



DIGITAL SOCIAL INNOVATION: AN EXPLORATIVE ANALYSIS OF INNOVATION DYNAMICS IN FRANCE

CÉDRIC GOSSART
MÜGE ÖZMAN

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OUTLINE

1. WHAT IS DSI?
2. WHY THIS RESEARCH?
3. METHODOLOGY & DATA
4. RESULTS
5. DISCUSSION

1. WHAT IS DSI?



- **Emergence of innovations (& supporting organisations and institutions) relying on digital technologies, which address, societal or environmental problems.**
- **Mostly clustered in (smart?) cities.**
- **Reach out to people having certain knowledge (digital literacy, awareness of social & env. problems, ...).**
- **Endowed with characteristics that can help them change the way societies tackle problems:**
 - Bring in crowds,
 - Emphasis on openness and inclusion,
 - Value participation and transparency,
 - Very high potential for scaling up thanks to ICT (GPT).

- **DSIs = Innovations that work by bringing in people for the benefit of all people.**
- **How do DSIs function?**
 - DSIs rely on social links, existing networks to solve problems that people face;
 - DSIs form new relations, links, synergies from bringing in crowds to solve problems that face societies and nature.

EXAMPLE OF DSI

CALM by Association SINGA



EXAMPLE OF DSI



Open Food Facts recopila información sobre los productos alimenticios de todo el mundo.

Añadir un producto

Imagen con código de barras

o Código de barras

Añadir

Producto sin código de barras

Iniciar sesión

Conéctate para añadir o modificar productos.

Nombre de usuario o dirección de correo

Open Food Facts - España

Descubre

Open Food Facts es una base de datos de productos alimentarios hecha por todos, para todos.

Puedes usarla para elegir mejores opciones de alimentación, y como se trata de datos abiertos, cualquiera puede aprovecharlos para otros usos.

→ [Conoce más acerca de Open Food Facts](#)

Últimos productos añadidos:

→ [productos de la app móvil pendientes de completar](#)

5252 productos

Explorar los productos por... ▼



EXAMPLE OF DSI

flucicity ACCUEIL NOTRE APP NOUS COMMUNAUTÉ MA VILLE

VOUS PRENDREZ BIEN UN PEU DE DEMOCRATIE?

exemple@email.com Rejoignez-nous

Flucicity est un réseau citoyen pour une démocratie locale en continu. Une appli qui vous permet de dialoguer avec vos élus.

