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## Comparison of institutionalisation pathways of the sharing economy across five global cities

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Book of Abstract

## 8th International Workshop on the Sharing Economy



22-23 May 2023, Vienna, Austria

University of Natural Resources and Life Sciences, Vienna,  
WU Vienna University of Economics and Business & Lund University



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## 8th International Workshop on the Sharing Economy



With the advent of the sharing economy came the hope that new forms of organization would emerge that offer a more sustainable alternative to the current modes of production and consumption. The peer-to-peer sharing of underutilized assets such as apartments, cars, clothes, tools or food are expected to prevent the overconsumption of limited resources, enable entrepreneurship among individuals and strengthen social ties. Indeed, in many sectors, sharing economy platforms have grown impressively. But have the expectations of the advocates of the sharing economy been fulfilled?

The 8<sup>th</sup> International Workshop on the Sharing Economy (IWSE) in Vienna, Austria, provides a forum for critical reflections on the developments in the past and an outlook on the future of the sharing economy. The 8<sup>th</sup> IWSE follows earlier workshops in Utrecht (2015), Paris (2016), Winchester (2016), Lund (2017), Mannheim (2018), Utrecht (2019) and Barcelona (2021).

Scholars of diverse disciplines followed our call to join us in re-examining and re-considering whether the principles and practices of the sharing economy present a viable path forward considering the grand challenges humanity is facing (e.g., the climate crises, the current and future pandemics, armed conflicts). The current challenges show us—in some cases quite drastically—the problems of the prevailing behaviors on an individual, organizational, institutional, and societal level in our industrialized world, which urgently need to be solved.

We received contributions addressing questions related to the sharing economy including, but not limited to:

- Do sharing economy examples meet the original hopes about sharing (i.e., social cohesion, cooperation, a more ethical alternative to the prevailing forms of organizing, sustainability etc.)?

- Which hopes about the sharing economy still prevail and what are the new expectations about the outlook of the sharing economy?
- What makes sharing economy organizations fail or hinders them from growing?
- How has the sharing economy contributed to resilience and societal good in crises (e.g., in response to the pandemic, helping victims of armed conflicts)?
- Will the new forms of organizing in the sharing economy complement or even substitute the prevailing models?

We now got contributions from a number of perspectives including, but not limited to:

- sustainability and ecological economics
- organization, strategy, entrepreneurship, and innovation
- regulatory, policy and governance
- sociological and critical management
- psychology, marketing, and consumer behavior

Various perspectives can be linked to these general questions and you will find the topics and extended abstracts of the contributions in this book of abstracts.

By embracing different perspectives when discussing the sharing economy and sharing society, we want to enable a broad discussion that reflects the diversity of perspectives in studying the sharing economy.

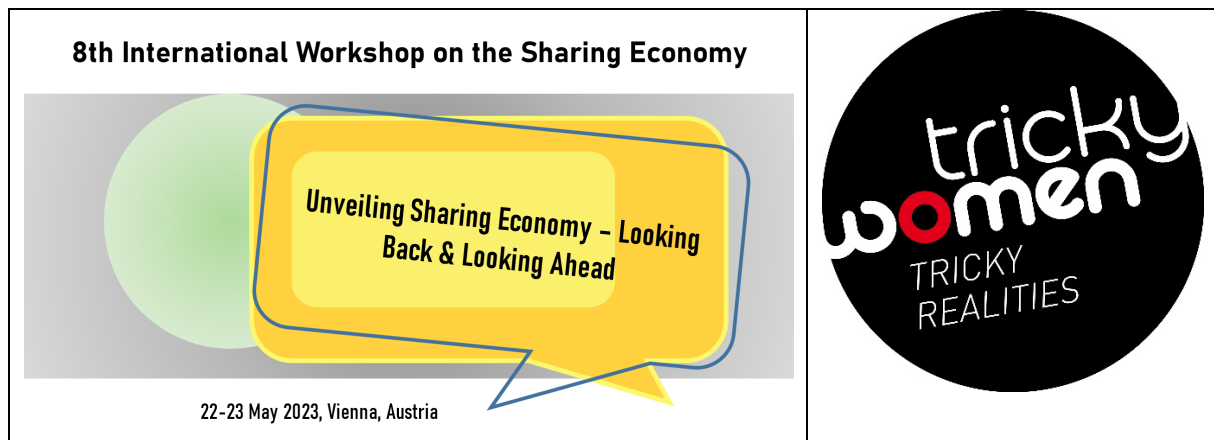
We are looking forward to an exciting exchange and hope that we have put together an interesting program.

The conference chairs:

- Christian Garaus, Institute of Marketing and Innovation, University of Natural Resources and Life Sciences, Vienna, Austria ([christian.garaus@boku.ac.at](mailto:christian.garaus@boku.ac.at))
- Oksana Mont, International Institute for Industrial Environmental Economics at Lund University, Sweden ([oksana.mont@iiiee.lu.se](mailto:oksana.mont@iiiee.lu.se))
- Angelika Schmidt, Institute for Change Management and Management Development, Vienna University of Economics and Business, Austria ([angelika.schmidt@wu.ac.at](mailto:angelika.schmidt@wu.ac.at))
- Yuliya Voytenko Palgan, International Institute for Industrial Environmental Economics, Lund University, Sweden ([yuliya.voytenko\\_palgan@iiiee.lu.se](mailto:yuliya.voytenko_palgan@iiiee.lu.se))

## Film synopsis

for the 8th International Workshop on the Sharing Economy in collaboration with Tricky Women/Tricky Realities



### OÁZA / OASIS

Daria Kashcheeva, CZ 2017, 2'26

Loud music, hectic crowds, wailing babies, car horns, construction work, sirens. Sometimes we want to run away. But where to?

### BLOOMERS

Samantha Moore and Malin Bång, AT/UK 2019, 9'30

Bloomers takes a lively view of the sewing room environment at Headen and Quarmby, a family run lingerie factory, which provides jobs for unemployed locals. The film combines an original score incorporating sounds of the sewing room and interviews with employees, with animation that remarkably has been created by printing drawings onto fabric. In Bloomers, we catch a glimpse of the working lives of British factory workers.

### A GUITAR IN A BUCKET

Boyoung Kim, KR 2021, 14'51

In a world where everything you need can be rented from huge vending machines and all human interaction has been commodified, a young woman wants to be a guitarist, even if everyone else has other plans for her. A lyrical film about pursuing your passion.'

### O HOMEM DO LIXO / THE GARBAGE MAN

Laura Gonçalves, PT 2022, 11'45

On a hot August afternoon, a family gathers at the table to remember the life of uncle Botão, which was shaped by dictatorship, Portugal's colonial war in Angola, emigration, and working as a garbage man. The individual story unfolds and ultimately tells the history of a nation whose collective memories are so often overlooked.

### THE GOOSE AND THE COMMON

Shadab Shayegan, AT 2020, 3'59

A goose is robbed of her eggs – and of the ground beneath her feet – when a street is rolled out in the countryside. Searching in vain for her eggs, she gets lost in labyrinthine buildings. Together with other geese she eventually forms a resistance movement. A music video for Heaven Sent Cat, based on a 17th-century protest song against land-grabbing by the privileged classes.

## IWSE 2023 Program Overview

### Pre-Workshop – Sunday, May 21st, 2023

Timetable	Program
14.30-17.30	Exploration tour with Eugene Quinn (meeting point: in front of the entrance to Westbahnhof, Europaplatz 2, 1150 Vienna)
From 17.30	Social pre-event ( <a href="#">Bricks 15 – Die Turnhalle, Herklotzgasse 21, 1150 Vienna</a> )

### Day 1 – Monday, May 22nd, 2023

Timetable	Program
08.00-9.00	Registration at BOKU (University of Natural Resources and Life Sciences, Vienna) Ilse-Wallentin-House, Peter-Jordan-Straße 82, Ground floor in front of the Room (SR29) ( <a href="https://navi.boku.ac.at/?q=ILWA-EG/01">https://navi.boku.ac.at/?q=ILWA-EG/01</a> ).
09.00-9.30	Room SR 29 <b>Opening and setting the scene</b> Sikora-Wentenschuh (University of Natural Resources and Life Sciences, Vienna – Vice-Rector for Finance and Infrastructure) Peter Wieser (City of Vienna, Head of MA23 – Economy, Work and Statistics) Short film <b>OÁZA / OASIS</b> Moderated by the local organizers Christian Garaus / Angelika Schmidt
09.30-10.30	Parallel Sessions 1 in the rooms SR 26, 27, 28
10.30-11.00	Coffee break
11.00-12.30	Parallel Sessions 2 in the rooms SR 26, 27, 28
12.30-13.30	Lunch break
13.30-15.00	Room SR 29 <b>Impulse 1 – Debate concerning the topic “Overview of the development of the sharing economy from different perspectives”</b> Koen Frenken (Utrecht University) & Elke Schüssler (Johannes Kepler University Linz) Short film <b>BLOOMERS</b> Moderated by Christian Garaus
15.00-15.30	Coffee break
15.30-17.00	Parallel Sessions 3 in the rooms SR 26, 27, 28
17.00-18.15	Room SR 29 <b>Impulse 2 – Round table with representatives/activists of local initiatives</b> <ul style="list-style-type: none"> <li>• Cordula Fötsch – Gartenpolylog (<a href="#">Community Gardens in Austria - We connect, design &amp; enable!   Gartenpolylog</a>)</li> <li>• Gildas LeGall – Mobilitätsagentur Wien (<a href="https://www.mobilitaetsagentur.at/sharing-mobility/">https://www.mobilitaetsagentur.at/sharing-mobility/</a>)</li> <li>• Stefan Waschmann – Elfride – Verein für nachhaltige Mobilität und Carsharing (<a href="http://www.elfride.at">www.elfride.at</a>)</li> <li>• Okan McAllister – “kindby” (<a href="https://kindby.com/ueber-uns/">https://kindby.com/ueber-uns/</a>)</li> <li>• Sami Angsthelm - Digital Kiosk: a new revolution for the shared economy of goods</li> </ul>

	<b>Wrapping up an closing of the first conference day</b> Short film <b>A GUITAR IN A BUCKET</b> Moderated by Angelika Schmidt
<b>18.30</b>	Transfer to the Social event via Vienna Heurigen Express – Start in front of the Ilse-Wallentin-House
From 19:00	Conference Dinner ( <a href="#">Heuriger Kierlinger; Kahlenbergerstraße 20, 1190 Vienna</a> )

## Day 2 – Tuesday, May 23rd, 2023

Timetable	Program
08.00-09.00	Registration at BOKU (University of Natural Resources and Life Sciences, Vienna) Ilse-Wallentin-House, Peter-Jordan-Straße 82, Ground floor in front of the Room (SR29) ( <a href="https://navi.boku.ac.at/?q=ILWA-EG/01">https://navi.boku.ac.at/?q=ILWA-EG/01</a> ).
09.00-09.15	Room SR 29 <b>Opening of the second day</b> Short film <b>O HOMEM DO LIXO / THE GARBAGE MAN</b> Moderated by Angelika Schmidt
09.15-10.15	Room SR 29 <b>Impulse 3 Debate of a hot topic in the area of food sharing</b> <b>Monika Rut (Sustainable Food System at ICLEI) &amp; Theo Koch (<a href="#">Too Good To Go</a>)</b> Moderated by: Oksana Mont
10.15-10.45	Coffee break
10.45-12.15	Parallel Sessions 4 in the rooms SR 26, 27, 28
12.15-13.15	Lunch break
13.15-14.45	Parallel Sessions 5 in the rooms SR 26, 27, 28
14.45-15.15	Coffee break
15.15-16.00	Room SR 29 <b>Wrapping up / closing – by the organizers and outlook</b> Short film <b>THE GOOSE AND THE COMMON</b>



