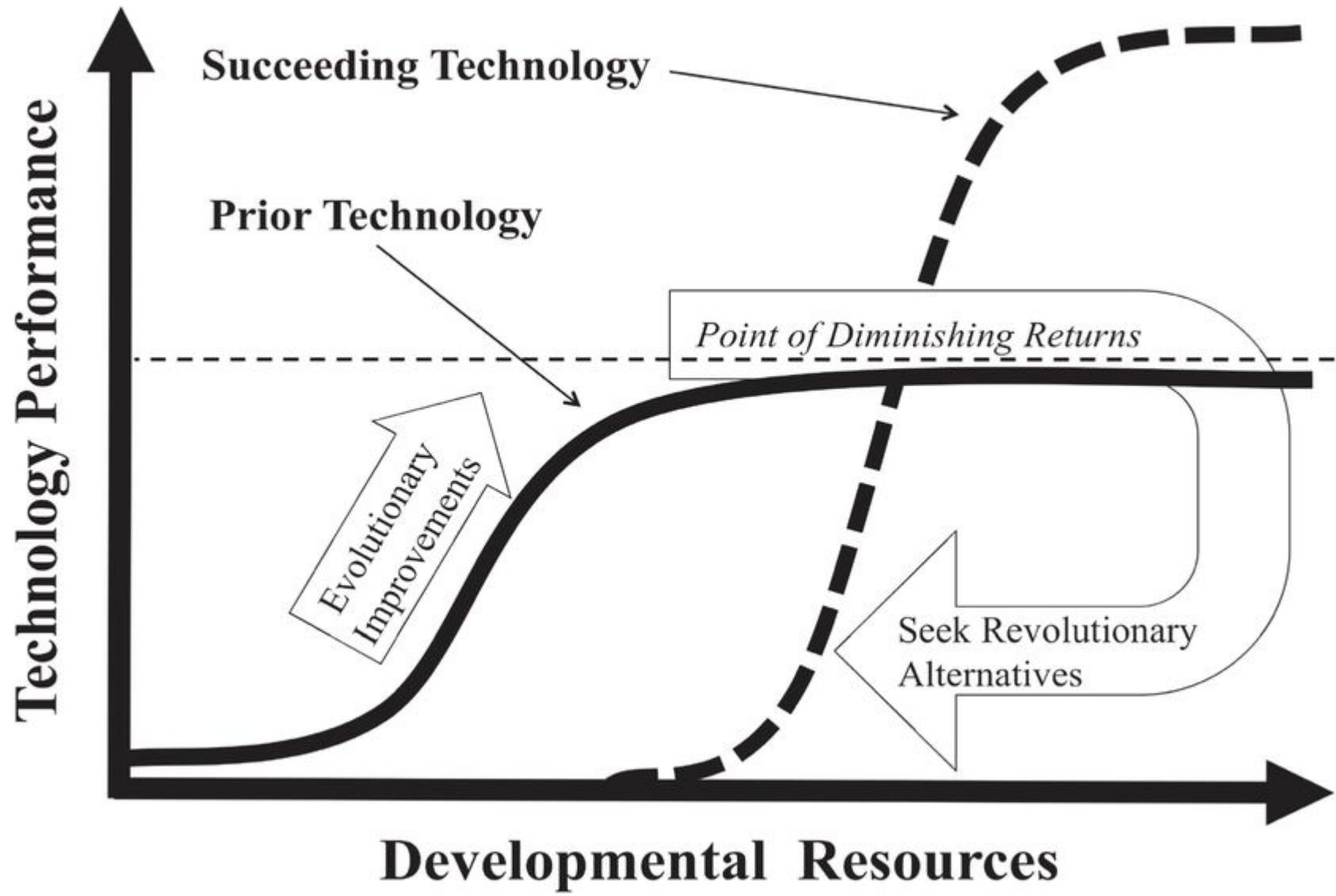
Signif. codes: 0 '****' 0.001 '***' 0.01

** 0.05 .' 0.1 ' ' 1

Residual standard error: 2.384 on 24

degrees of freedom





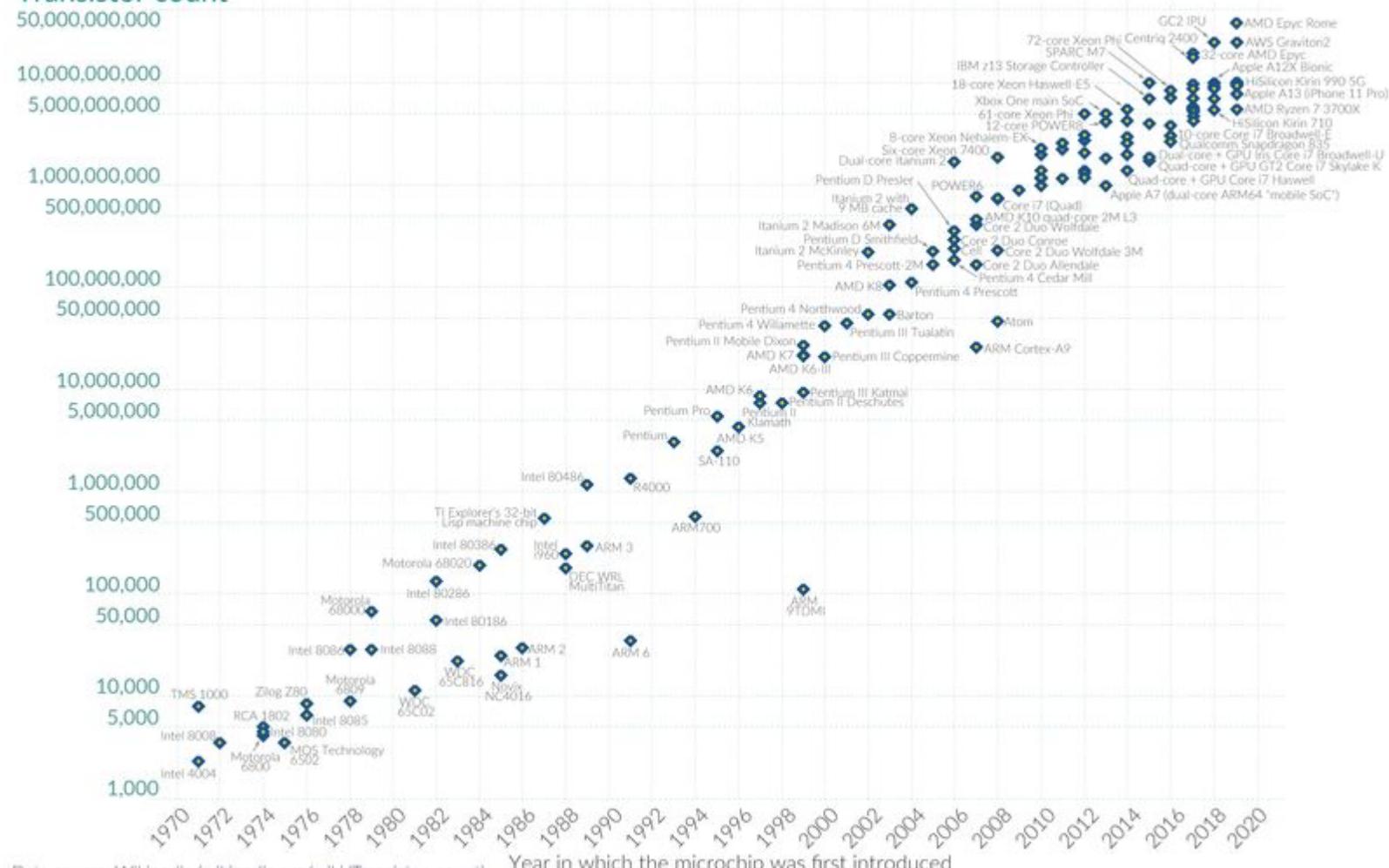
Loi de Moore

Moore's Law: The number of transistors on microchips doubles every two years

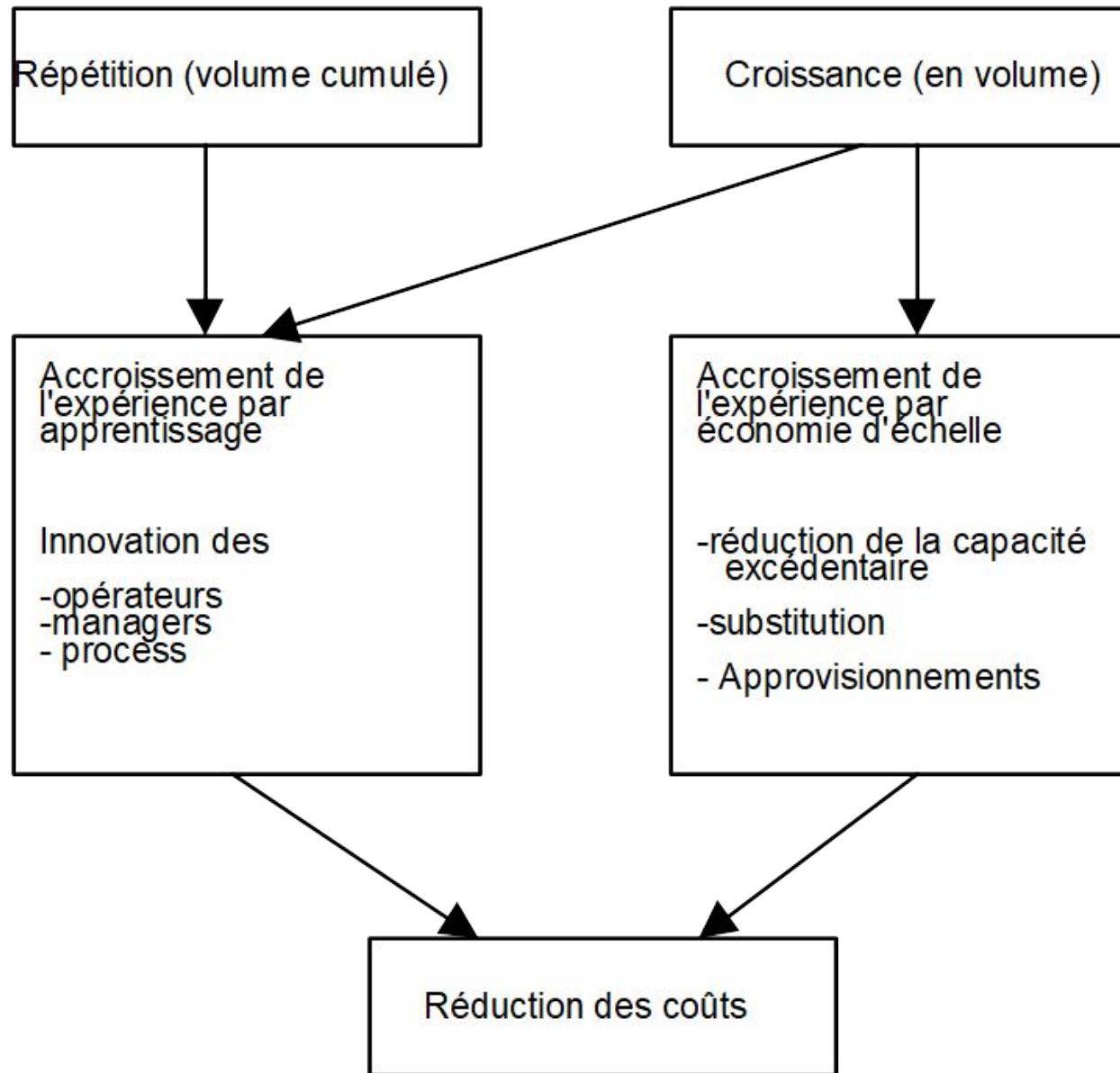
Moore's law describes the empirical regularity that the number of transistors on integrated circuits doubles approximately every two years. This advancement is important for other aspects of technological progress in computing – such as processing speed or the price of computers.

Our World
in Data

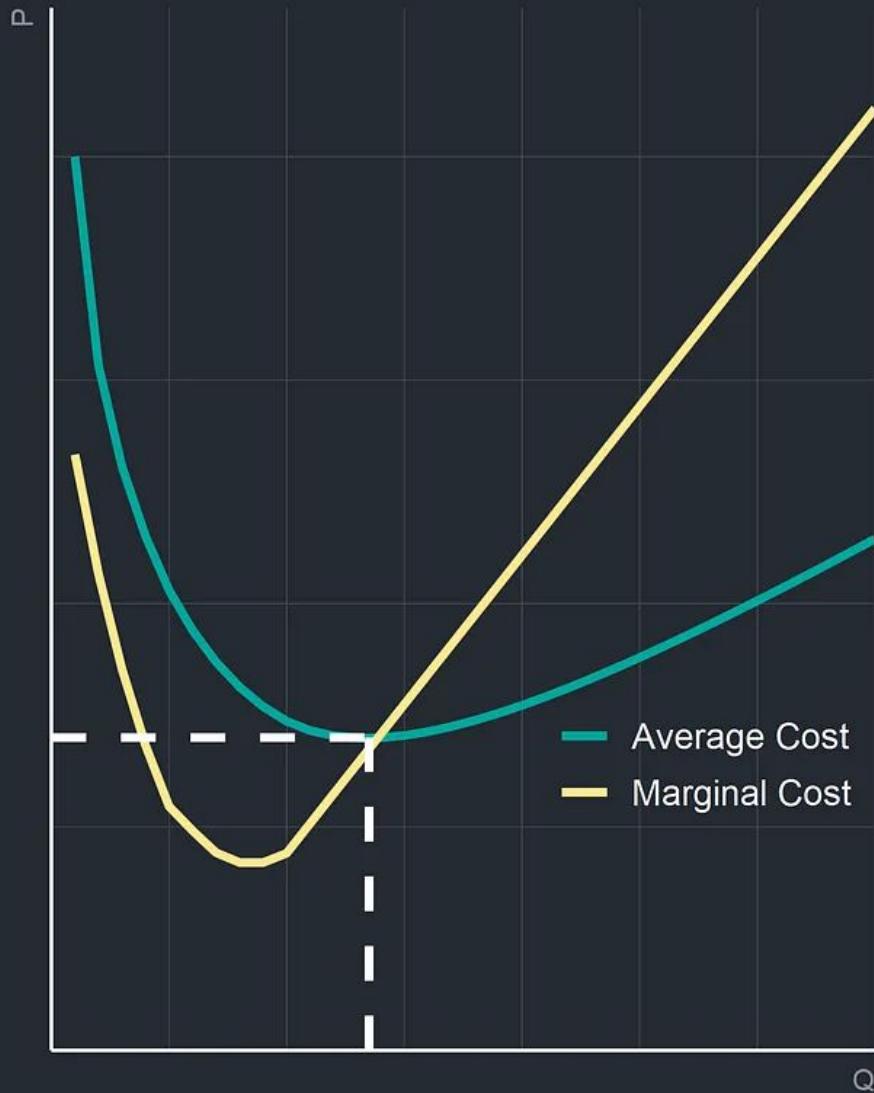
Transistor count



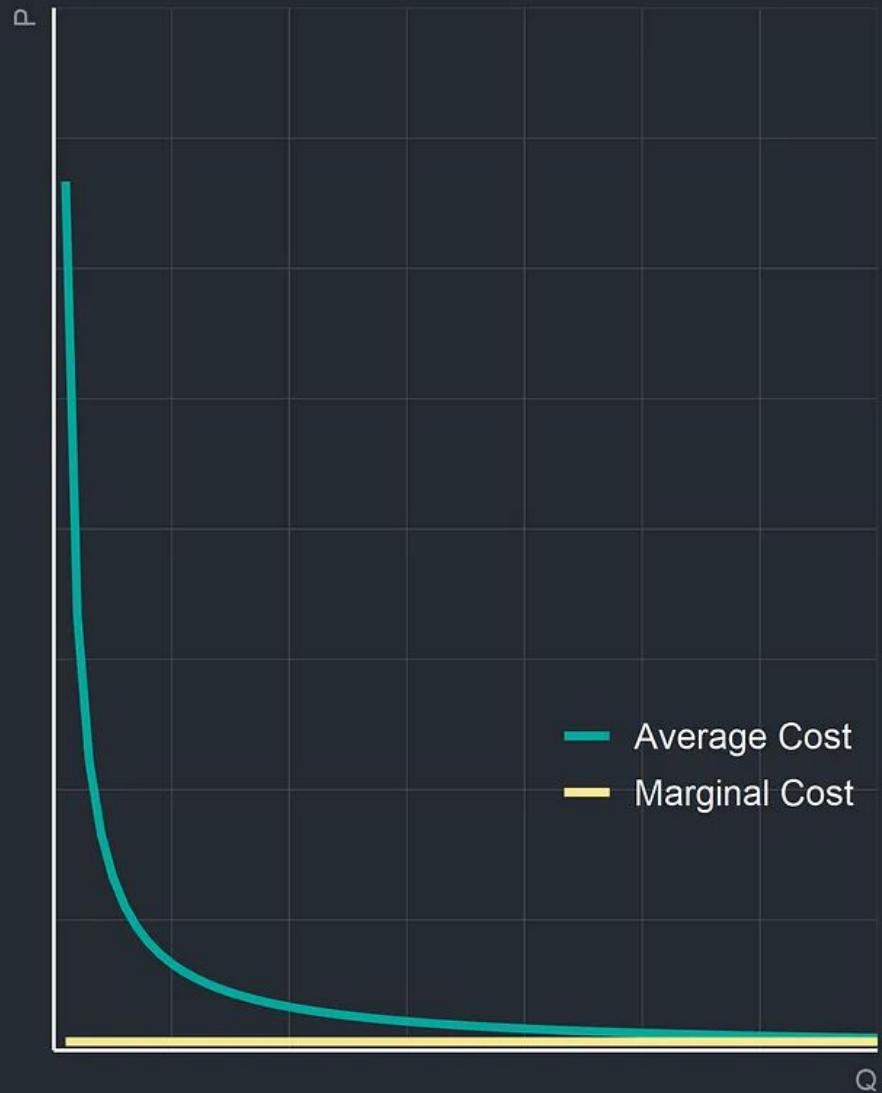
Économie d'échelle, de champs et d'expérience



Increasing Marginal Cost



Zero Marginal Cost



2 - l'émergence de nouvelles formes
d'organisation ?

Plateformes

Un nouveau modèle de production des services, fondé sur une coordination et un contrôle des activités économiques par des moyens algorithmiques.

Plateformes

Sites collaboratifs, marketplaces, réseaux sociaux...

Comment ils influencent nos choix



Christophe Benavent

fyp
éditions

This visual representation of the movement is organized into families, classes, and startup examples. To access a complete directory of over 9,000 startups worldwide, advance to the Mesh Directory, managed by Mesh Labs: <http://meshing.it/>

By Jeremiah Owyang
jeremiah@CrowdCompanies.com
@jowyang, Dec 2014



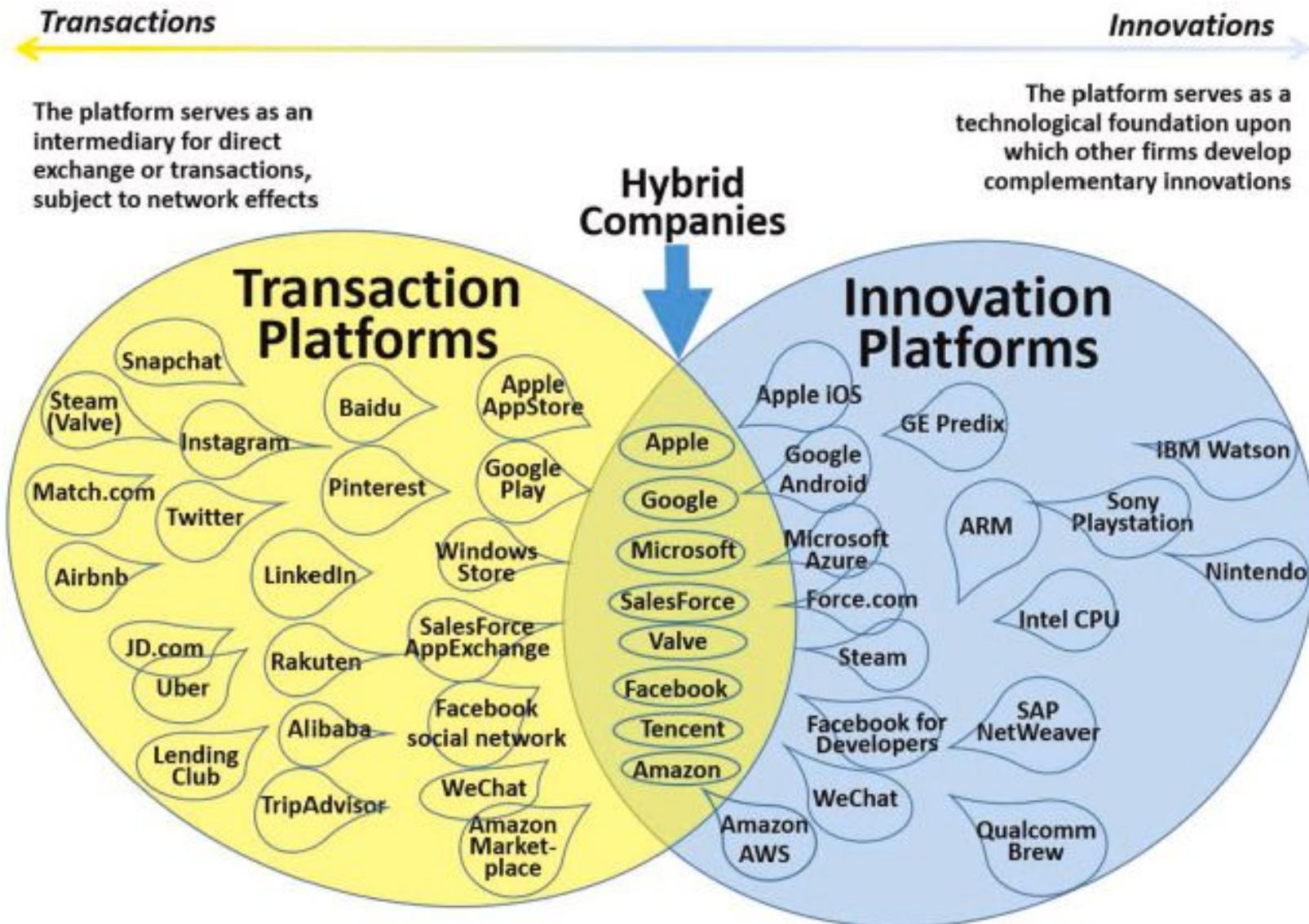
Retour sur les modes de contrôle et de coordination organisationnels

		<i>Locus de la décision</i>		
		<i>Individu</i>	<i>Composant</i>	<i>Collectif</i>
<i>Niveau de coordination</i>	Décentralisé	Marché : contrôle par les prix, résultats et incitations monétaires, convient aux environnements dynamiques et homogènes	Cluster	Clan : contrôle par la culture et l'initiation nécessitée par l'absence de critère de performance. Un modèle d'allégeance. Environnement hétérogène et stable.
	Fédératif	Classements	Réseaux	Collège
	Centralisé	Plateforme : contrôle par l'information et haut degré d'autocontrôle par des mécanismes de feedback et de réputation. Environnement dynamique et hétérogène.	Compétence	Bureaucratie : contrôle par la règle et les systèmes de délégation qui convient à un environnement stable et homogène.

also

- . Collaborative plateform :
 - AirBnb, Blablacar, ..
- . Digital Labor plateform :
 - Kaggle, Mechanical Turck
- . Soft and Data Platform :
 - Github
- . Crowdsourcing Platform
 - Quirly,
- . Marketplaces Platform
 - Ebay, le bon coin, etsy, vinted, discogs,
 -

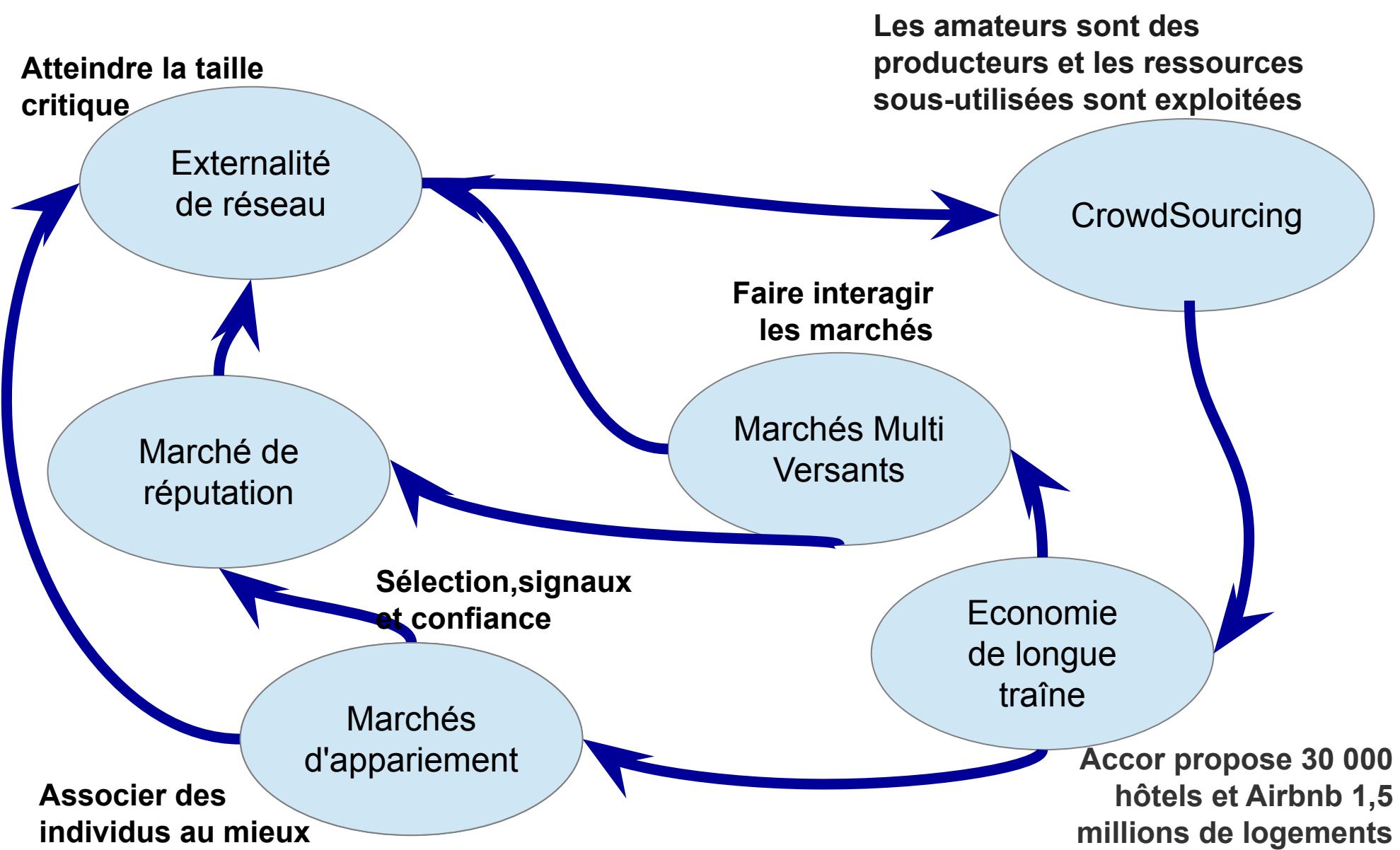
Typology



Information and Platform Economics

- Network and standard externalities
- Long tail and the miscellaneous economics
- Multiside Markets : Tirole contribution
- Matching Markets : dating case
- Crowdsourcing or digital labor and UGC
- Reputation systems : trust trust trust

Le cercle économique et vertueux des plateformes

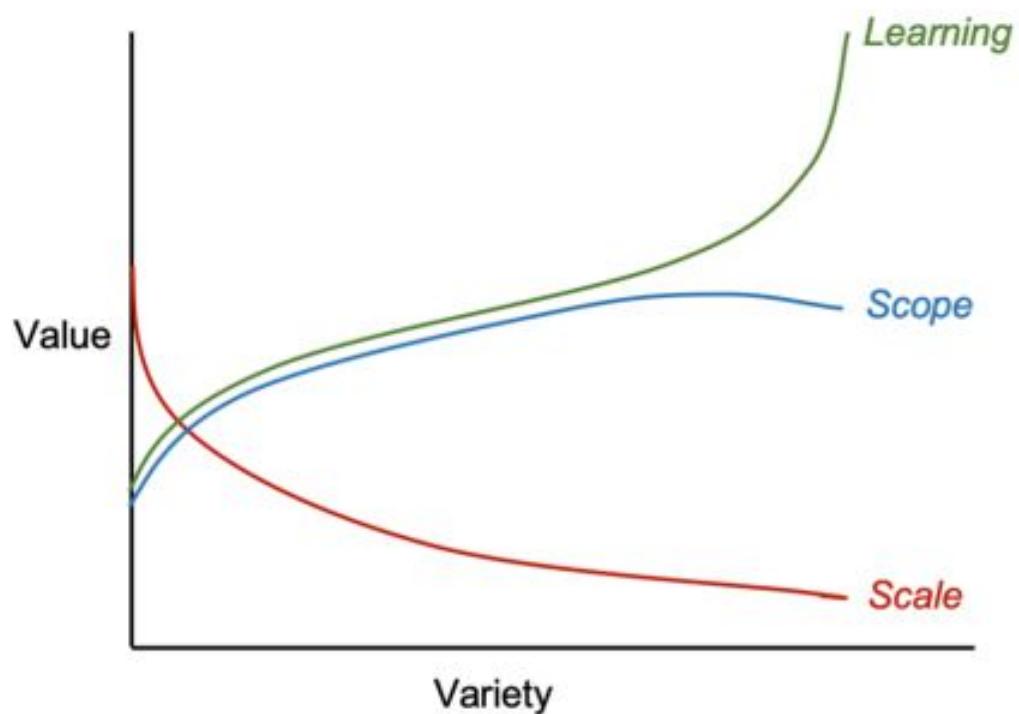
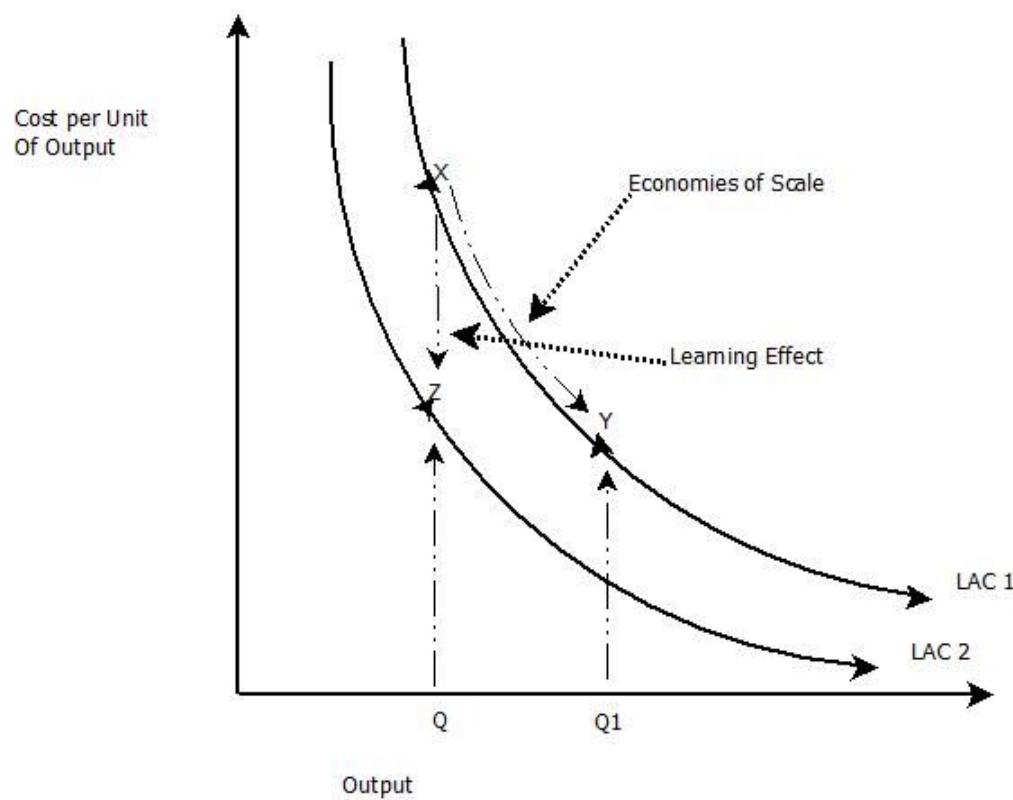


2 - Économies d'échelle, de champs, d'expérience, de réseaux , de standards

....