EXAMPLE OF DSI

Wheel Share

DEVENEZ ACTIONNAIRE D' I WHEEL SHARE SUR 1001PACT

1001PACT

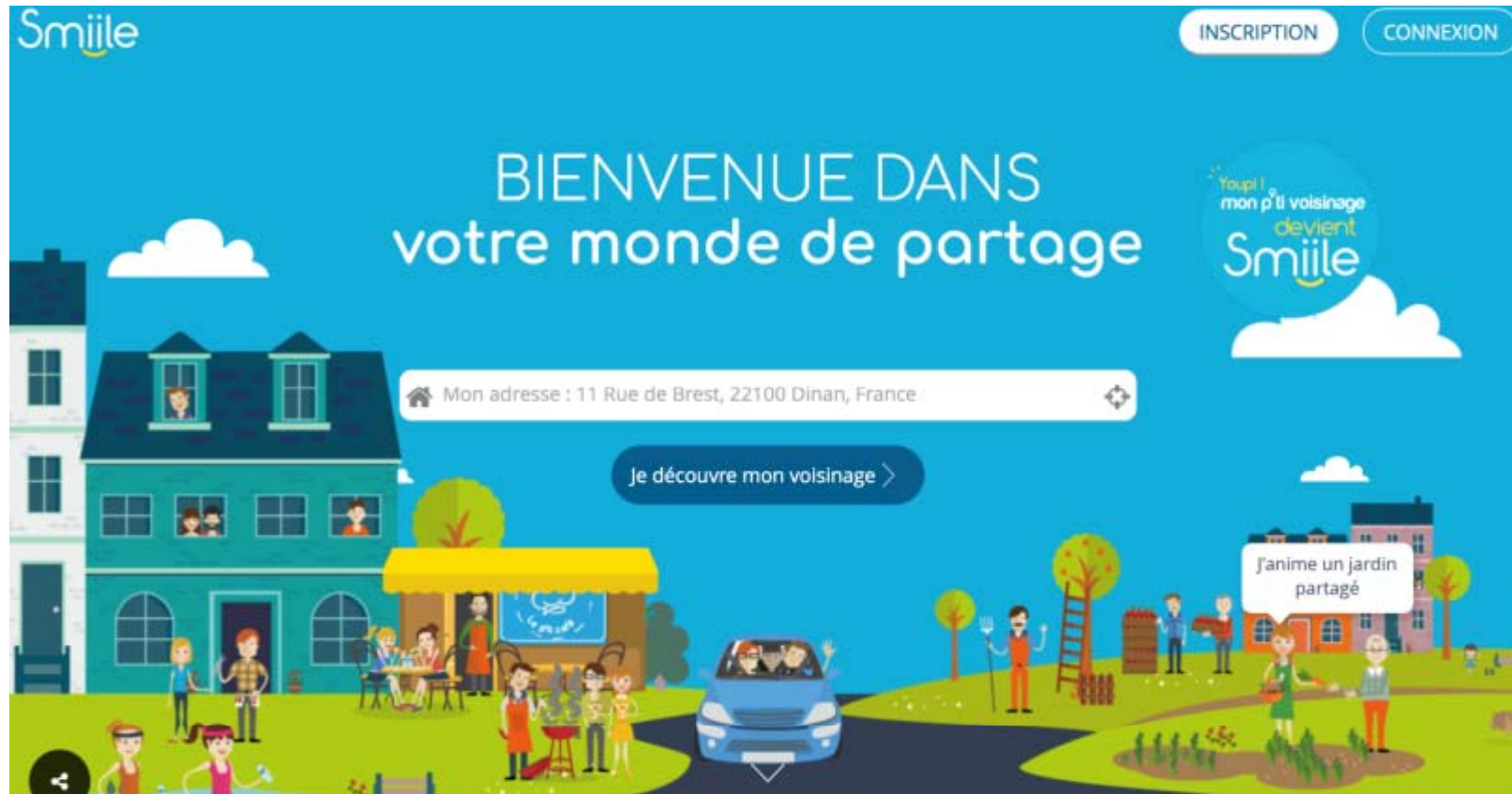
L'APPLICATION QUI DONNE UNE VOIX(E) AUX PERSONNES EN SITUATION DE HANDICAP

Télécharger dans l'App Store

APPLI ANDROID SUR Google Play

The advertisement features a background image of a man in a wheelchair on a paved path. A teal banner at the top contains the text 'DEVENEZ ACTIONNAIRE D' I WHEEL SHARE SUR 1001PACT' and the 1001PACT logo. Social media icons for Facebook, Twitter, Instagram, and LinkedIn are in the top right. A central graphic shows stylized icons of a person with a cane, a person in a wheelchair, and a person with a stroller. The main text 'L'APPLICATION QUI DONNE UNE VOIX(E) AUX PERSONNES EN SITUATION DE HANDICAP' is centered. At the bottom, there are two buttons: 'Télécharger dans l'App Store' and 'APPLI ANDROID SUR Google Play'.

EXAMPLE OF DSI



2. WHY THIS RESEARCH?



Une école de FIBT

KEY CHARACTERISTICS OF DSI

- **From “individual need” to “collective benefit” (Ayob et al., 2016; Moulaert et al., 2005).**
- **Very high potential of diffusion, since relying on ICTs.**
- **Beneficiaries and adopters can be different.**
- **Prosocial behaviour plays an important role in their adoption.**
- **Produced while being used (not “produced” & then adopted).**
- **The ecosystem of actors differs (e.g. many nonprofit org.).**
- **Marginal costs of adopting are very low for individual users.**
- **Very high disruptive potential for incumbents of all industries.**

RESEARCH OBJECTIVE

- How can we better understand DSIs?
- Knowledge about standard innovation may not all apply to DSIs.
- A **taxonomy** of those (DS) innovations is needed to facilitate further research and develop regulations.
- The aim of this research is to develop this taxonomy.

WHY IS IT IMPORTANT TO UNDERSTAND DSI?

Two important characteristics of DSIs:

- DSIs emerge very fast, due to low costs of launching, and research lags behind their speed.
- DSIs can diffuse exponentially because of high network externalities.

Regulation is important to:

- Make the most of the synergies provided by DSIs & to avoid having monopolistic platforms (AirBnB, etc.), and including people without strong digital literacy.
- Avoid shared “serfdom” where poor people offer services for income but still don’t have access to retirement & health services.
- Avoid unfair competition that leads to the destruction of existing competences.

IN SUM...

- **Digital social innovations have not been analysed systematically before & they are increasingly being generated and used.**
- **They can have a strong transformative potential (efficient solutions to social & environmental problems).**
- **They have specific dynamics compared to traditional innovations
=> old lessons from them may not all hold for DSIs.**

3. METHODOLOGY & DATA



Exploratory analysis of 95 DSIs in France regarding:

- The social problem(s) they address,
- The innovator,
- The mechanisms they use,
- Their capacity to create new knowledge and diffuse it,
- Their growth potential (through network externalities),
- The motivation and behaviour of their users,
- Their disruptive potential.

Principal component analysis based on 30 questions on these issues with binary answers (yes or no) => 2850 observations.