# IWSE 2023 Program Overview – Paper sessions

Sessions Day 1	Topic	Papers – Title / Authors	Discussants
Monday, May 22nd, 2023, 9.30-10.30, SR 28 – Chairperson Christian Garaus			
1a	Investigating governance and reliance in the sharing economy  Part 1	Driving positive engagement in the sharing economy: the role of trust and governance mechanisms <i>Sander Limonard, Nicole Stofberg, Francesca Ciulli, Florian Hawlitschek</i>	Monica Szwarc
		Obligations of collaborative economy platforms under Digital Services Act – any added value to consumer protection? <i>Monica Szwarc</i>	Nicole Stofberg
Monday, May 22nd, 2023, 9.30-10.30, SR 27 – Chairperson Julie Wilson			
1b	Themed session: Unpacking the sharing economy in tourism: Resisting norms in a digitally mediated world  Part 1	The Platformisation of the Tourism Encounter: Free Tours as New Digital Intermediaries of Place <i>Jorge Jaime Rivera Garcia, Julie Wilson and Pau Obrador Pons</i>	Selin Öner-Kula
		Fifty shades of Sharing, Commoning and Gifting: updating Sharing Economy’s definition and proposing a taxonomy <i>Selin Öner-Kula, Xabier Renteria-Uriarte</i>	Julie Wilson
Monday, May 22nd, 2023, 9.30-10.30, SR 26 – Chairperson Angelika Schmidt			
1c	Exploring the sharing economy in city contexts	City contexts and the evolution of the sharing economy: experiences from mobile research labs <i>Andrius Plepys</i>	Oksana Mont
		Share and Repair in Cities: What is Agenda for Research and Practice on Circular Urban Resilience? <i>Yuliya Voytenko Palgan, Oksana Mont</i>	Andrius Plepys
Monday, May 22nd, 2023, 10.30-11, SR 29 - Coffee break			
Monday, May 22nd, 2023, 11.00-12.30, SR 28, Chairperson Angelika Schmidt			
2a	Themed session: Young Scholars Network on platform cooperatives	Towards Corporate Governance-by-Design: The Case of dOrg <i>Morshed Mannan (virtual)</i>	Shaked Spier
		The Ethics and Politics of Platform Cooperatives <i>Shaked Spier</i>	Vera Vidal
		Fairness for whom? Platform cooperatives as gendered organizations <i>Vera Vidal (virtual)</i>	Morshed Mannan
Monday, May 22nd, 2023, 11.00-12.30, SR 27, Chairperson Maartje Roelofsen			
2b	Themed session: Unpacking the sharing economy in tourism:	Barcelona as a case study for the effectiveness of short-term rental market regulations <i>Kristóf Gyódi, Joanna Mazur</i>	Frederic Marimon

Sessions Day 1	Topic	Papers – Title / Authors	Discussants
	The platformization of home sharing	Sharing economy and tourism, a generational perspective <i>Monica Bernardi, Giulia Mura</i>	Kristóf Gyódi
	Part 2	How to win the users’ loyalty in digital home- sharing platforms: The key role of fulfilment of expectations <i>Natalia Amat-Lefort, Frederic Marimon, Marta Mas-Machuca</i>	Monica Bernardi
Monday, May 22nd, 2023, 11.00-12.30, SR 26, Chairperson Barbara Hartl			
2c	Unraveling sustainable mobility in cities	Making and breaking links: the transformative potential of shared mobility from a practice theories perspective <i>Mirijam Mock</i>	Yuliya Voytenko Palgan
		Mainstreaming cargo bike sharing Organisations: A case study of “Grätzlrad” in Vienna and “LastenVelo e.V.” in Freiburg <i>Kaja Zimmermann, Yuliya Voytenko Palgan</i>	Emil Beemer
		Exploring the potential of public-common partnerships for a transition to mobility commons <i>Emil Beemer, Gijs Diercks, Derk Loorbach</i>	Mirijam Mock
Monday, May 22nd, 2023, 12.30-13.30, SR 29, Lunch Break 13.30 – 15, SR 29, Impulse 1 15-15.30, SR 29, Coffee Break			
Monday, May 22nd, 2023, 15.30 – 17, SR 28, Chairperson Oksana Mont			
3a	Exploring social impacts and sharing economy dynamics	The social impact of sharing economy: investigating the role of market vs. communal relationships <i>Anna Kuzminska, Agata Gasiorowska, Tomasz Zaleskiewicz</i>	Wei Shi
		Conceptualising techno-social entanglements of delivery practice: a micro-sociological account of platform work <i>Andreja Trdina, Jerneja Šavrič, Maja Turnšek</i>	Anna Kuzminska
		Sources of knowledge ambiguity in early-stage entrepreneurship in the sharing economy <i>Wei Shi</i>	Andreja Trdina
Monday, May 22nd, 2023, 15.30 – 17, SR 27, Chairperson Julie Wilison			
3b	Themed session: Unpacking the sharing economy in tourism	Social media transcripts of the precariat in the gig economy <i>Mine Karatas-Ozkan, Sibel Yamak, Vadim Grinevich, Franz Huber, Katharina Oberholzner, Linda Baines</i>	Michaël Distelmans
	Part 3	Institutional work in the home-sharing ecosystem: How Airbnb and hotels shape Brussels regulations <i>Michaël Distelmans, Ilse Scheerlinck</i>	Maartje Roelofsen

Sessions Day 1	Topic	Papers – Title / Authors	Discussants
		Feminist approaches to digitally mediated tourism and hospitality work <i>Maartje Roelofsen</i>	Franz Huber
Monday 22 <sup>nd</sup> May 2023, 15.30 – 17, SR 26, Chairperson Yuliya Voytenko Palgan			
3c	Discussing smart and circular futures of sharing economy	What’s next for the Sharing Economy? – Thoughts from an Information Systems Perspective <i>Florian Hawlitschek (virtual)</i>	David Wachsmuth
		Short-term to long-term then back again? A big-data analysis of short-term rentals returning to the housing market during the Covid-19 pandemic <i>David Wachsmuth (virtual)</i>	Raphaela Hellmayr
		Consumer acceptance of circular business models <i>Raphaela Hellmayr, Christof Falkenberg, Christian Garaus</i>	Florian Hawlitschek
Monday, May 22 <sup>nd</sup> , 2023, 17-18.15, SR 29, Impulse 2 Monday, May 22 <sup>nd</sup> , 2023, 18.30, Transfer in Front of the Building			

Sessions Day 2	Topic	Papers – Title / Authors	Discussants
Tuesday, May 23rd, 20239-9.15, SR 29, Opening 9.15-10.15, SR 29, Impulse 3 10.15-10.45, SR 29, Coffee break			
Tuesday, May 23rd, 2023, 10.45-12.15, SR 28, Chairperson Selin Öner			
4a	Investigating governance and reliance in the sharing economy  Part 1	Modeling the complexity of collaborative consumption on digital platforms: A systematic literature review and conceptual framework <i>Ruggero Colombari, Marta Mas-Machuca, Frederic Marimon</i>	Mark Gleim
		The measurement of engagement in food delivery app: Developing and validating the customer engagement between consumer and platform through a scale <i>Silvia Tiralongo, Frederic Marimon, Anna Usacheva, Maurizio Galetto</i>	Ruggero Colombari
		Peer-to-Peer Equity: An Examination of Gig Worker Earnings and Strategies to Ensure Fairness <i>Mark Gleim, Alexander Davidson</i>	Silvia Tiralongo
Tuesday, May 23rd, 2023, 10.45-12.15, SR 27, Chairperson Johanna Hofbauer			
4b	Reconsidering ownership in the sharing economy	Do Consumers Shift from Private to Shared Ownership? <i>Francesco Pasimeni, Tommaso Ciarli</i>	Monica Bernardi
		Evolving city, changing narratives in the smart city: from sharing to circular	Francesco Pasimeni

Sessions Day 2	Topic	Papers – Title / Authors	Discussants
		Monica Bernardi	
Tuesday, May 23rd, 2023, 10.45-12.15, SR 26, Chairperson Oksana Mont			
4c	Analyzing sharing business models and ecosystems  Part 1	Governing B2B Marketplaces in Nascent Industrial Markets <i>Christian Bruck, Alexander Engelmann, Georg Reischauer, Werner Hoffmann</i>	Kelvin Ivankovic
		Once Bitten, Twice Shy? Information Disclosure and Revenue Sharing on Sharing Economy Platforms <i>Ying Yin, Xishu Li, Rob Zuidwijk</i>	Christian Bruck
		The B2B sharing economy: Exploring the potential of B2B resource sharing for innovation, sustainability, and entrepreneurship <i>Kelvin Ivankovic</i>	Ying Yin
Tuesday, May 23rd, 2023, 12.15-13.15, SR 29, Lunch Break			
Tuesday, May 23rd, 2023, 13.15-14.45, SR 28, Chairperson Vadim Grinevich			
5a	Reconsidering sharing taking a critical perspective	The sharing economy and its dark sides - Social representations of the sharing economy <i>Barbara Hartl, Sarah Marth, Eva Hofmann, Elfriede Penz</i>	Mayya Shmidt
		Institutionalisation pathways of the sharing economy in 5 global cities <i>Oksana Mont, Yuliya Voytenko Palgan, Lea Fünfschilling</i>	Barbara Hartl
		Sharing economy in Sweden: an ethnographic study of the organizational landscape of non- commercial sharing services in four cities <i>Mayya Shmidt</i>	Oksana Mont
Tuesday, May 23rd, 2023, 13.15-14.45, SR 27, Chairperson Mirijam Mock			
5b	Analyzing sharing business models and ecosystems  Part 2	‘A Crisis of Trust?’: A Study of service provider’s and consumer’s trust in China’s Sharing Economy <i>Li Yan (virtual)</i>	Florian Hawlitcshek
		Value co-creation in sharing service ecosystems: the role of institutional arrangements and social norms <i>Sander Limonard, Nicole Stofberg, Francesca Ciulli, Flore Bridoux, Florian Hawlitcshek</i>	Stefan Kefer
		Psychological and behavioral factors impacting the adoption of carsharing in Vienna: A fuzzy- set qualitative comparative analysis <i>Stefan Kefer, Christian Garaus</i>	Li Yan
Tuesday, May 23rd, 2023, 14.45-15.15, SR 29, Coffee break 15.15-16, SR 29, Closing and Outlook			

Nicole Stofberg, Francesca Ciulli, Sander Limonard, Florian Hawlitschek

**Driving positive engagement in the sharing economy: the role of trust and governance mechanisms**

Securing sustained value creation for sharing economy platforms is critically dependent on continued participation of existing consumers and on them behaving in such a manner that it positively impacts the sharing experiences of other consumers. Trust is said to play a pivotal role as an antecedent of both of these types of engagement behaviour. In a sharing context, scholars have demonstrated that trust may take two forms: trust in the platform and trust in the network. However, empirical research on how these two types of trust play a role in generating positive engagement behavior is lacking. This study aims to fill this gap by examining the role of platform as well as network trust in generating 1) continued participation intent and 2) positive engagement behaviour.

Also, the way in which trust in the network as well as trust in the platform in the sharing economy is formed is sorely lacking. Existing studies that investigate antecedents of trust predominantly build on e-commerce theory. The problem in building on this body of literature for the sharing economy is that here, building and maintaining trust could be more complex. On a sharing platform, merely relying on reputation mechanisms and platform intermediation might not suffice as the transaction is only successfully finished when a user has properly returned the shared good to another, providing, user. Therefore, a second goal of this study is to explore the governance antecedents of platform and network trust in sharing contexts, thereby addressing the recent call for academic research to expand our current understanding of these.

A mixed-method survey amongst 2567 active car sharing participants (in P2P and B2C contexts) was deployed to quantitatively investigate the influence of platform and network trust on continued participation intentions and self-reported conscientious and altruistic behaviors. Secondly, this paper set out to qualitatively unpack the wide scale of governance mechanisms car sharing platforms implement to control and manage behaviors. Lastly, building on the qualitative and quantitative data, this study explored the relationship between perceived governance mechanisms and the two trust variables.