Scales

- Economie d'échelle
- Economie d'expérience
- Economie de champs



Long tail

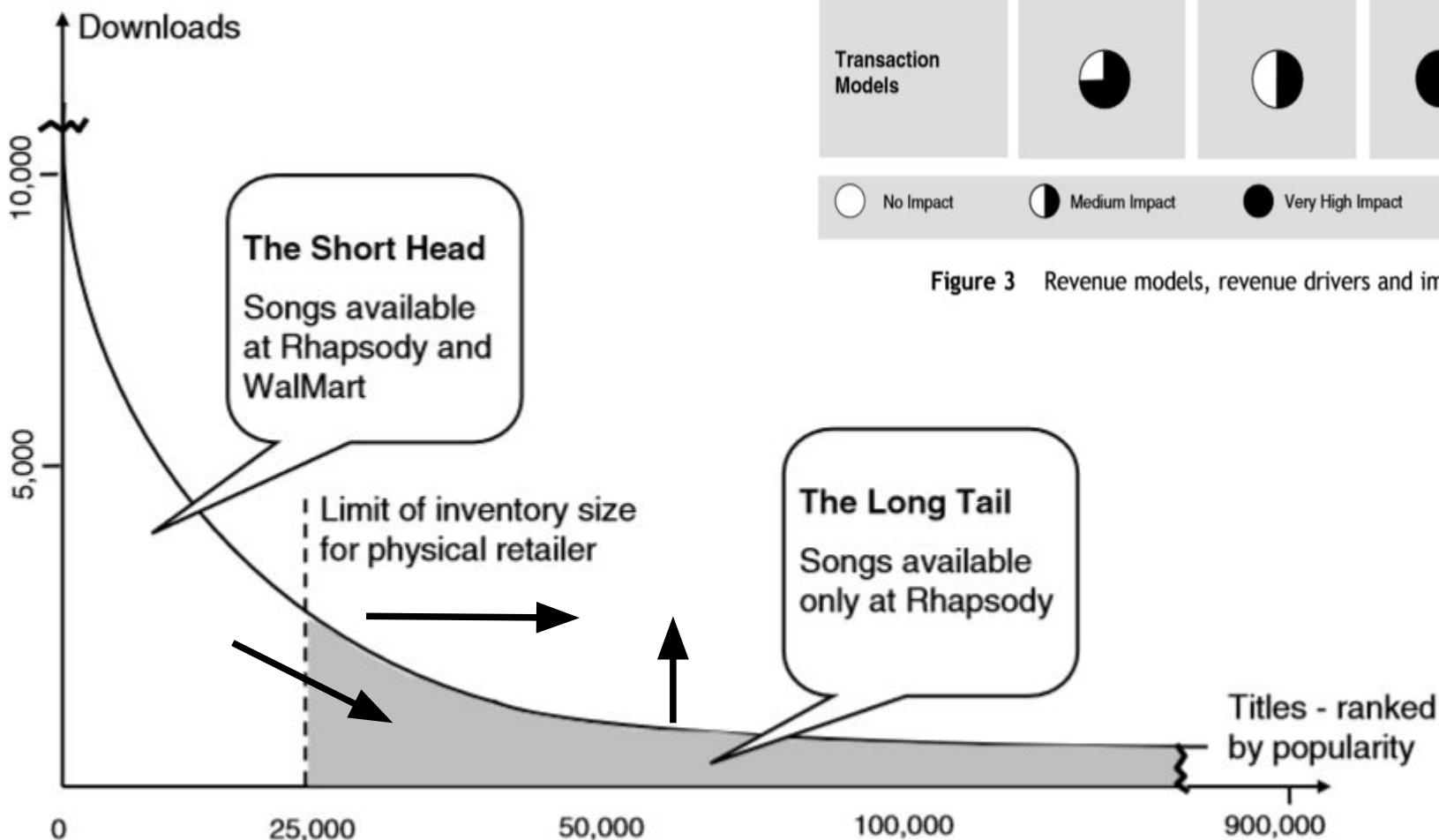
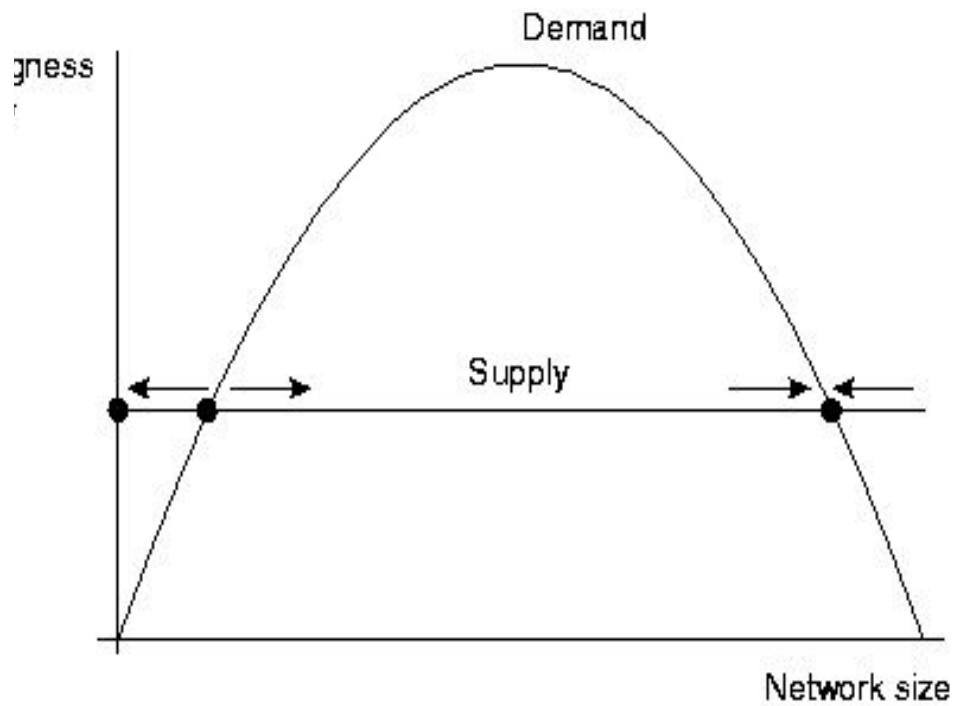


Figure 1 The Long Tail; source: Anderson (2006).

Figure 3 Revenue models, revenue drivers and implications for SNS

Network and standard externality

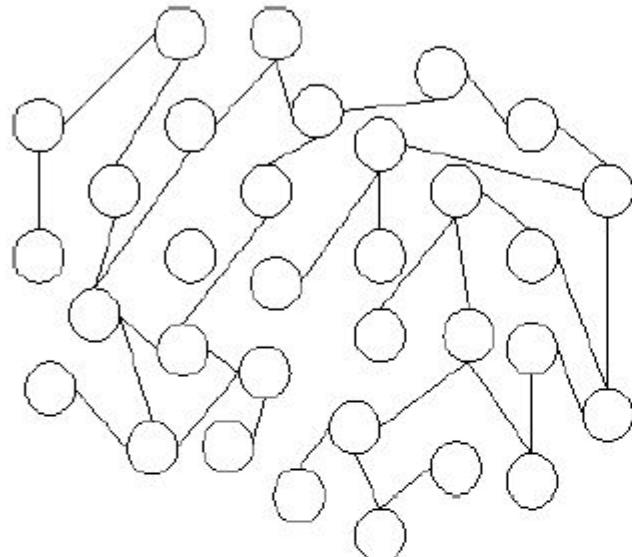


Size of the market is the value

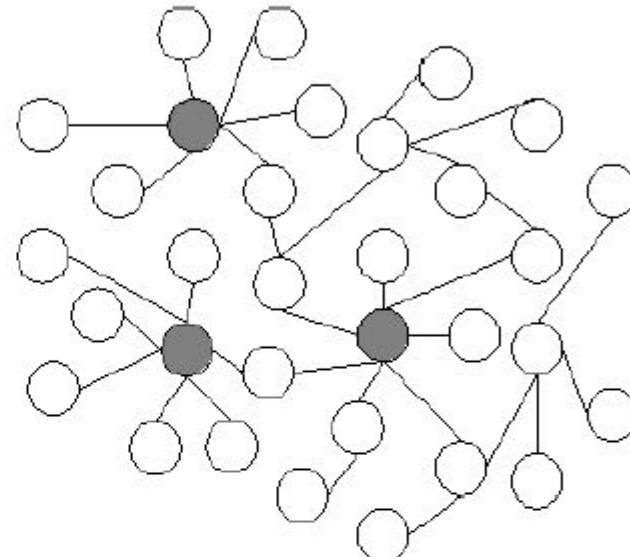


Switching cost lock markets

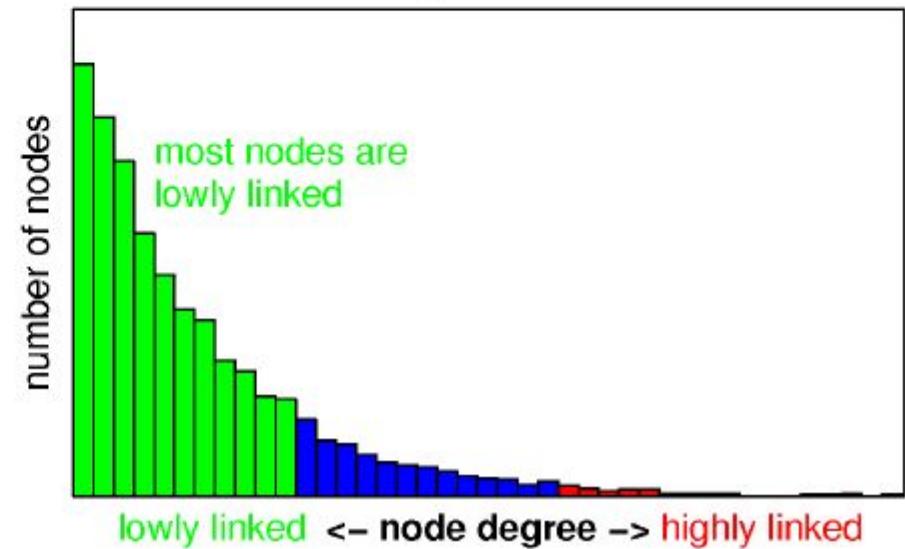
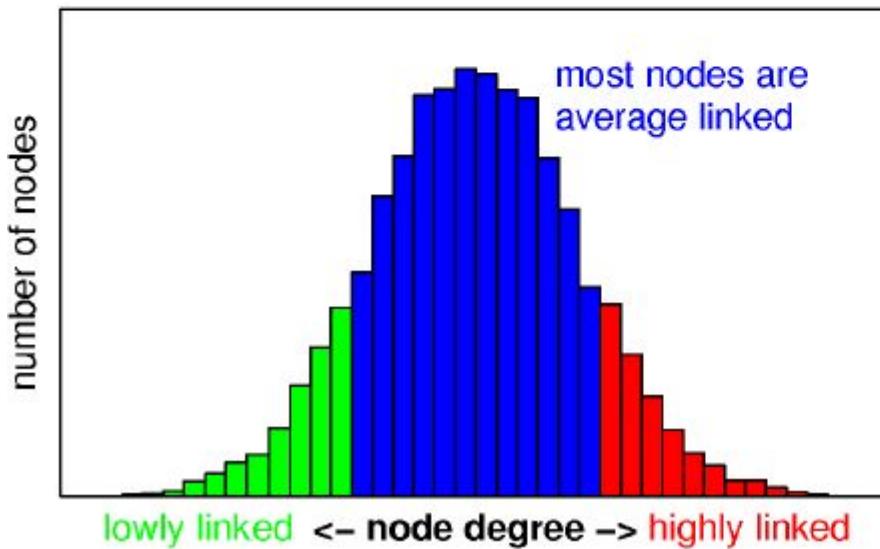
La structure des réseaux



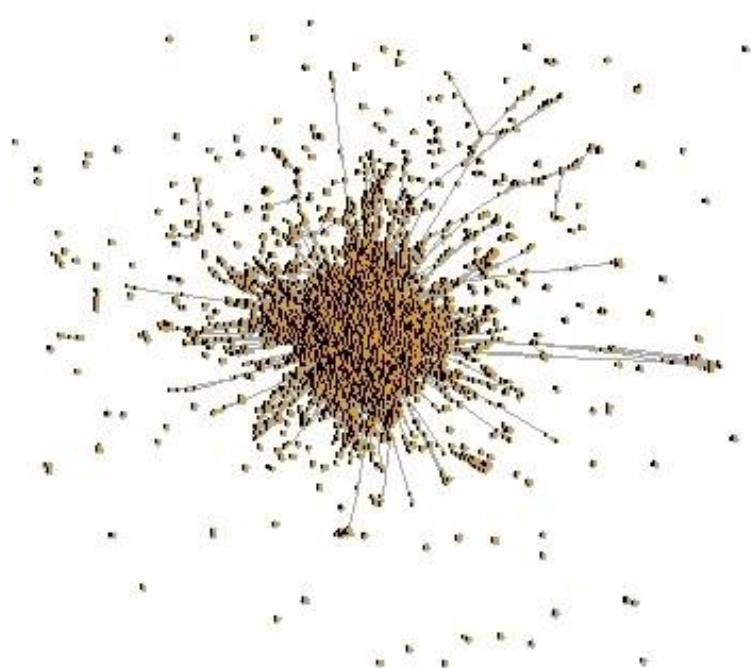
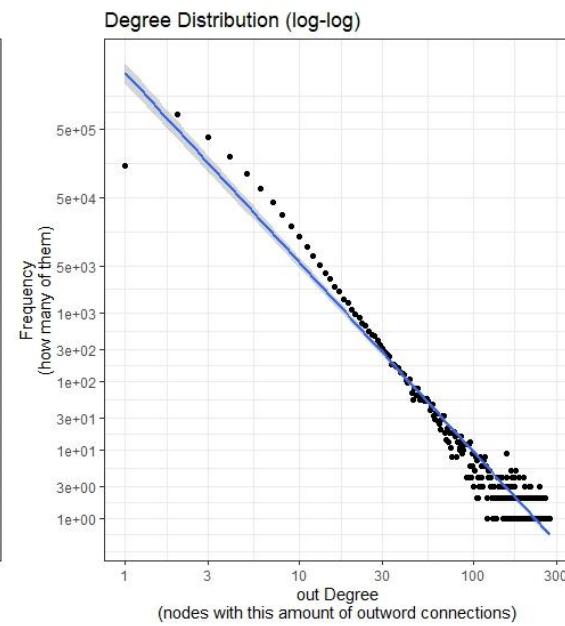
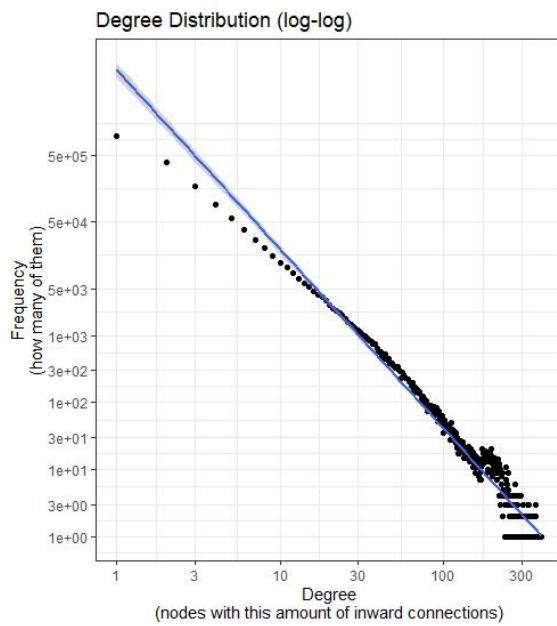
random networks



real networks (power-law, scale-free)



Un exemple : la structure des pages wikipédia



Le web : la logique d'un réseau directionnel

le site i pointe \rightarrow vers le site j

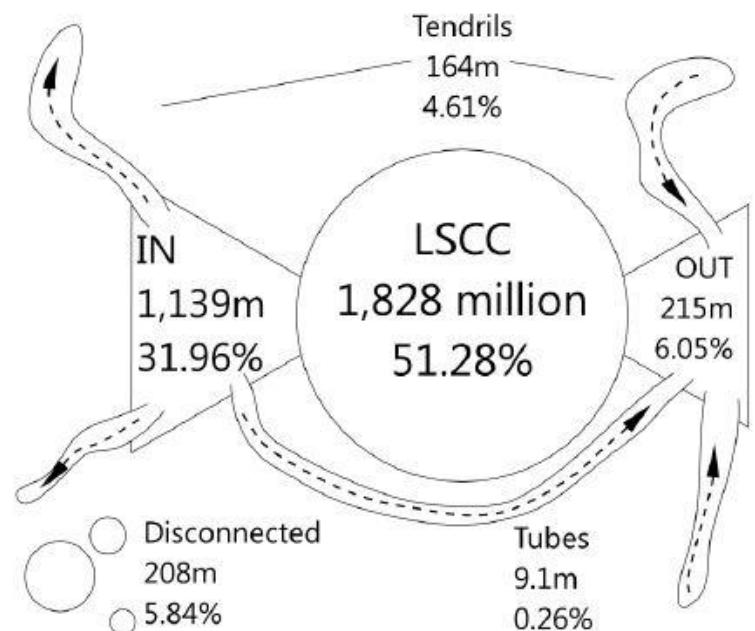
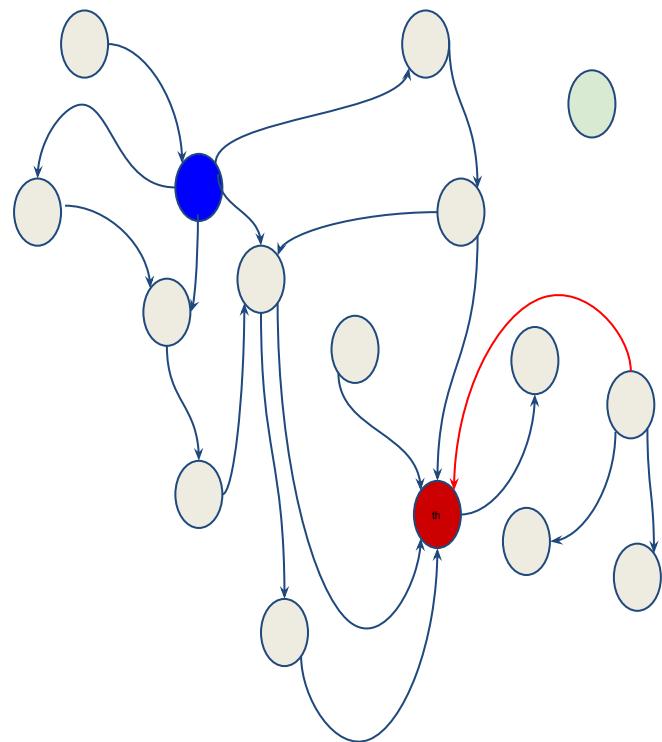
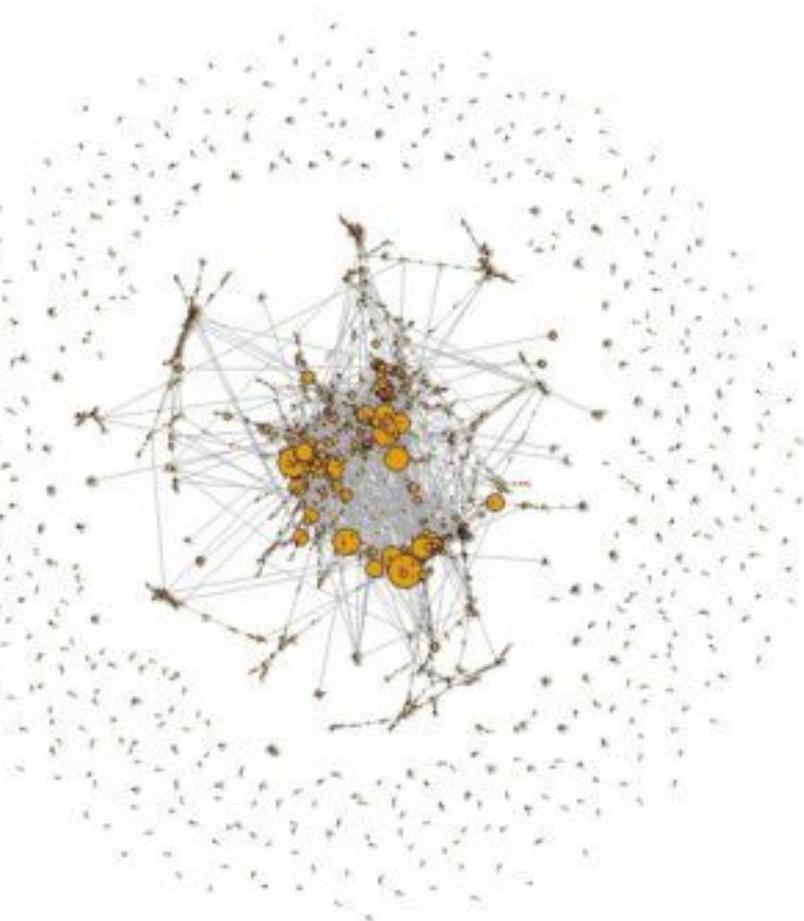


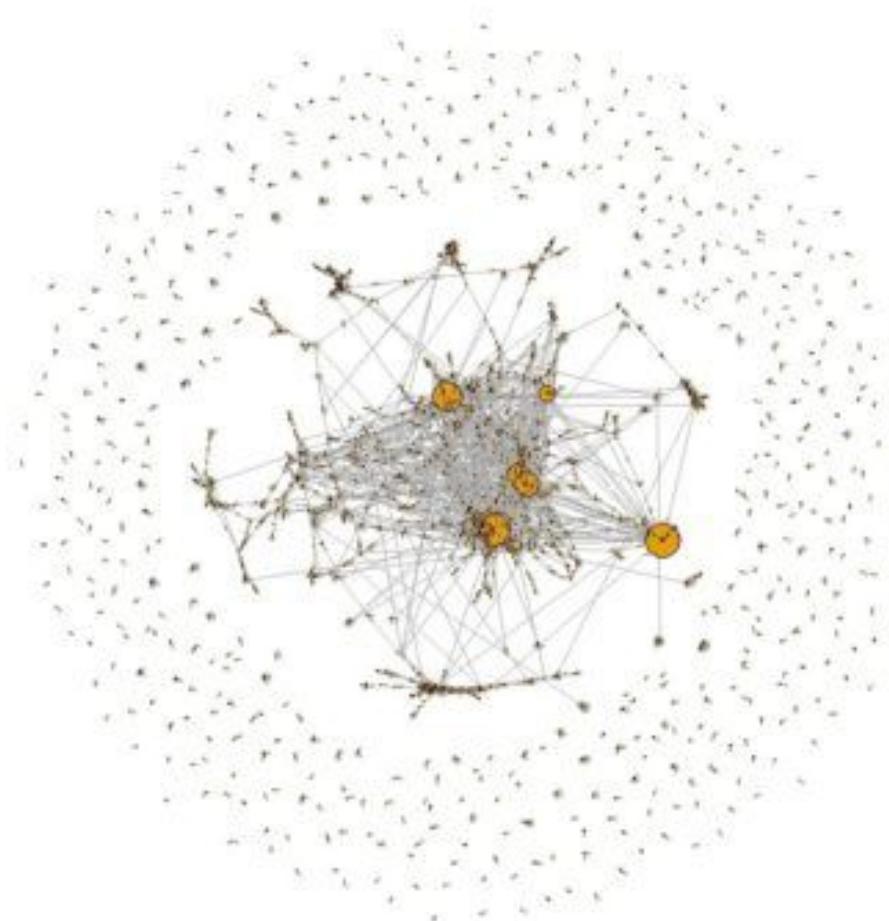
Figure 9: Bow-tie structure of the page graph

Macro component, Hubs and authorities.

Hubs : ceux qui prêtent au plus de monde



Authorities : ceux qui reçoivent de nombreux donateurs



Beaucoup prêtent, très peu empruntent : du stock et peu de flux.

3 - Réputation system

- Veblen as signal of value
- the asymmetric information question
-

La question de la «qualification» et Akerloff

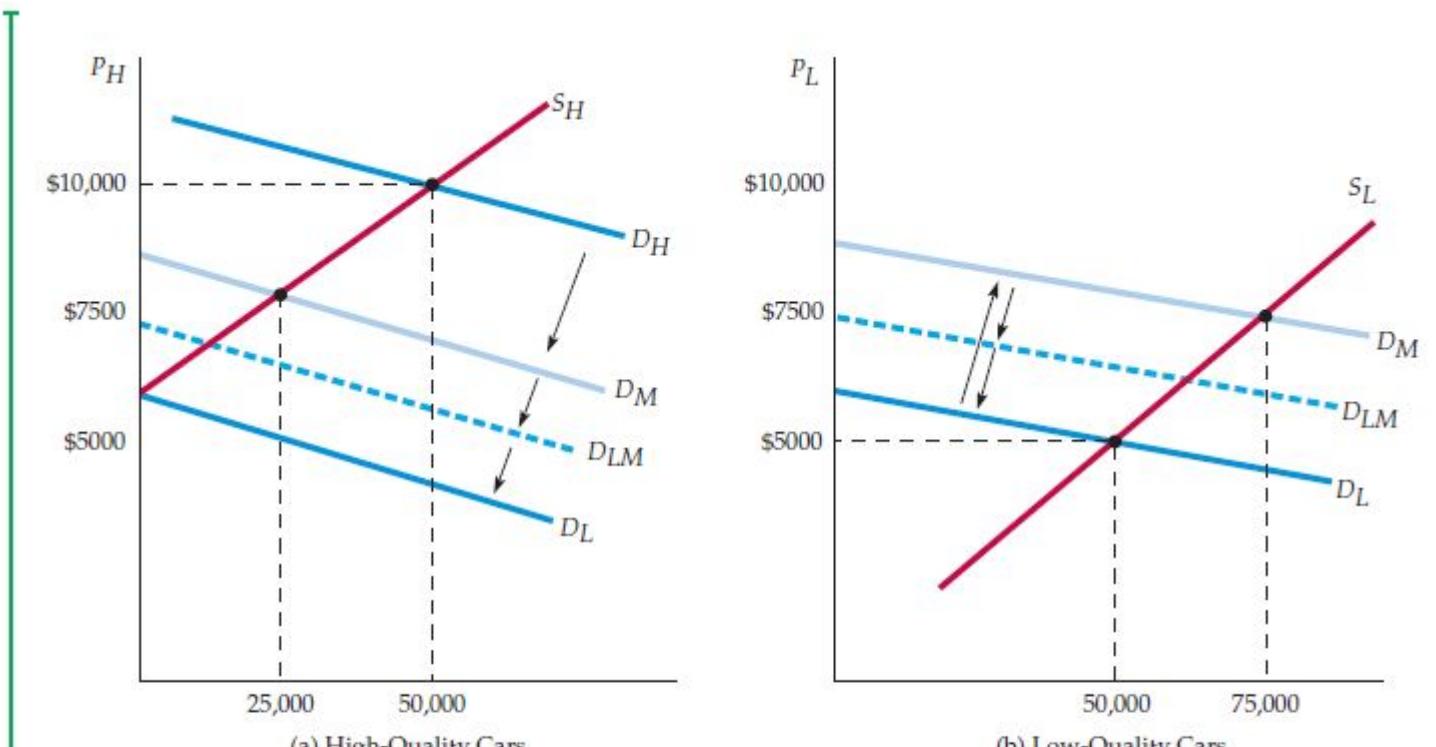


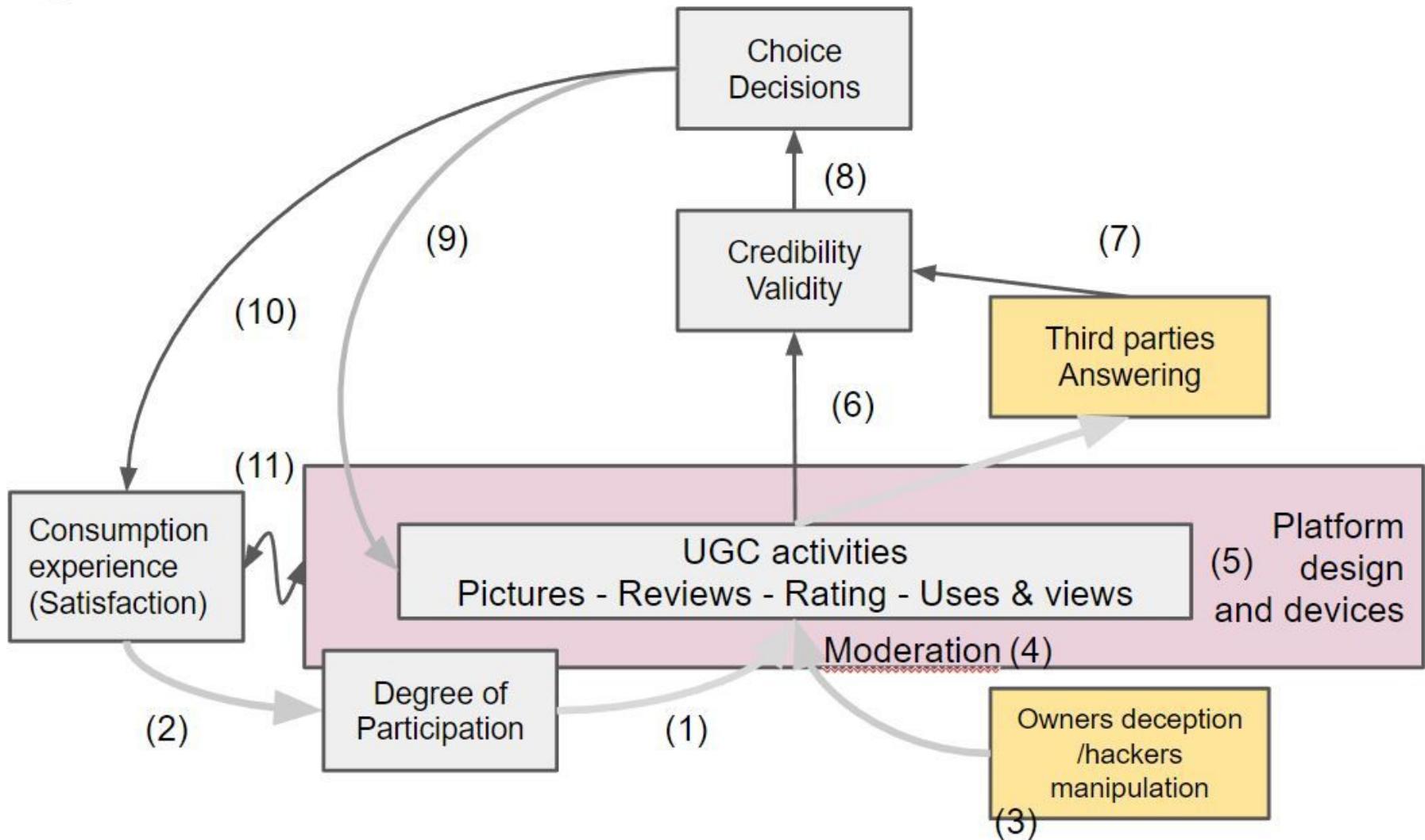
FIGURE 17.1
THE MARKET FOR USED CARS

When sellers of products have better information about product quality than buyers, a “lemons problem” may arise in which low-quality goods drive out high-quality goods. In (a) the demand curve for high-quality cars is D_H . However, as buyers lower their expectations about the average quality of cars on the market, their perceived demand shifts to D_M . Likewise, in (b) the perceived demand curve for low-quality cars shifts from D_L to D_M . As a result, the quantity of high-quality cars sold falls from 50,000 to 25,000, and the quantity of low-quality cars sold increases from 50,000 to 75,000. Eventually, only low-quality cars are sold.

Réputation signals

- Qualifications : *nécessite légitimité et un investissement public*
- Marques : *un label privé qui nécessite des coûts élevés*
- Labels (privés et publics) : *le risque de passer clandestin - engagement*
- Certification : *coût élevé et tiers de confiance – contrôle*
- *Testimonials*
- Notes et commentaires : *la puissance des données et l'influence sociale*

Systèmes de réputation



Les notes : fiabilité

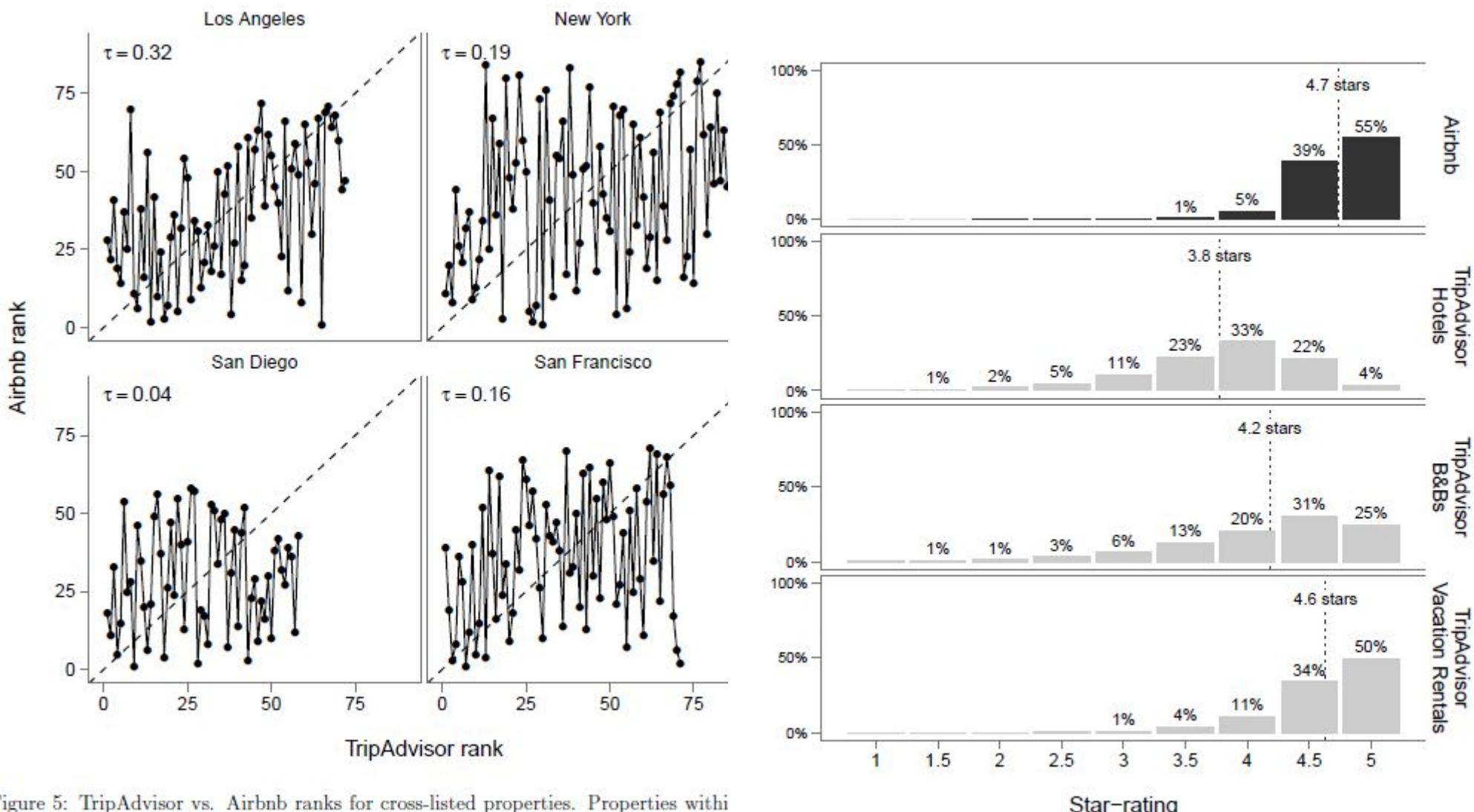


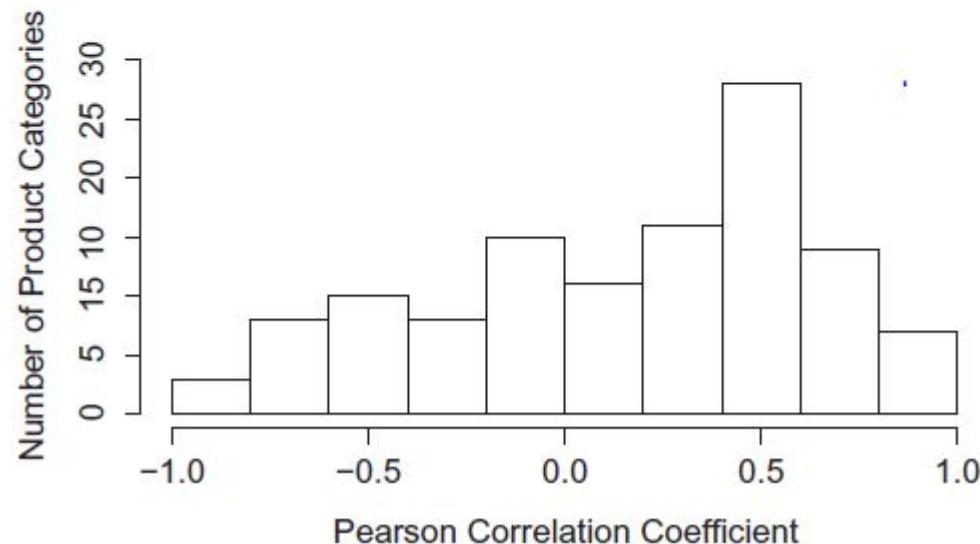
Figure 5: TripAdvisor vs. Airbnb ranks for cross-listed properties. Properties within city are ranked first by star-rating, then by number of reviews, and remaining ties are broken lexicographically.