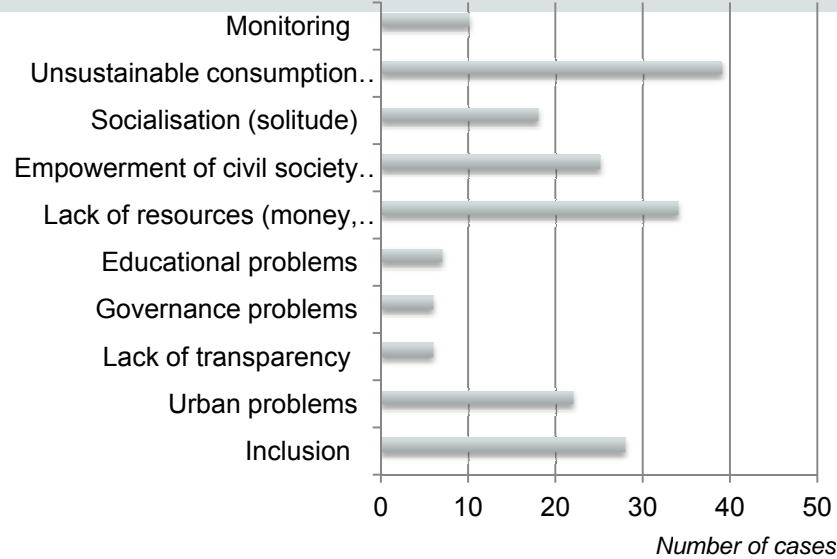
	1	2	3	4	5	6	7	8	9	10
Accorderie	1					1				
APPELLES	1									
ASLOD	1									
Babyloan	1					1				
Betobe						1				
Bluebees						1			1	1
BNFA	1				1					
CALM BY SINGA	1							1		
Cforgood						1			1	
Checkfood									1	
Cineapps	1									
Citylity		1							1	
Cohome						1		1		
Colleo						1				
Colunching									1	
Comparethic			1							
CompteCo2										1
Connect'inh	1									
Coovia										1
Data City Paris		1		1				1		
Diffuz		1				1	1			
DISCOSOUPE		1							1	1
Eaupen	1									1

Analysis of resulting components: which ones are emerging?