Confirming predictions, the results show trust in the platform to be a stronger driver of continued participation intentions than trust in the network of sharing participants. When it comes to mobilizing altruistic behaviors however, trust in the platform and trust in the network play an equally important role. The influence of these two forms of trust on conscientious behaviors in a B2C versus P2P car sharing context is more contested. Whilst both forms of trust are equally important in predicting conscientious behaviors in P2P car sharing contexts, platform trust alone explains these behaviors in a B2C context.

Secondly, the study uncovered eight governance mechanisms that car sharing participants flagged as important in shaping their sharing experiences. Five of these governance mechanisms were already identified by sharing scholars in the past, three are novel. Known governance mechanisms that participants flagged, include (1) assurances (i.e., customer support, third party verification, and insurances); (2) command and control regulation; (3) sociality (fostering offline and online interactions); (4) technology-based convenience (reliable, flexible and easy to use software); (5) dominant market player (the network size and general brand awareness of a car sharing platform). Novel governance mechanism include (1) streamlined coordination (which captures the streamlining sharing transactions as well as centrally handling user disputes); (2) a-sociality (governance practices that restrict user interactions and feedback); and (3) product availability (access to a sufficient number of shared cars in close proximity).

Lastly, this study provided some exploratory insights regarding the influence of the eight governance mechanisms on the trust typology. To start with, trust in the platform can be built by more than assurances and technology-based convenience as currently suggested by sharing scholars. Specifically, governance practices that strive to streamline coordination, implement assurances and target product availability are found to be more effective tools to create trust in the platform than governance mechanisms that try to optimize ease of use by deliberately minimizing social interactions, and that strive to convince sharing consumers of their transactional benefits by highlighting economies of scale. In contrast, significantly superior network trust building mechanisms are not only related to sociality, but also to assurances and a well-functioning website/app.

Our findings have important implications for managers. Generally speaking, managers should be aware of the fact that their consumers play an important role in the delivery of positive (or negative) sharing experiences. To ensure that consumers are not only motivated to continue participating, but want to do so in a manner that benefits other consumers, managers should prioritize both governance mechanisms that facilitate and build trust in the platform as well as trust in the network of consumers.

**Monika Szwarc**

### **Obligations of collaborative economy platforms under Digital Services Act – any added value to consumer protection?**

Topic When collaborative economy platforms entered the internal market of the EU, their innovative (disrupting) model of business clashed with the then existing laws of the EU and of its Member States. The innovation came from the fact, that exchange of services was facilitated by collaborative platforms that created an open marketplace for the temporary services provided by private individuals or business. In this business model three categories of actors are involved: service providers who share assets or skills (these can be service providers acting in their professional capacity or private individuals offering services on an occasional basis); service recipients; intermediaries that connect — via an online platform — providers with users and that facilitate transactions between them.

One of the most discussed topics in this context has been the protection of users of these platforms, in particular of consumers in relations with a platform (as a provider of the intermediary service) and with a trader (as a provider of the underlying/principal service). The analysis of the legal relations between these three groups of actors, namely a platform acting as an intermediary, a provider of the underlying service and a recipient of the underlying service (and of intermediary service) is a challenging task. The reason for this is that a business model based on an intermediary service provided by a collaborative platform does not fit anymore to the traditional distinction on which consumer law is grounded, thus between 'a trader' and 'a consumer'.

In addition, the Digital Services Act (Regulation 2022/2065 on a Single Market for Digital Services and amending Directive 2000/3/EC, published in October 2022) introduces important changes to the EU rules concerning providers of digital services (formerly information society services) in the internal market. The aim of DSA is „to contribute to the proper functioning of the internal market for intermediary services by setting out harmonised rules for safe, predictable and trusted online environment that facilitates innovation and in which (...) the principle of consumer protection, are effectively protected” (Art. 1). This Regulation applies to 'intermediary services offered to recipients of the service', including online platforms in general and 'online platform allowing consumers to conclude distance contracts with traders' in particular. Thus the analyses of the EU law in the context of collaborative platforms and consumer protection may not be limited to the 'classical' consumer protection law, but must also take into consideration DSA as an important piece of legislation aiming at reshaping the Digital Single Market.

#### **Research question**

Digital Services Act introduces many new obligations for providers of information society services, including online platforms in general and 'online platforms allowing consumers to conclude distance contracts with traders' in particular. These obligations include engagements before the EU institutions and Member States' authorities (such as establishing points of contact or legal representatives), as well as in relations with recipients of intermediary services (such as transparency reporting, tackling with illegal content, requirements concerning online interface design), including consumers (when concluding contracts with traders, such as obligation to ensure traceability of traders). Therefore the main research questions are: a) what exactly are the obligations of collaborative economy platforms (a pyramid model of requirements starting with these of general application and the specific ones on its top) and b) how these obligations contribute to consumer protection in the context of collaborative platforms activities.

#### **Methodology**

The research and following contribution is based on the analyses of policy documents of EU institutions (including the European Commission and the European Parliament), the applicable EU law provisions, namely Digital Services Act, as well as the existing EU law concerning consumer protection (and accompanying case law the Court of Justice of the European Union).

Jorge Jaime Rivera Garcia, Julie Wilson, Pau Obrador Pons

### **The Platformisation of the Tourism Encounter: Free Tours as New Digital Intermediaries of Place**

This paper focuses on the platformisation of the tourist encounter and how it is catalysed through platform-mediated free tours as new intermediaries for experiencing places. The platform economy is one of the technological innovations that has profoundly transformed most areas of tourism in recent years (Adeyinka-Ojo & Abdullah, 2019; Katsoni, 2019; Katsoni & Sheresheva, 2019; Kuhzady et al., 2020, 2021; Sainaghi et al., 2020; Sarlay & Neuhofer, 2020; Si et al., 2020; Yi et al., 2020). Most research on the platform economy has focused on accommodation and, more specifically, on Airbnb, though there are other areas that, although developing very prolifically, have not received much attention. 'Free guided walking tours' represents one such area, starting in 2003 in the city of Berlin (Duarte & Martínez, 2020; Leal Londoño & Medina, 2018) but that has since spread internationally (García & Ruiz, 2022; Widtfeldt Meged & Zillinger, 2018). It has become one of the most important activities in the segment of digital platforms today, especially in cities where tourism activity is considerable (García & Ruiz, 2022).

Free tours are considered similar to conventional fee-based tours (Koerts, 2017; Leal Londoño & Medina, 2018), except free tours are offered free of any official participant fees and participants pay a theoretically voluntary tip to the guide according to their levels of satisfaction (Widtfeldt Meged & Zillinger, 2018). Along with other business models of the platform economy in which there have been undesirable social, environmental and economic impacts (Buhalis et al., 2020), controversies and problems have also arisen in free tours due to their uncontrolled and rapid expansion. Serious doubts have been raised from a legal point of view (Duarte & Martínez, 2020), such as the possible intrusiveness and unfair competition derived from the activity of non-certified guides who often lead these tours, as well as the relative precariousness of guides as platform workers who base their income on tips, or indeed the socio-spatial impacts and negative externalities stemming from the agglomeration of tourists in city centres. This situation has led to strongly politicised governance response from public actors in some cities, where new municipal regulations have been established that limit free tour activity, provoking the indignation of free tour guides who consider that these limitations lead to worse working conditions and threaten a legal response (Cobo, 2022).

It is precisely in response to this growing interest that this study provides an analysis of state of the art research on platform-mediated free tours. A division of the main thematic categories addressed is established, while the themes of the articles were divided into four inter-linked categories: economic approaches, geographic-spatial dimensions, legal prospects and social perspectives. Findings are then discussed from a critical perspective as regards the opportunities for further research on this activity that remain as yet unaddressed. The systematic review of the multidisciplinary literature on free tours activity reveals the absence of a comprehensive theoretical framework for understanding its development and inherent complexities. This paper proposes a theoretical framework for free tours using the limited and fragmented multidisciplinary literature and the different bodies of knowledge focusing on the platform economy and the tourism encounter. The paper deconstructs different notions of free tours that together constitute the conceptual framework, while also discussing its applicability and salience.

To the authors' knowledge, this is the first paper that comprehensively reviews the existing literature specifically on free tours, providing a concise summary of knowledge that will help researchers to understand the major issues related to the recent and rapid emergence of platform-mediated free tours.

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**Xabier Renteria-Uriarte, Selin Öner Öner-Kula**

### **Fifty shades of Sharing, Commoning and Gifting: updating Sharing Economy's definition and taxonomy**

**Abstract:** The sharing economy has been on the rise, especially since the 2008 global financial crisis. An important part of the scholarly research has deviated from the traditional approaches, taking as sharing which is renting, focusing on digital attributes, ignoring sharing values, and finally leading to a bicephalic theory. This study aims to reach an intuitive and operative definition and taxonomy of sharing economy that gathers and articulates the two sides and their main contributions. Individuals and their values are embodied as demarcation criteria rather than, as often usual, platforms and their digital systems. The viewpoint of sharers or owners, not of recipients, is prioritized, posing another striking feature. The updated definition infers sharing in its different modern forms according to sharing values and systems, and puts them across a continuum of the values. Along this structure, other sharing features may be ordered, like changes in ownership. In sum, Sharing, Commoning and Gifting are described in a conceptual framework, through a spectrum of various types of sharing, with a wider definition to gather them all, while simultaneously keeping the nuances from traditional sharing. The definition and the resulting taxonomy end with the dichotomy in scholarly studies, perceiving traditional and modern forms of sharing economy in a holistic way.

### **Introduction**

The so-called Sharing Economy has been on the rise, especially since the 2008 crisis (Selloni, 2017), but an important part of the scholarly research on it has become detached from the assumptions of the traditional literature on sharing and commoning economies. However, according to the strict semantics of the terms used by the canonical literature, some nuances should be remarked even in this case. This proposal aims to juxtapose different forms of Sharing Economy, leading to a renewed definition of the concept. This section will provide a brief review of the major concepts connected to sharing economy and lay the ground for approaching the wide spectrum of diverse activities associated with sharing economy in a new light.

The studies on the rising phenomenon of the platform-based sharing economy have scholarly diverged from the traditional models of sharing analyzed by the canonical literature. The so-called 'sharing economy', in the modern literature, is formed by "online peer-to-peer marketplaces" where "owners rent or share something they are not using (e.g., a car, house) or provide a service themselves to a stranger" (Cullen & Farronato, 2014). This new sector, in other words, "facilitates the exchange of services and underutilized assets between buyers and semi-professional sellers" (Fradkin et al., 2015). Other terms are 'collaborative economy' or 'collaborative consumption' (Botsman&Rogers, 2010), 'access economy' or 'access-based consumption' (Bardhi and Eckhardt (2012), 'peer-to-peer economy,' 'platform economy,' 'gig economy'. The sector is increasingly dominated by big platforms like Airbnb, Uber, or TaskRabbit (Sundararajan, 2016) and, for some authors, a new era of capitalism may be coming (Montalban et al., 2019).

The modern literature on platform-based sharing economy emphasizes the side of tools. Sometimes, even the use of digital and online platforms is sought for considering a transaction as 'sharing economy'. The emphasis on tools and platforms can be such that even the broader concept of Sharing Society has been defined digitally as well as "an open economic and social system in which information technology is leveraged to empower [agents] with data that are shared, reused and transformed" (Jetzek et al., 2014). Similarly, Botsman & Rogers (Botsman & Rogers, 2011) define Collaborative Consumption – a frequently and sometimes even interchangeably- used concept associated with sharing economy coined by the scholars – as the "rapid explosion ... in ways and on a scale never possible before" of the activities of "swapping, sharing, bartering, trading and renting" that are "reinvented through the latest technologies and peer-to-peer marketplaces".