Pas de corrélation entre les avis et la qualité !

Regression Analyses. We further examined the correspondence between average user ratings and *Consumer Reports* scores for the 1272 products in our database using

FIGURE 1

DISTRIBUTION OF PEARSON CORRELATIONS BETWEEN AVERAGE USER RATINGS AND *CONSUMER REPORTS* SCORES



Airbnb case : Social discrimination

listing photos

prominent host photo and first name

listing description

reviews from prior guests

Loft 1Bedroom/ Sleep 4 / Chelsea

Apartment - Entire home/apt - Avenue of the Americas, New York, NY 10010, United States

Photos Maps Calendar

From \$220 Per Night

Check in: 12/16/2013 Check out: 12/19/2013

Subtotal \$220

Book It

Includes: \$70 cleaning fee
Excludes Airbnb service fee (\$26)

Save to Wish List

Cared 986 times

Inga

Description

Located in the Center of the city, West 24th Street and SIXTH AVE, 1 minutes walking distance from the Subway (A, C, E, B, F, M, R, N, W, 4, 5) Train, and 5 minutes away from Central Park, Guggenheim Museum. In the neighborhood you can find delicious restaurants, General stores and shopping. The apartment is a Loft one Bedroom Apt it has, two rooms, Bedroom and Living room. Full bathroom with a and full kitchen equipped with: dining area, table, chairs, cabinets and more (microwave & oven, fidge / freezer and gas burners). Bathroom includes a sink/Bathtub and restroom.

You will get clean and Fresh linens and towels !!

The bedroom is furnished with Queen Size Bed

In the living room there is a sofa that can be converted into a queen size bed, Dining Area with four Chairs, flat LCD TV 42" and 3 closets

There is a FREE high speed internet and complimentary unlimited local phone calls.

You may feel free to contact me with any questions 24/7 before, during and after the stay.

Amenities

- High-speed Internet
- Towels
- FRESH Bedsheets, bed linens are provided.
- Cleaning kit, plates, cups
- Kitchen table
- Queen size bed
- Sofa Bed (Queen size sleeper)
- Hair dryer
- Iron & Ironing Board
- maps
- Air Conditioning
- Stove
- Refrigerator

Fees: ONLY!!! \$70 cleaning fee

Daily rates are seasonal.

this is booked for the days you're looking for, ask about my other apartments in the Area

Please check the calendar on this listing to see availability. The calendar is kept up-to-date and accurately reflects availability, so it is not necessary to send an inquiry about availability. Simply click "book it" if you are ready to book!

We look forward to hosting you!

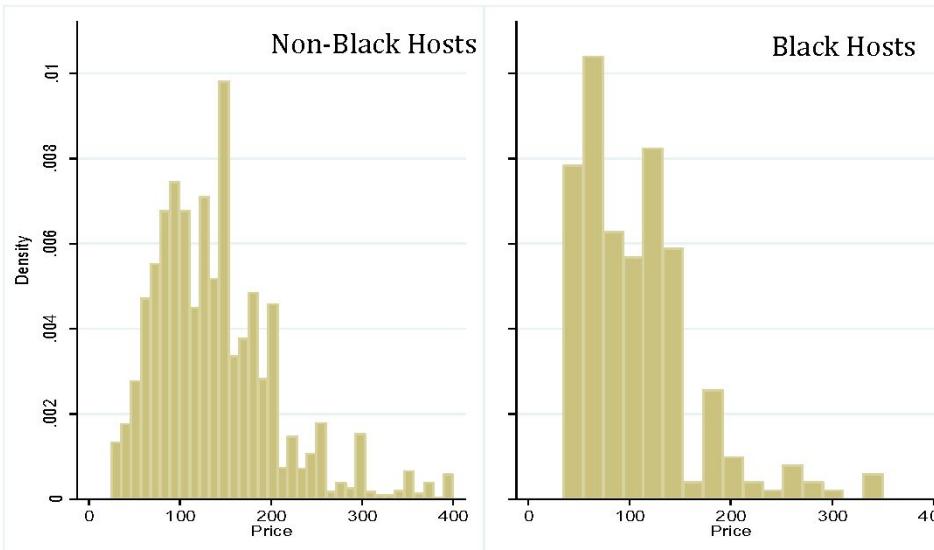
Reviews (3) **Other Property Reviews (75)** **Friends (0)**

Overall Guest Satisfaction	Accuracy	Communication
★★★★★	★★★★★	★★★★★
Check In	Cleanliness	Location
Value	Check In	Value

Vladimir December 2013

Matthias November 2013

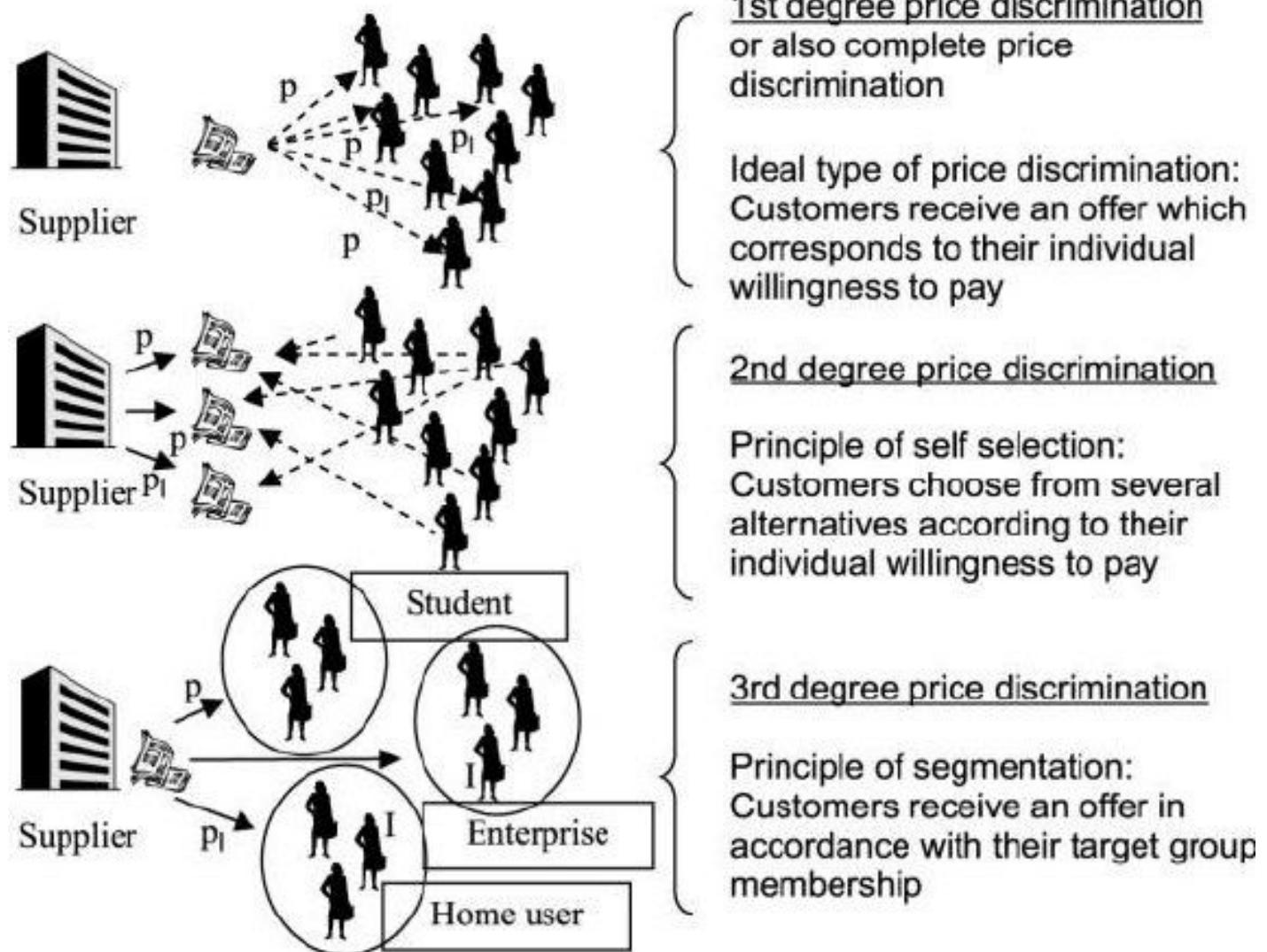
Source: Authors' use of Airbnb (December 8, 2013).



4 - Pricing leverage

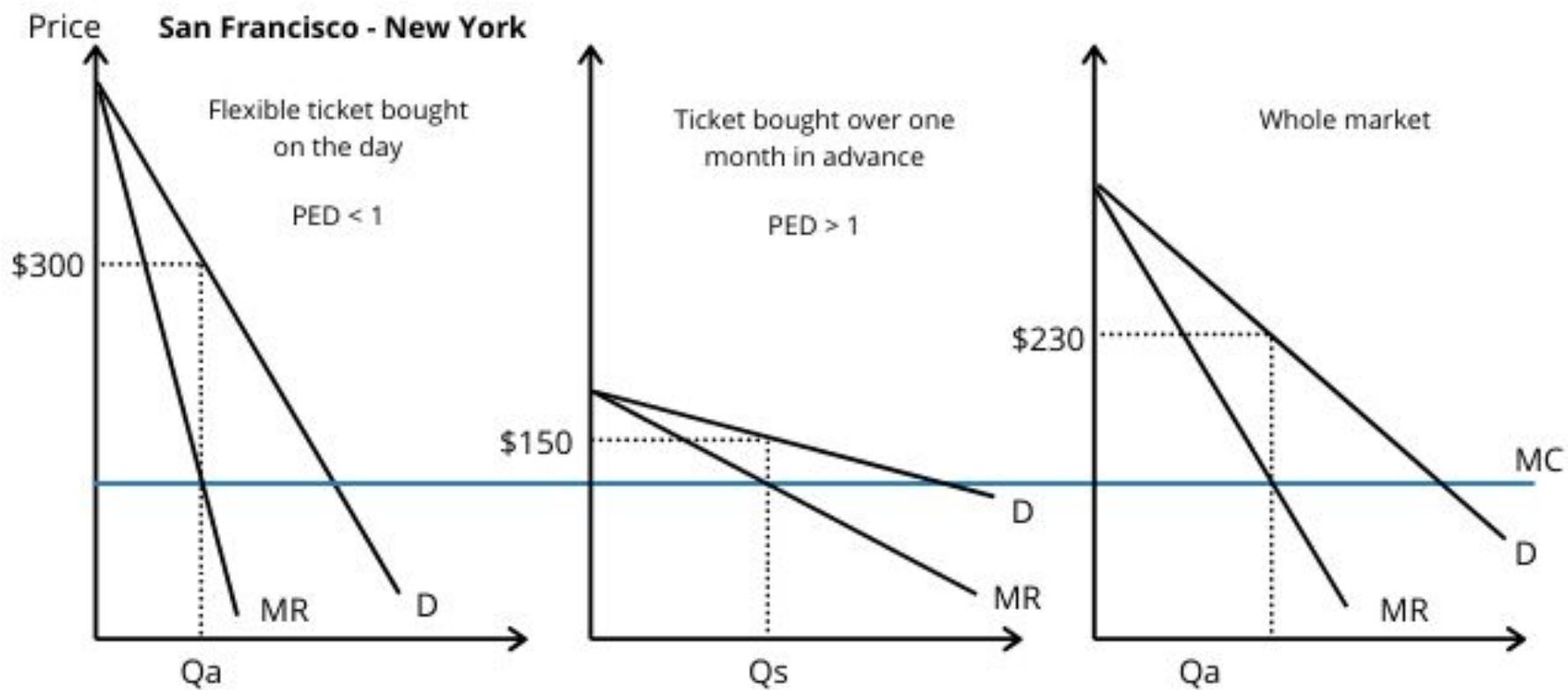
From Pigou to Varian

Price discrimination



Source: Schumann and Hess (2006, p. 70)

Segmentation is price sensibility



A solution : binomial pricing

MONOPRIX | À VOLONTÉ

PROFITEZ DE LA LIVRAISON GRATUITE 7J/7

grâce à nos 3 formules d'abonnement à volonté

Formule 1 mois

9,90€

Pour 1 mois

Rentabilisé* dès votre
1ère commande

J'EN PROFITE

Formule 6 mois

49,90€

9,99€ 8,32€/mois

Vous faites
16% d'économies

J'EN PROFITE

Formule 12 mois

99,90€

9,99€ 8,33€/mois

Vous faites
19% d'économies

J'EN PROFITE

promotions

Stephen J. Hoch, Xavier Drèze, & Mary E. Purk

EDLP, Hi-Lo, and Margin Arithmetic

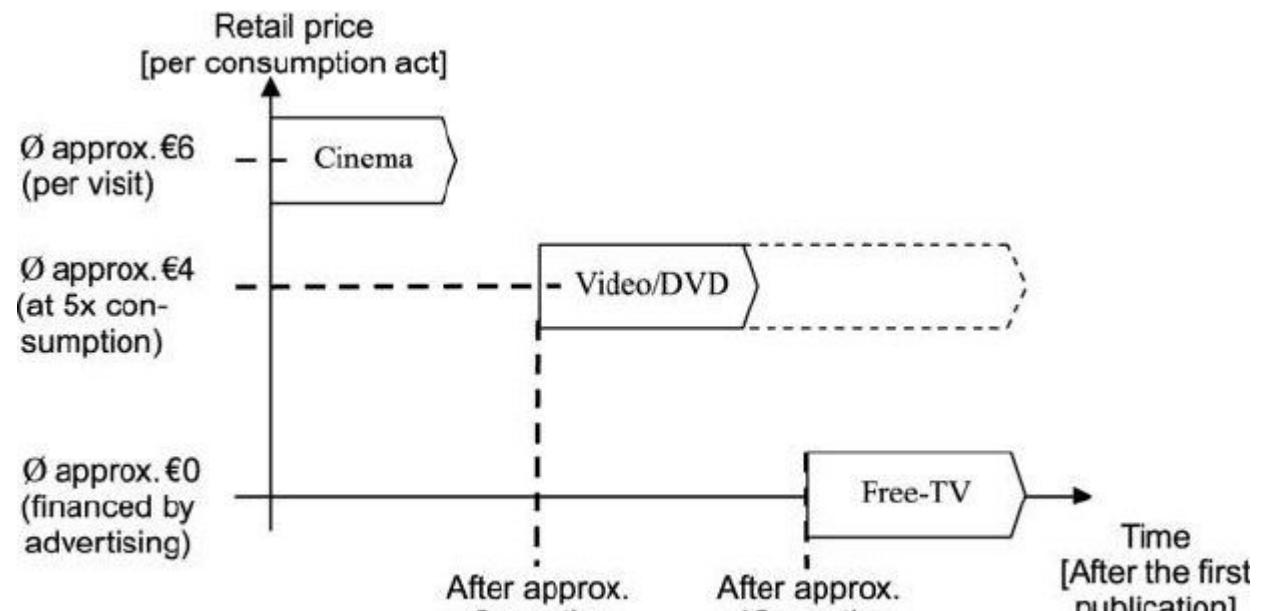
The authors examine the viability of an "everyday low price" (EDLP) strategy in the supermarket grocery industry. In two series of field experiments in 26 product categories conducted in an 86-store grocery chain, they find that a 10% EDLP category price decrease led to a 3% sales volume increase, whereas a 10% Hi-Lo price increase led to a 3% sales decrease. Because consumer demand did not respond much to changes in everyday price, they found large differences in profitability. An EDLP policy reduced profits by 18%, and Hi-Lo pricing increased profits by 15%. In a third study, the authors increase the frequency of shallow price deals in the context of higher everyday prices and find a 3% increase in unit volume and a 4% increase in profit. Finally, they draw a conceptual distinction between "value pricing" at the back door and EDLP pricing at the front door.

□ How promotion (couponning) could increase profits ?

- Two segments :
 - price sensibility and high search cost (reservation price 7)
 - no price sensibility and low search cost: (reservation price : 12)
- Random promotion (50% of time)
- cost =2

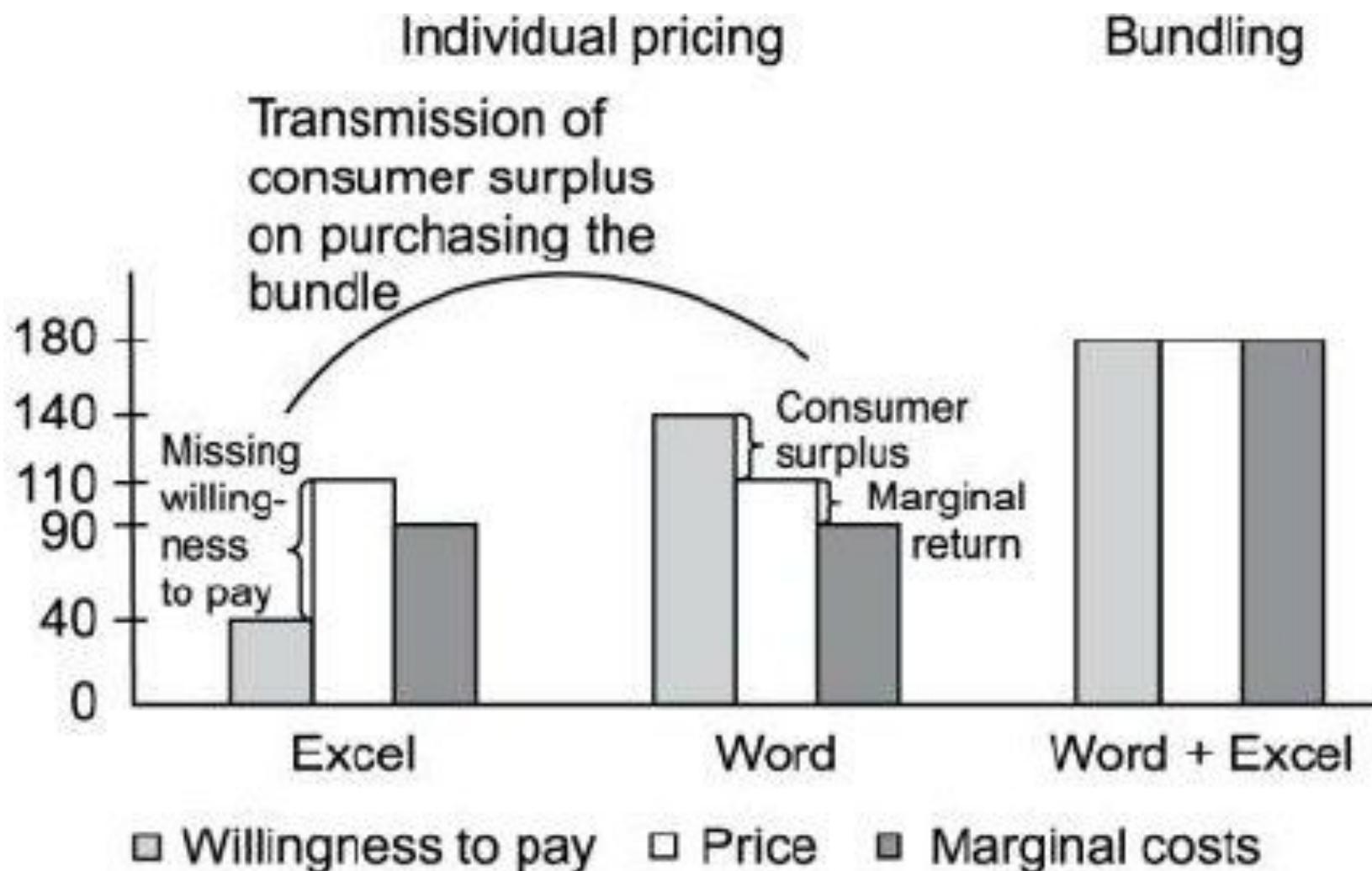
Strategy	Turnover	Penetration	Profit
High price	6	50%	5
EDLP	7	100%	5
Mixed Strategy	S1: 3+1.75 S2:+3.50 total=8.25	100%	2,50+1,25 +2.50 =6.25

Discrimination temporelle :



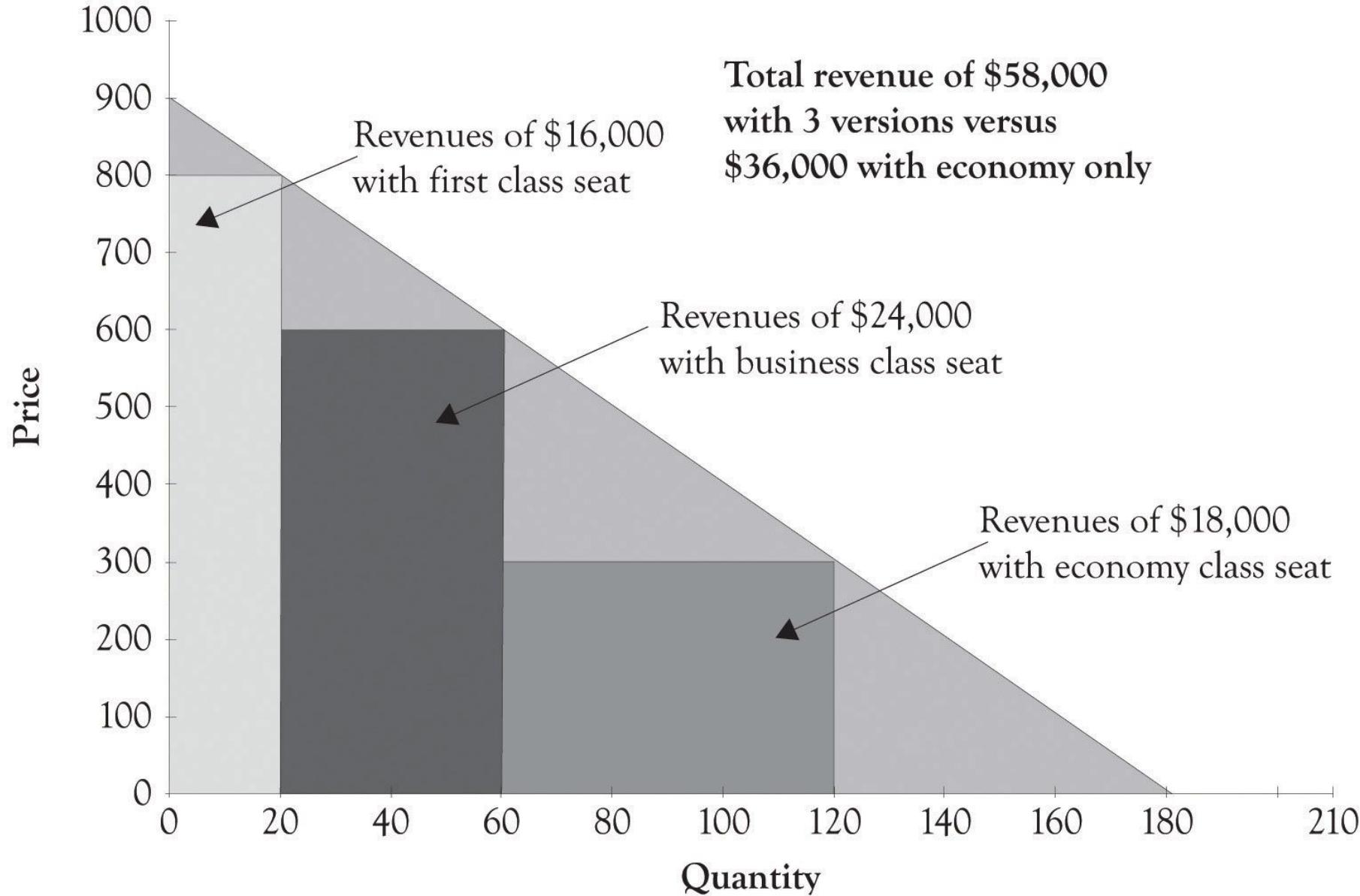
Source: Schumann and Hess (2006, p. 74)

Bundling



Source: Wirtz and Oldenrodt (2001, p. 204)

Quand le coût marginal est nul : versioning

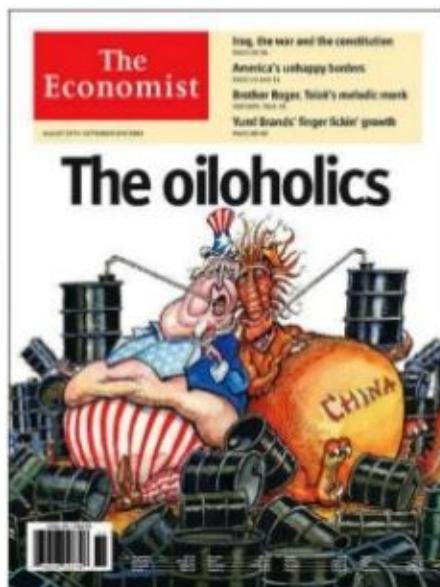
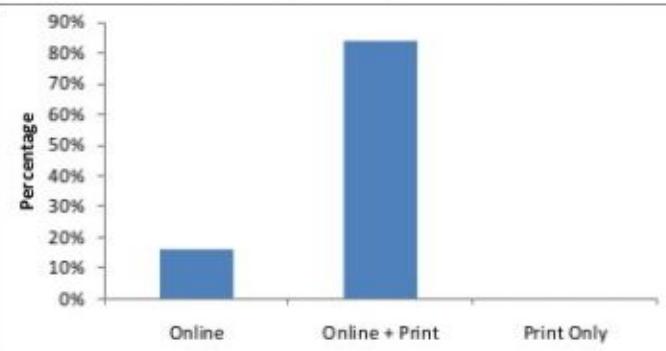


Freemium

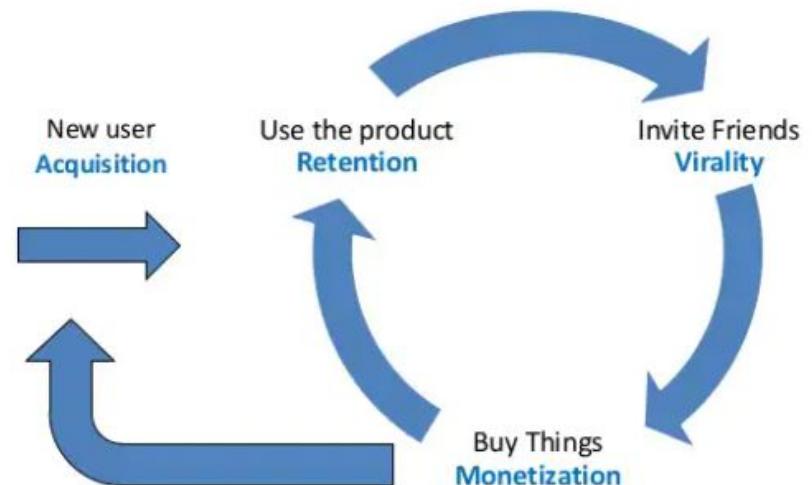
Effet de cadrage (framing)

The Economist

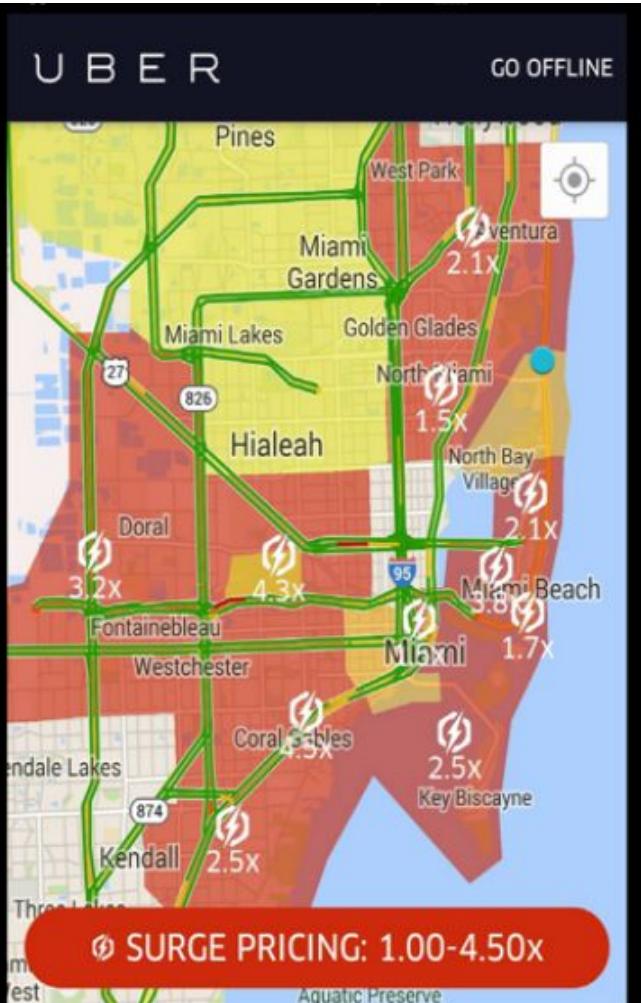
- Online-only – \$59.00
- Print + Online – \$125.00
- Print-only – \$125.00



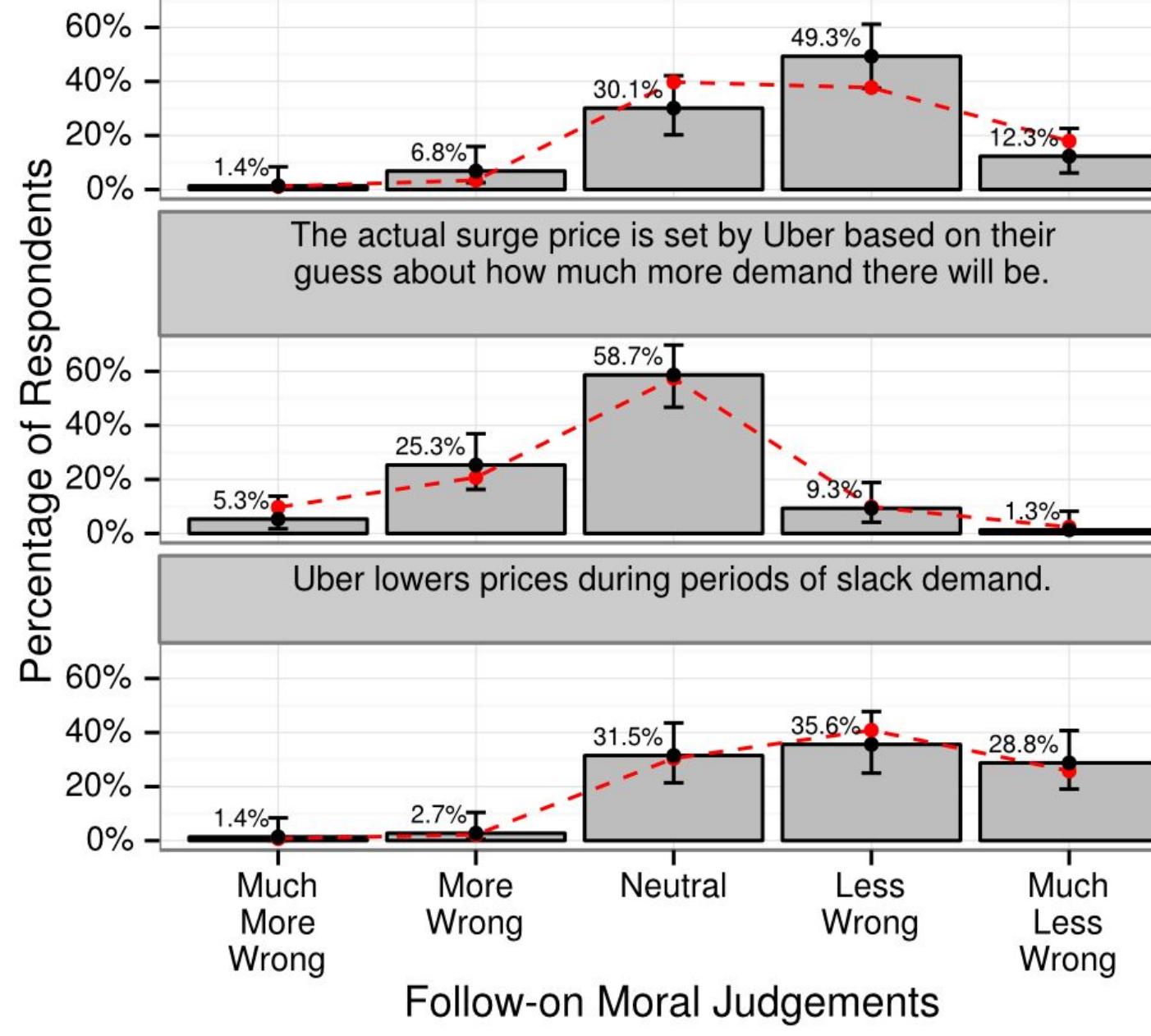
The “virtuous cycle”



Surge Pricing : Une question de légitimité



The actual surge price is set by an algorithm designed to make sure there is always a car available within a city within 20 minutes.