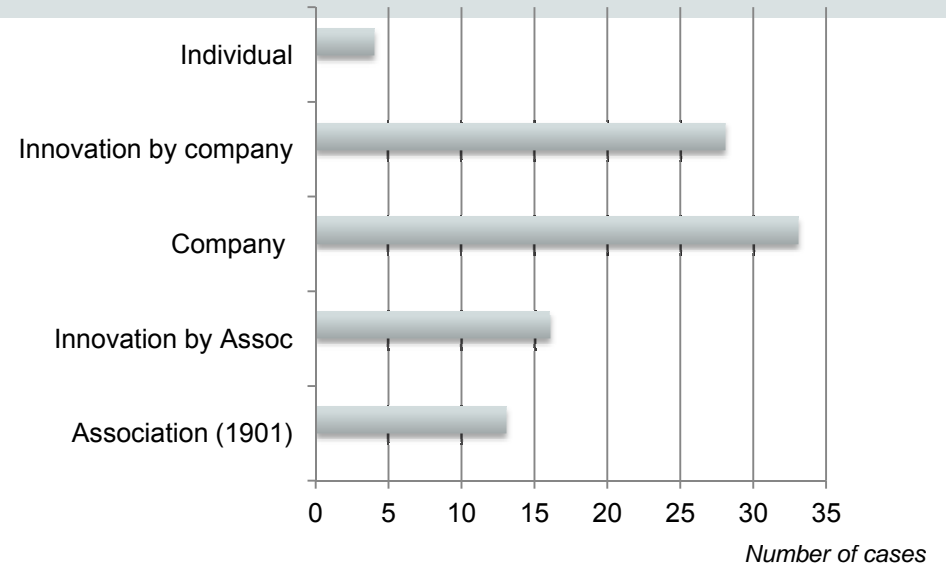
4. RESULTS



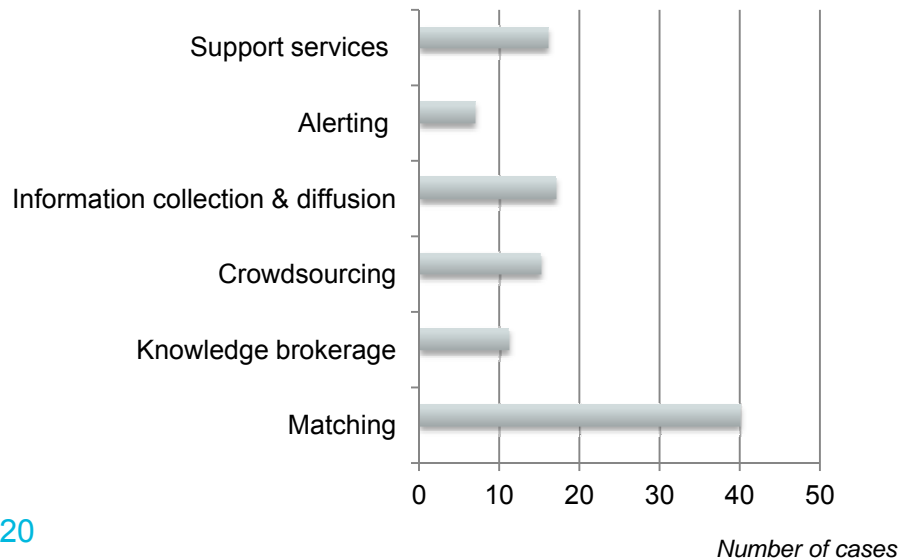
Problem addressed



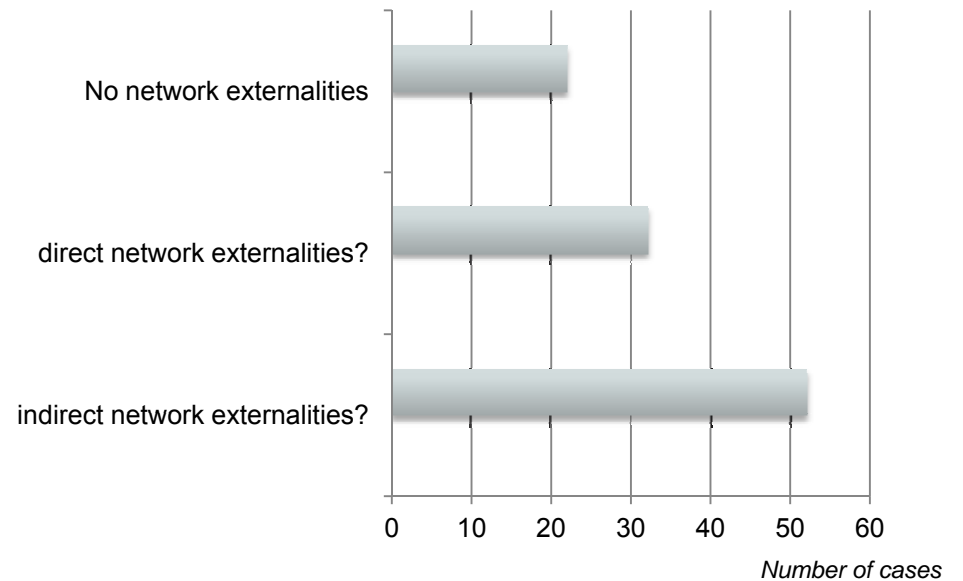
The Innovator



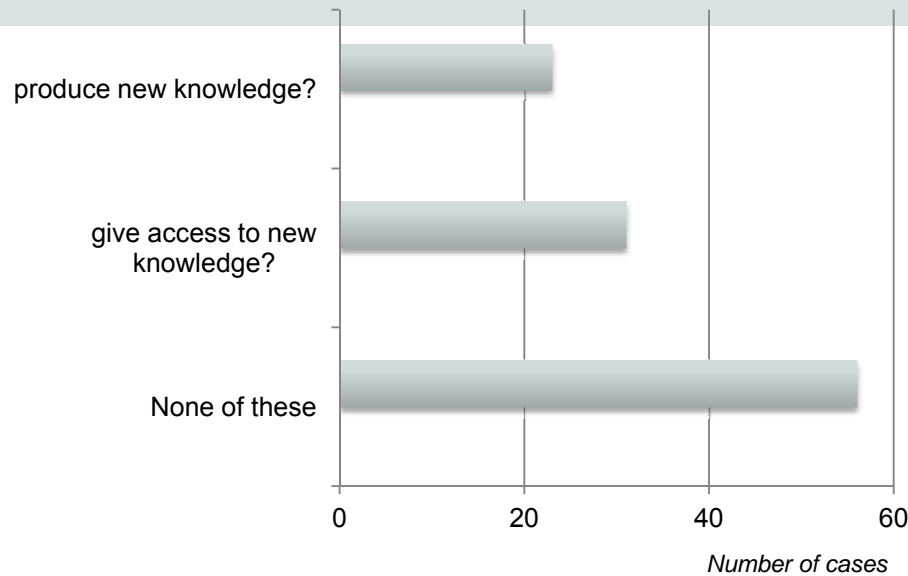