In that it puts "marketplace exchange and gift-giving" in the same basket as sharing, Belk (2014a, p.1597) finds this definition inaccurate and regards 'collaborative consumption' as a "middle ground between sharing and marketplace exchange, with elements of both", and defined the concept as "people coordinating the acquisition and distribution of a resource for a fee or other compensation." However, this notation also depicts an imprecise model as if peers come together to purchase a certain good, while most of the examples of sharing platforms serve like a two-sided marketplace, where the peer in demand can find a peer in supply, and this is enabled through a common denominator. The model with a coordinated acquisition and distribution of a resource could instead hint at sharing in the type of schemes with for instance neighbors pooling money together to acquire a good or service to be shared, say a washing machine or laundry service. This traditional form can be renewed through contemporary models of shared housing, collective living and co-habiting/co-working spaces which usually require an intermediary or host for representation and coordination. Furthermore, as opposed to Belk's view, this study argues that the current outlook of different sharing types may necessitate putting divergent forms into the same basket in fact.

Belk's (2014) definition also underlines the compensation aspect of the sharing act as providing room for non-monetary sharing practices. Nevertheless, an emphasis on "compensation" may not fully capture sharing acts taking place without any type of direct reward but, for instance, out of a spirit of community or solidarity. While many sharing platforms rely on transaction-based sharing on their site, for example, Wikipedia and Couchsurfing examples are showcases where no direct form of compensation or bartering is relevant except for the information/knowledge and cultural exchange, respectively and the gradual build-up of a user's credentials through contributions and interaction with peers. Hence, the 'compensation' per se can also rely solely on the presence of 'non-quantifiable' attributes such as becoming part of a community.

The definition of collaborative consumption - a significant part of the contemporary sharing acts – should cover both the necessity of a platform as a common ground -whether online or offline – to bring together collaborating peers and room for the non-monetary type of swap. This study positions collaborative consumptions as the act of supplying, sharing, and accessing the use of a good or service with other people with- or free of charge, mostly initiated through a platform or community.

"Connected consumption" is an alternative notation introduced by Schor and Fitzmaurice (2015, p. 6) to emphasize the "social and digital dimensions" of the sharing practice where people benefit from being linked to strangers who provide access to goods and services. This type of connection to peers necessitates an intermediated marketplace through a common platform. As Öner-Kula (2019) frames it, "sharing widely occurs nowadays between like-minded strangers who intersect on a willingness to trust strangers", and this trust is now mainly facilitated through an intermediary. This shared space is formed online, accommodating a platform for coordination and meeting .

Sharing economy and societies are not something new and merely digital; researchers have been studying them almost for a century. People have based production and exchanges on sharing practices since the beginning of primitive societies (Mauss, 1924) for various reasons. Traditional literature on sharing has different focuses than platforms. It understands sharing as an action of commoning, even as gifting, based on exchanging non-monetary values, such as reciprocity. Today “the Sharing Society revolves on the notion that access to a product is of greater value than the possession of the product [itself]”, since it is “about sharing products with each other wherein the acquisition of the product is avoided as much as possible” (van Asten, 2016). In this sense, “we can find identity and recognition in the process of sharing, and who we share with, rather than in what we consume” (Haas & Westlund, 2017).

The most renowned follower of this line of research is Elinor Ostrom (Ostrom, 1990; Ostrom & Walker, 2003; Poteete, Janssen, & Ostrom, 2010), the first woman to receive the Nobel Memorial Prize in economics, who highlights values such as reciprocity, trust and cooperation in the collective management of the Commons. Such values of collective management are independent of personal will. If one is part of that group, they are obeyed or respected, even if selfishness or the desire to be a ‘free rider’ without a ticket prevails. The big platforms have incorporated the traditional ‘collective mechanisms’ of sharing and commoning as digital scores of trust and reciprocity reached by users.

The other values supporting sharing fall within the scope of personal choice. They are such values associated with ‘the desire to change the world’ which is proper to a number of social movements, but more in the left-wing and the religious groups, since they are the more interested in superseding the profit-based capitalist exchange system. The traditional ‘personal values’ of sharing are present in the modern sharing economy in the motivations to participate in it; for example, “[it is] built around concern for people and the environment; and is driven by the values of liberty, democracy, social justice and environmental justice” (Martin, 2016, p. 154);, and the literature has highlighted mainly the ecological motivations (Martin, 2016; Šepel’ová et al., 2022). It is understood that equality, justice and freedom, along with sustainability and environmental actions, fairness or fair access, gender considerations are values to promote both in human relationships and with respect to nature and other living beings, and that the best way to achieve this is through sharing and collaborative economic mechanisms without selfishness or exploitation.

However, regardless the distinction between ‘collective’ mechanisms and ‘personal’ values and how they are present in the modern sharing economy, the semantic shift of the verb ‘sharing’ is striking, as highlighted by the critical aphorism that ‘sharing is not renting’. Traditional mechanisms and values refer to production and exchange without selfish profit and exploitation, while big platforms are predominantly capitalist macro-enterprises and their users often (and, in all likelihood, mainly) are offerors seeking profits.

The two viewpoints, the contemporary sharing economy literature versus the traditional ‘sharing’ literature, may be seen, in some way, as irreconcilable, creating a bicephalic divergence in research, due to solid empirical differences, whether technical or motivational, especially when the question on ‘how and why do we share?’ may be seen as a reflection of ‘how and why do we live’. As for Slee (2017), who regrets that “a bottom-up, personal, community-driven alternative to traditional corporations has fizzled” when “the ‘sharing’ in the Sharing Economy has been reduced to simple market exchange”, and its trajectory just “follows a well-worn path for the Internet-focused technology industry”. For this type of authors, the term ‘sharing economy’ is a misnomer and even an oxymoron (Eckhardt & Bardhi, 2015; Slee, 2017).

Yet, considering sharing more comprehensively than basically “sharing of material possessions” is also still possible, seeing sharing as a “generative act constituting social bonds, mutual obligations and collective identities rather than as legal regime of ownership, possession and usage over a given set of resources” - which makes room for the exchange of “knowledge, information, values, preferences, etc. – a meaning of sharing that we are familiar with when it comes to cultures and communities.” (Kornberger et al., 2018, p.9). This research asks whether these both viewpoints can be reconciled. Moreover, as Arnould & Rose (2016) consider, “[t]he recently introduced construct of [collaborative] consumer sharing ... reproduces an array of problematic modernist dichotomies ... that significantly constrain the analytical enterprise”, and it is appropriate to avoid more divisions in the study of the sharing economy. That is possible when the focus is on empirical features that show the apparent separation between practices as fuzzy and intermingled, not binary. In other words, the dichotomy becomes weakened when the wide casuistry of sharing activities is seen as a bind of different activities with complex components but carrying some common features and, therefore,

without a strict separation between them. Furthermore, what do novel type platform-based sharing economy and traditional sharing have in common? The sad answer is that perhaps it is not present in all cases. Nevertheless, after accepting this, a resilient reaction may occur when, , a flexible definition that gathers the diverse empiric cases with varying degrees of sharing may be reached.

The attention of modern literature is intensively focused on the products shared and the recipients of sharing, and not so much on the actual sharers -who are, in primary instance, the initiators and offerors of sharing, at least according to sharing values. Here the focus is on the values of sharing as the demarcation criterion, and attention shifts from a focus on recipients to providers or offerors. One primarily shares when offering something of his or her property to share, not necessarily when the receiver receives it. Instead, when one is the recipient, one accepts what the sharer offers. Accordingly, the main types of sharing economies are reviewed, according to the criteria effectively present in the term: the fact of 'sharing' and its motivations. The tools are seen as neither defining nor valid for a taxonomy since, among other things, they are today in all kinds of sharing. In this taxonomy, modern digital platform-based forms are considered, and the main grades of the different traditional sharing economies attested by sociologists and anthropologists as well, given socio-economic motivations. This allows defining the 'sharing economy' in a highly comprehensible meaning.

This perspective that differentiates the offerors of sharing from the recipients based on their motivations also puts this research into a novel standpoint that also allows to distinguish and classify types of sharing from the point of view of the initiators. In many instances, the recipients can have similar incentives for receiving a particular value from the sharing. However, this study takes the initiator's position as the original and key departure point for sharing to take place. In this sense, what is meant by 'values' is again not a clearly bounded set but rather emphasizes certain dominant attributes that appear largely in conventional approaches to sharing as well as in some Commons-type examples like Wikipedia. Here the theorization of the sharing economy is based on these essential values selected from this traditional line of research, where various degrees of social exchange and cooperation can come into play. The strongest pole would be when collective mechanisms and personal values of sharing collude (e. g. in an urban bibliothèque or a hippy commune), and the weakest when sharing is enhanced by peripheral values, like 'I share because I want to meet people' (see an anecdotal example with Uber below). Such considerations and grades would help a new taxonomy of sharing that gathers the 'traditional' line of research and the 'modern sharing economy' line.

Consequently, the sharing activities are gathered in five main types: Sharing for Money (Section 1), Sharing for Money & Values (Section 2), Sharing for Values (Section 3), Commoning (Section 4) and Gifting (Section 5). And accordingly, a definition of the Sharing Economy is reached (Section 6) and the differences with Non-Sharing forms of economy highlighted (Section 7). Conclusions include some remarks on the transformation of the term "sharing" in this context from something personal to a platform-intermediated form, where sharing does not actually solely occur in a peer-to-peer but rather in a peer-to-platform-peer format. Finally, Sharing Economy (SE) is seen as an umbrella term at best that covers a wide spectrum of possibilities involving sharing, some tangent and some more central to the traditional 'sharing' concept (Öner-Kula, 2019, p. 220).

**Andrius Plepys**

### **City contexts and the evolution of the sharing economy: experiences from mobile research labs**

The concept of the Sharing economy (SE) has offered us a new consumption paradigm. It enabled more diverse lifestyles oriented towards new access to products rather than ownership. Different solutions for shared mobility and accommodation sharing have become a norm in many countries proliferated also by large multinational commercial platforms. However, time shows that the adaptation and the impacts of different sharing models depend on national and local context.

In this study we present our experiences how city contexts shape the development of sharing solutions for mobility, space and household goods, how they evolved over time and how their evolution may have been influenced by local contexts. Our work is based on site visits and interviews with diverse stakeholders in five global cities. We also present our on-going work in structuring a wide range of identified contextual factors. In mobility and accommodation sharing we saw clear evidence of a strong role of local regulatory frameworks. On the one hand car- or property- sharing can offer multiple benefits for both the demand and the supply side. Cost-effective and convenient alternatives can co-exist with alongside traditional business and stimulate local economic growth. However, if under-regulated or left uncontrolled, sharing can often cause negative externalities, which may outweigh the benefits. The nature and the extent of these depend on multiple local contextual factors. Cities' regulatory contexts, power interplays of the local stakeholders and other structural and infrastructural factors have an important role determining the evolution of local shared accommodation and mobility solutions. For sharing of household items, such as tools or appliances, other factors have a more prominent role. It is more prevalent in cities with a strong environmental consciousness and high levels of community engagement to help the disadvantaged. Understanding these contextual factors is valuable for policymakers, entrepreneurs, and researchers in developing and promoting sustainable sharing economy models.

**Yuliya Voytenko Palgan, Oksana Mont**

### **Share and Repair in Cities: Developing Agenda for Research and Practice on Circular Urban Resilience**

BACKGROUND, PROBLEM DEFINITION AND AIM – We live in an era of sustainability challenges: economic, social, environmental, health and security (1). Cities are vulnerable to natural and human-made disasters due to high densities of population and activities (2). A need to transform cities into resilient, just, economically prosperous, and environmentally sustainable has never been timelier. Urban resilience is the ability of “cities...[to] withstand, adapt to or... respond to sources of stress” and continue operating (3). The recent shocks, the COVID-19 pandemic (4) and the war in Ukraine, have proven access to and distribution of resources to be critical. Yet it is challenging in the world where global supply chains destabilise or break down due to lockdowns, closed supply routes and economic recession. At the same time, cities accumulate large pools of locally available consumer goods that stay idle (5). In the UK and the US, 80% of privately owned items are used less than once a month (6). These goods can be activated and redistributed during and after crises when regular resource availability is constrained, strengthening urban resilience and reducing environmental impacts.