Uber smart pricing

Figure 1: Demand for Uber Spikes Following Sold-Out Concert on March 21, 2015

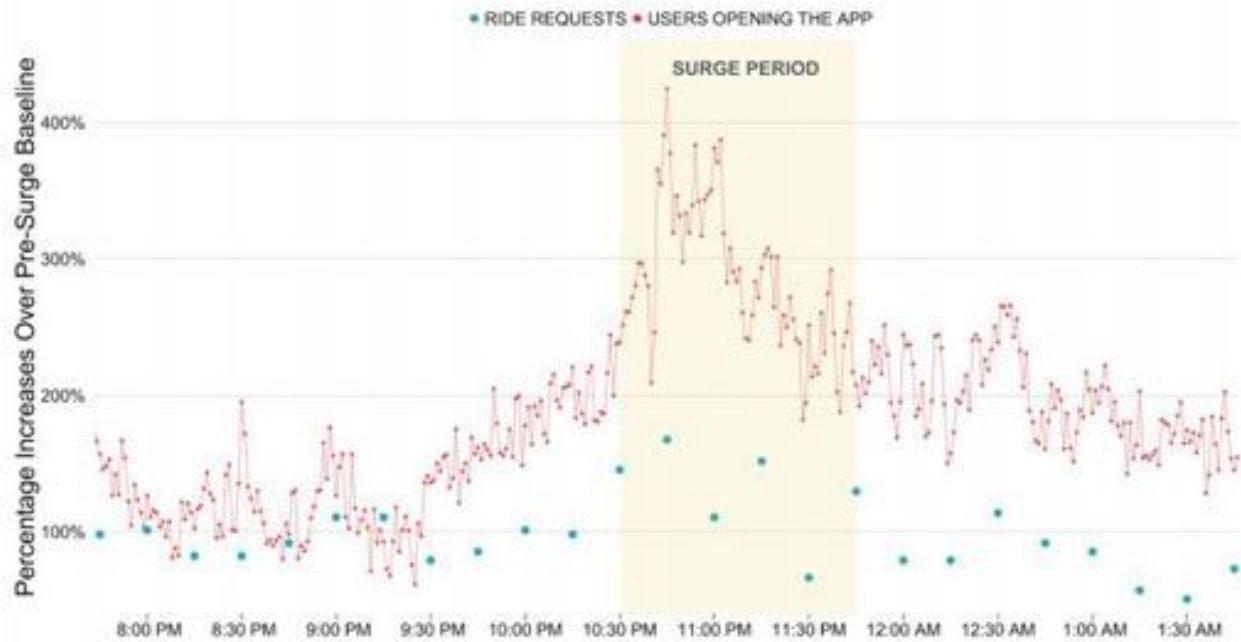
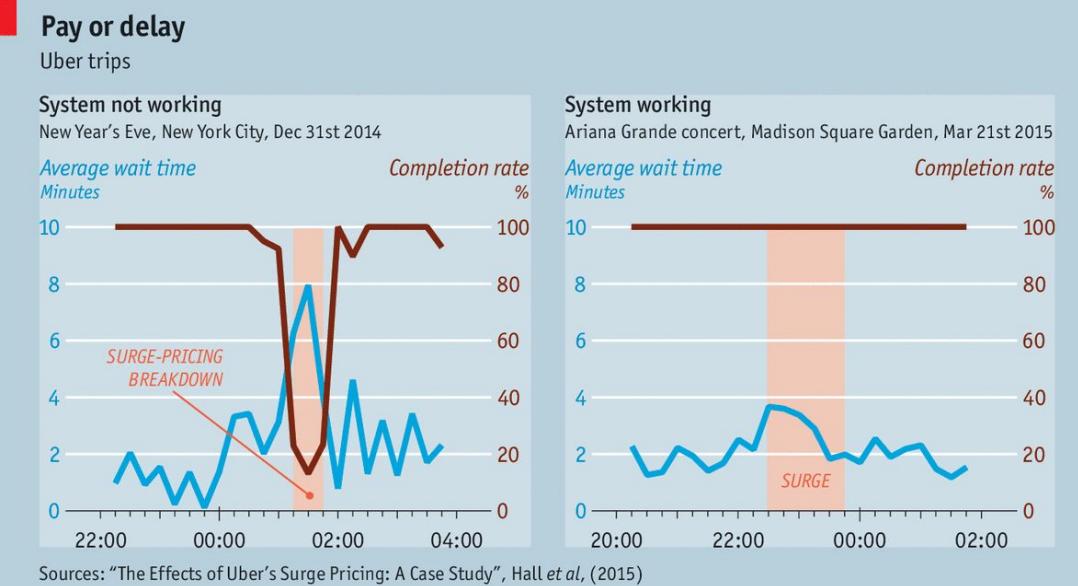
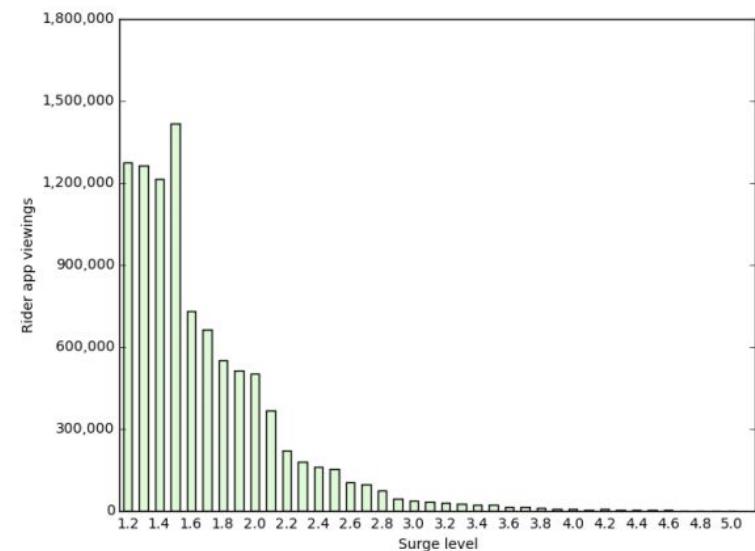


Figure 2: Distribution of surge price sessions for surge prices greater than 1.0x



Note: This figure presents the number of observed UberX surge prices by surge level. Rides with no surge are excluded. Surge price notation is abbreviated. For example 1.2 in the graph corresponds to a surge price of 1.2x.

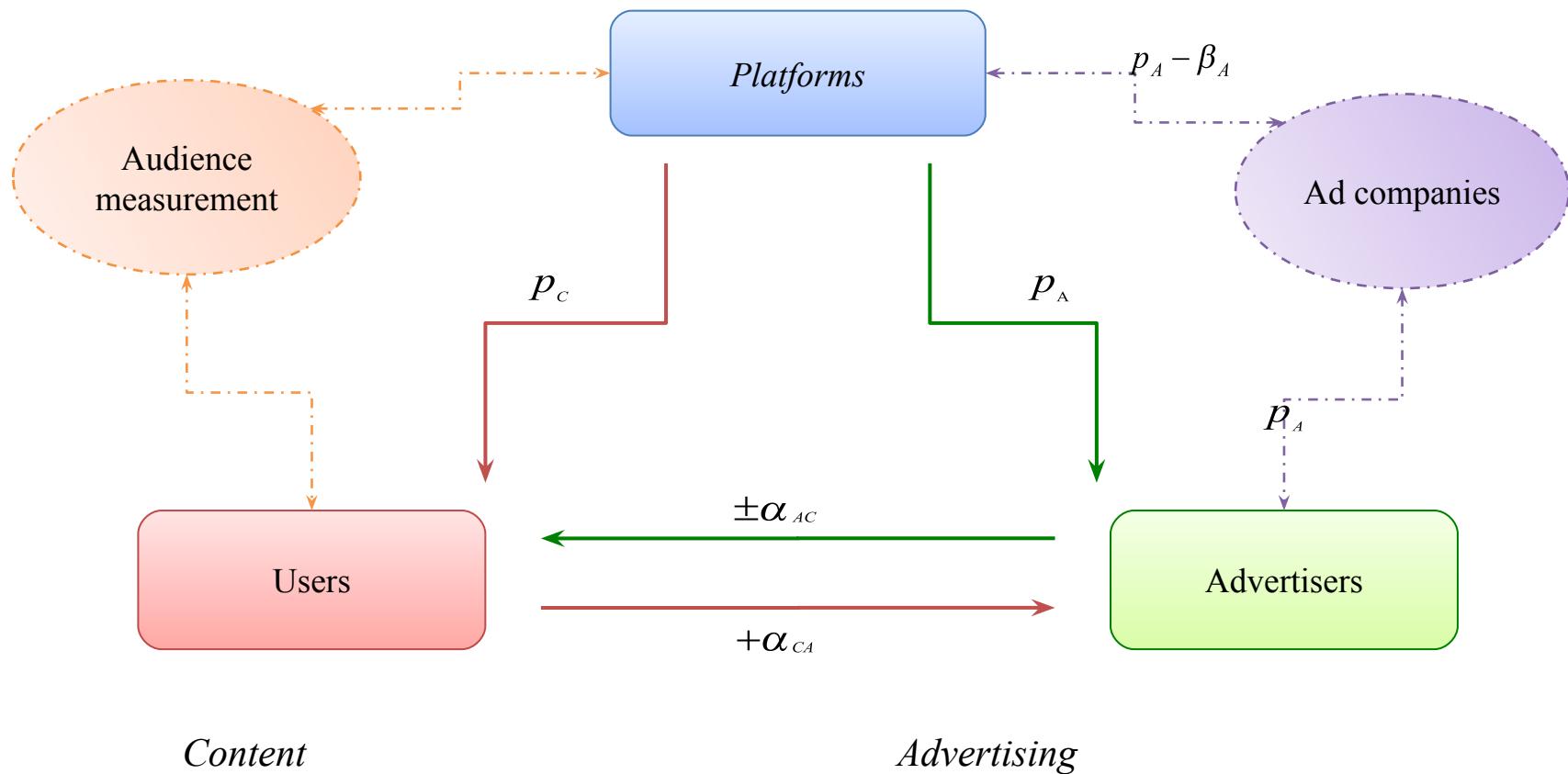
6 - Sur chaque versant : retenir et fidéliser
(Les leçons de la lifetime value)

Life time value

taux d'attrition		0,3							
budget		200							
Life time value									
temps	attrition	Rétention	Revenu	coût acquisition+dvp t	cout de fidélisation	Espérance de revenu	Espérance cumulée	bénéfices	bénéfices cumulés
0		1,00	40	50	10	40,00	40,00	-20,00	-20,00
1	0,3	0,70	45	20	10	31,50	71,50	1,50	-18,50
2	0,3	0,49	55	10	10	26,95	98,45	6,95	-11,55
3	0,3	0,34	60		10	20,58	119,03	10,58	-0,97
4	0,3	0,24	60		0	14,41	133,44	14,41	13,44
5	0,3	0,17	50		0	8,40	141,84	8,40	21,84
6	0,3	0,12	50		0	5,88	147,72	5,88	27,72
7	0,3	0,08	50		0	4,12	151,84	4,12	31,84
8	0,3	0,06	40		0	2,31	154,15	2,31	34,15
9	0,3	0,04	40		0	1,61	155,76	1,61	35,76
10	0,3	0,03	40		0	1,13	156,89	1,13	36,89
					0				36,89
temps	taux d'attrition	Retention	Revenu	coût acquisition	cout de fidélisation	Espérance de revenu	Espérance cumulée	bénéfices	bénéfices cumulés
0		1,00	40	50	10	40,00	196,89	-20,00	53,78
1	0,13	0,87	45	20	14,6	39,27	236,16	4,65	58,43
2	0,10	0,79	55	10	16	43,21	279,37	17,21	75,64
3	0,10	0,71	60		16	42,44	321,81	26,44	102,07
4	0,13	0,61	60		14	36,85	358,66	22,42	124,49
5	0,14	0,53	50		14	26,36	385,02	12,36	136,84
6	0,17	0,44	50		13	21,93	406,94	8,93	145,77
7	0,23	0,34	50		11	16,85	423,80	5,85	151,62
8	0,73	0,09	40		0	3,63	427,42	3,63	155,25
9	0,73	0,02	40		0	0,98	428,40	0,98	156,23
10	0,73	0,01	40		0	0,26	428,66	0,26	156,49
				109,0625022					82,71

7 - Multisided markets

Mutiside markets



Tirole : benefit could be maximized even the price on one side is lower than marginal cost :

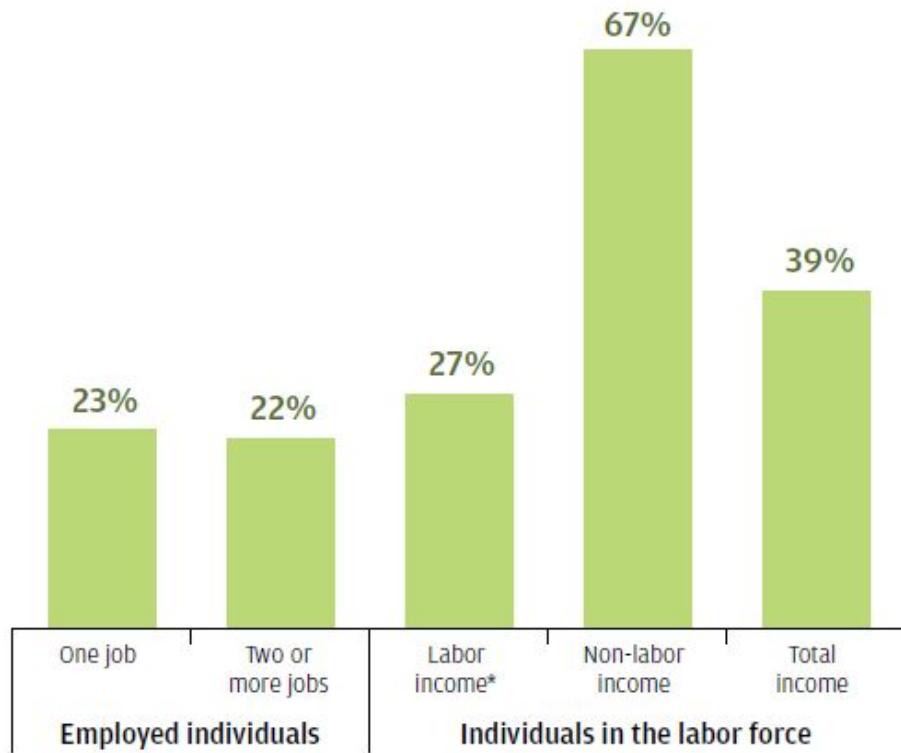
Les plateformes de travail pour compenser les pertes de salaire, les plateformes de capital pour accroître les revenus

Figure 29: Earnings in months with and without platform earnings



Paychecks, Paydays, and the Online Platform Economy : Big Data on Income Volatility

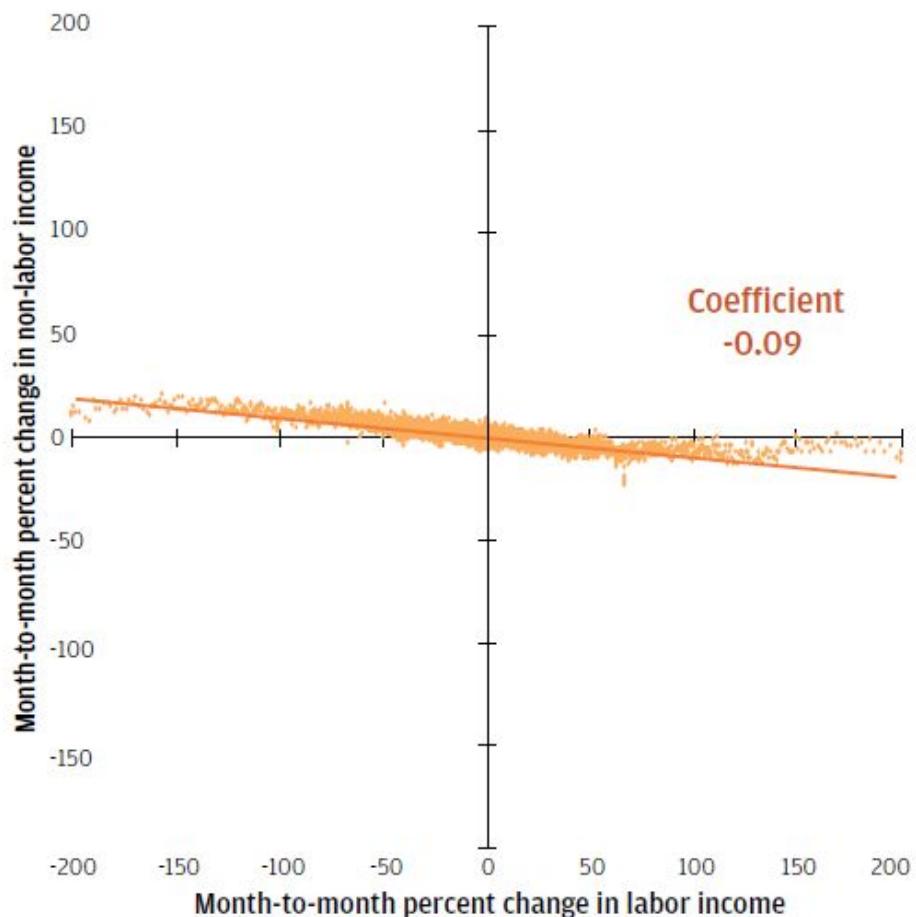
Figure 10: Average monthly percent change in income for employed individuals by number of jobs and individuals



* Average monthly percent change in labor income of 27 percent is consistent with the distribution reflected in Figure 7. Percentages in Figure 8 reflect the average monthly percent change of median individuals within each income quintile and are, as a result, lower than the average for the entire population reflected here.

Source: JPMorgan Chase Institute

Figure 11: Percent change in labor income versus percent change in non-labor income

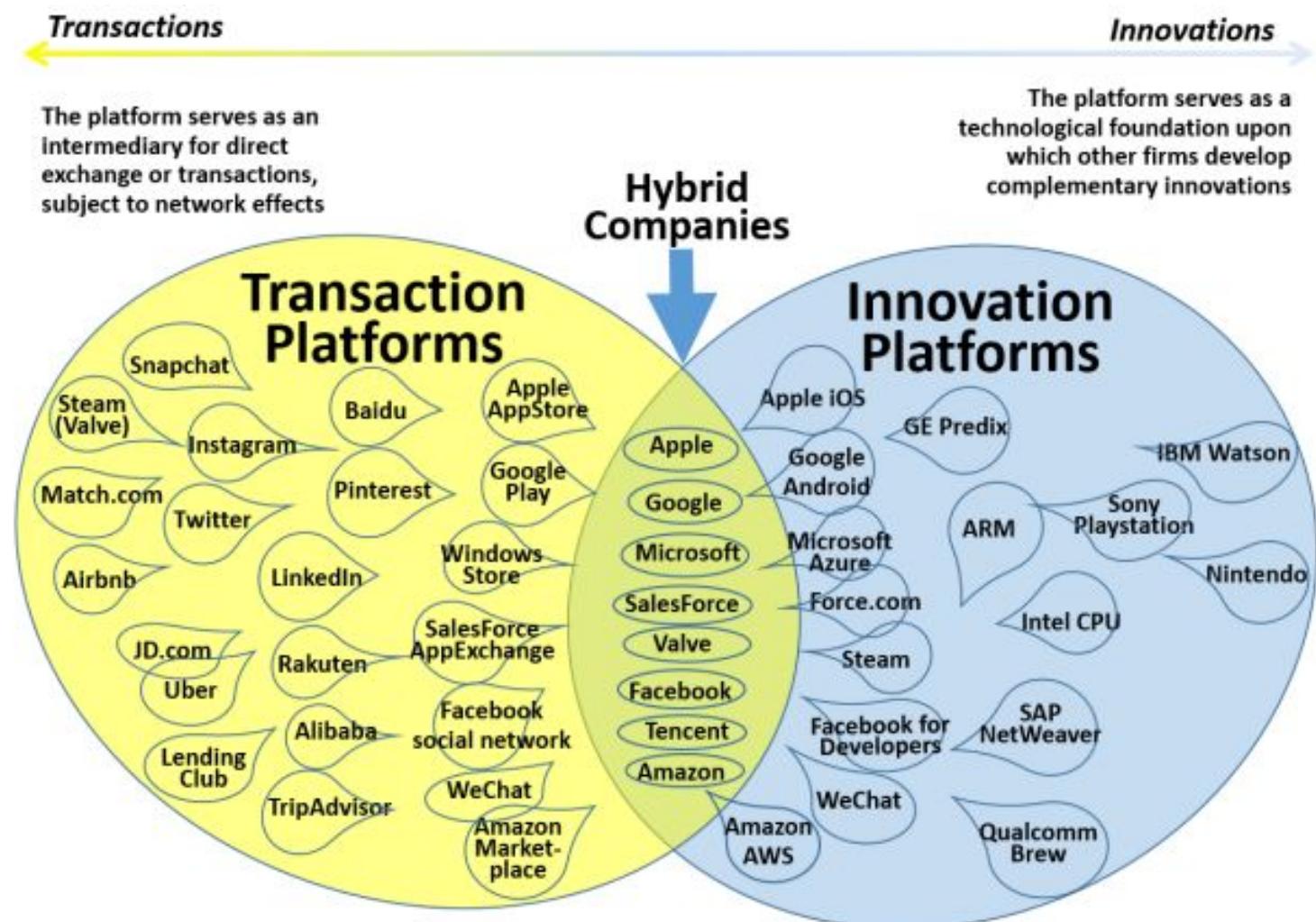


Source: JPMorgan Chase Institute

Revenus du capital, du travail et de l'information

- . Une communication désormais centrée sur le revenu additionnel (Koolicar) procuré par les biens que l'on possède
- . Le travail à la demande stimule des emplois d'appoints pour écrêter les pointes, valorisation du travail domestique (Etsy).
- . La production et la diffusion d'information peu rémunérées, mais c'est à surveiller

Transaction vs Innovation



Source: This graphic was originally designed by Annabelle Gawer in consultation with Michael Jacobides and Carmelo Cennamo, and further expanded with Michael Cusumano and David Yoffie for use in a forthcoming book, M. A. Cusumano, A. Gawer, and D. B. Yoffie The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power (Harper Business, June 2019).

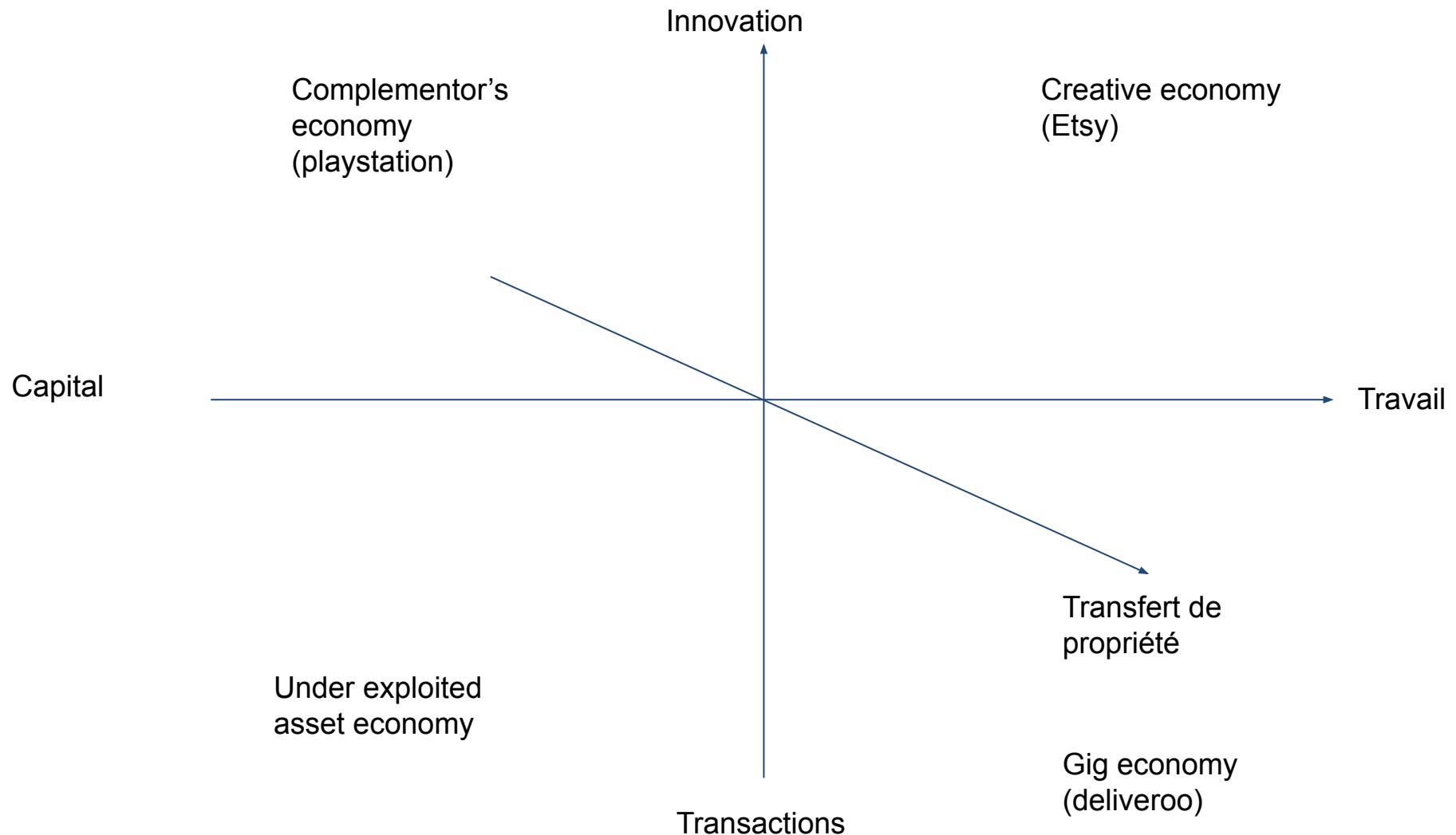
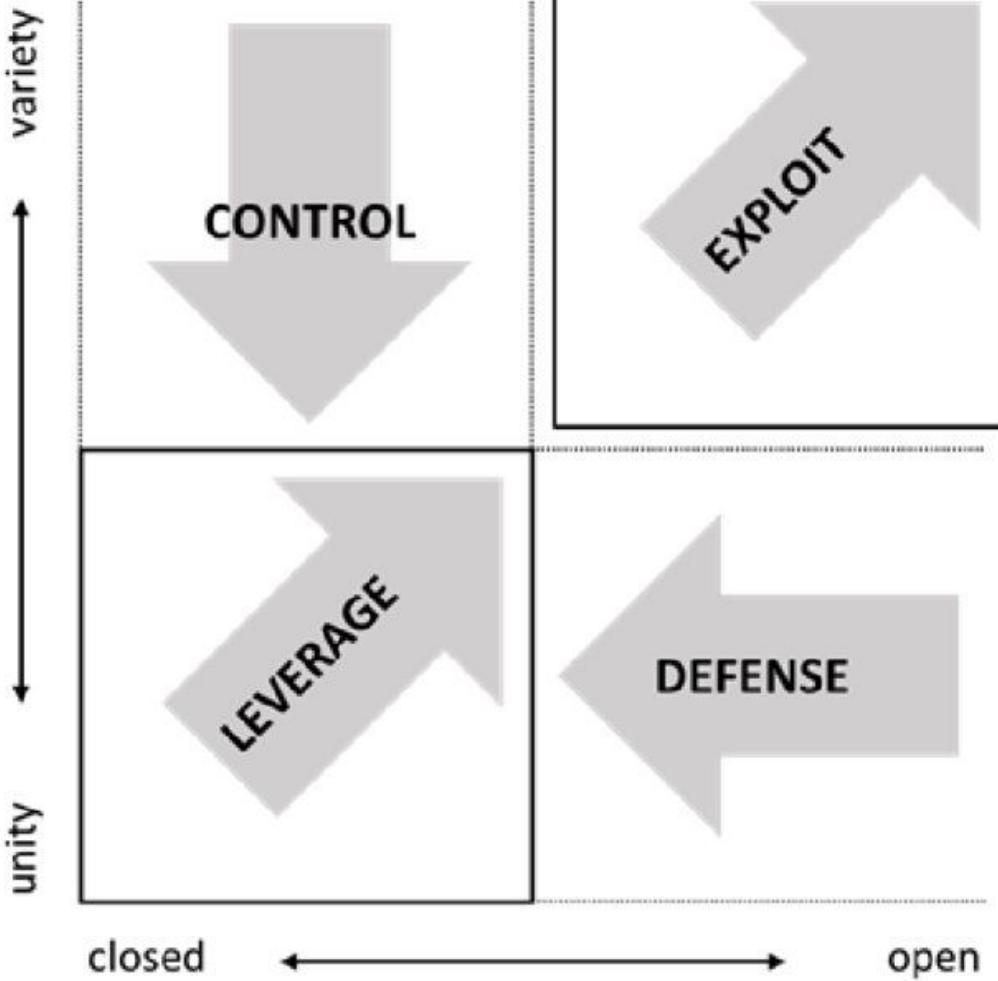


Table 1: Typical Uses of Boundary Resources for Each Tactic

Frontières et tactiques



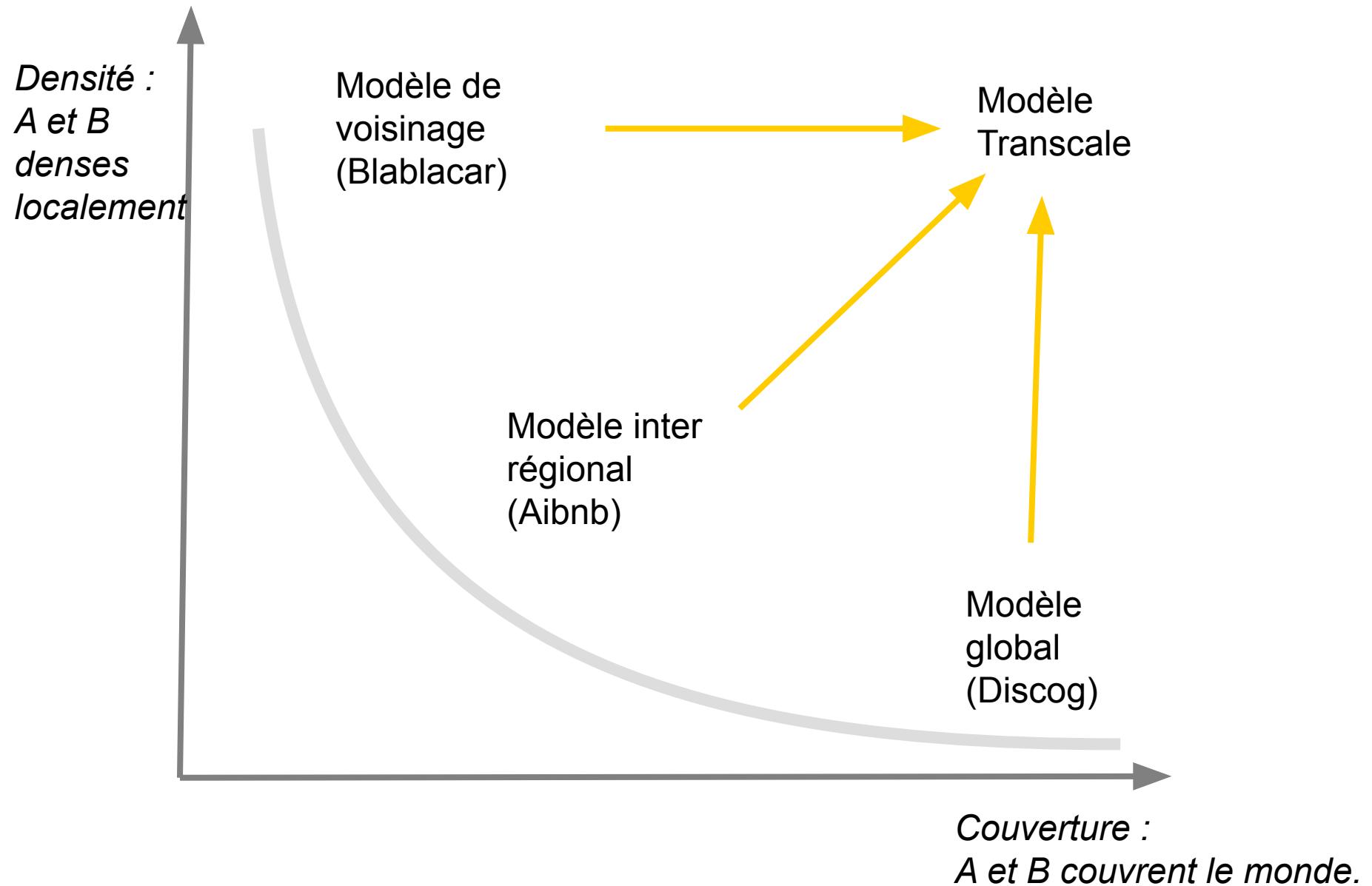
Tactic	Boundary Resource	Typical Use
Leverage	API	An application programming interface opens up platform functionality or data for developers.
	SDK	Software development kits are bundles of development tools and APIs to make it as easy as possible for developers to re-use and build upon the platform.
	HAL, CDD CTS	Hardware-abstraction layer, compatibility definition document and compatibility test suite (in Android) are boundary resources for device manufacturers similar to APIs and SDKs for developers.
	Open-source license	In addition to only offering APIs, the platform itself (i.e., the implementing code behind APIs) can be open by using an open-source license. Similar to software, content can also be open by using open content licenses, such as Creative Commons licenses (e.g., Wikipedia).
Control	Publisher terms and conditions	The terms and conditions (e.g., monetization, distribution and banned content) for publishing complements. For example, Apple restricts iOS apps to publishing exclusively in the official Apple App Store.
	Guidelines	Guidelines help to produce higher-quality, unified and compatible complements.
	Client library	A client library wraps platform APIs into an updateable package that helps the platform owner control device fragmentation by updating developer APIs independently of device manufacturers' releases (e.g., Google Play Services in Android).
	MADA	A mobile application distribution agreement defines the rules for Android device manufacturers for how Google Services should be placed in the device.
Exploit	Open-source licenses	If platform resources are published under an open-source license, then exploiters can simply copy them to avoid upfront costs in creating their own modified platform. Permissive open-source licenses (e.g., Apache used in Android) only require attribution, making it particularly easy to exploit.
	Publisher terms and conditions	If a platform publisher's terms and conditions allow alternative app stores (as in Android), an exploiter can also easily exploit the platform's apps by allowing developers to multi-home to its own store.
Defense	Open-source licenses	Reciprocal open-source licenses (e.g., GPL) force license users to share and license changes under the same terms and thus can help to defend the platform by also forcing exploiters to open source their modified platform. Alternatively, a platform can close up open-sourced code.
	Client library	By speeding up API releases, a client library makes it more difficult for API copycats to keep up with platform development.