Mechanism



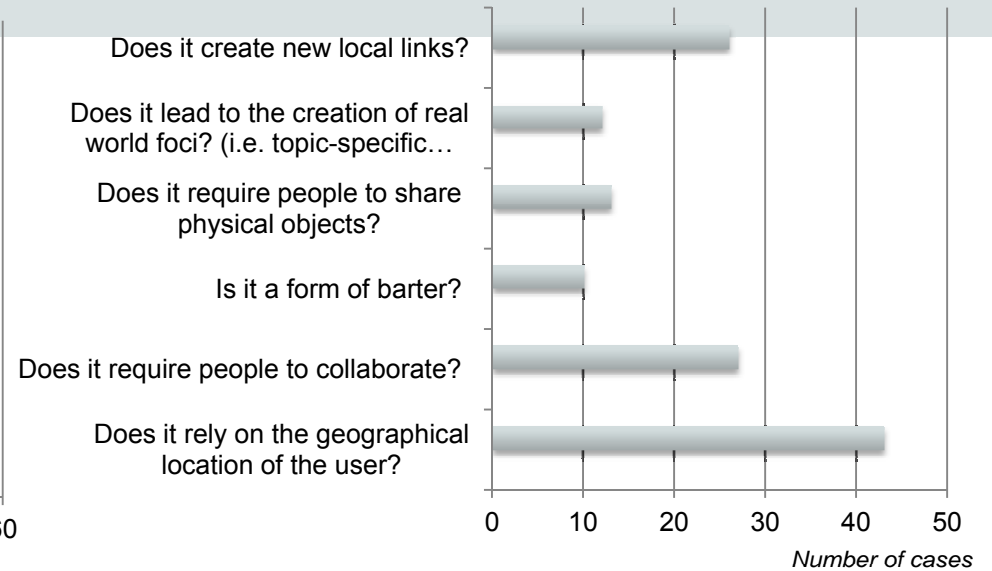
Network externalities



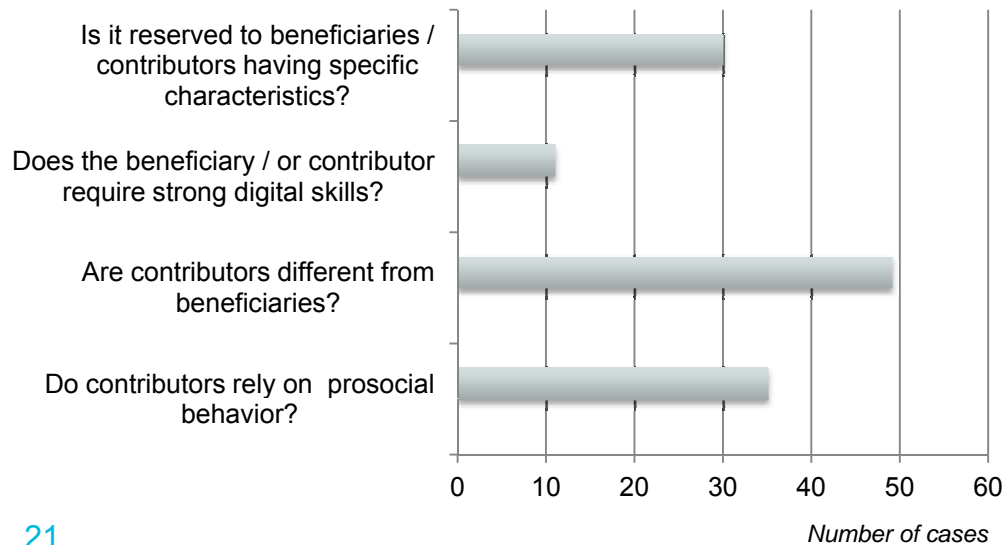
Knowledge Creation and Access



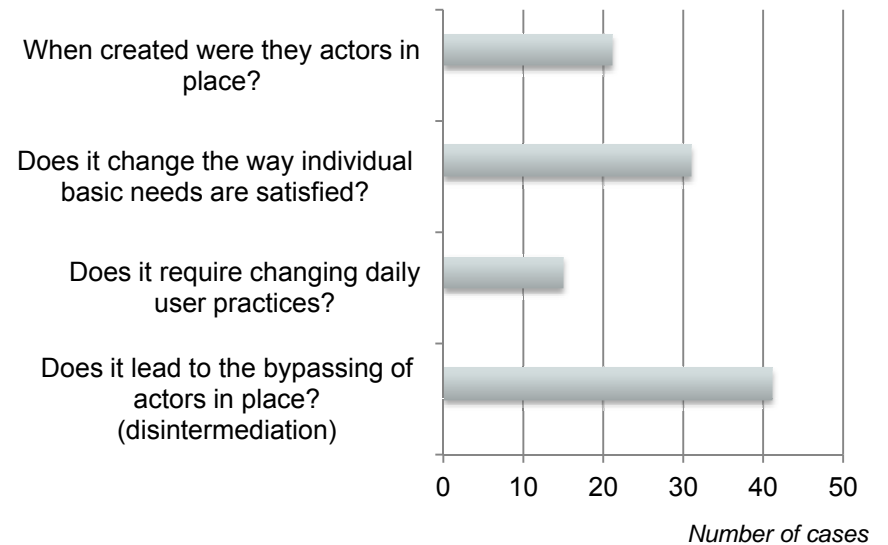