‘Share and repair organisations’ (SROs) slow down resource flows of goods (7) by extending the life of idling products through reuse, repair, sharing, renting and leasing (8). So far, SROs have attracted less attention in the circular economy literature that is mainly focused on closing resource loops by recycling materials (9–11) but are frequently discussed in the sharing economy literature (12–15) as a way of generating value through temporary access to idling or underutilised physical assets, often facilitated by digital technology (16). SROs vary in size, market orientation and organisational form (16,17). SROs include organisations that share cars, bikes and e-scooters, tool and toy libraries, repair cafes for furniture and electronics, makerspaces and repair workshops (16,18). Many SROs emerged from the 2008 financial crisis (12) and offered a springboard for socio-economic recovery by generating revenue (renting out a private car), saving money (borrowing camping gear) and providing meeting places that build communities (repair cafes) (19). While many SROs were hit by

the pandemic, some also supported resilience of cities (20). Commercial SROs such as car sharing companies provided alternatives to affected public services, e.g., free car sharing for frontline healthcare workers. Community SROs such as libraries of things and repair cafes supported alternative supply of goods, maintenance of existing goods, and strengthened social resilience through community building. SROs have also reacted swiftly to the humanitarian crisis caused by the war in Ukraine. They transport war refugees (21) and collect and redistribute necessities for them.

As such, SROs offer resources and services promptly employable in times of need. We have found that SROs not only offer support during crises but also contribute to long-term urban resilience and help cities to better prepare for future crises (22). SROs contribute to at least three urban resilience dimensions: diversity and redundancy of resources (23), self-reliance and self-sufficiency (24), and connectivity and participation (25). However, while SROs have the potential to support cities during and after socio-economic crises caused by sudden shocks (e.g., pandemics, natural disasters, military conflicts) and contribute to long-term urban resilience, this potential has not been conceptually interrogated or empirically examined. The recent crises bring societal urgency to this research and offer a timely opportunity to collect and analyse empirical data.

The aim of this paper is to develop a forward-looking agenda for interdisciplinary research and practice on the nature of SROs and their potential to contribute to urban resilience, or what we call “circular urban resilience”.

**DEVELOPING RESEARCH AGENDA ON CIRCULAR URBAN RESILIENCE** - To develop an interdisciplinary research agenda on circular urban resilience we draw on the state-of-the-art and concepts from organisational (sustainable business models, crisis management) and urban studies (urban resilience, urban governance). We integrate them by investigating the implications of the two recent shocks for the circular and sharing economy and urban resilience.

The circular and sharing economy in cities and their contribution to urban resilience

The circular economy promotes narrowing, slowing and closing resource loops, thereby reducing environmental impacts (26,27). Circular economy literature is criticised for focusing on material recycling (9–11), and for omitting social aspects (11,28) and consumption strategies (9). Still, studying consumption is key due to its pressure on ecosystems and the resource base (29). The sharing economy optimises the consumption phase (13) by reusing, repairing, sharing, renting and leasing strategies employed by SROs. The global sharing economy is projected to reach \$1.5 trillion by 2024 (30), and the personal goods repair market - \$177.5 billion by 2025. In the EU, consumers’ “right to repair” is implemented through state programmes (31).

Many local SROs not only positively contribute to urban sustainability (16,32–35) but also reinforce urban resilience (36). First, by activating and increasing the use intensity of idling resources, SROs contribute to diversity and redundancy of resource supply for city residents, which is important during crises (23). For example, car sharing offered an alternative to public transportation during the pandemic (4), and ride sharing helped diversify transport options for Ukrainian war refugees (37). Second, SROs contribute to self-reliance and self-sufficiency of cities by activating and redistributing locally available resources. Should a pandemic, a war, a storm or any sudden shock interrupt global resource supply chains, SROs offer local alternatives and strengthen urban resilience (23). For example, instead of buying a sleeping bag or a blanket online from abroad to keep warm during power blackouts, one can borrow them from a local library of things. Third, via digital and physical platforms SROs improve connectivity and participation of urban communities and reduce fragmentation across urban networks, which are key resilience principles (25,38). By using mobile phone apps, many SROs increase the connectivity and flexibility of their users (39). Bike kitchens and repair cafes offer spaces to meet and learn technical skills in an inclusive environment. They build social capital by activating communities, promoting justice and social integration (18,40). Communities with large social capital and physical resources mobilise quicker during crises and offer their members access to resources and emotional support, thereby improving individual and collective resilience (41). Indeed, decentralised decision-making, civil society and business participation (42) and inclusivity (3) are important urban resilience goals.

SROs have potential to help cities maintain their “beneficial equilibrium” (43) and make them less prone to crumble under the pressure of adversities. Still, not all circular economy trends have a positive impact on resilience, and instead may increase the vulnerability of cities and communities (41,44). For example, a focus

on resource efficiency may create fragile supply chains, as diversity and redundancy are reduced (41,44). The actual contribution of SROs to urban resilience is thus contested and requires systematic investigation.

GAP 1: The actual contribution of SROs to urban resilience is contested and remains underexamined.

Urban resilience and its engagement with circular and sharing economy

The concept of resilience has been increasingly discussed in urban studies (45). Useful conceptualisations for Share&Repair are the social-ecological resilience that learns from the past to build resilient systems (25,46) and evolutionary resilience that promotes “bouncing forward” (47), i.e. rebuilding better after a crisis (3). The latter was applied to rebuild Christchurch after the 2010-2011 earthquakes (3,48) using a community-driven recovery strategy and a multi-stakeholder approach (49), which offer lessons for SRO community mobilisation in a post-crisis recovery. Urban resilience literature connects resilience to sustainability (42,45,50) and climate research [48-51]. The circular economy has recently entered the urban resilience discourse through the ideas of urban regeneration of the built environment (54,55), green and blue infrastructure (42), and circular cities (9,56,57). Circular city actions include adaptation and renewal of urban infrastructure, sharing resources, the substitution of physical solutions for virtual ones, and localisation of resource flows in a city (9). However, the role of share and repair for urban resilience has not been systematically investigated, which means there are gaps in understanding how SROs can operate in cities to make them more resilient. Two studies explored accommodation sharing and urban destination resilience during the pandemic (58,59). Studies on urban commons, e.g., makerspaces, start discussing the link between urban commons and resilient urban futures (24). Still, this literature is nascent and “the exact channels through which the circular economy contributes to social-ecological system resilience” lack conceptualisation (44).

However, municipalities have already started operationalising resilience in urban policy (3,60). Glasgow, Milan and Quito connect resilience and circularity agendas (41,61,62) and close a “mismatch between urban resilience conceptualisation and operationalisation” (3). Implementation challenges for urban resilience are: conflicts between resilience and other urban policy goals; contradictions between levels of government (63); and lack of participatory urban governance (42). This calls for coordination between the actors (60). “Bouncing forward” may also be contested, if the actors affected by the crisis strive to return to the pre-crisis state (3).

GAP 2: While SROs demonstrate a potential to contribute to urban resilience, knowledge on operationalising and implementing urban resilience through circular and sharing economy is lacking.

The recent crises, circular and sharing economy, and urban resilience

Lately, the world was shaken by the COVID-19 pandemic and the war in Ukraine. These unprecedented and sudden shocks cascaded into multiple socio-economic crises affecting cities and communities worldwide: financial, security, environmental, energy and resource scarcity, humanitarian and psychosocial. These crises bring societal urgency and offer a timely opportunity to collect and analyse empirical data in Share&Repair. The COVID-19 pandemic affected nations, cities and SROs (64). Car sharing decreased by 75% while bike sharing increased worldwide (4). Makerspaces lost many members (65) as people engaged in do-it-yourself projects at home, acquiring skills online (66). Despite many negative impacts on SROs, commercial SROs provided alternatives to affected public services, e.g., free car sharing for frontline healthcare workers (20), while community SROs, e.g., libraries of things and repair cafes, secured alternative supply of goods and strengthened urban resilience through community building (65).

Academic work on SRO responses to the war in Ukraine is absent. Still, the critical role of SROs in initiating and providing humanitarian help to Ukrainians is visible. Ride-sharing company BlaBlaCar offers free transportation for Ukrainian refugees in Europe (21). SROs became local points for collecting, sorting and sharing necessities with Ukrainians in need and providing information in Ukrainian (67). Repair cafes offer repair of electronics and clothes for refugees. The war in Ukraine brought self-sufficiency and self-reliance to the fore (68). While SROs are not a silver bullet, they offer ways to boost urban resilience dimensions.

GAP 3: Research on SROs’ responses to crises is evolving. Advancing it will help define how SROs could be mobilised to reduce the impact of crises and contribute to long-term urban resilience.

AGENDA FOR RESEARCH AND PRACTICE ON CIRCULAR URBAN RESILIENCE– The recent shocks and resulting crises provide both societal urgency and a timely opportunity to build forward-looking agenda for

interdisciplinary research and practice on circular urban resilience. We highlight the importance of developing knowledge and theory on circular urban resilience. Such knowledge would not only advance the understanding and relationship of the circular and sharing economy with urban resilience but also help transform our cities towards resilience. Exploring the four interlinked avenues for research and practice can underpin this work.

First, our review of the literature on the implications of the recent high-impact low probability shocks for the circular and the sharing economy and urban resilience demonstrates that academic work on how SROs respond to crises is only evolving. It is, however, important to understand how SROs could be mobilised to reduce the impact of crises and contribute to long-term urban resilience. Therefore, the first research avenue that we propose (Avenue 1) is to investigate short-term responses of SROs to high-impact low probability crises by collecting and analysing empirical data from different cities worldwide. Establishing an international empirical account of SRO responses to the recent crises will advance understanding of their potential for long-term urban resilience, thereby also informing practice (Avenue 2).

Second, systematic knowledge of socio-economic and environmental impacts of sharing organisations is being developed, but the potential of SROs to aid urban resilience remains underexamined. While our review presents evidence that SROs may contribute to urban resilience, this has neither been conceptually interrogated nor empirically explored. Moreover, our review has shown that the actual contribution of SROs to urban resilience at different scales is contested and requires systematic investigation. Therefore, there is a need for novel conceptual and empirical foundation to understand the nature and potential of SROs to contribute to urban resilience by connecting circular and sharing economy studies with research on urban resilience. This could result in opening new research frontiers at the crossroad of these research streams. Such knowledge would also have practical implication as it would help unpack the potential of SROs to support long-term urban resilience (Avenue 2).

Third, the literature review also shows that there is still little understanding of how the benefits of share and repair could be mobilised by municipalities to support the post-crises recovery in cities. Thus, the next research avenue is to investigate municipal engagement with SROs when responding to high impact low probability crises across cities (Avenue 3). Ideally the case cities should offer rich SRO landscapes, active municipal engagement with circular and resilience agendas, a variety of municipal responses to the crises, and geopolitical contexts for the post-crisis recovery.

Fourth, while there are documented examples of SROs contributing to urban resilience (Mont et al., 2021), urban resilience literature has not been explicitly connected to the circular and sharing economy research. As a result, knowledge on creating urban resilience through a circular and sharing economy is lacking. More broadly, multiple challenges prevail when implementing urban resilience, while research has not addressed these issues of implementation. To advance resilient urban systems in practice, understanding how urban resilience is generated by municipalities and SROs needs to be improved and pathways for municipalities to unlock the potential of SROs for long-term urban resilience need to be identified (Avenue 4).

**CONCLUSION AND RECOMMENDATIONS** – Future research on circular urban resilience should not only trigger a fundamental shift in the conceptualisation of share and repair strategies in light of urban resilience, but also provide new ways for building resilient, just, and sustainable cities. Key messages to actors advancing sustainable cities and communities are to: 1) set urban resilience as a strategic goal; and 2) operationalise resilience and, when relevant, connect urban resilience and circular economy agendas.

REFERENCES (can be provided on request)



**Morshed Mannan**

**Towards Corporate Governance-by-Design: The Case of dOrg**

No abstract available.