Enable or control

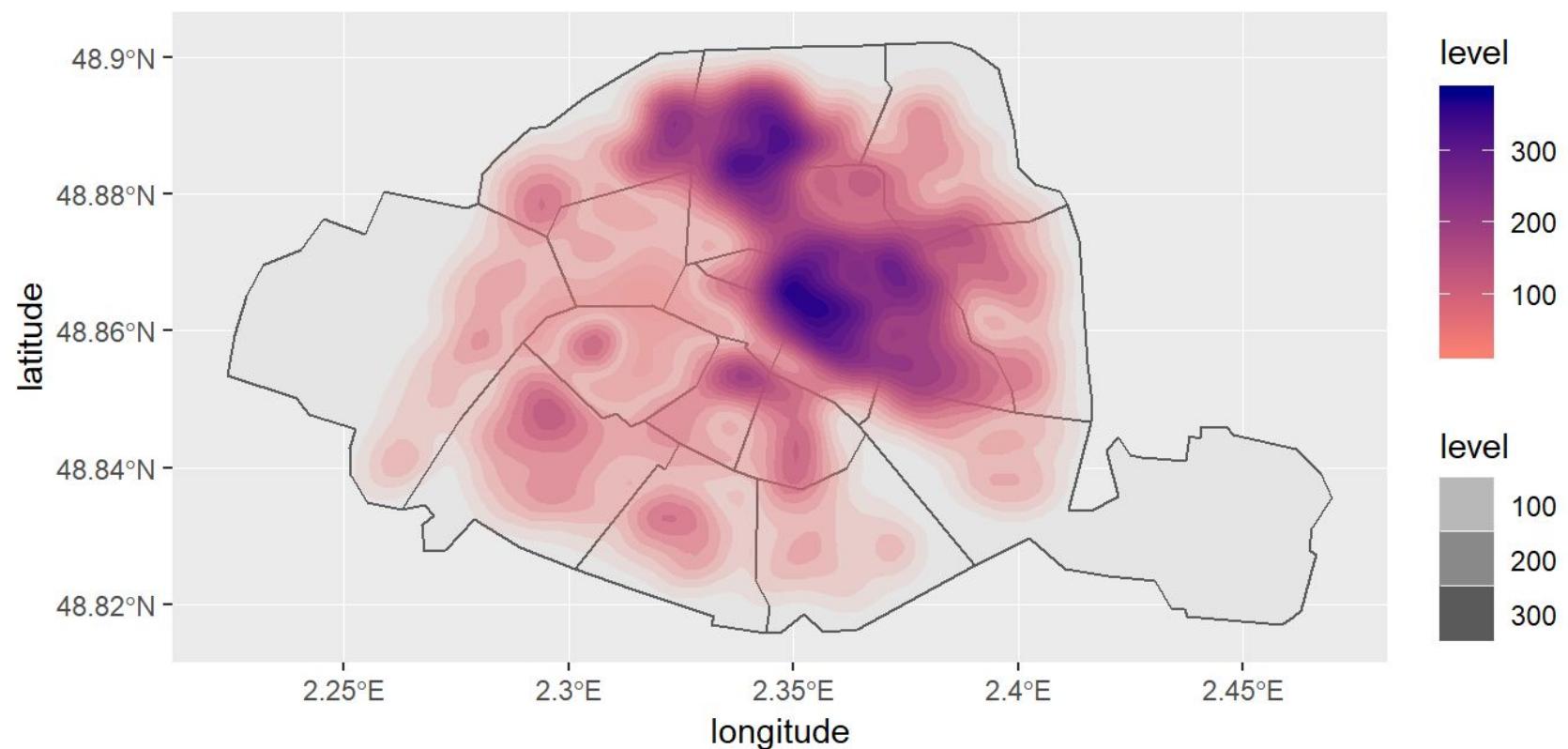
Table 1: Examples

	<i>Transferable decisions</i>	<i>Non-transferable investment decisions made by professionals</i>	<i>Non-transferable investment decisions made by the firm</i>
Hair salons	investments in equipment and uniforms; advertising of individual professionals' services to customers (online and offline)	effort regarding service quality and/or customer experience (friendliness, before and after service, etc.)	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
Uber & Lyft vs. traditional taxi companies	quality, maintenance and cleanliness of car subject to minimal requirements; work schedule	customer service (e.g. friendliness, politeness); investment in local information	advertising the service (company) to customers; investments in the quality of the corresponding app and back-end infrastructure (e.g. payment processing, dispatch system)
Elance-oDesk vs. traditional staffing and outsourcing agencies (e.g. Adecco, Infosys)	advertising of individual professionals services; work schedule and scope	investments in development of skills and expertise; effort put into understanding and responding to customer needs; effort supplied in the provision of the service	investments in the (online) infrastructure that allows communication and monitoring by the client; investment in payment functionality; advertising the firm to corporate clients
Hospitals & their clinics	equipment; support staff; work schedule and scope; advertising of individual clinics services	investments in development of skills and expertise; customer service; effort supplied in the provision of the service	development and maintenance of common infrastructure (e.g. physical space, common staff, any shared equipment); advertising the hospital (e.g. website)
Coursera vs. University of Phoenix	curriculum design (topics, length, assessment); advertising of individual instructors and courses	quality of content and its delivery; effort put into understanding and responding to students needs	investments in online infrastructure for content delivery, interactions, feedback and evaluations (both ways); advertising the brand
eBay Motors vs. Beepi	advertising and presentation of individual cars; after-sale customer service and guarantees	quality and/or maintenance of the product	investments in the website and related infrastructure (e.g. payment system, fulfillment, delivery, customer service, etc.); advertising of the website to users

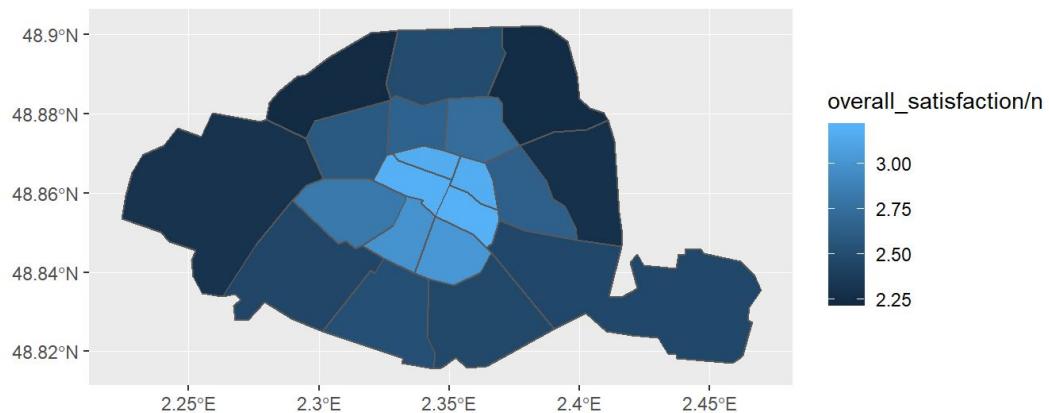
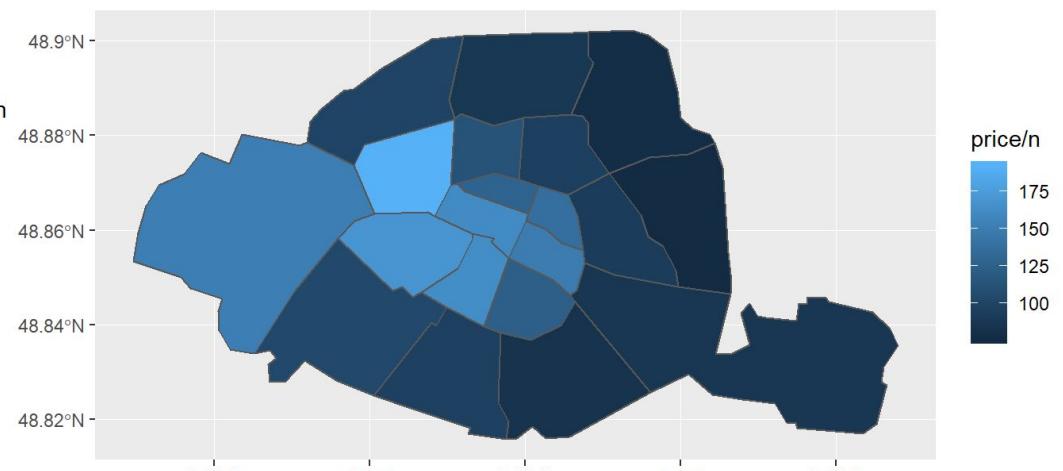
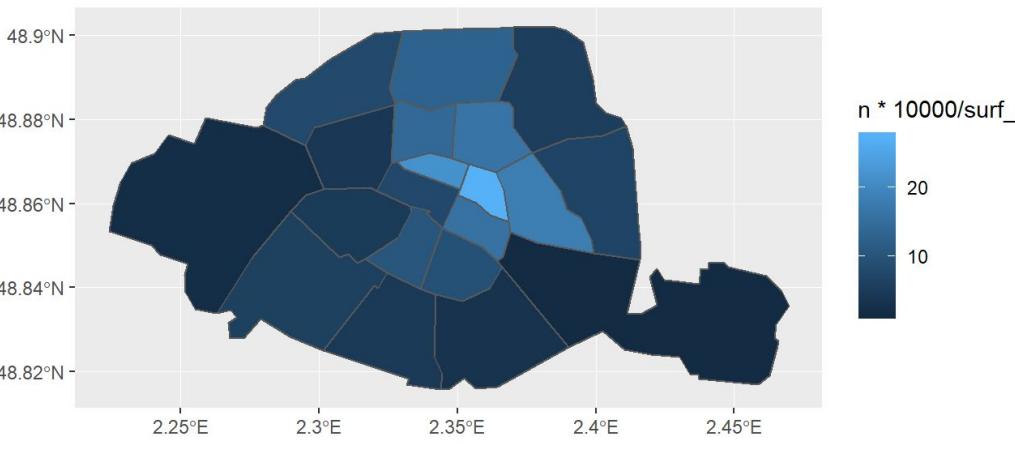
La questions des échelles



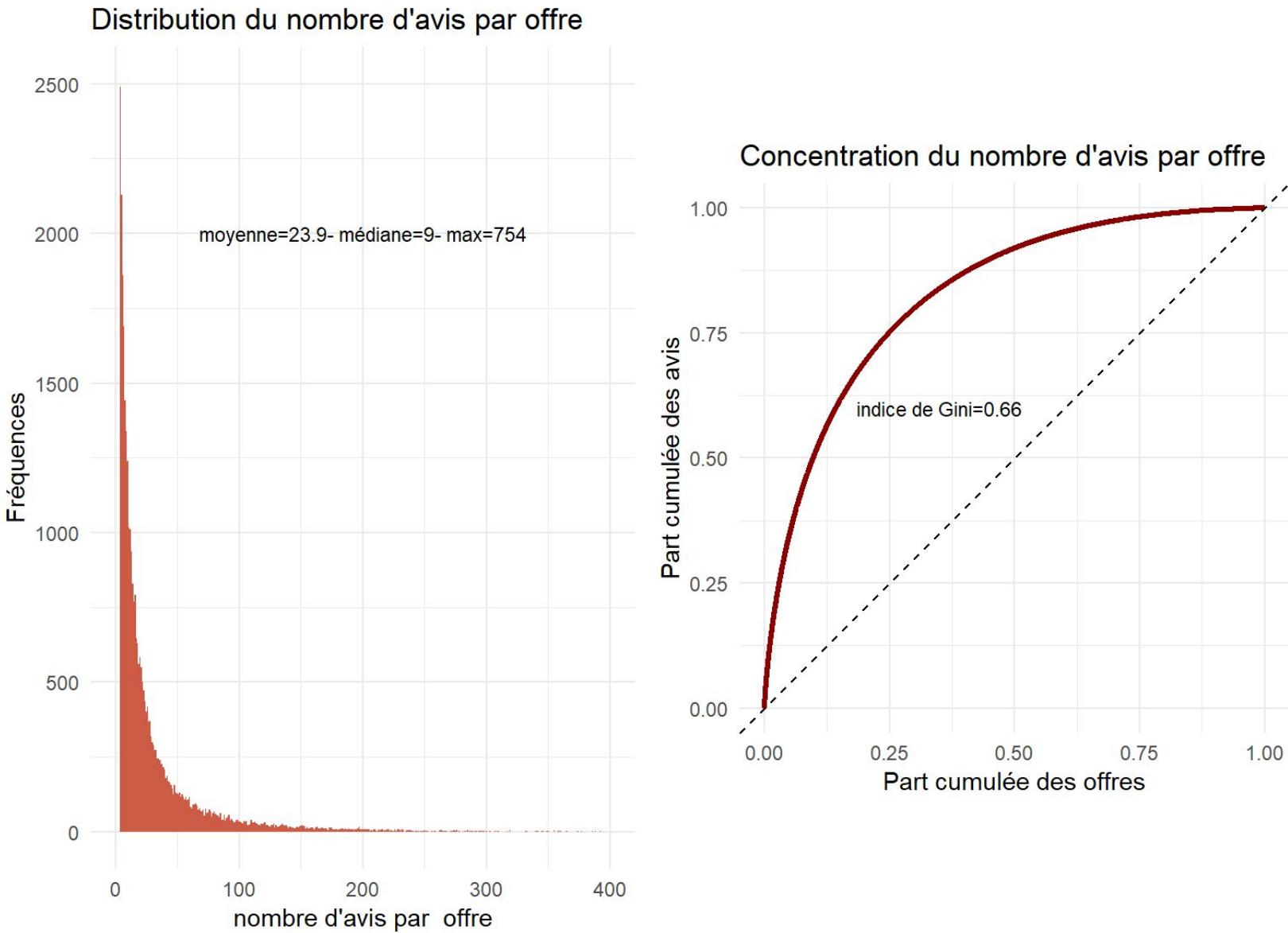
Airbnb Paris 2019



Densité, prix, satisfaction

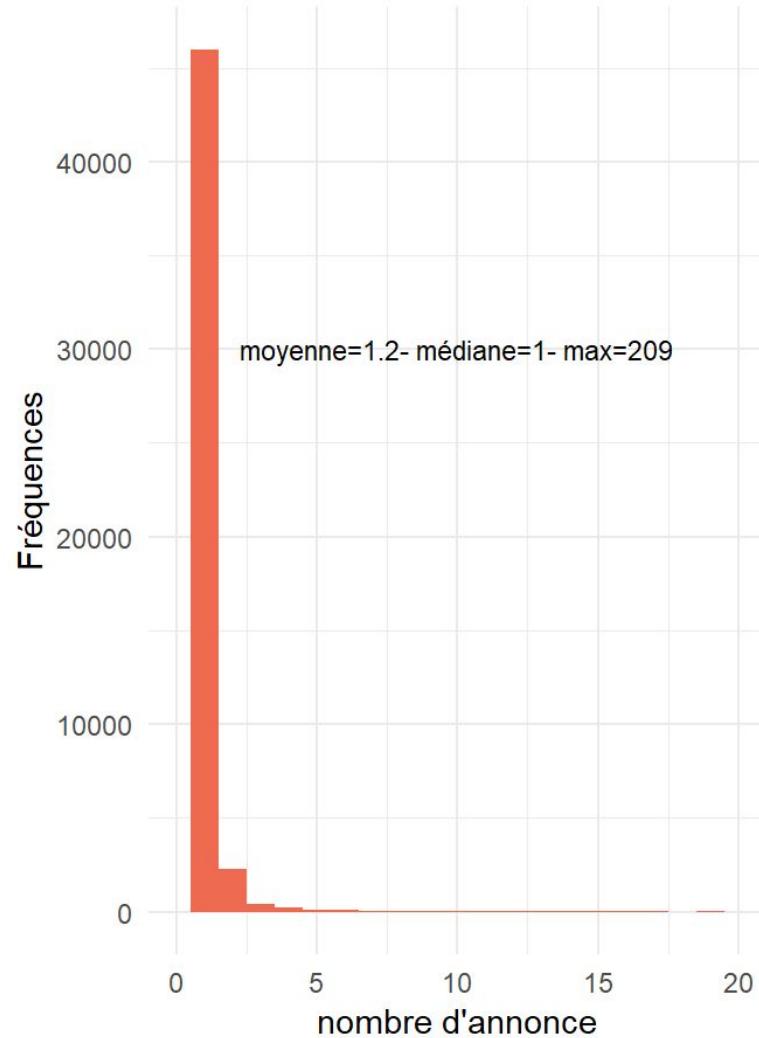


Demande

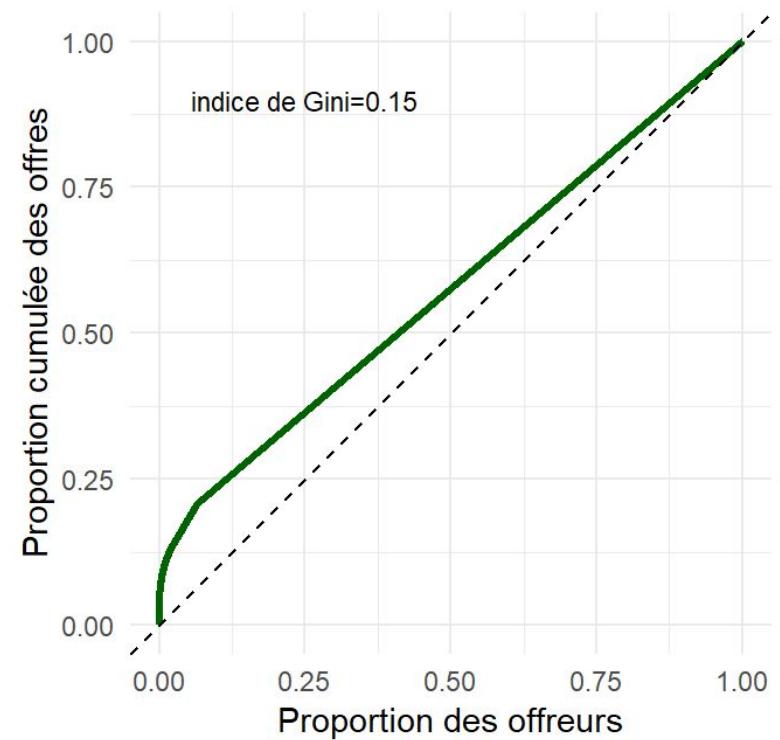


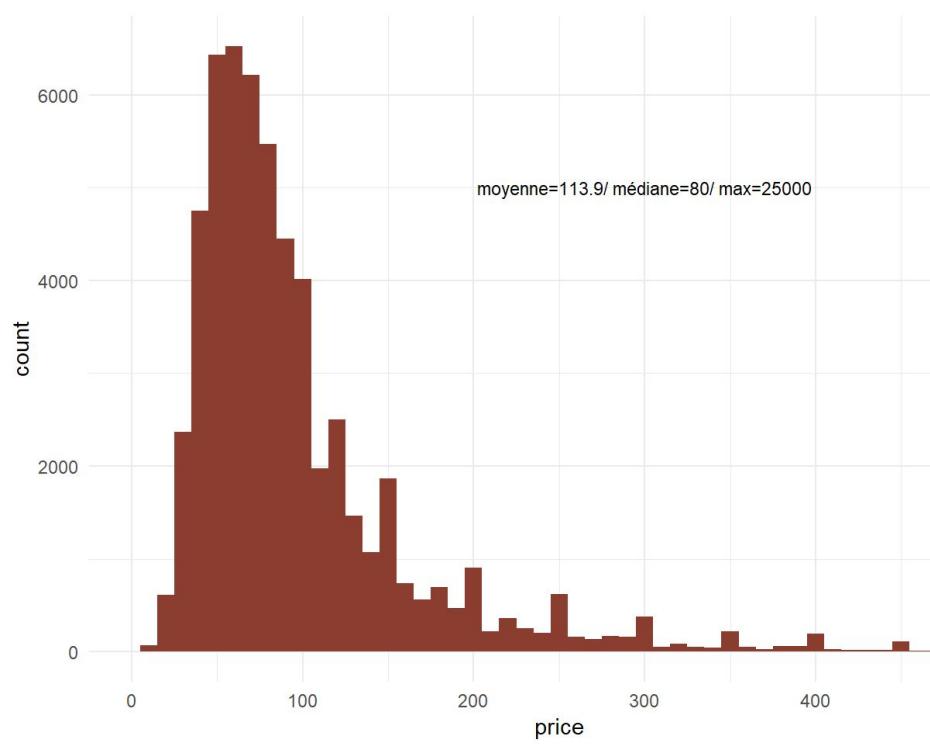
Offre

Distribution du nombre d'annonce par hôte

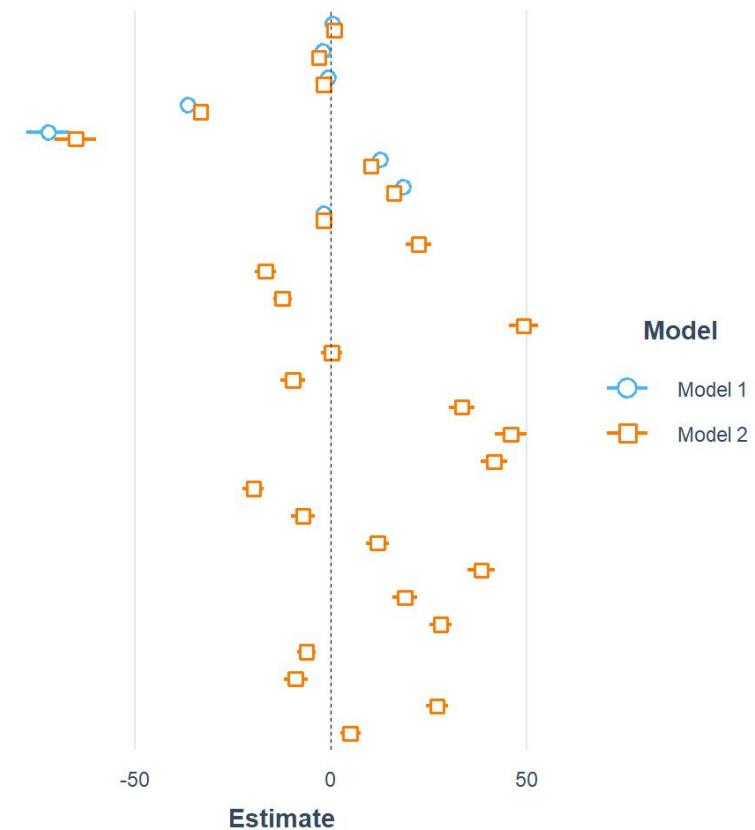


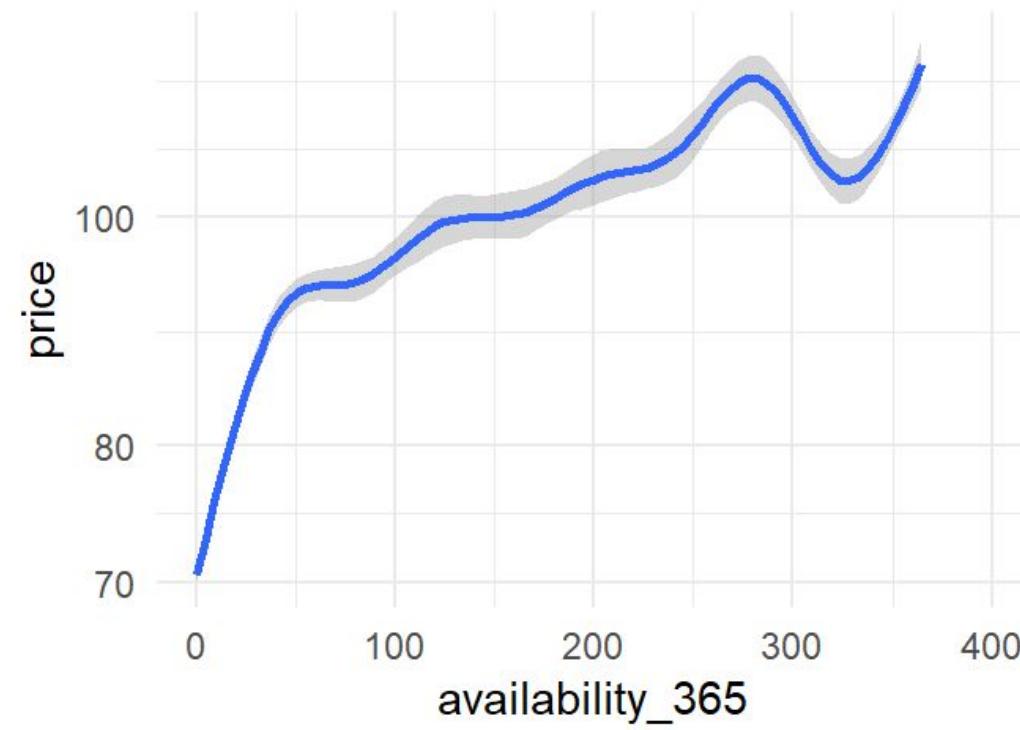
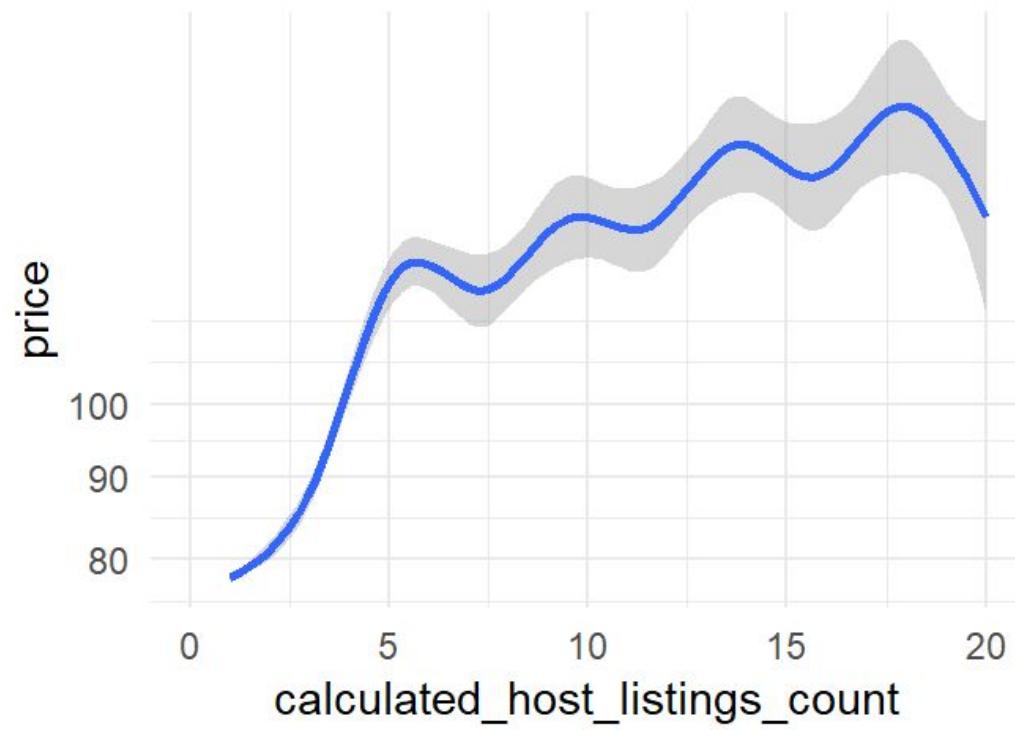
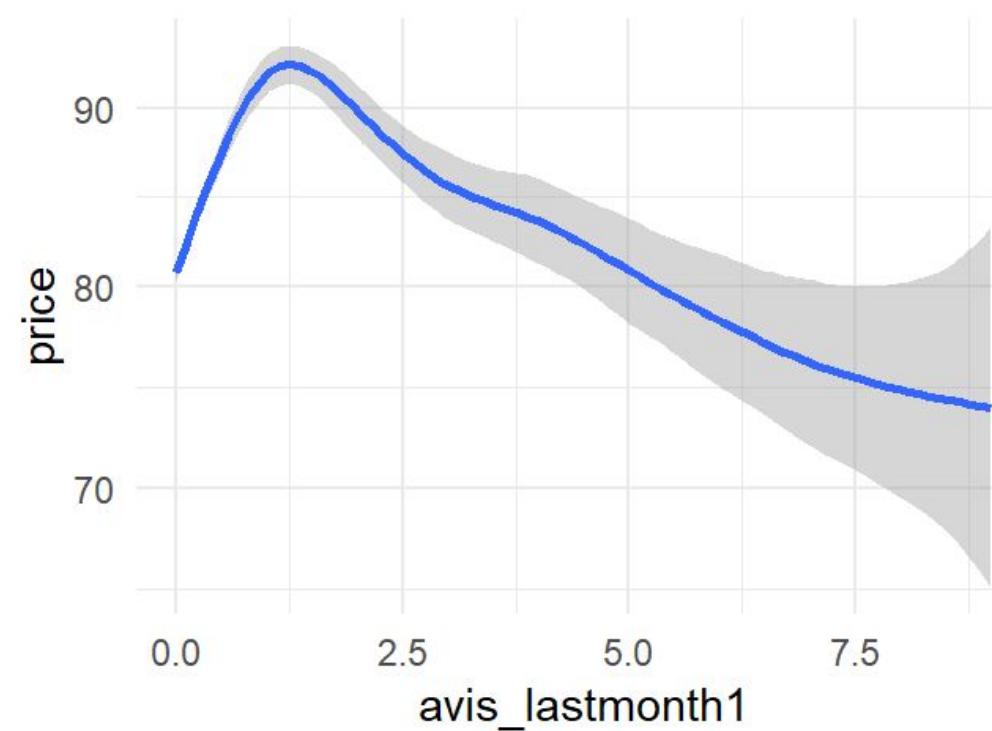
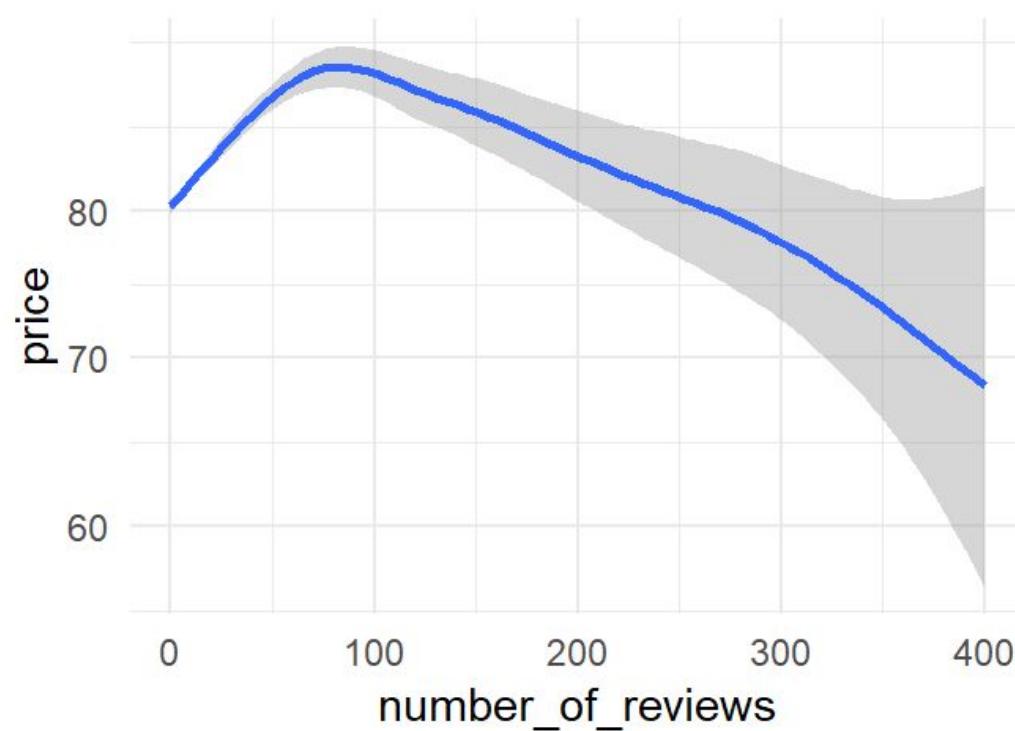
Concentration des offres





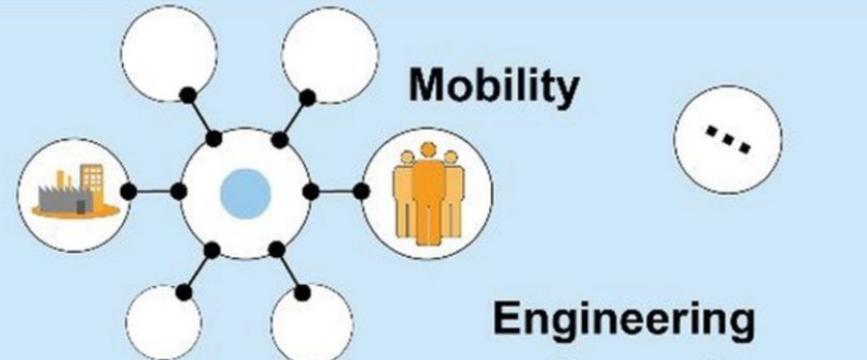
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- avis_lastmonth1
- avis_lastmonth6
- room_typePrivate room
- room_typeShared room
- calculated_host_listings_count
- availability_365
- minimum_nights
- neighbourhoodBourse
- neighbourhoodButtes-Chaumont
- neighbourhoodButtes-Montmartre
- neighbourhoodÉlysée
- neighbourhoodEntrepôt
- neighbourhoodGobelins
- neighbourhoodHôtel-de-Ville
- neighbourhoodLouvre
- neighbourhoodLuxembourg
- neighbourhoodMénilmontant
- neighbourhoodObservatoire
- neighbourhoodOpéra
- neighbourhoodPalais-Bourbon
- neighbourhoodPanthéon
- neighbourhoodPassy
- neighbourhoodPopincourt
- neighbourhoodReuilly
- neighbourhoodTemple
- neighbourhoodVaugirard





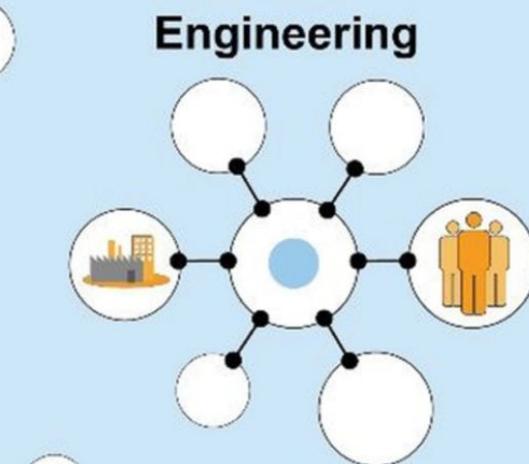
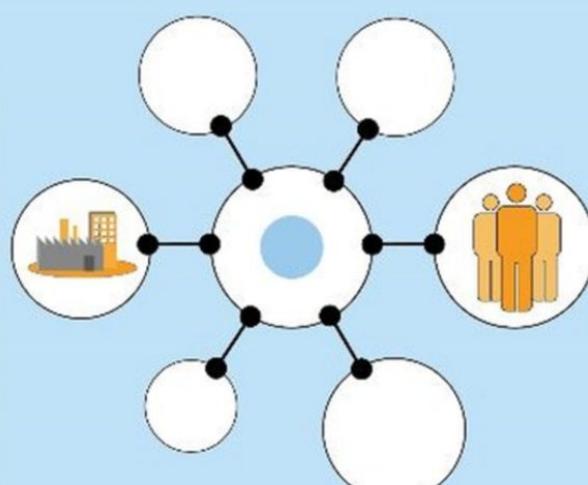
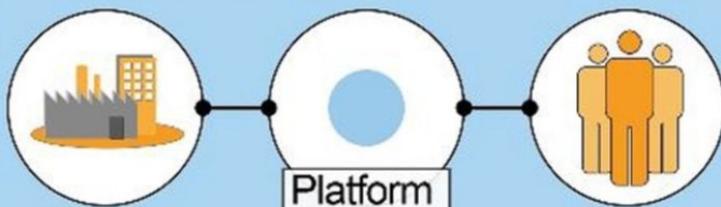
Evolutions

Platform economy: Describes a situation in the future in which the major economic sectors have completed a transformation into a platform ecosystem.