Networks and Interactions



Prosocial behaviour

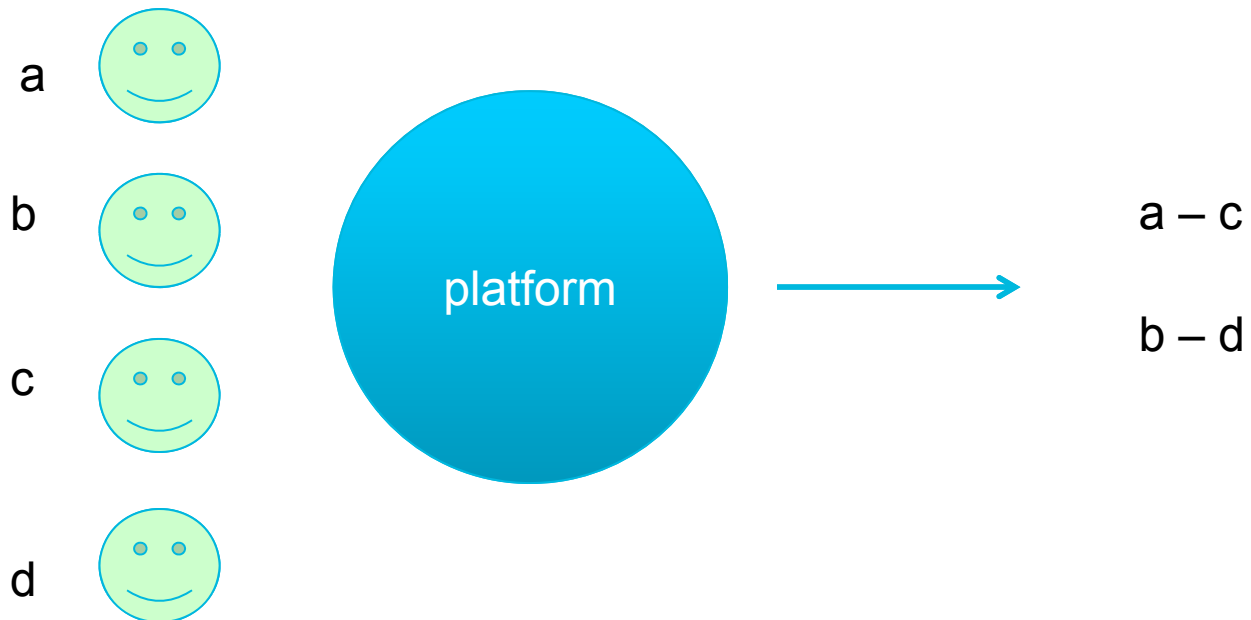


Disruptiveness



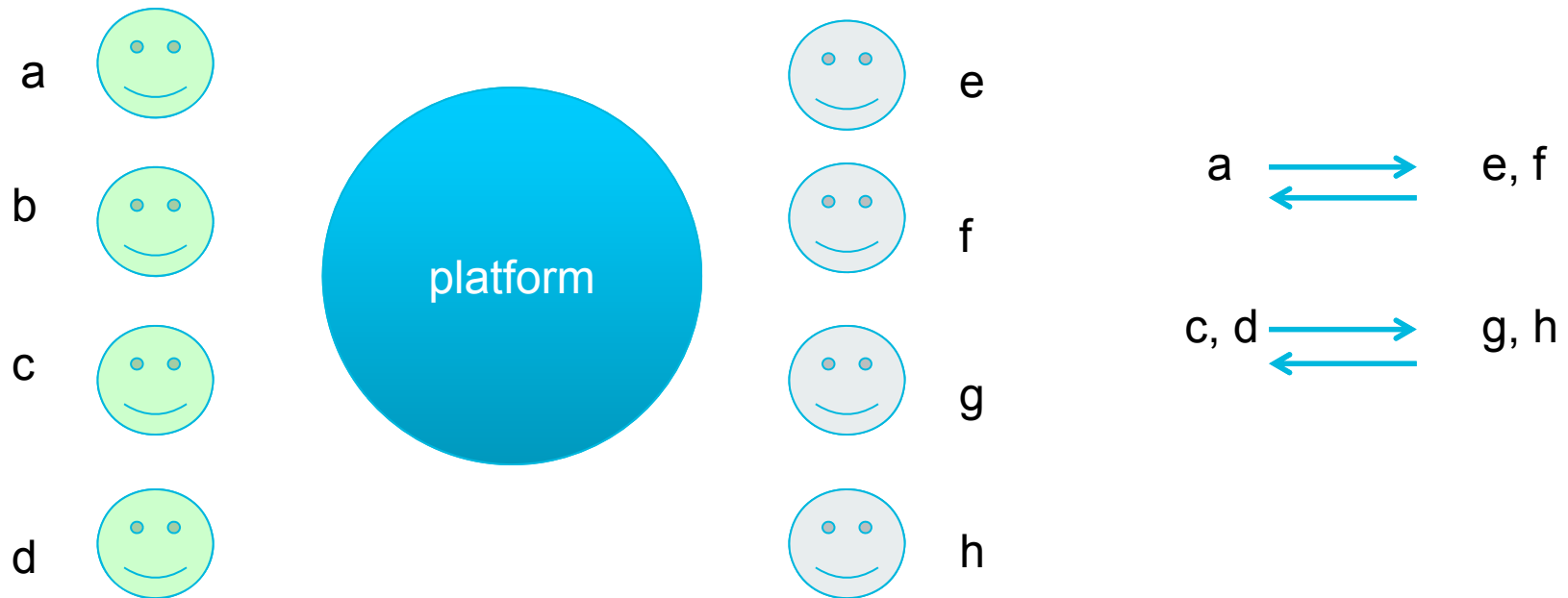
MORE EXPLANATION ON MECHANISMS

Matching