**Shaked Spier**

**The Ethics and Politics of Platform Cooperatives**

Introduction

Notions of ethical technology design are gaining increasing attention from companies, legislators, researchers, and activists. A central challenge in tackling this issue lies in finding ways to uncover values that are embedded into a technology's design, showing where they are located, understanding their meanings and implications, and determining whether and how they relate to broader institutional and political aspects. This relates to a central issue regarding the platform and sharing economy: advocates emphasize its positive environmental, social, and economic potential, whereas critics point out mainstream platforms' controversial practices in terms of working conditions, impact on local communities, and their neoliberal ideology. Responding to this, platform companies often claim that they are merely intermediaries and therefore not responsible for the platforms' social and political consequences—a response that shows striking similarities to the neutrality thesis argument that “guns don't kill people, people kill people”. Ethical and political analysis is crucial to uncover the platforms' technology role in the developments, controversies, and struggles surrounding the platform and sharing economy.

The platform and sharing economy can be divided into roughly two platform models: mainstream (capitalist) platforms and alternative, cooperative ones. Platform co-ops are “businesses that use a website, mobile app, or protocol to sell goods or services. They rely on democratic decision-making and shared ownership of the platform by workers and users” (Platform Cooperativism Consortium, 2020). To name a few examples of such platforms: Fairbnb, Coopify, Fairmondo, Eva, and CoopCycle seek to offer similar services as their mainstream counterparts (respectively: Airbnb, TaskRabbit/Upwork, Amazon/Zalando, Uber/Lyft, and Deliveroo/Wolt/UberEats). While having the same or a similar application (e.g., food delivery or home-sharing), platform co-ops and their mainstream counterparts differ in various ways. The most notable differences are in their business models, ownership, and institutional structures. These fundamental differences, in turn, have a variety of implications for the platforms' technical design and the practices of involved stakeholders. Therefore, tracing the ethical and political differences between the platform models requires an investigation on a different level than their general application; that is, an investigation that goes beyond superficial level food delivery or home-sharing per se.

Theoretical Background & Methodology

The nature of the relationship between values and technologies is a central issue in the philosophy of technology. The positions on this issue vary from technology's complete neutrality on the one hand and technology being value-laden on the other hand. The neutrality thesis claims that technological artifacts have no inherent values, politics, or consequences—technology is neither inherently good nor inherently bad. It is rather the human agency of those using the technology, which is responsible for the outcomes and consequently, for the technology's social and political implications (Pitt, 2014). In contrast, the embedded values approach argues that technologies are value-laden in the sense that they have built-in tendencies to promote or demote certain values. These tendencies promote (or demote) certain ways to use the technology, certain consequences of the technology's use, or certain social arrangements around the use of the technology. This, however, does not imply a deterministic view of technology – technological artifacts do not possess absolute built-in consequences, individuals are not completely determined in their use of technological artifacts, and the uses of technologies may vary between contexts. Furthermore, looking at the morality of technology more broadly, decisions regarding technologies' design, their use, and the contexts in

which they are embedded can have not only moral but also political consequences (Akrich, 1992; Feenberg, 2002; Sclove, 1995; Winner, 1980).

The paper takes a disclosive computer ethics approach (DCE) to reconstruct the ethics and politics of platform cooperatives. DCE focuses on identifying and evaluating embedded values, moral and political issues, and normativity in information technologies, applications, and practices; especially when these are morally opaque (Brey, 2010). I deploy DCE to investigate the technical components and operations (as well as technically relevant institutional aspects) of two platform coops as case studies: the food delivery platform CoopCycle and the short-term rental/home-sharing platform Fairbnb. For each case study, I identify the moral and political values that are embedded in the platform's technical design. Subsequently, I analyze what constitutes the platforms' ethics and politics from a broader perspective and connect them to the identified values. My analysis also stresses the key differences between these platforms and their mainstream platform counterparts (Deliveroo, UberEats, Wolt, and Airbnb).

Please note that, in this context, the terms values and politics have different meanings than their common understanding in the platform/sharing economy discourse. When discussing values, I do not refer to the generation of monetary value, revenue, and income. Instead, I use a pre-theoretical approach to address moral and political values such as fairness, autonomy, freedom, democracy, etc. I address the values in their loose, common-sense understanding in the context of their usage. When discussing politics, I do not refer to the field of regulation, policy, and governance. Instead, I refer to the domain that addresses the (re-)distribution of power and (re-)production of social order. According to this understanding, I use the term politics to address two, somewhat contrasting mechanisms: politics refers either to the reinforcement and manifestation of existing power distribution in society and particular settings or to the introduction of change in power distribution (that is, redistribute, change, adjust, or correct power between stakeholders, social groups, etc.). Likewise, politics refers either to the reinforcement and manifestation of existing (reproduction) aspects of the social order and its hegemony or to the production and promotion of novel aspects (e.g., social structures, institutions, cultural norms, values) that deviate from the existing, hegemonic social order. Put differently, politics is by definition normative—it refers to mechanisms that affect existing norms or construct new norms and therefore, aim to impact what is ought to be (Perry, 1937).

## Findings

The findings can be roughly divided into two categories. The first category includes values that concern platform cooperatives as an institution and/or technology. The second category includes values that concern the platform's relation to individual members and users.

In CoopCycle, the identified institutional-regarding values included accountability, institutional autonomy (of the local coops and the CoopCycle federation), co-ownership (both of the coop institution and the platform's technology), democracy (co-determination and co-governance), economic sustainability, environmental sustainability, non-commodification, privacy, social well-being, and technical and institutional transparency. The identified individuals-regarding values included dignity, fairness, freedom, individual autonomy (of couriers and business partners), individual well-being, and solidarity. In general, the findings show a strong presence of values such as institutional and individual autonomy, individual well-being, dignity, and solidarity. In Fairbnb, the identified institutional-regarding values included accountability, institutional autonomy (local nodes), autonomy in terms of local sovereignty, democracy, economic sustainability, environmental sustainability, glocalization, non-commodification, social well-being, institutional transparency, and trust. The identified individuals-regarding values included individual autonomy (hosts), fairness, individual well-being, professionalism, and solidarity. Issues and values surrounding the communities, in which the platform operates play a central role in the findings. For example, Fairbnb's emphasis on local sovereignty, its approach toward economic and environmental sustainability, and its distinctive glocalized tendencies. Furthermore, the findings also uncovered a lack of technical transparency that stand in contrast to Fairbnb's institutional transparency (and to general findings from the literature review) as well as an ambivalent approach toward professionalism.

## Discussion

On the surface, CoopCycle and Fairbnb (and arguably, further platform cooperatives) share a similar application as their mainstream platform counterparts such as Deliveroo, UberEats, and Wolt (food delivery) or Airbnb (short-term rentals). However, the disclosive analysis revealed that they fundamentally differ in a variety of issues that extend beyond—or lie beneath—the mere functional level.

CoopCycle's ethics and politics become clear when the platform not only generates a particular moral impact, but offers moments of resistance to the platform and sharing economy's core logic, mechanisms of power, and social visions:

First, CoopCycle uses a set of technical and institutional mechanisms to redistribute power “downwards” – from the platform to local co-ops, local communities, and individuals (workers, users, hosts, and guests). Such a redistribution of power goes against the main logic of the platform and sharing economy (concentration of power through network and lock-in effects, data aggregation, etc.) (Dijck et al., 2018; Srnicek, 2016). Second, CoopCycle intentionally implemented a variety of “frictions” in the platform's technical design. These frictions go against mainstream platforms' frictionlessness rationale (Botsman & Rogers, 2011; Sundararajan, 2017; van Doorn, 2017). The notion of frictionlessness implies a quantitative, data-driven approach toward decision-making and actions; algorithms take over as many decisions as possible. By implication, actively implementing friction in the platform's operations indicates a different approach – the emphasis on qualitative and contextual knowledge and decision-making (Woodcock & Waters, 2017). Third, the platform is built in a way that reduces technical and organizational information asymmetries. Information asymmetries are one of the platform and sharing economy's key mechanisms of power (Dijck et al., 2018; Rosenblat & Stark, 2015; Srnicek, 2016; Sundararajan, 2017; van Doorn, 2017). Therefore, intentionally eliminating information asymmetries is in itself a political mechanism for redistributing power within the platform's ecosystem (platform institution, couriers, Customers/users, restaurants, technical partners, etc.). Fourth, datafication refers to platforms' ability to turn many aspects of the world and our lives into data. Datafication is crucial for the platform and sharing economy's social order and power mechanisms (Dijck et al., 2018; Srnicek, 2016; Zuboff, 2019). CoopCycle resists the platform and sharing economy's datafication tendency on several strategic sites, most notably: data ownership by local co-ops, no data profiling of couriers and customers, and no geo-tracking data aggregation and analysis. Lastly, in the last decades, much of the internet has developed towards closed, proprietary, and commercial spaces. Alongside aspects such as datafication, lock-in effect, etc., this development makes society's digital infrastructures increasingly less democratic since they are controlled by privately owned corporations. In contrast, CoopCycle contributes to the democratization of digital infrastructures through its cooperation with and contribution to digital infrastructures with shared values.

Similar to CoopCycle, Fairbnb's ethics and politics differ from mainstream platforms in various ways. While Fairbnb's institutional structures (e.g., the platform's economic model and co-determination of local communities) build the foundation for these differences, these structures are technically integrated on strategic sites in the platform, impeding the platform's usage by hosts, businesses, and communities without suitable institutional structures. In other words, the platform is designed to suppress uses that contradict Fairbnb's values:

First, with its emphasis on the local level, Fairbnb shows a subtle but clear communitarian tendency. In this manner, Fairbnb offers a glocal alternative to the globalized tendency of mainstream sharing platforms. By operating glocally, Fairbnb exposes, politicizes, and negotiates the interconnectedness of the global and the local instead of prioritizing one at the cost of the other. Additionally, a glocal approach puts significantly more power in the hands of the local level (in this case, local communities and municipalities) than a globalized one. Second, Fairbnb's business model abstains from mass tourism and the commodification of living space – Fairbnb refers to this model as “non-extractive” and explicitly juxtaposes it to mainstream platforms. This approach finds technical expressions in the platform's design. Commodification is one of the platform and sharing economy's central mechanisms (Dijck et al., 2018; Scholz, 2017). Ironically, by leaving commodification out of the equation, Fairbnb strives for a social order that resonates with the sharing economy's founding narrative of access to under-utilized resources and community building driven by resource sharing. Third, throughout the user journey, Fairbnb engages the user explicitly and extensively with the ethical implications of the platform use and travel and home-sharing's social, economic, and

environmental impact. This design choice prevents the platform's activity and its implications from receding into the background, which is uncommon in mainstream platforms and similar digital technologies (Introna, 2007; Light & McGrath, 2010). By making the platform's values and ethical operations explicit, Fairbnb re-politicizes travel and home-sharing as well as re-politicizes platform use itself. This is an emancipatory approach to the platforms' use and impact, which is radically different from habit-forming and gamified approaches that arguably have a de-politicizing effect. Lastly, there's a contradiction in Fairbnb's approach to transparency. On the one hand, the platform is transparent regarding its institutional structures and business model so that the users can understand its impact on various levels. On the other hand, this operational transparency stands in contrast to its opaqueness regarding the platform's technical design (lack of open-source code, software documentation, etc.). More technical transparency, like in the positive example of CoopCycle, would contribute to Fairbnb's position as an ethical and political alternative to Airbnb.

## Conclusion

This study makes three main contributions to current research: first, there is only limited (critical) academic literature on platform coops, especially in comparison with literature on mainstream platforms, and the existing literature is predominantly normative rather than empirical and descriptive. This study contributes to closing this gap by offering empirical and descriptive insights into the ethics and politics of the platform cooperatives and how they materialize in the platforms' technical design and the technology's intersection with its institutional structures. Second, by substantiating the claim that platforms are not value-neutral and that ethical and political values can be manifested in the technology's design. Lastly, by making a methodological contribution to the literature on the ethics and politics of technology. The paper shows the practical—rather than theoretical—potential of DCE and the normative potential of a descriptive disclosive ethics approach.