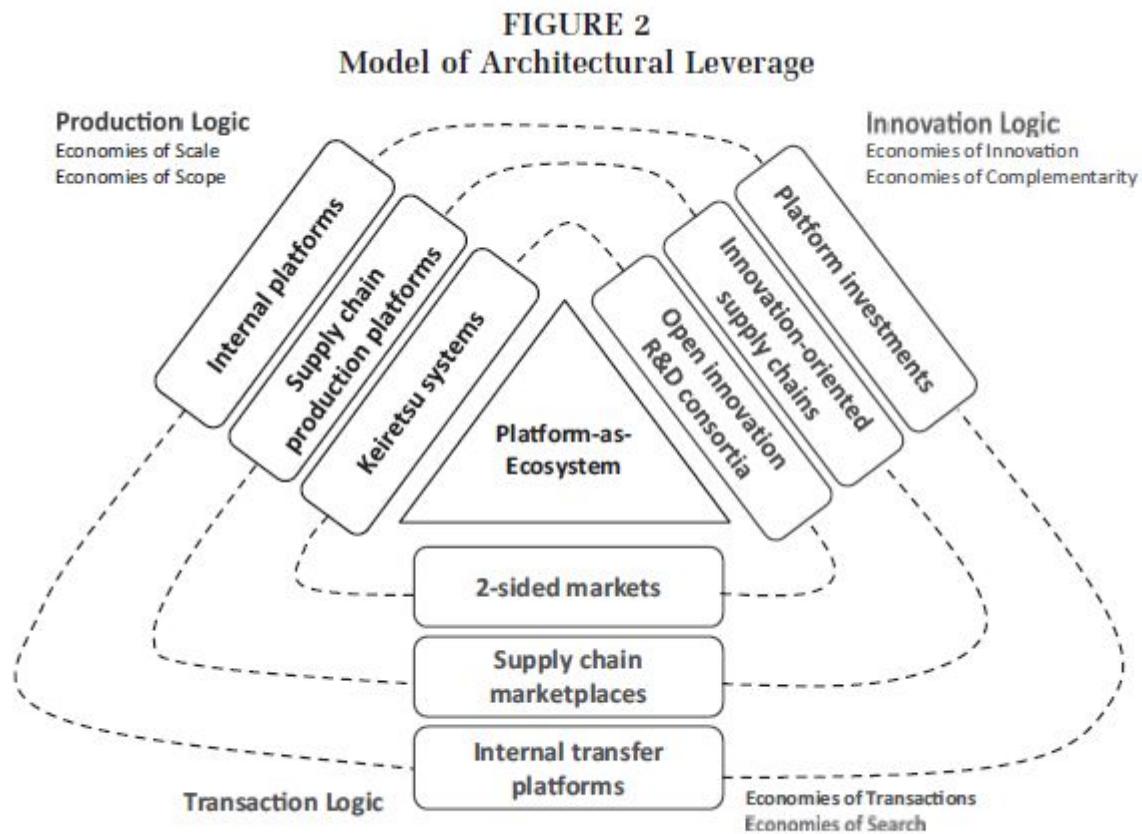


Platform ecosystem: Is based on a digital platform and includes all companies, organisations and other elements from the platform environment, which influence the value of the platform for its participants.

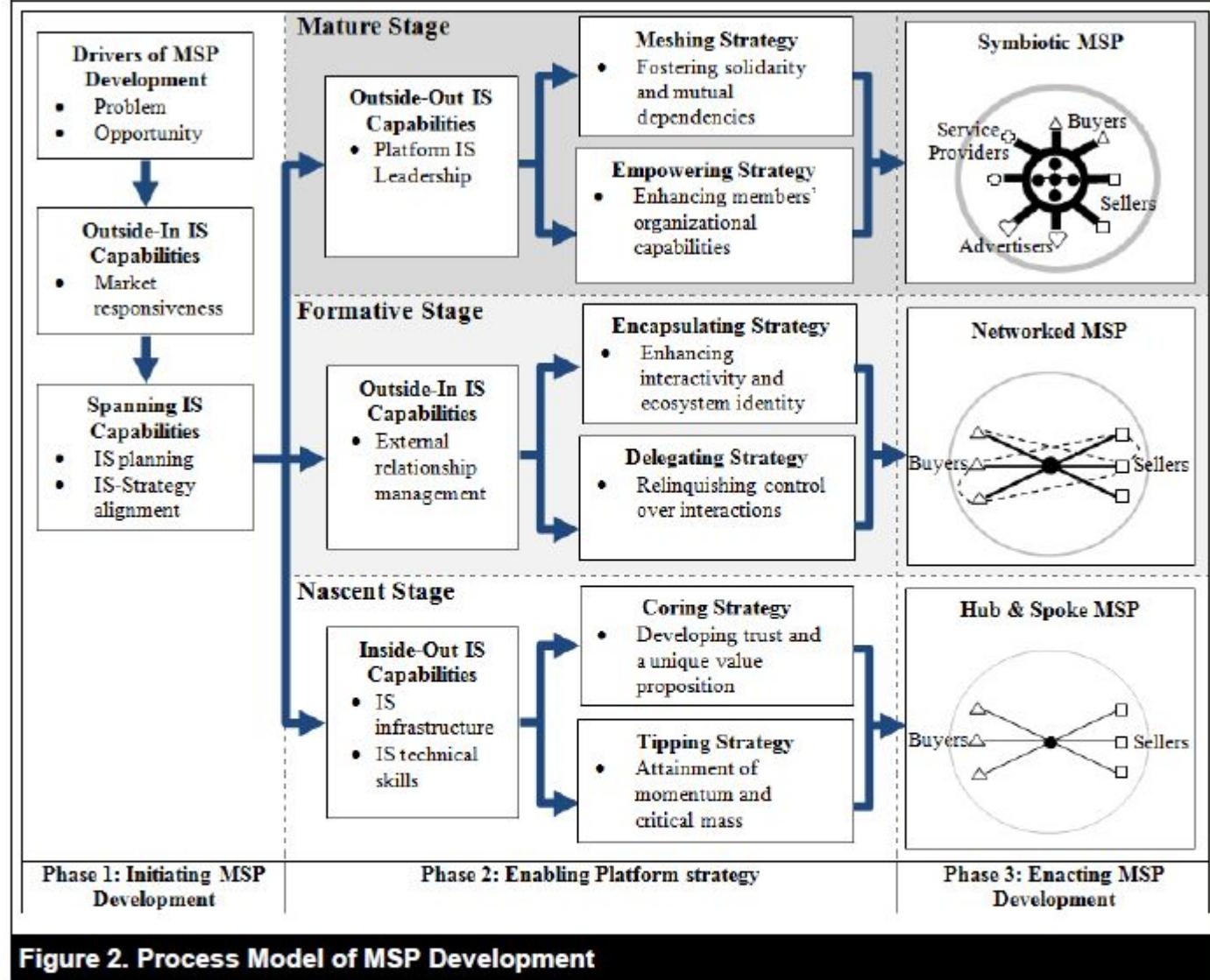
Digital platform: Links two or more different groups of participants and enables value-adding interactions.



La plateforme et le levier architectural



Évolution vers la complexité



Un cycle de vie des plateformes ?

- L'œuf et la poule : développer le versant demande par la gratuité , mais apporter une valeur au versant offreur
- Les étapes :
 - gratuité pour développer la demande et attirer l'offre
 - se concentrer sur l'offre pour satisfaire la demande croissante
 - multiplier les sources de revenus
 - engager de nouveaux versants dans l'architecture
 - développer les systèmes de contrôle

Le spectre des revenus chez Uber

Simulation sur la base
des données de
Landier et al, 2016) .
Autoentrepreneur,
voiture en leasing, à
Paris.

Heures travaillées par semaine	Pourcentage de chauffeurs travaillant avec uberX
0 - 9	8,6%
10 - 19	20,2%
20 - 29	27,5%
30 - 39	23,5%
40+	20,2%

Tableau 4: Nombre d'heures de travail par semaine des chauffeurs travaillant avec uberX. Source: Données internes d'Uber.

	Chauffeurs occasionnels	Chauffeurs professionnels
Revenu horaire moyen (Euro)	21,4	21,3
Volatilité moyenne du revenu horaire	5,8	4,2
Taux de sortie moyen par semaine	0,1	0,03
Observations	3962	3158

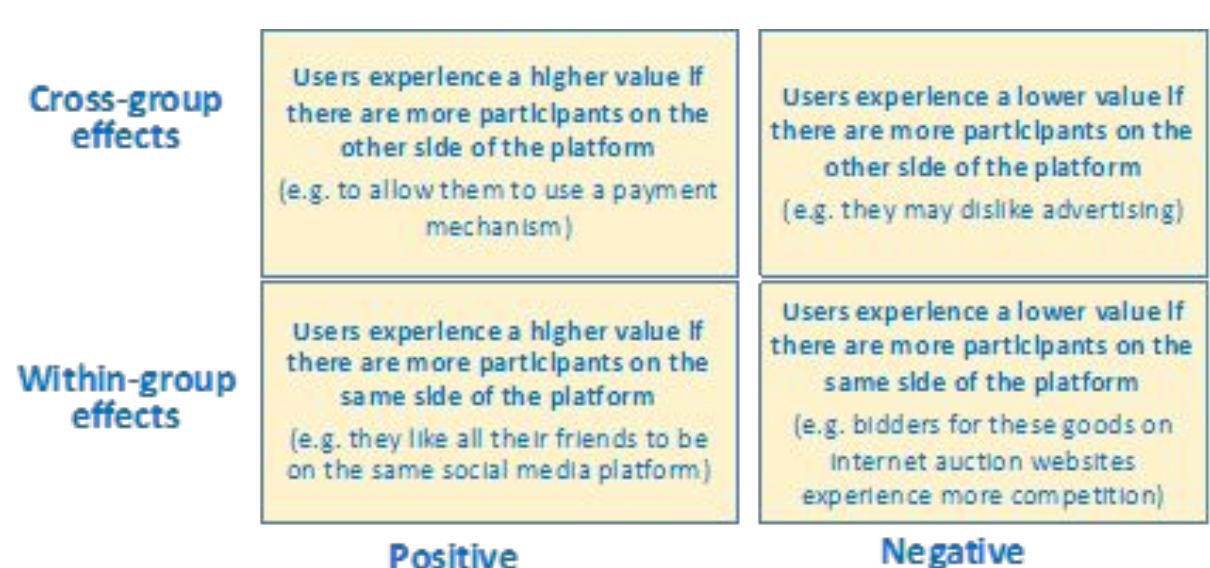
Tableau 5: Comparaison entre chauffeurs occasionnels et chauffeurs professionnels (uberX). Source: Données internes d'Uber.

Des limites

- La question du Multi homing

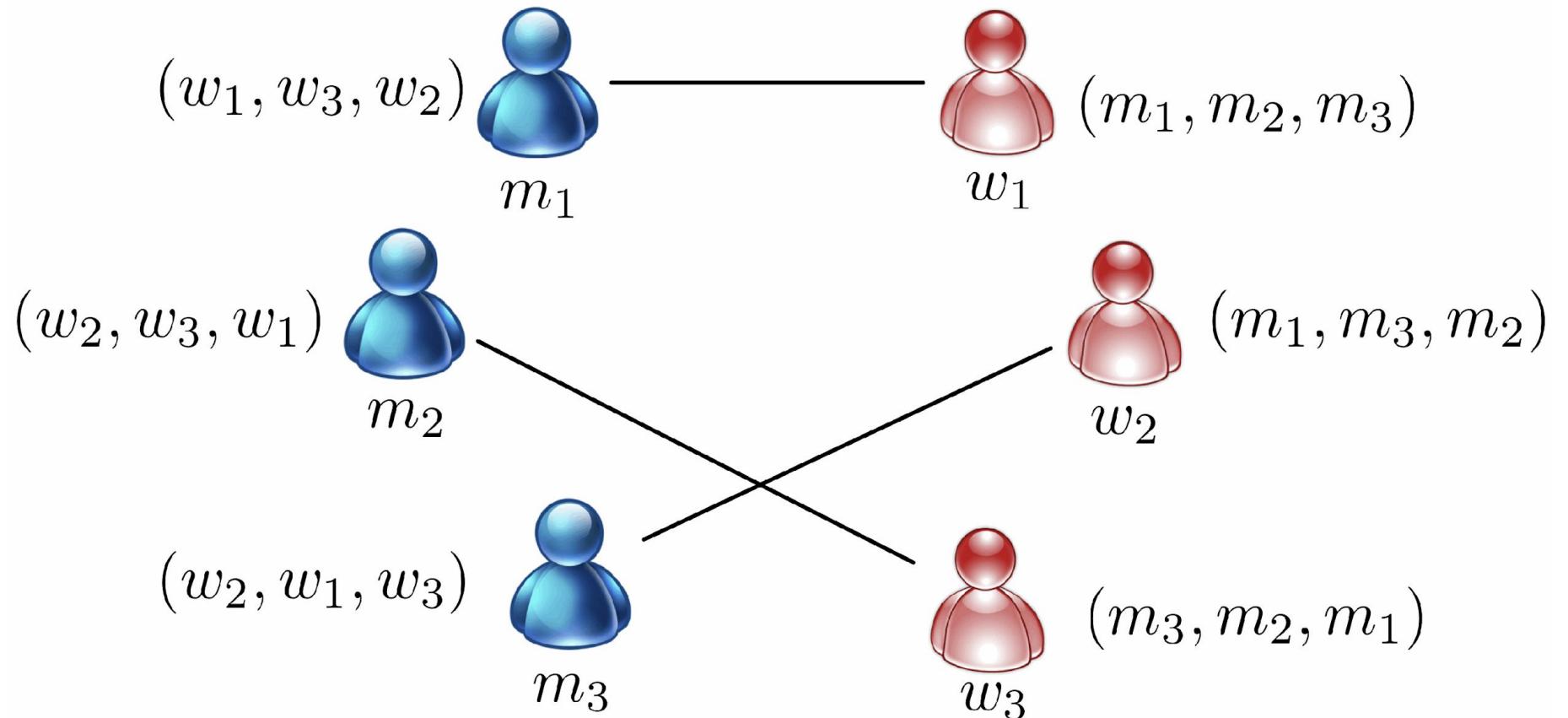


- Les formes de congestion
 - Apparitions de troll, fakes et incivilités numériques
 - Dégradation du contenu moyen
 - Retour produits abusifs
 - Fraude et blanchiment
 -



7 - Matching and recommendation engine

The matching market problem



Dating, Job, real estate, Schooling, Kidney,

Algorithme de Gale Shapley

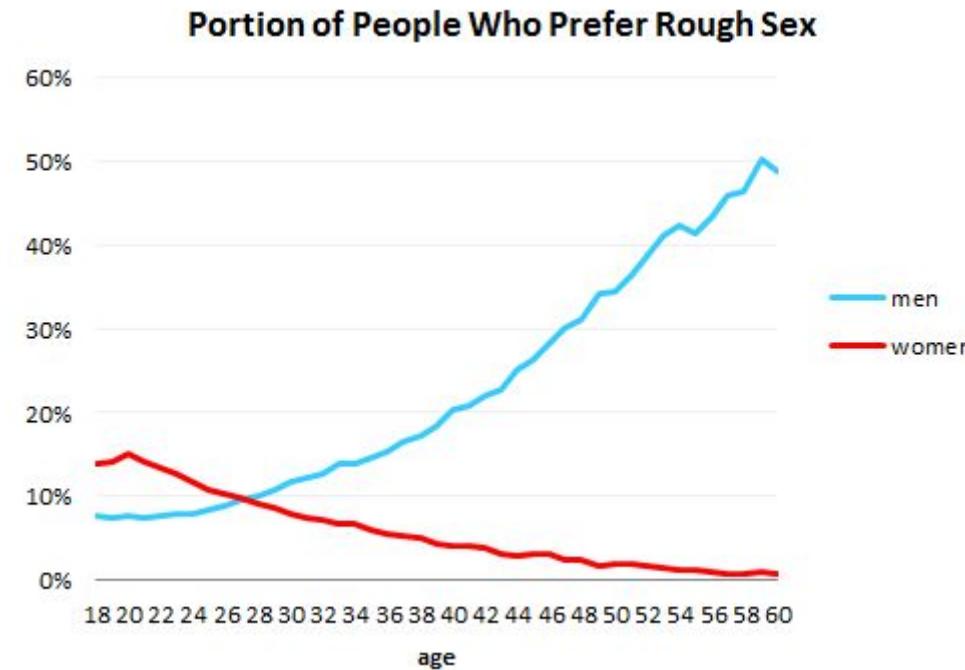
StableMatching(M, W)

// M : the set F of FCs; W : the set S of spare cells

1. Initialize all $m \in M$ and $w \in W$ as free
2. **while** \exists free man m who hasn't proposed to all women **do**
3. $w =$ the highest ranked women in m 's preference list
4. **if** w is free **then**
5. (m, w) become engaged
6. **else** // some pair (m', w) is currently engaged
7. **if** w prefers m to m' **then**
8. (m, w) become engaged
9. m' becomes free
10. Update preference

Le problème du dating

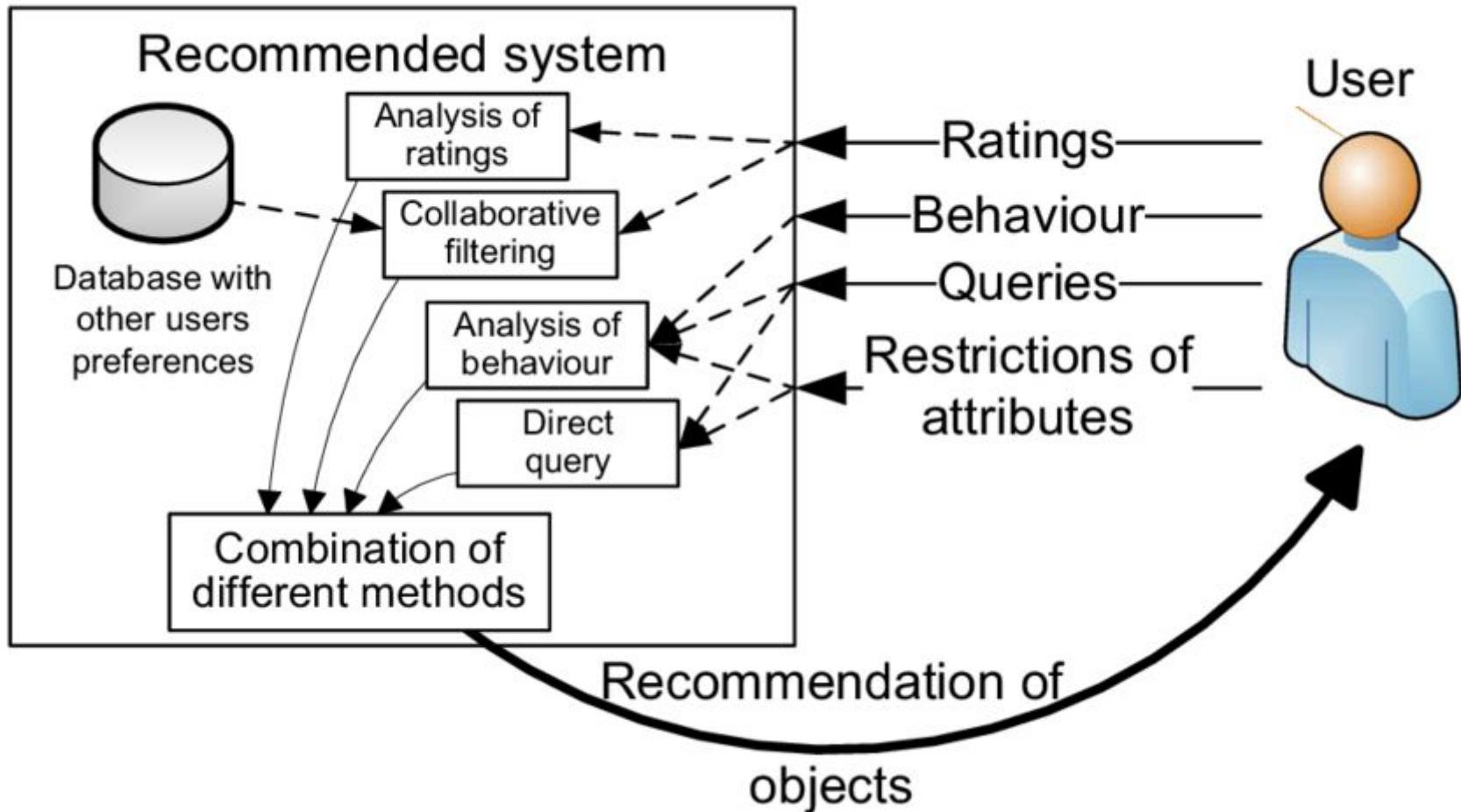
- Deux versants, deux problèmes
 - Les hommes : multiplier les contacts avec une approche directe.
 - Les femmes : sélectionner les meilleurs signaux.
- => un coût élevé pour les deux parties
- Stratégies :
 - Une barrière à l'entrée des hommes (tarif élevé)
 - Inciter les hommes au dévoilement de soi



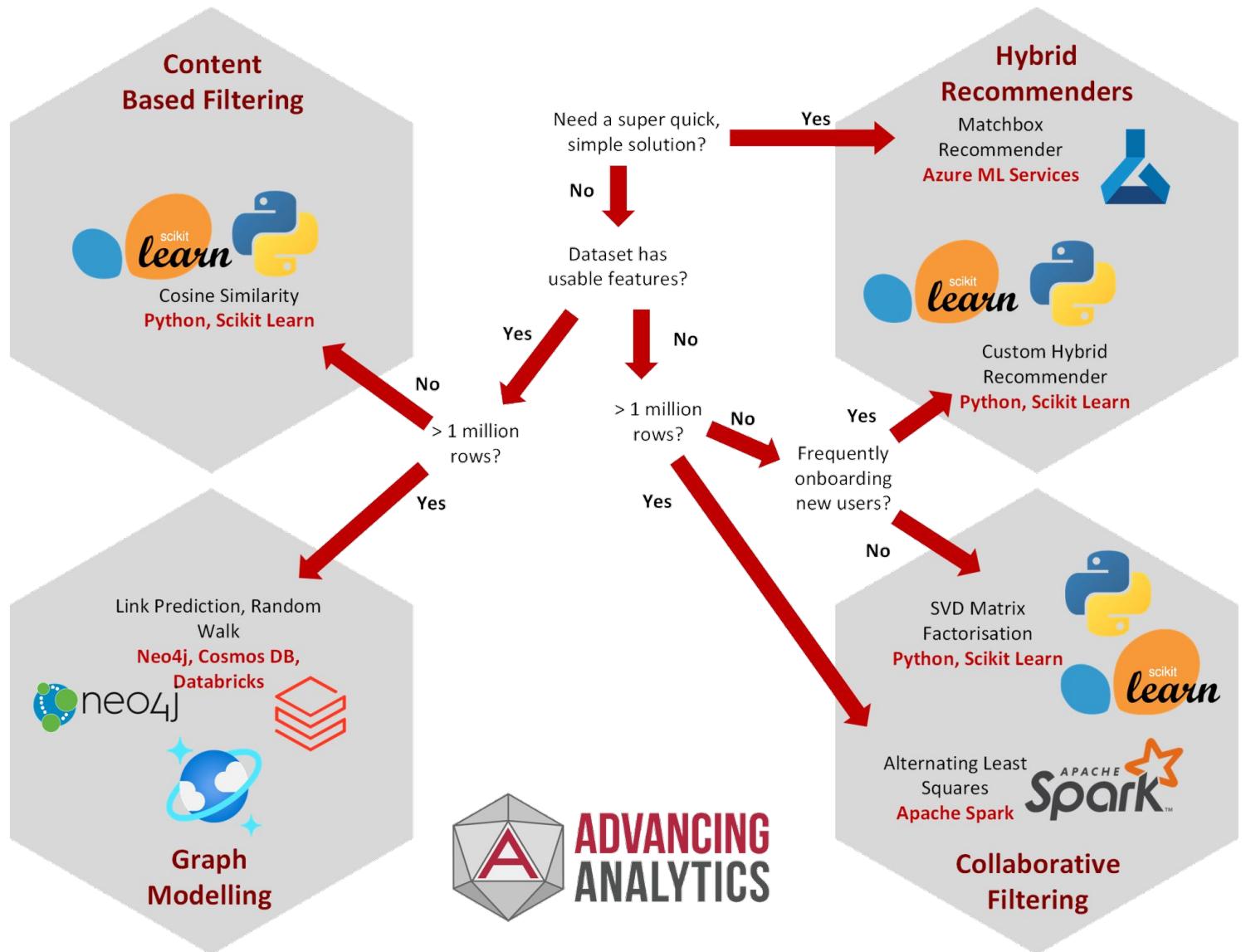
Odds of a single message turning into a conversation

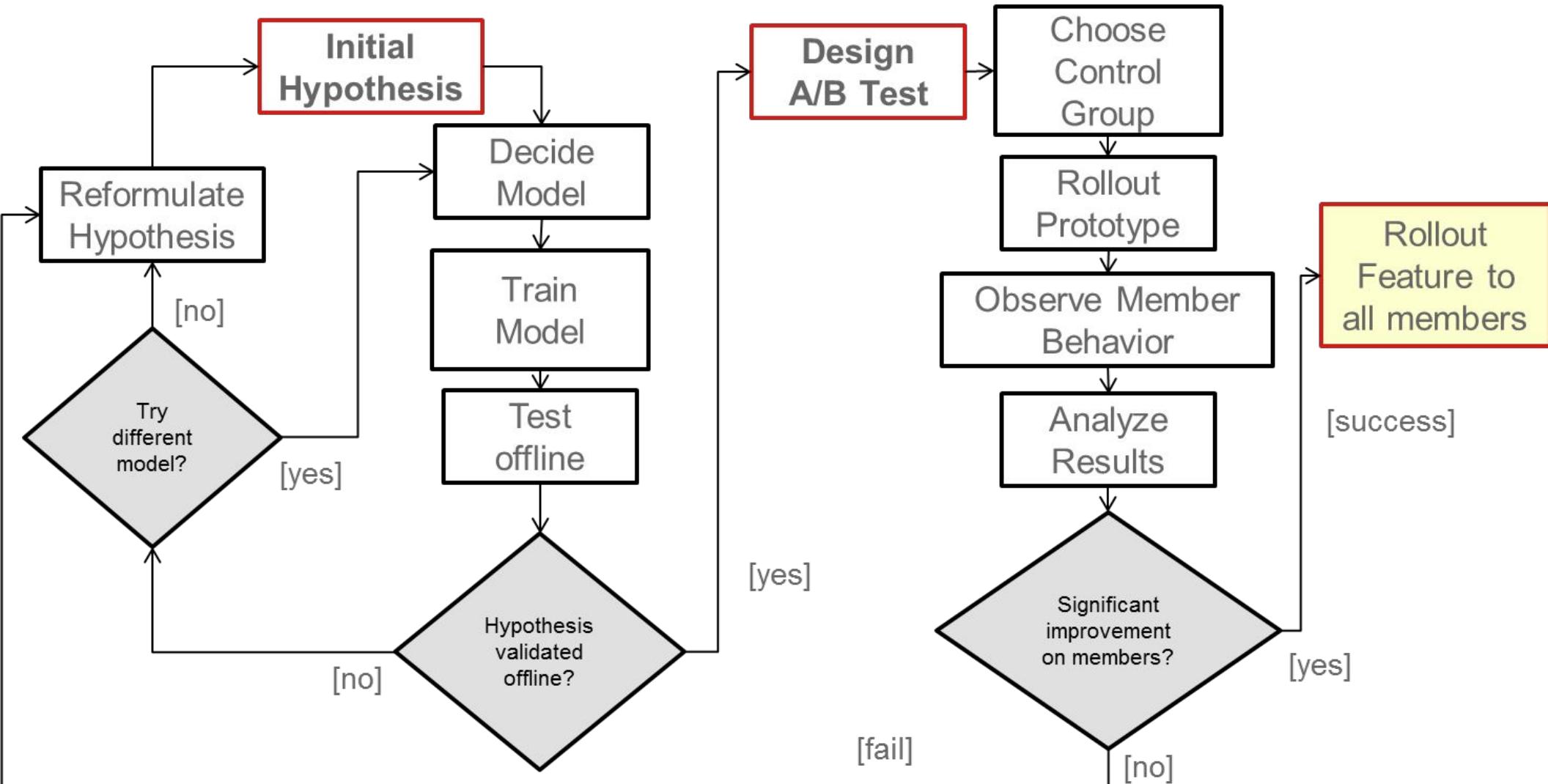
number DISPLAYED to them				
	30% match	60% match	90% match	
ACTUAL compatibility of users	30% match	10%	16%	17%
	60% match	13%	13%	16%
	90% match	16%	17%	20%

Recommendation system



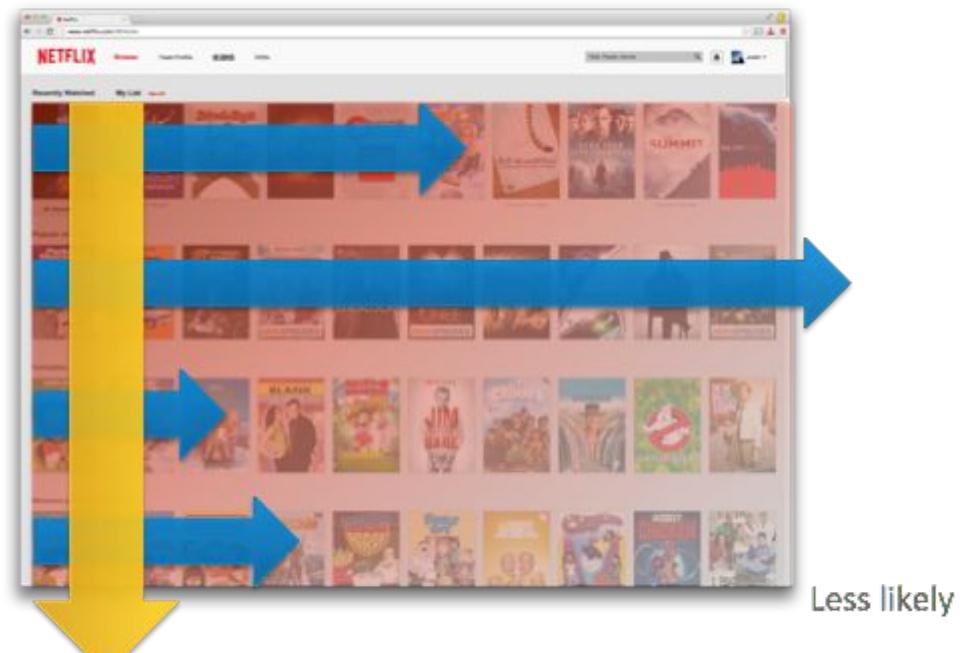
Le choix des algos



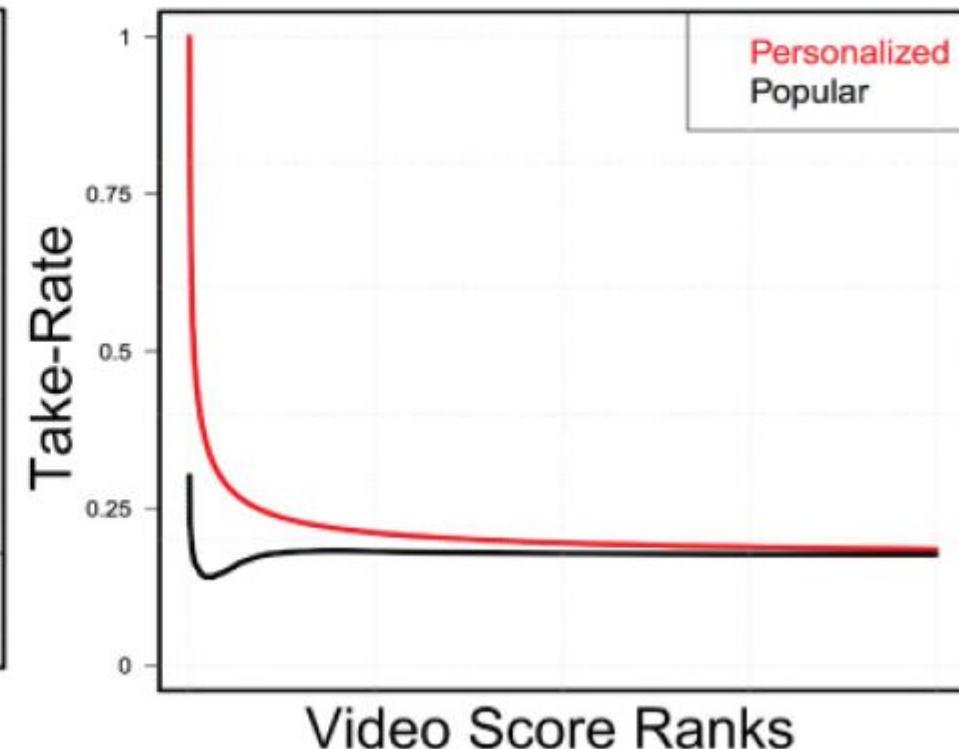
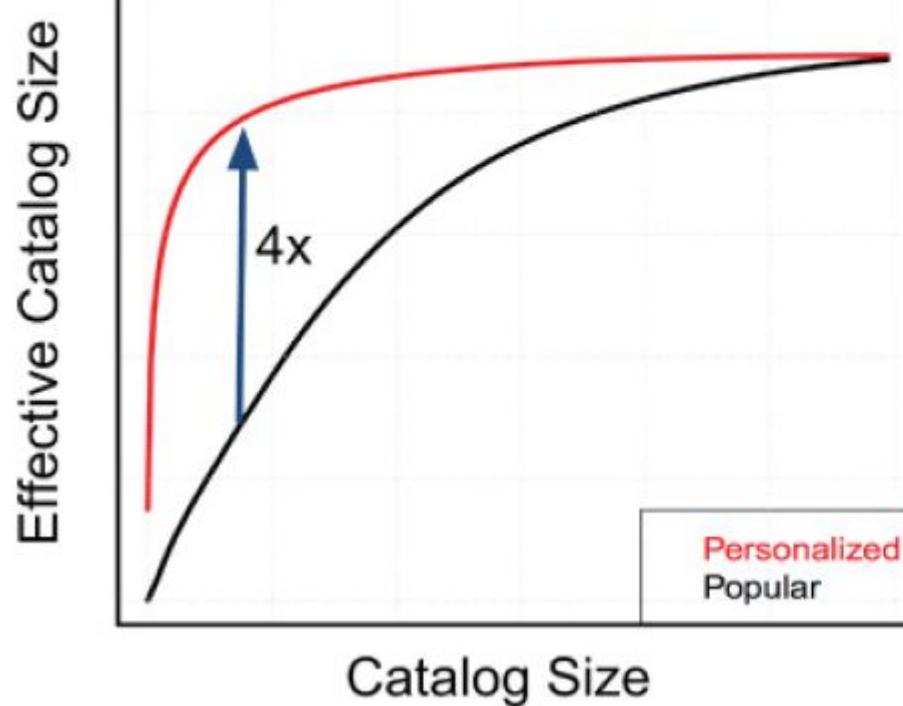