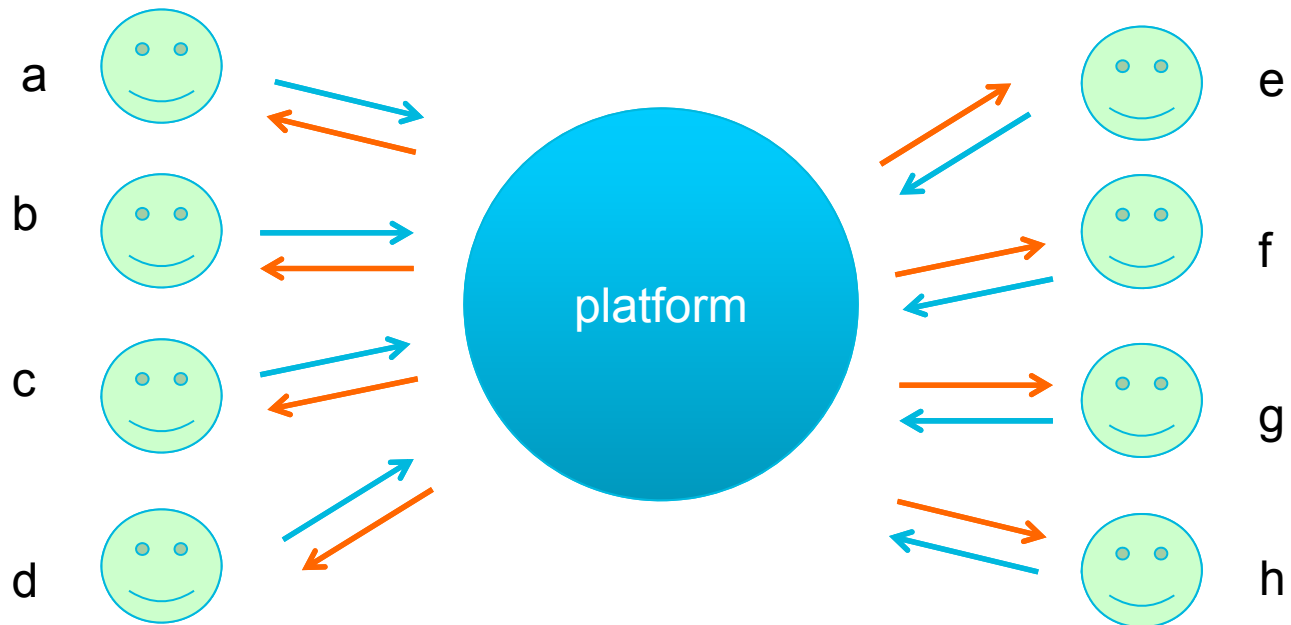
MORE EXPLANATION ON MECHANISM

Knowledge brokerage



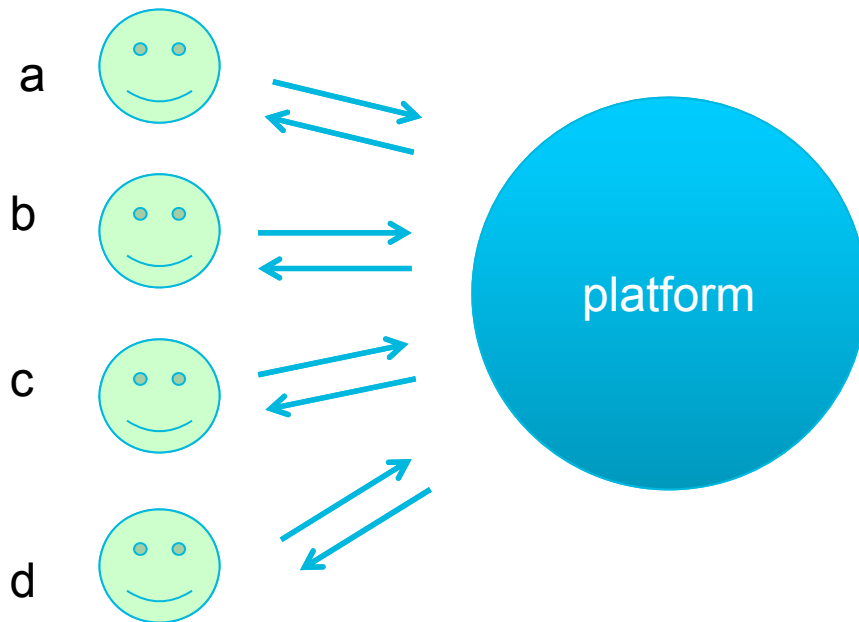
MORE EXPLANATION ON MECHANISM

Information collection and diffusion (wiki model)