**Vera Vidal**

**[Fairness for whom? Platform cooperatives as gendered organizations](#)**

No abstract available.

Kristóf Gyódi, Joanna Mazur

### Barcelona as a case study for the effectiveness of short-term rental market regulations

#### Aim

While various aspects of short-term rental platforms have already been explored, there is still a research gap concerning the interplay between the regulatory efforts undertaken by cities and empirical analyses which show the results of these regulatory initiatives. Our paper aims to provide an input to this area by using Barcelona as a case study to show what kind of regulatory measures were adopted and what have been their impact on the short-term rental market.

The regulatory framework governing short-term rentals in Barcelona

The specific characteristic of short-term rental market regulation in Barcelona is its focus on limiting the number of short-term rentals in the central districts of the city. Already in 2005 limitations were in place concerning so called Habitatge d'ús turístic (HUT), which were further expanded in 2014 by the means of the suspension of the issuing of new licenses for HUT. In 2017 a complex Plan especial urbanístic de allotjaments turístics (PEUAT) was adopted (subsequently amended in 2022). The plan implemented the division of the city into four zones, which were subjected to varying rules regarding HUT. In Zone 1 no new HUT, even if the old ones cease their activities, were to be established. As a replacement for HUT closed in Zone 1, new establishments in Zone 3 could be opened. In Zone 2 new establishments (either in Zone 2 or in Zone 3) could replace the ones ceasing to exist. In Zone 3 a new establishment could be opened when one is closed in the other zones (up to a maximum of 370 establishments). Finally, in Zone 4 HUT were not allowed. These limitations and the suspension of the issuing of new licenses meant that in practice no new establishments could be opened.

However, all the conditions regarding HUT refer to the short-term rental of the entire apartments in which there are no permanent inhabitants. This should be interpreted as a prohibition of renting such rooms and apartments for the touristic purposes. It was not until 2020, when the possibility of renting such shared apartments or single rooms was implemented. The amendments, which entered into force in 2021, introduced the possibility to rent as a tourist accommodation that is the main home and effective residence of its owner, if the owner resides in the home for the duration of the stay.

While the City had regulations in place, it was not until 2014, when the first restrictions were implemented. In February 2017 the cooperation with Airbnb started, which – according to Airbnb – resulted in the removal of 'more than 1,000 bad actors from the platform'. In June 2018, Airbnb entered an agreement with Barcelona regarding sharing of data about the listings in order to facilitate the enforcement.

#### Data and methods

The main aim of the empirical study is to evaluate the impact of various regulations on the characteristics of Airbnb supply in Barcelona in the period 2015-2022. On the basis of the legal analysis, we have selected a list of major regulatory developments for further investigation. In the empirical study we focus on the main goal of the regulations introduced in Barcelona: decreasing the number of unlicensed Airbnb listings. As the rental of private and shared rooms have been de facto illegal, a key dimension of Airbnb supply is the number and share of the main types of listings.

Our empirical analysis is based on listing-level datasets from the platform Inside Airbnb. Besides analyzing the types of listings, we also approximate the share of legal listings. This is achieved by matching the license number of entire home Airbnb listings to the official registry of licenses.

In the second part of the analysis, we will examine the changes in selected variables in various time periods. The methodology is inspired by the paper of van Holm (2020), in which the author examined the effectiveness of Airbnb regulations in New Orleans. For each regulatory development and analyzed attribute, we run separate regressions to identify the changes following the implementation of the regulation. To capture the differences between zones, the regression analysis is conducted on panel data at the level of zones, and the model includes fixed-effects. In each model, we test three variables: the general trend of the observed

variable in the analyzed time period; the effect of discontinuity at the time of introduction of regulatory change; and the time trend following the introduction of the regulation. This specification enables us to identify whether the trend of the analyzed attribute changed at the time of regulatory development, and whether the change has been robust over time.

## Results

First, we examine the changes in the number of Airbnb listings over time. We will focus on active listings: these are Airbnb offers with at least one available night for rental at the time of scraping. Based on the results, we can differentiate between three stages of Airbnb. Between 2015 and 2017, the overall number of active listings has been quickly rising, from 11,000 to 16,000. The next phase, from the introduction of PEUAT until the pandemic, is characterized by slower growth, with significant seasonal changes. Finally, Airbnb supply dramatically contracted during the pandemic, reaching its lowest levels during the winter of 2022, going below the numbers from 2015. The results (available in the full paper) also show that the overall share of entire homes has been steadily declining from a 60% share to 45% until the data-sharing agreement. Following that regulatory change, the importance of entire homes has been on the uptake, reaching almost 70% by the end of the observed period.

In the case of single-listings, the results suggest an increasing level of professionalization and market concentration over time. Following the various regulatory changes, the vast majority of the market is now composed of professionals, who are providing services in accordance with the requirements of the city.

The results also show that the City's efforts to crowd out illegal listings have been successful: while initially less than 20% of listings complied with the regulations (obtain a license in case of rentals shorter than 31 days), by the end of 2022 almost 70% of listings were operating legally. The preliminary analysis suggests that particularly the data-sharing agreement had a strong impact.

The results of the regression analysis (available in the full paper) enable us to compare the time trends before and following the regulatory change. Three key metrics are analysed: the number of active listings; the share of entire homes and the share of legal listings. The results suggest that until 2018's data sharing agreement the regulatory interventions were not meeting their goals: the share of legal listings have been not significantly affected by the interventions.

The first significant change occurred at the time of the introduction of the PEUAT system that brought a decline of listing numbers and a temporary drop in the share of entire homes by 5 percentage points. Next, the data-sharing agreement had also a significant but temporary impact: the share of entire homes declined by 4 p.p., while the share of legal listings rose by 8 p.p. Finally, following the COVID pandemic, the regulation regarding private and shared rooms had a deep impact on the market. At the time of the intervention, the number of Airbnb listings declined by 950, pushing up the share of entire homes by 12 p.p. and the share of legal listings by 13 p.p. The shift in trend remained long-lasting until the end of the observed time period, with the share of legal listings rising in each month.

## Conclusions

The regression analysis presents a varying effectiveness of regulations. The initial regulatory interventions in 2016-2017 lead to minor changes in the structure of Airbnb. On the other hand, a deeper reform like the PEUAT initiated a more lasting change on Airbnb supply, with long-term increases in the share of listings with a license. However, in the short-run the city had to cope with unintended negative effects of the reform, with hosts using loopholes and adapting to the enforcement strategy of the city by transforming their entire home listings into private and shared room offers. The results also support that enforcement is what truly matters: the data-sharing agreement was among the most successful interventions. Similarly, while private/shared rooms were de facto illegal during the entire time period, their drastic fall was mainly facilitated by an increase in enforcement.

The results support that policy developments can influence the dynamics of platform-mediated services and can effectively mitigate the negative effects created by platforms. Moreover, the results highlight that the updates to regulations had a greater impact than already existing regulations that were not enforced. This could be interpreted as a typical behavior of a platform that is presenting itself as a completely new type of

actor which is not bound by the previously existing rules ('move fast and break things' strategy). On the other hand, explicit rules can be perceived as clearer and more understandable, which increases their effectiveness.

**Monica Bernardi, Giulia Mura**

### **Sharing economy and tourism, a generational perspective**

The Sharing Economy has emerged as a consumption model with tremendous development potential, even after the COVID-19 outbreak (Dabija et al, 2022). When it appeared in 2009, it was welcomed with particular enthusiasm and with the idea that it would "save the planet" (among others, Matofska, Sheinwald, 2019), strengthen communities (Böckera, Meelen, 2017; Hamari et al., 2015), favour the re-circulation of resources (Harmaala, 2015; Heinrichs, 2013), promote access over ownership (Martin, 2016; Light, 2015; Grassmuck, 2012), and thus reduce the general consumption (Ala-Mantila et al., 2016). Today we know that platforms truly able to mitigate consumption or build community ties are rare. Price and convenience remain the key elements of interest and community is often interpreted as a commodity (Codagnone et al. 2016). Several platforms are creating situations of discrimination, inequalities and labour exploitation, as is the case of ride-sharing or freelance work platforms; others are impacting the city structure and identity, as is the case of short-term rental platforms which exacerbate processes of gentrification, Disneyfication and hotelization (Lee 2016; Semi 2015), and their impact on traditional tourist agents is similarly complex (Bernardi, Mura 2021). It has been observed that a few, big platforms are basically dominating the sharing platform market, performing as an extension and acceleration of neoliberal economic practices (Gössling, Hall 2019). At the same time, other platforms are working in the opposite direction re-building and stabilizing communities (among others: Schor & Fitzmaurice, 2015).

What is clear is that this model has been largely incorporated into the travel sector which is witnessing its disruptive force (Tussyadiah, Sigala 2018). As a matter of fact, these platforms act as middlemen in several tourism areas: transportation, hospitality and usability (infrastructures, food, visits, excursions) increasing services and facilities (Guttentag 2015; Hamari et al. 2016; Sigala 2017). In particular, the literature refers that through platforms tourists can reduce costs, have meaningful social encounters with locals and have an authentic tourism experience (Forno and Garibaldi, 2015; Sigala, 2015); in addition, destinations can better respond to peak demand by offering alternative tourism services and lastly, the responsible use of resources can reduce goods production and waste, having an environmental positive impact also in the tourist sector (Perkumienė et al. 2021). Nevertheless, the same negative effects described for these platforms at the general level can also be observed in the field of tourism.

Starting from this framework the contribution investigates the connection between tourism activities and the usage of sharing economy platforms through a generational perspective. Indeed, generation is one of the main concepts through which analyse and interpret social change (Ariès, 1979), and according to authors such as Mannheim (1952), it is also one of the primary driving forces of progress. Generations represent the pace of change: history creates generations, and generations shape and change history (Ruspini et al., 2013). Growing up in the same historical moment means being exposed to the same socio-cultural climate and events, thus developing similar behaviours and feelings. Each generation has its own vision, needs, lifestyle, expectations, forms of sociality and tendencies of consumption and communication (Corbisiero et al., 2022). The dimension of consumption, including the one related to tourist practices, is clearly shaped by generational belonging. In general, it is not possible to fully understand new societal phenomena, such as the sharing economy, without adopting a generational perspective.

From this point of view, tourism and sharing economy are two practices that the younger cohort frequently engages with (Bernardi, Ruspini, 2018). Indeed, the interest to participate in the tourism-sharing economy is significant among young consumers. This is the case in Generation Z (also known as GenZ, Centennials, Digitarians, iGen, Plurals, Post-Millennials, Zoomers or Net Generation), which includes individuals born between 1995 and 2004 (Martínez-González et al., 2021). Grow up in a world where ICTs and digital platforms are ubiquitous, GenZ youth tend to be very comfortable with the use of technology in every life sphere, often becoming early adopters of new digital platforms and services and 'driving' the growth of this type of platforms. New technologies are a natural environment for them (Dolot, 2018), and their daily life is

completely saturated with the Internet, with an average of 10 hours per day online (Livingstone, 2018; Shatto, Erwin 2017). According to Corbisiero et al. (2022) they “tend to be tech-savvy, hyper-connected and internet addicts”. As stressed by Euromonitor (2018), this generation is gradually entering the market and developing its own consumption styles; in particular, it is set to become the youngest and largest consumer group, surpassing and accelerating trends started by Millennials (Knott 2019) such as social media engagements and the use of technology (Bhargava et al. 2020). Social media platforms like Instagram, Snapchat, and TikTok have become an integral part of many young people’s lives, allowing them to connect with friends and express themselves creatively. Streaming platforms like Netflix and YouTube have also become increasingly popular, providing a vast array of content that can be accessed on demand. Sharing and collaborative platforms have also widely attracted them since they offer convenient and affordable access to goods and services, while also promoting a more sustainable and community-oriented approach to consumption (at least “on paper”). Other features of this generation are: being communicative, collaborative, worried about social and environmental problems and having an identity based less on possessions and more on relationships (Martínez-González et al., 2021), thus embodying the Belk’s mantra (2014) “you are what you can access”. Indeed, they prefer to spend money on “here and now” experiences, such as travels, instead on possession (Garikapati et al., 2016). Finally, they are also portrayed as socially and environmentally conscious (Bec et al., 2019): since they are entering adulthood in an era of multiple crises, from economic to social to migration to environmental to health crises (Robinson, Schänzel, 2019), they seem to be deeply concerned about the future of our planet at 360 degrees (Corbisiero et al., 2022).