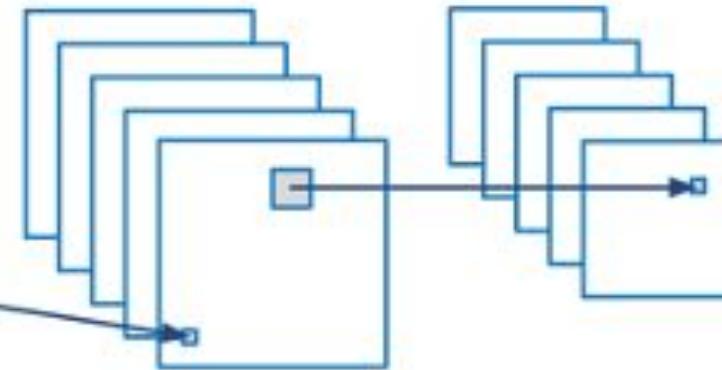
Netflix

More likely
to see



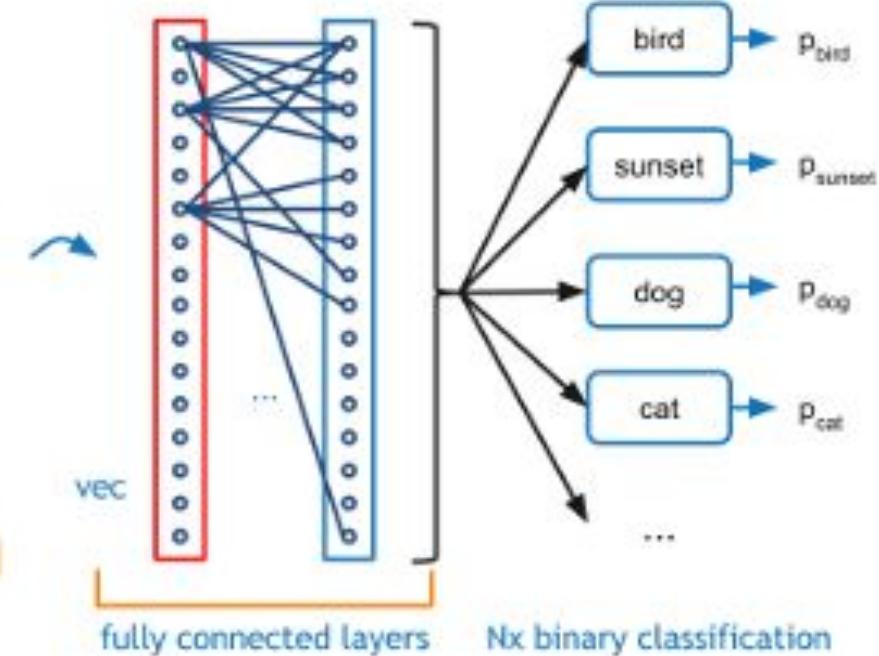
The Netflix Recommender System: Algorithms, Business Value, and Innovation





convolution +
nonlinearity

max pooling



convolution + pooling layers

fully connected layers

Nx binary classification

Animal

Architecture

Food

Landscape

— field 4

— mountain 3

— rock 7

— shore 77

— snow 2

— sunset 15

— water 31

— other 23

People

Plant

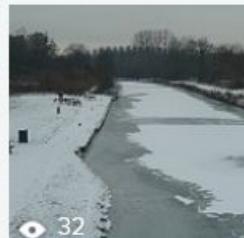
Style

Text

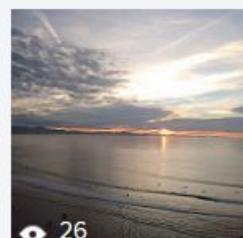
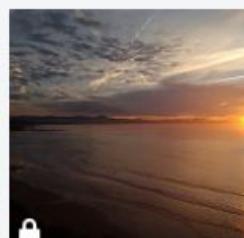
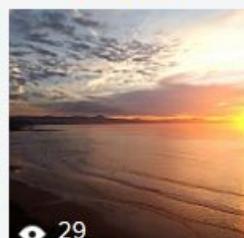
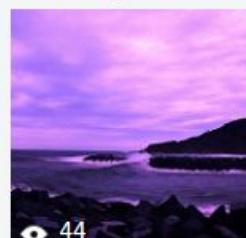
Vehicle

Other

landscape: snow 2 Select all



landscape: sunset 15 Select all



Motorola XT1072



f/2.0



3.5 mm



1/1149



ISO 80



Flash (auto,
did not fire)



Show EXIF

Biarritz, Aquitaine, France

This photo is currently not in any groups

Add to group

This photo is in 1 album

Add to album



Biarritz

12 items

Tags

BETA

?

Add tags

sunset

serene

outdoor

skyline

sky

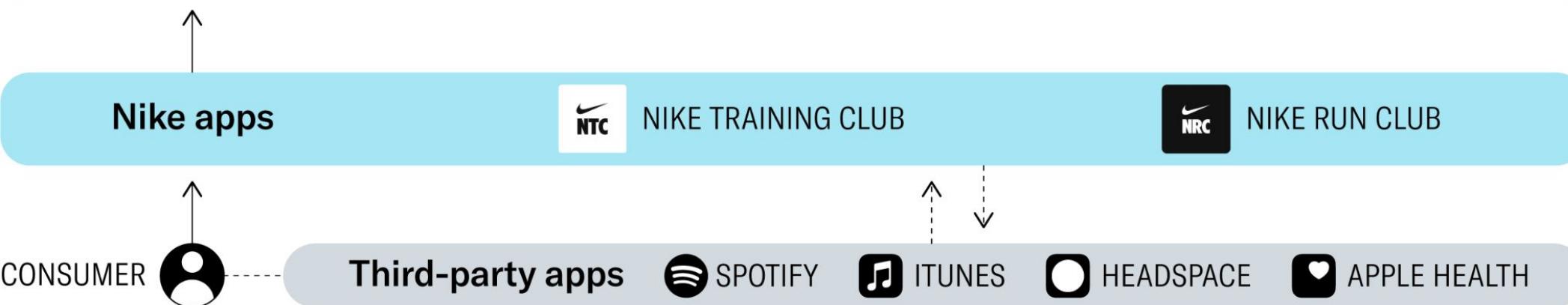
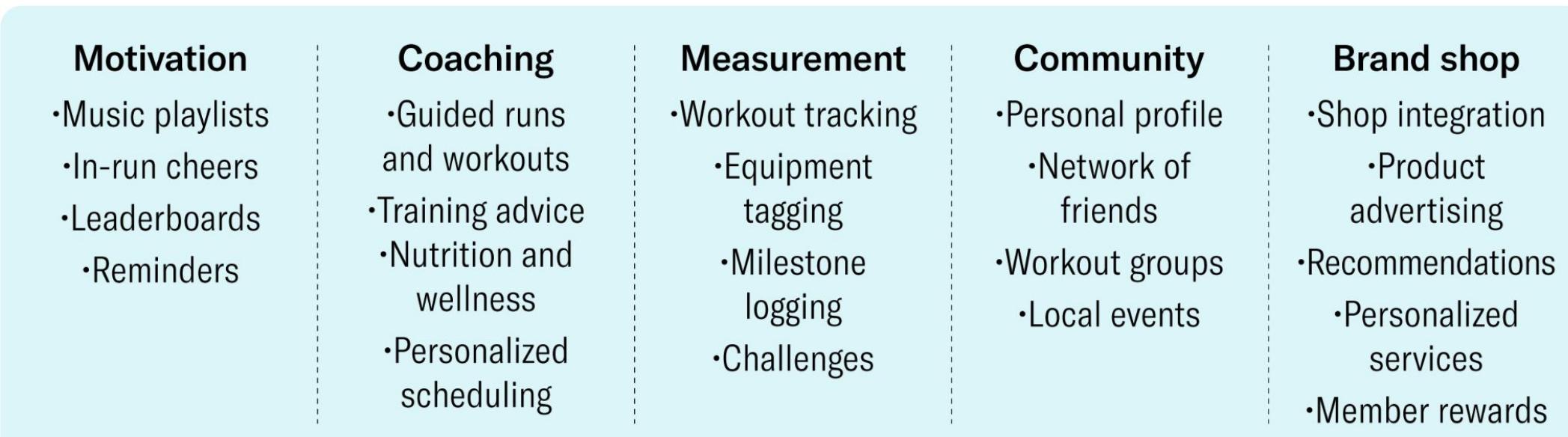
People in photo

Add people

8 - Algorithm governmentality

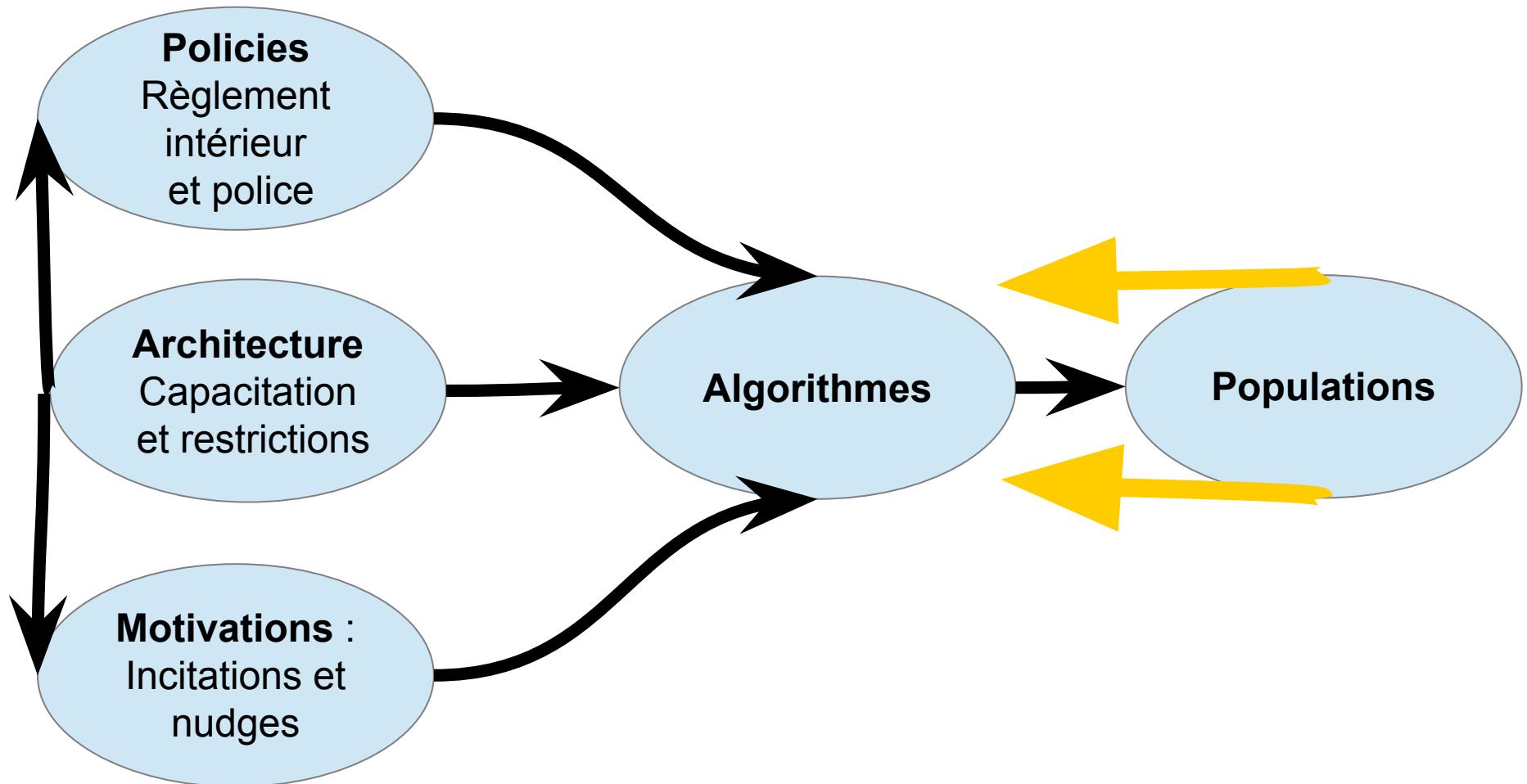
Nike's Flagship Platform

Nike Run Club and Nike Training Club offer a variety of products, services, and content from multiple platform participants within the health and fitness category space.



« 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



Quelques types d'algorithmes

- algorithme de recommandation
- algorithme de pricing
- algorithme de réputation
- algorithme de modération (bot, spam, harassment, ...)
- détection d'intention
- algorithme d'identification (images, recog faciale)
- algorithme de matching
-

L'expérience d

- 1) Supprimer une p
- 2) Mesurer la produ

n=689 000

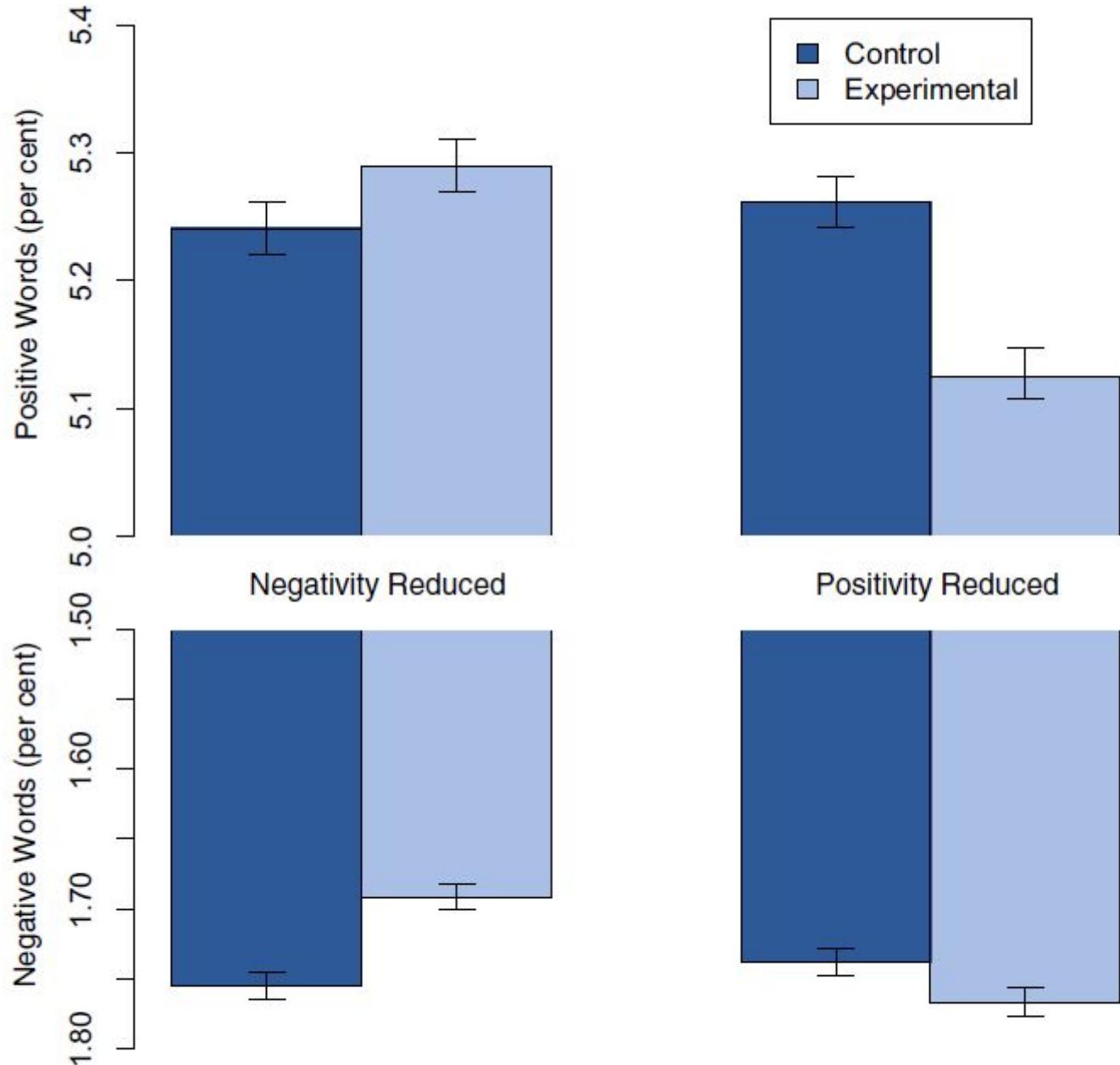


Fig. 1. Mean number of positive (*Upper*) and negative (*Lower*) emotion words (percent) generated people, by condition. Bars represent standard errors.

Les moteurs de recommandation renforcent-ils les bulles de filtrage ?

1. Individuel (recherche de nouveautés)
2. Filtre sociaux
3. Filtres technologiques

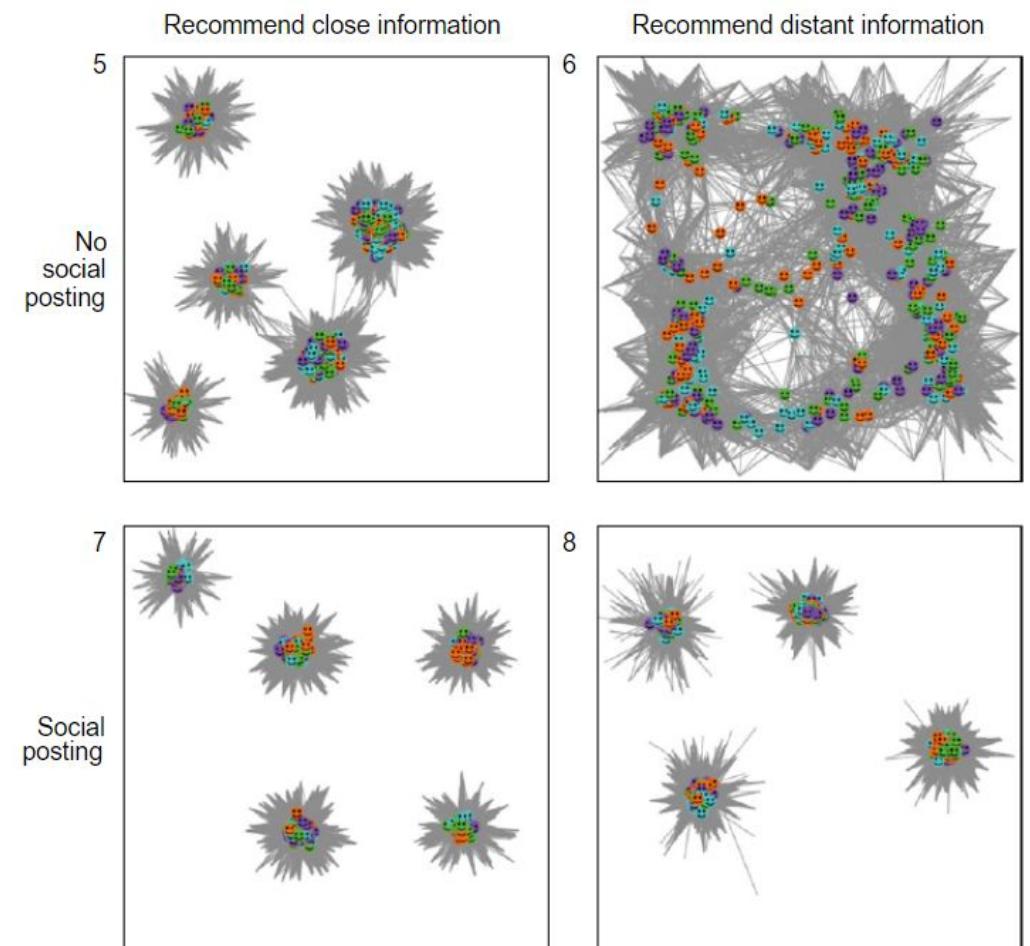
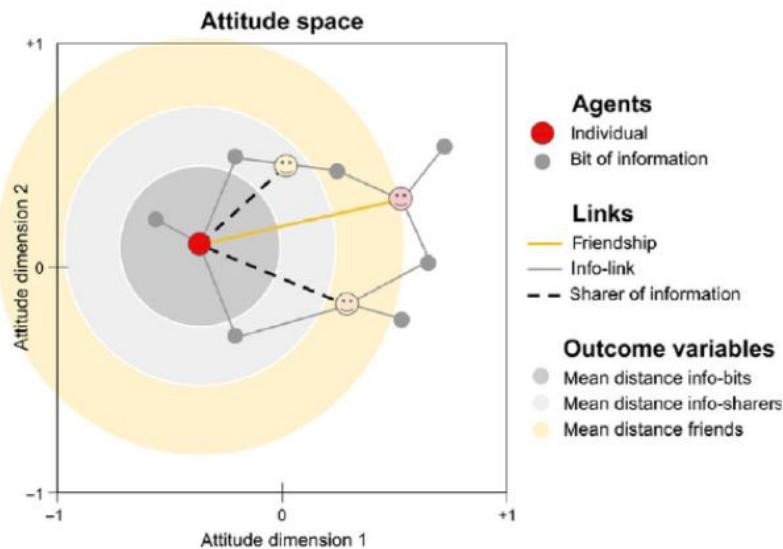


Figure 4. Individuals and their info-links after stabilization for Scenarios 5, 6, 7, and 8. [Colour figure can be viewed at wileyonlinelibrary.com]

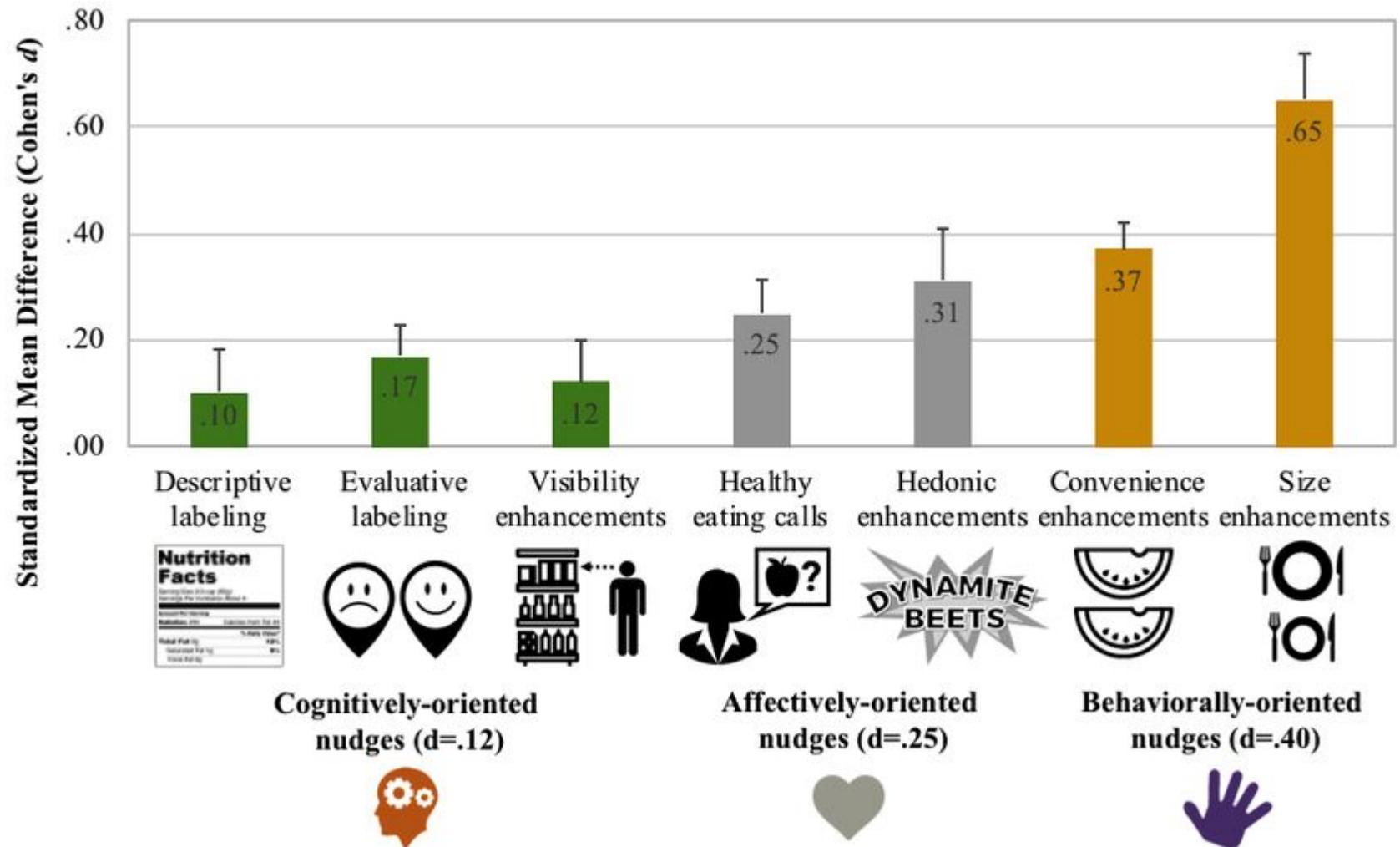


Nudge mechanisms used	Applications to residential energy efficiency	Evidence of effectiveness
Simplification and framing of information	Feedback on energy consumption: Informative energy bills, metering and displays	Extensive research on all scales: tailored and small-scale interventions render 1–20% savings, large field trials about 2%
	Energy labelling of appliances and buildings	Experience on a large scale, but limited evaluation of effects
Changes to the physical environment	Design for sustainable behaviour, Design with intent (of homes and appliances)	Small scale trials, little evidence of the size of the effects Standard in some environments such as hotels (key card removal turns off lights)
	Prompts as reminders of appropriate behaviour	Small scale trials, evidence of effectiveness as part of a package of interventions
Changes to the default option	Opt-out green electricity offers	95–99% of customers stay with the “green electricity default”
	Opt-out from smart grid trial (technology installed to control consumption)	Large effects (20%) in one survey study
Use of descriptive social norms	Social comparison billing feedback	Large effects in small scale trials (average 11%), smaller effects in large field trials (e.g. 2% savings)

	Headline	Things to think about
EASY	People are more likely to do something if it's easy	Simplify the process. Remove or add friction to aid or inhibit behaviour. Set the healthiest, safest option as the default.
ATTRACT	People are drawn to something that attracts their attention	Personalise your communications by using the recipient's name and making the content relevant. Make key points stand out. Name the messenger (don't quote anonymous sources). Add attractive incentives. Remember that emotion is as important as reason.
SOCIAL	People are strongly influenced by what other people do or have done	Tap into or establish norms. Ask your network for recommendations. Keep your promises. Include faces/eye contact in your visuals.
TIMELY	Interventions are more likely to be effective if they happen before habits have formed	Act when behaviour is already being disrupted. Link to what happened before. Remember many people discount the future.

Adapted from *Inside the Nudge Unit*

L'efficacité des nudges



Le triomphe de la méthode expérimentale (AB testing)

- Le principe de la randomisation
- Notion de plan d'expérience
- In vivo vs in vitro
- Avant/Après
-

<https://www.youtube.com/watch?v=WNRPFWwBoMk>

Quel type d'expérimentation menée, en condition réelle ou en lab, avec ou sans ?

Notre type d'expérimentation menée est plutôt : Avant/Après.

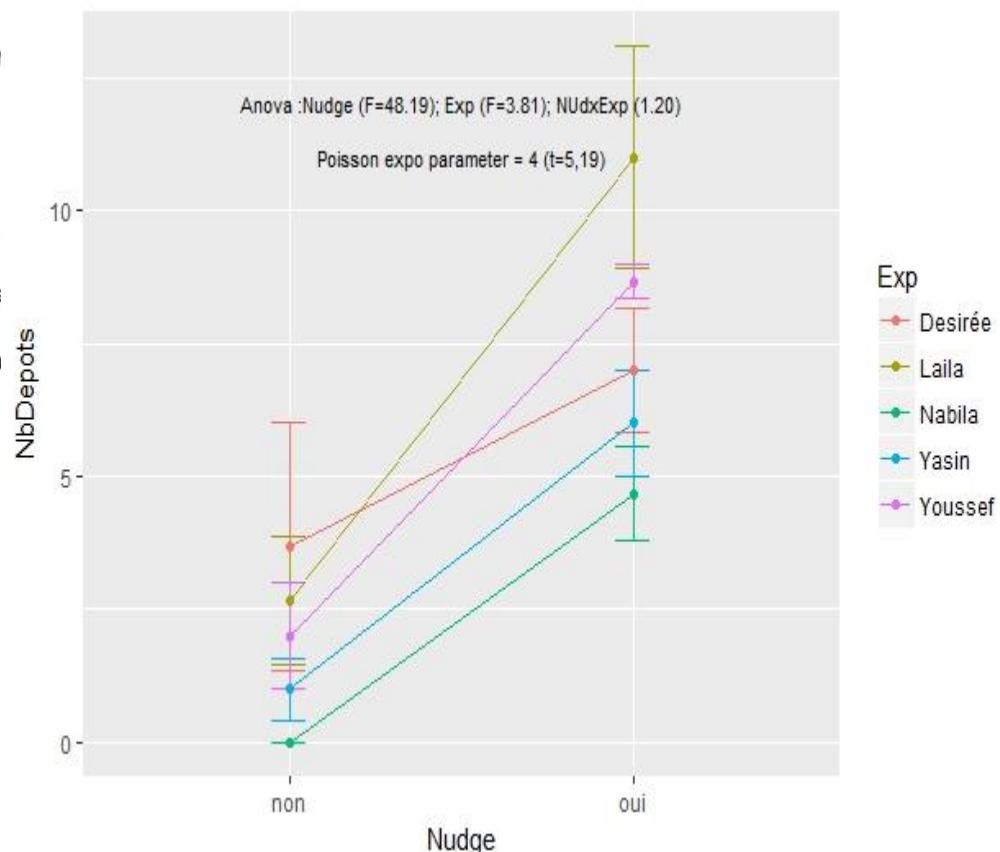
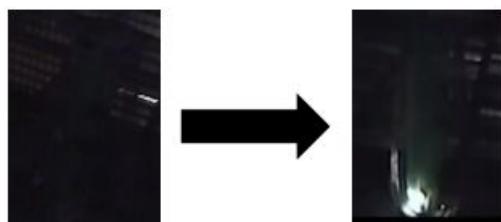
Quel échantillon, sur quel période ? Quel protocole ?

Nous avons décidé d'expérimenter sur 15 poubelles dans différents lieux à Paris, idéalement dans des endroits peu éclairés.

Chaque poubelle sera surveillée pendant 1h de 21h à 22h, une fois sans peinture, une fois avec la peinture.

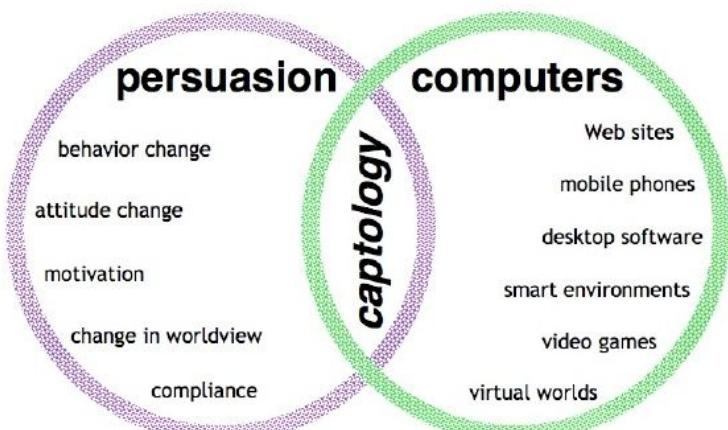
Pour un total de 30h de surveillance qui seront réparties sur les 5 membres du groupe. (6h chacun)

Un comptage du nombre de déchet déposé dans les poubelles a été effectué dans les deux cas.