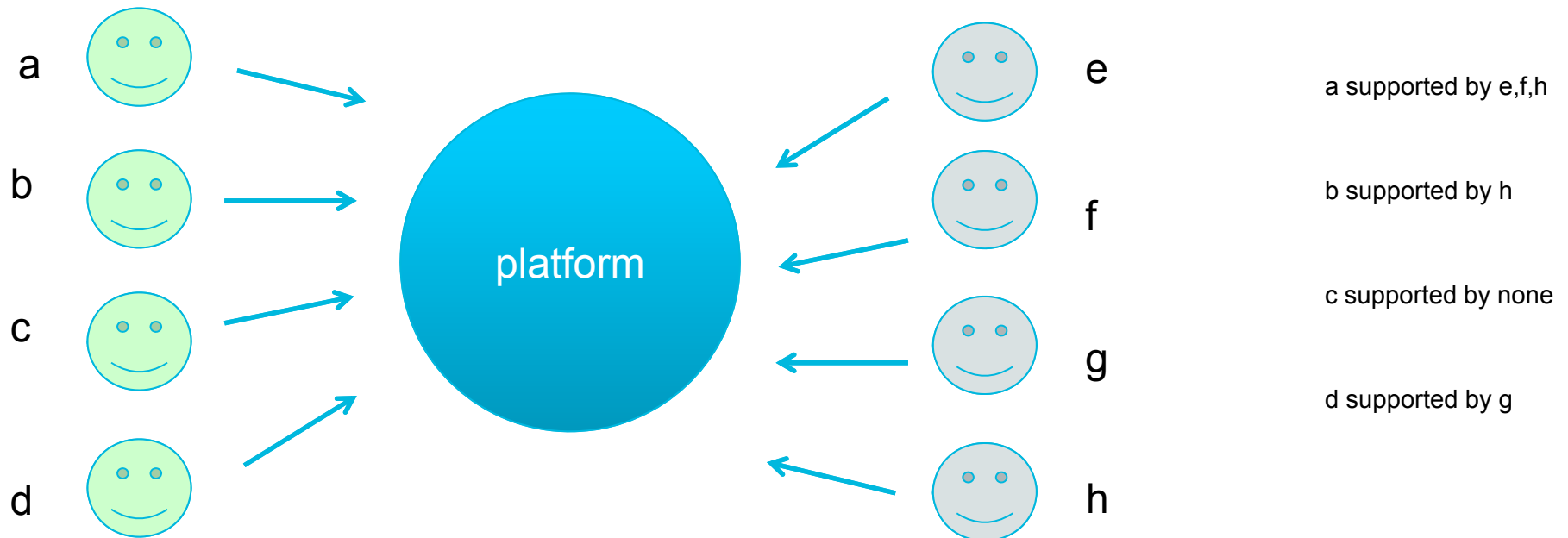
MORE EXPLANATION ON MECHANISM

Alerting



MORE EXPLANATION ON MECHANISM

Crowdsourcing and crowdfunding (petitions, etc.)



4. Results

	Sharing	Neighbourhood	Social influence	Sharing for inclusion	Crowdsourcing	Artefact	Others
Purpose	Lack of resources	Urban problems related with knowledge	Various problems	Inclusion	Mostly lack of resources, and other problems	Sustainability and inclusion	Various problems
Innovator	firms	firms	nonprofits	nonprofits	both	both	both
Mechanism	matching	knowledge brokerage, information collection and diffusion	knowledge brokerage	matching	crowdsourcing	information collection and diffusion	information collection and diffusion, knowledge brokerage, alerting
Network externalities	strong	strong	strong	strong	strong	strong	strong
Knowledge creation and diffusion	weak	strong	strong	no	no	strong	strong
Disruptiveness	yes	no	no	no	yes	no	no
Prosocial behaviour	no	no	yes (mostly)	yes	yes	yes (mostly)	yes (mostly)
Barter or sharing	yes	no	no	yes	no	no	no
Foci (real world meeting places)	no	no	yes	no	no	no	no

1. Kaiser rule applied (include components with eigenvalue > 1)

27

2. Kaiser – Meyer – Olkin statistic: 0.65

5. DISCUSSION

- Sharing is only part of DSI and although there is a great emphasis on sharing economy in press, there are many different ways in which ICT platforms can bring collective benefits through different mechanisms.
- Moreover, these other ways (apart from sharing) are more important in creating and diffusing new knowledge useful in the way people tackle problems.
- For addressing social issues like inclusion, (and not only resource access) the role of nonprofits are very important.
- Non profit activities are less disruptive than for profit activities (on other sectors).
- Similar mechanisms (platform architectures) are in use by both non profits and for profits.
- Non-profits are important in creating real world learning hubs, that can bring in people with less digital literacy, so that the sector is not only confined to a specific group.

PROBLEMS AND FUTURE RESEARCH

- Platform data is not accessible by academics and regulators, which make it difficult to carry out research on this sector (not open in reality).
- Platforms develop very fast (and can fade away fast) but research and regulations are lagging behind.
- New links are fostered, but are they truly social capital?
- What are the underlying motivations to participate, in different platforms? (more refined than prosocial or not)
- How is the value distributed among users, providers, and investors?
- Similar questions need to be addressed in the future.



Institut Mines-Télécom



Une école de l'IMT

GRACIAS.

CÉDRIC GOSSART

[HTTPS://GOSSART.WP.IMT.FR](https://gossart.wp.imt.fr)

MÜGE ÖZMAN

[HTTPS://MUGE.WP.IMT.FR](https://muge.wp.imt.fr)



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