Persuasive technologies (Fogg)

Stanford Persuasive Technology Lab
1997



BJ Fogg, Ph.D. - Stanford University

Behavior = Motivation + Ability + Trigger



Commandez sur
UBER
EATS

Architecture du choix

« Vue sur la Tour Eiffel de notre chambre.
Chambre impeccable et spacieuse. Bon petit-déjeuner. »

M Mathilde
 France

« L'accueil était excellent ! Personnel très agréable nous avons été surclassé c'était super sympa !
Établissement à conseillé »

M Melanie
 Suisse

« hôtel confortable ; un peu vieillot, mais classe.
Accueil parfait.
Salons confortables, place appréciable. »

C Claude
 France

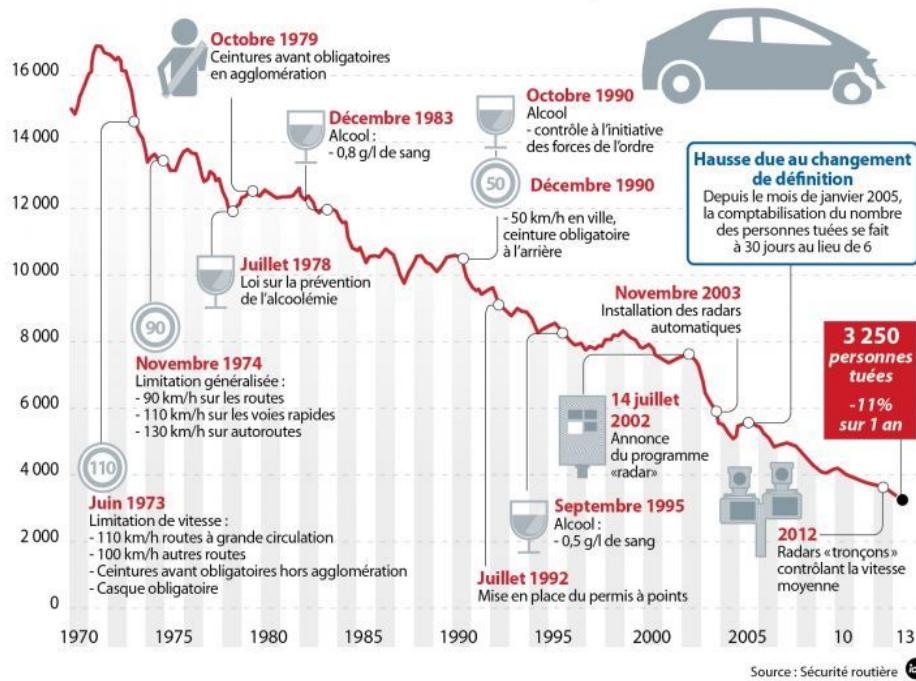
« Très bien , bon emplacement et personnel accueillant »

Du	Au	Personnes	Modifier la recherche	
dim 31 mai 2020 À partir de 14h00	mar 2 juin 2020 Séjour de 2 nuits	2 adultes		
Type d'hébergement				
Chambre Double  Plus que 2 hébergements sur notre site	 € 238 taxes et frais compris	 Petit-déjeuner à € 14,50 - Bien  Annulation GRATUITE avant 23:59 le 28 mai 2020  AUCUN PRÉPAIEMENT REQUIS - Payez sur place	1	1 chambre pour € 238 taxes et frais compris
Choisissez votre lit (sous réserve de disponibilité) <input type="radio"/> 1 grand lit double  <input type="radio"/> 2 lits simples 	 € 255 taxes et frais compris	 Petit-déjeuner compris - Bien  Annulation GRATUITE avant 23:59 le 28 mai 2020  AUCUN PRÉPAIEMENT REQUIS - Payez sur place	0	 Je réserve Vous allez passer à l'étape suivante <ul style="list-style-type: none">La confirmation par e-mail est immédiate !Aucune inscription nécessaireAucun frais de réservation ou de carte de crédit ! Votre offre :  Petit-déjeuner à € 14,50 -

La bonne conduite : Pay How You Drive 2 loops



Les tués sur la route en France métropolitaine

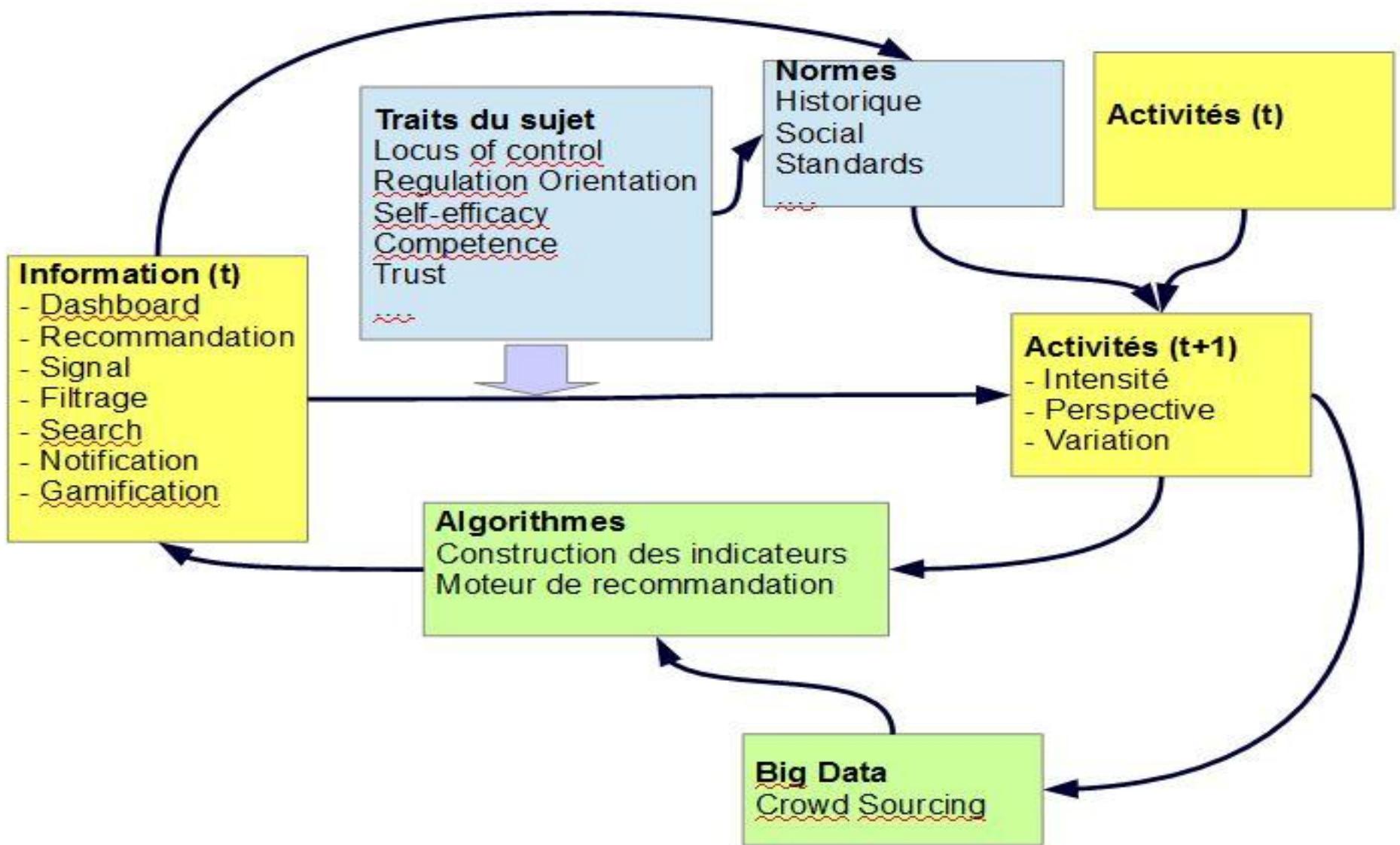


Allianz Assurance

**ÉCONOMISEZ JUSQU'À
30 % SUR VOTRE
ASSURANCE
AUTO
SELON VOTRE CONDUITE**

Voir conditions d'éligibilité sur allianz.fr

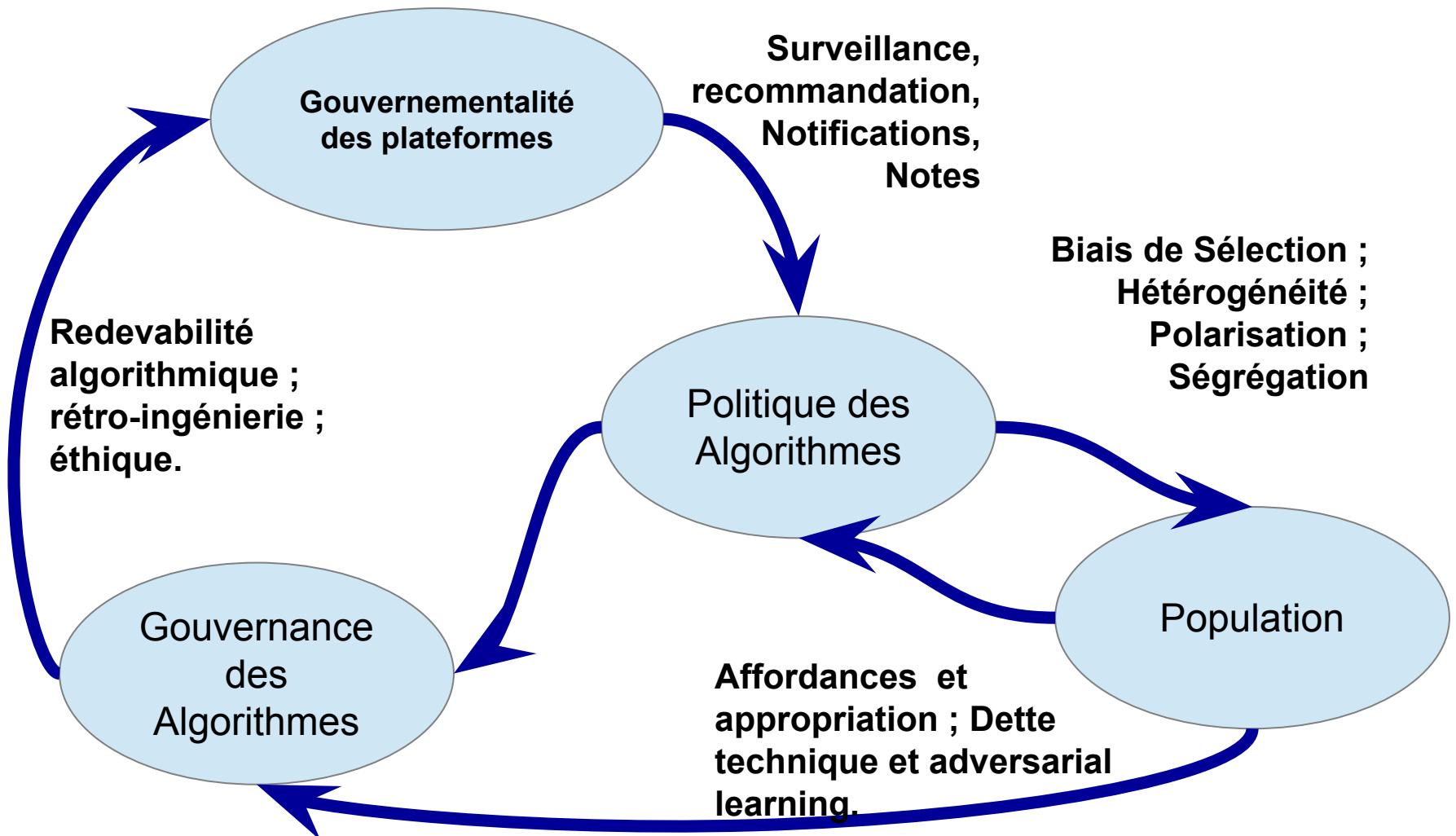
Les conditions du nudge



L'inefficacité des nudges; nutri-score expérience

l'article de pierre chandon

De la gouvernementalité des plateformes à la gouvernance des algorithmes



The criticism approach

Sujets complémentaires

10 - Economie de l'IA et des datas

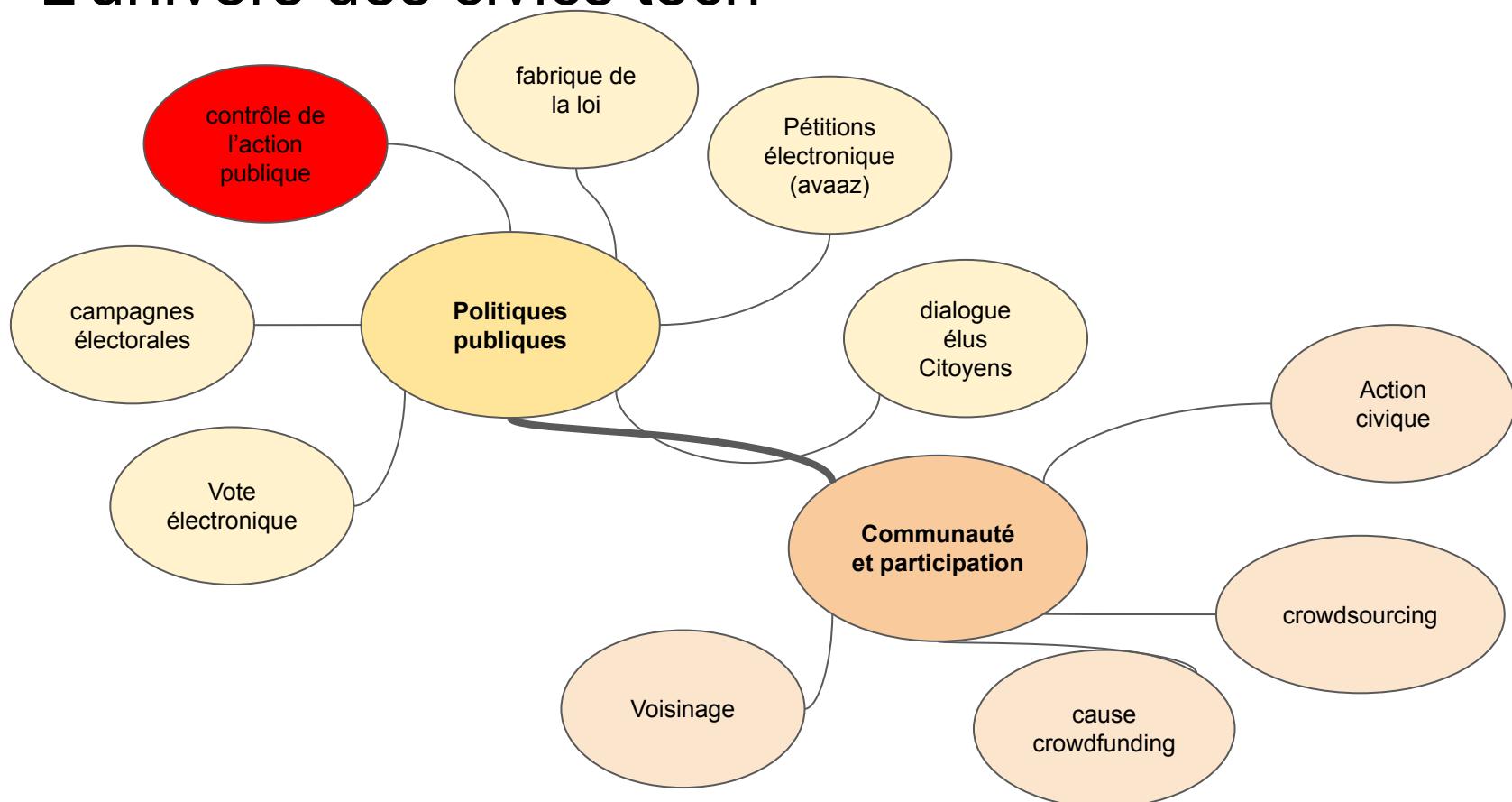
Un État plateforme ?

L'état, la société et les plateformes

- Les plateformes sont institutionnalisées et "institutionnalisantes" -> Pas de régulation générale possible mais des problèmes à résoudre.
- Le travail
 - La question du travail et d'un statut des travailleurs de plateforme -
 - la question du digital labor
 - Amplification des inégalités : la loi puissance
- Les alternatives
 - La question de la souveraineté numérique : l'absence d'une politique industrielle européenne
 - La question des modèles coopératifs : l'improbable croissance mais des normes de comportement
- Les données :
 - La question de la protection des droits à la vie privée : le rgpd
 - La question des biais des algorithmes
- La société
 - Société de la surveillance, du contrôle et de la compétition
 - fakes, trolls et activiste : modération ou censure ?
 - la gestion de l'espace public

Des plateformes pour l'Etat : civic tech

L'univers des civics tech

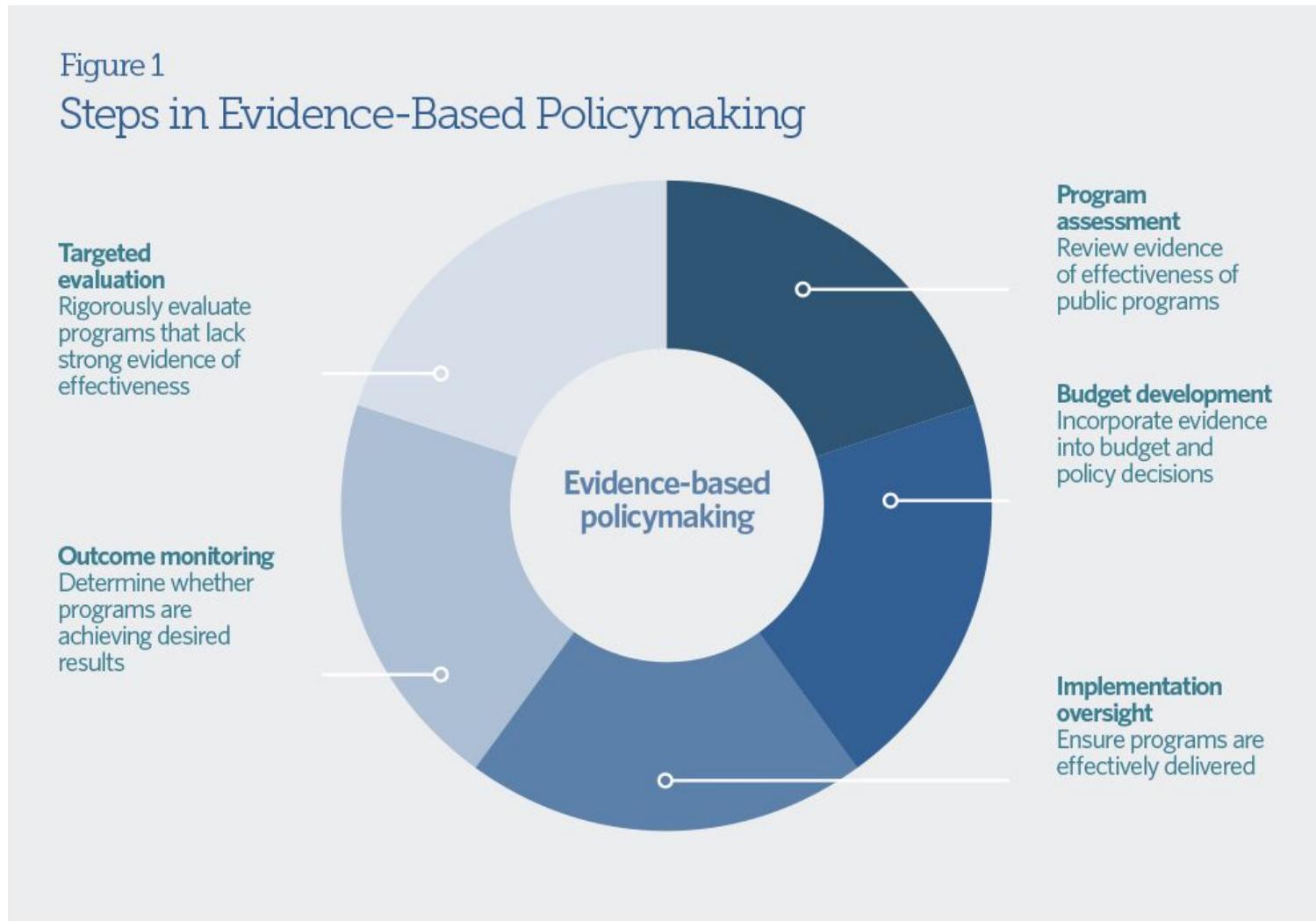


L'enjeu de l'open data

TABLE 1
Overview of benefits of open data

Category	Benefits
Political and social	<p>More transparency</p> <p>Democratic accountability</p> <p>More participation and self-empowerment of citizens (users)</p> <p>Creation of trust in government</p> <p>Public engagement</p> <p>Scrutinization of data</p> <p>Equal access to data</p> <p>New governmental services for citizens</p> <p>Improvement of citizen services</p> <p>Improvement of citizen satisfaction</p> <p>Improvement of policy-making processes</p> <p>More visibility for the data provider</p> <p>Stimulation of knowledge developments</p> <p>Creation of new insights in the public sector</p> <p>New (innovative) social services</p>
Economic	<p>Economic growth and stimulation of competitiveness</p> <p>Stimulation of innovation</p> <p>Contribution toward the improvement of processes, products, and/or services</p> <p>Development of new products and services</p> <p>Use of the wisdom of the crowds: tapping into the intelligence of the collective</p> <p>Creation of a new sector adding value to the economy</p> <p>Availability of information for investors and companies</p>
Operational and technical	<p>The ability to reuse data/not having to collect the same data again and counteracting unnecessary duplication and associated costs (also by other public institutions)</p> <p>Optimization of administrative processes</p> <p>Improvement of public policies</p> <p>Access to external problem-solving capacity</p> <p>Fair decision-making by enabling comparison</p> <p>Easier access to data and discovery of data</p> <p>Creation of new data based on combining data</p> <p>External quality checks of data (validation)</p> <p>Sustainability of data (no data loss)</p> <p>The ability to merge, integrate, and mesh public and private data</p>

Le gouvernement par la preuve, ou le gouvernement par les nombres ?



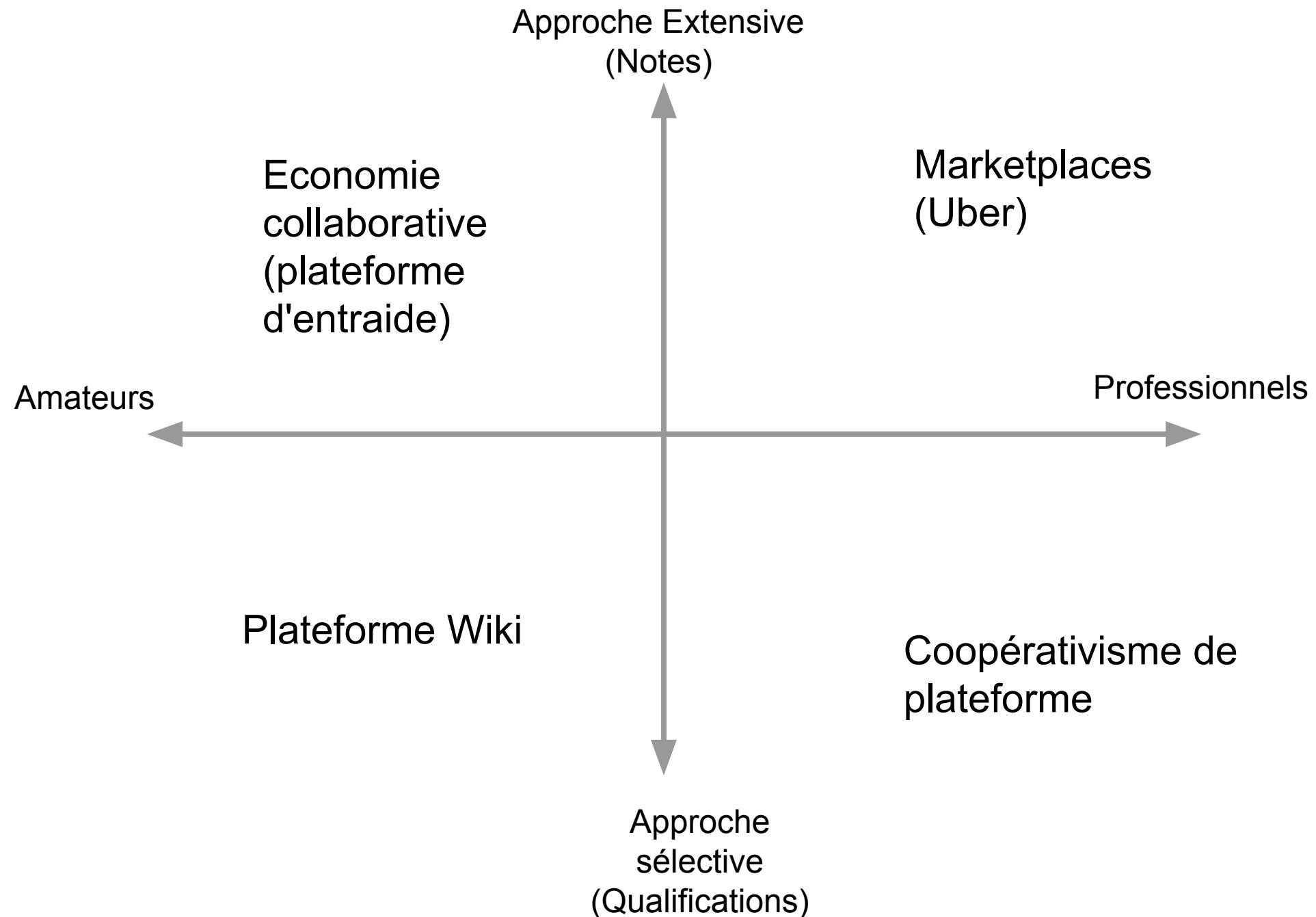
Source: Pew-MacArthur Results First Initiative, "Evidence-Based Policymaking: A Guide for Effective Government" (2014),
<http://www.pewtrusts.org/en/research-and-analysis/reports/2014/11/evidence-based-policymaking-a-guide-for-effective-government>

Les Plateformes et la gig economy

Plateformes et travail

- La question du contrôle et des qualifications
- Moins une question d'emploi que de revenus

Typologie de modes de production collaborative



Le mythe du slasher et de la freelance economy

- Des chiffres tronqués : les 30% d'americains qui ont fait du freelance, ne sont que 1/3 à en faire son activité principale
- La nécessité d'une compétence digitale réservé à un type d'emploi et additionnelle pour les autres

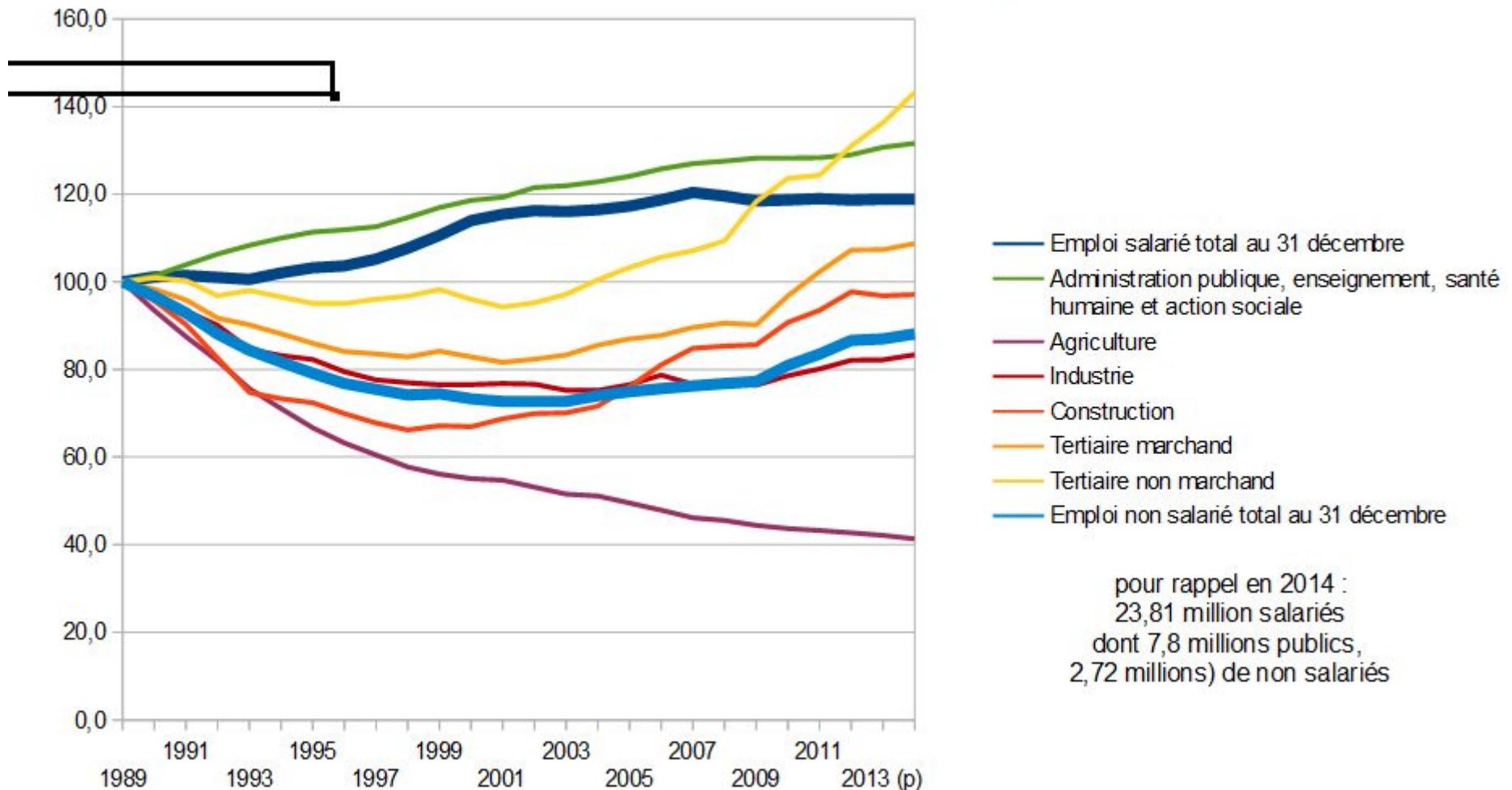
Classification de Cappelli & Keller (2013)

FIGURE 1
Classification of Economic Work Arrangements

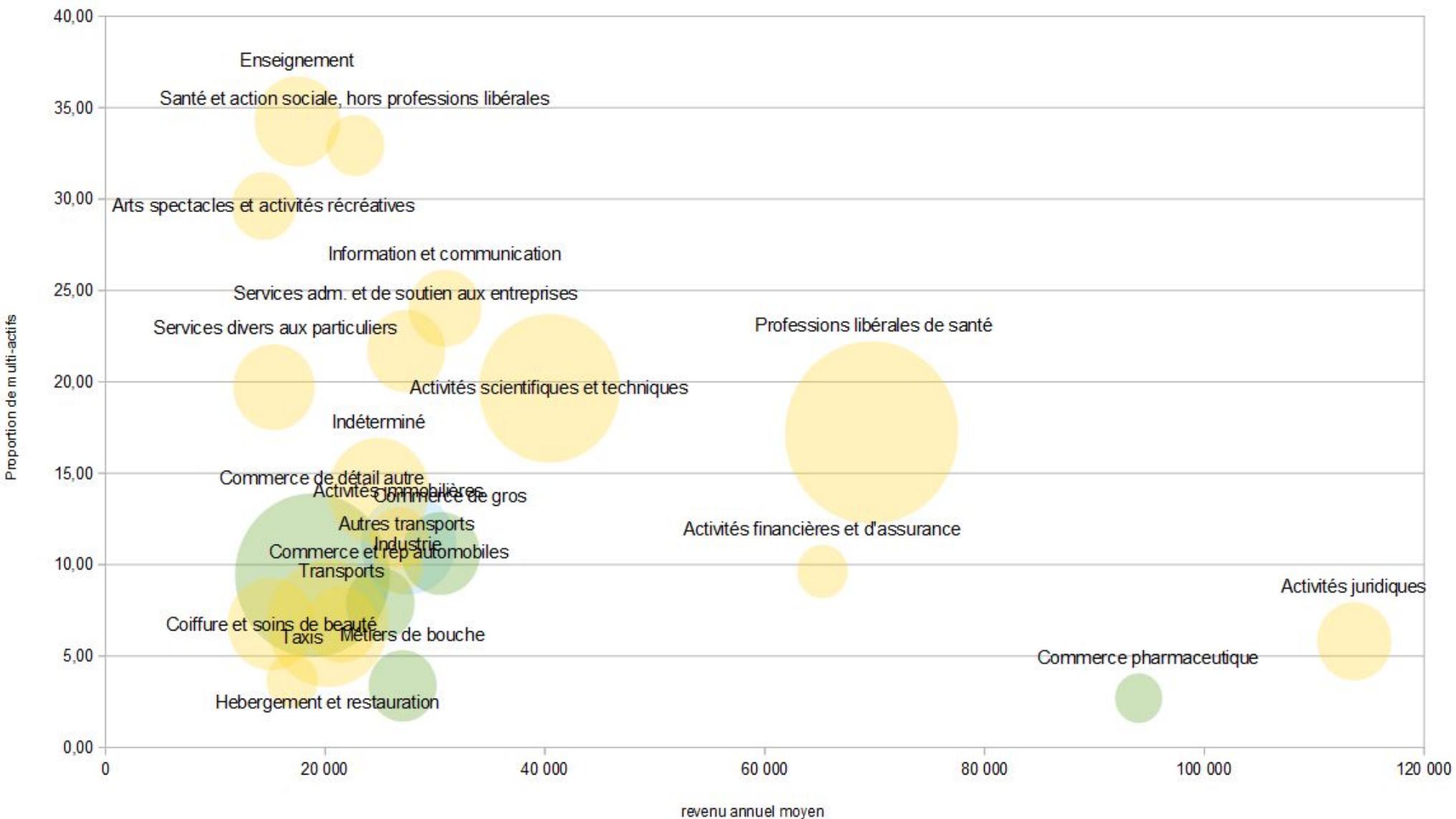


Evolution du travail

Evolution relative (indice 100 :1989) de l'emploi



L'activité multiple



Le spectre des revenus chez Uber

Simulation sur la base des données de Landier et al, 2016) . Autoentrepreneur, voiture en leasing, à Paris.

Heures travaillées par semaine	Pourcentage de chauffeurs travaillant avec uberX
0 - 9	8,6%
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Tableau 4: Nombre d'heures de travail par semaine des chauffeurs travaillant avec uberX. Source: Données internes d'Uber.

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Volatilité moyenne du revenu horaire	5,8	4,2
Taux de sortie moyen par semaine	0,1	0,03
Observations	3962	3158

Tableau 5: Comparaison entre chauffeurs occasionnels et chauffeurs professionnels (uberX). Source: Données internes d'Uber.

Simulation revenu Uber

	Rendement (euro/h)						
Heures sem.	19	20	21	22	23	24	25
10	-309	-283	-257	-232	-206	-180	-154
13	-162	-128	-95	-61	-28	6	39
16	-15	26	68	109	150	191	233
19	132	181	230	279	328	377	426
22	279	336	393	449	506	563	620
25	375	440	504	569	633	698	762
28	521	593	666	738	810	882	954
31	667	747	827	907	987	1067	1147
34	813	901	989	1076	1164	1252	1339
37	563	659	754	850	945	1040	1136
40	709	812	916	1019	1122	1225	1328
43	855	966	1077	1188	1299	1410	1521
46	1001	1120	1239	1357	1476	1594	1713
49	1147	1274	1400	1526	1653	1779	1906
52	1293	1427	1562	1696	1830	1964	2098
55	1439	1581	1723	1865	2007	2149	2290
58	1585	1735	1885	2034	2184	2333	2483
61	1731	1889	2046	2203	2361	2518	2675
64	1877	2042	2208	2373	2538	2703	2868
67	2023	2196	2369	2542	2715	2887	3060
70	2169	2350	2530	2711	2892	3072	3253