Academic research about sharing economy adoption in tourism activities with a generational perspective, in particular about GenZ, is still in its early stages with some recent interesting works (Corbisiero, Ruspini, 2018; Robinson, Schänzel, 2019; Martínez-González et al., 2021; Corbisiero et al. 2022). The present study attempts to contribute to the debate, examining the consumption patterns of this generation with specific attention on their use of sharing economy platforms when it comes to travel activities. In particular, the focus of the analysis has been on patterns of use and motivations, in order to understand on the one hand, the role played by the platforms in the travel experience of the respondents, and on the other the relevance that instances of sustainability and “sharing” have in the choices made by GenZ travellers. The decision to consider the sustainability dimension in the analysis stems from the literature description of the GenZ members as particularly sensitive to climate change issues and open to sustainable and pro-environment behaviours.

To collect data, an ad hoc questionnaire was created and submitted online to a sample of university students via Google Moduli between March and May 2023 and a total of 263 answers were collected. Participation was voluntary and anonymous.

The analysis allows us to develop a few reflections.

1. While the use of sharing platforms is undoubtedly widespread, it is not yet totally pervasive (64% used them in their travels last year), and for many respondents it is limited to just the most famous (and, usually, less sustainable) platforms. Platforms with questionable social and environmental dimensions have become more widespread among the young, and this is cause for concern and opens some questions.
2. In the organization of a travel, Booking.com is the most used online service, and during the travel experiences, Glovo and Deliveroo result to be the most frequently used. Also in this case, some platforms, the “netarchichal and extractive” ones to quote Bauwens and Kostakis (2017) are dominating among GenZ. In addition, there seems to remain some confusion in the representation of the respondents, between sharing platforms and other kinds of online platforms, such as social networks or online travel agencies, and for example, Airbnb, Amazon and Instagram are all mentioned as examples of sharing platforms.
3. When moving around in a tourist location, respondents mostly use local public transport or, as second-best choice, their private car, or taxi. There is, however, a cluster of about 10-20% of travellers that use sharing services (such as car/bike sharing and so on) confirming in this case the inclination of this generation to opt for sustainable forms of mobility, even if decades of the automobile industry still weigh heavily on individual mobility choices.
4. When it comes to motivations behind the choice of sharing platforms, lower prices and accessibility are the top choices (about 54% each), while about 36% appreciate the ease of consumption and possibility to pay online. Only 27% of respondents are motivated by their ability to reduce environmental impact and even less (about 8%) by their aspects of community building. These two last aspects are not in line with what would



have been expected from the existing literature on this generation, but perfectly match with what is observed in general about the use of sharing platforms where convenience, price and easy use drive the motivations.

5. The great majority (80%) declare that would consider spending between 10% and 30% more for an accommodation that guarantees more sustainable management, compared to the cheapest one; in this case, the environmental sensitivity described by the literature on this generation is more evident. There is general agreement on the fact that Airbnb has contributed to the rent prices growth in touristic location, and that some sections of the sharing economy, such as delivery, has currently an open problem when it comes to workers' rights. This shows that there is some awareness of the perverse effects these platforms have on society.

6. If everybody still does waste sorting while travelling, many bring a canteen to avoid buying plastic bottles of water, a few try to eat local and almost none pay the extra cost to compensate for CO<sub>2</sub>, that some platforms offer. It would be interesting to further analyse the variables underlying the differences between behaviours and to understand what is the role played for example by trust.

These data suggest that when it comes to platforms, GenZ members do not make too much distinction between sharing platforms, social media platforms, entertainment platforms, etc. Thus, there is no clear awareness of what sharing platforms are, they are all simply digital platforms. The use of sharing platforms in the sample is quite spread and very much oriented to the major and commercial platforms, the ones that, as we have seen, are not always in line with the values and ethical principles that the concept of sharing itself inherently would presuppose. The motivations for use detect a strong sense of practicality that pushes people to use them more to reduce costs and time than for anything else. In particular that preoccupation for the environment and for the promotion of sustainability and local encounters, although frequent among GenZ, is not yet pervasive, and while a smaller cluster of respondents is more committed to the sustainable aspects characterising the sharing economy, a large part of them is still embracing its most commercial aspects. However, there is an awareness that these platforms have dark sides that in some cases tend to change the identities of cities by triggering distorting processes such as gentrification or exploiting labour making the labour market more precarious.

The study contributes to a better understanding of this generation when it comes to sharing economy platforms and tourism; it can inform policymakers and businesses to better design policies and services that address this generation as well as the negative effects of the sharing economy while leveraging its potential to provide meaningful social encounters with locals, reduce costs, and have an authentic tourism experience. To widen the analysis, future research can enlarge the sample, consider if within the same cohort slight shifts in age may generate differences in use and motivation, and consider if the nationality of the sample or its level of education and occupational status can have any effects on the results.

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**Frederic Marimon, Natalia Amat-Lefort, Marta Mas-Machuca**

### **How to win the users' loyalty in digital home-sharing platforms: The key role of fulfilment of expectations**

The sharing economy has revolutionized the business world, providing consumers with the opportunity to share resources and services. Technology is at the core of the sharing economy business model, making it necessary for the provider and consumer to interact with digital platforms. This paper focuses on home-sharing platforms like Airbnb, which offer short-term accommodation rental by connecting hosts with potential guests. In this study, we aim to identify the antecedents of fulfilment of expectations (from the perspective of peer-to-peer accommodation consumers). Furthermore, we analyze the role of fulfilment of expectations as a mediator between perceived quality, satisfaction, and loyalty.

Based on a survey of 408 consumers, we develop a research model that draws on existing research about service quality, expectations, and technology adoption. Using Structural Equation Modeling, we find that fulfilment of expectations plays a critical mediating role between satisfaction and loyalty in home-sharing platforms.

In this model, the most important antecedent of fulfilment of expectations is Platform quality, which is composed of Trust, Platform responsiveness and Site organization. The fact that the perceived Platform quality is among the most relevant constructs in the model (in terms of its impact on loyalty), confirms that the Technology Acceptance Model theory (Davis, 1989) is applicable to peer-to-peer accommodation services. The Platform quality construct is grounded on this theory, since it is composed of items that assess its user-friendliness and how easy it is to navigate it, among other aspects. Given that sharing economy services are closely tied to digital platforms, we hypothesized that the consumer's perceptions regarding the platform's ease of use and usefulness would be important to determine their degree of acceptance of this technology. Based on the results obtained, we confirm that it is very important to fulfil the consumers' expectations regarding the platform's ease of use and usefulness (among other aspects) in order to achieve consumer satisfaction and loyalty.

We also find that two types of satisfaction - one related to the platform and one related to the apartment owner - are important for achieving loyalty in shared accommodations. Each type of satisfaction is managed in a different way, due to their distinct nature. While Satisfaction with the platform depends on an online and impersonal interaction, Satisfaction with the host depends on in-person interactions and human relationships. The first is more stable and its variability is low. In contrast, the second depends on a different person each time and, consequently, the variability of its quality is greater.

Interestingly, excessive social interaction with the host can have a negative impact on fulfilment of expectations. A minimum of interaction is required, but an excess of it can be considered as a breach of trust, or intimidation. It is important to find a balance and avoid over-interacting in order to prevent any nuisance or inconvenience.

Our study is unique in that it analyzes both linear and non-linear effects among perceived quality, fulfilment of expectations, and loyalty. Additionally, we contribute to the literature by demonstrating the potential effect of fulfilment of expectations in the context of shared accommodation services, which has not been analyzed in previous studies. Overall, our findings suggest that home-sharing platforms need to prioritize platform quality, and hosts need to find a balance when it comes to in-person interactions, to ultimately achieve customer satisfaction and loyalty.

**Mirijam Mock**

### **Making and breaking links: the transformative potential of shared mobility from a practice theories perspective**

This paper is a theory-driven analysis of transformative potential of the Sharing Economy in the field of mobility. It aims to analyse the prospects for the proliferation of shared mobility practices—and what might hinder this proliferation. Shared mobility is an umbrella term for services that provide short-term access to de-centrally allocated vehicles. These services comprise a variety of organisational models (station-based, free-floating, hybrid), are run by different actors (private companies, public entities, civil society organisations, hybrid constellations) and exist for various vehicles (cars, bikes, cargo bikes, e-scooters, mopeds). Shared mobility has the potential to contribute to the transition to a more sustainable mobility system. It can work as a supplement in a multi-modal mobility system rooted

in sustainable modes of transportation, like public transport or cycling. It has been suggested that the number of cars tolerable in such a multi-modal system must decrease from 485 cars per 1000 inhabitants to 150 cars per 1000 inhabitants (Umweltbundesamt 2017). Against this backdrop, shared mobility seems a promising option for the transformation of individual mobility (Witzke 2016), and studies could affirm environmental benefits like reduced car ownership for carsharing (see for an overview (Kent 2014). Critics claim, however, that shared mobility options, particularly carsharing, might have negative environmental effects that outweigh the positive ones—for example, if carsharing were to replace public transport (Schwedes 2021). There is also concern that carsharing might strengthen the car-driving habit and prop up the automobile industry by extending its market power (Giesel und Nobis 2016).

To estimate the transformative potential of shared mobility, it is important to differentiate among options. For this endeavour, this article studies three very different forms of shared mobility: free-floating carsharing, peer-to-peer carsharing and cargo bike-sharing. These were chosen to ensure inclusion of both more widespread and less popular mobility options as well as options with a range of environmental potential. Problematically, in terms of environmental potential, the most widespread practice—free-floating carsharing—shows the least environmental potential. The other shared mobility practices studied in this paper – peer-to-peer carsharing and cargo bike-sharing – are more promising from an environmental perspective, but they are rather niche phenomena. Thus, the question arises as to why some shared mobility practices proliferate more readily than others and I address it with a practice theoretical perspective.

Over the past two decades, a surge of practice-oriented social theories has emerged in an effort to overcome the limitations of methodological individualism. These theories have been used extensively in the fields of sustainable consumption (see for an overview Corsini et al. 2019; Leger 2023; Warde 2005) and transportation studies (see for an overview Kent 2022). According to these theories, there is no such thing as a responsible, rational consumer. Instead, routinized social practices grounded in infrastructures, materials, rules, standards, cultural understandings and diverse forms of knowledge constitute much of daily life. Linkages of these elements form the ‘normal’ way to do something – that is, social practices. Practice theories set these practices as the primary units of analysis, shifting the focus away from individuals and structural entities (like ‘the market’ or ‘the state’). Shove, Pantzar and Watson (2012) defined ‘practices’ as specific connections between materials, like things, technologies and infrastructures; competences, like knowledge, skills and understanding; and meanings, like worldviews, aspirations and connotations. Social practices take the form of ‘practice-as-entities’ (abstract and idealised forms of the practice) and ‘practice-as-performances’ (the enactment of the practice, the doing) (Schatzki 2002). To give an example, we can understand the practice of private car travel as being composed of materials like the road system, the car, the petrol distribution system and parking sites; skills like how to drive a car, knowledge of traffic rules, car maintenance and insurance; and meanings like freedom, flexibility, independence, convenience and masculinity.

For mobility practices, the links between single practices are especially important as they are by definition ‘connecting practices’: they bring people from the place of enactment of one activity to the place of enactment of another activity. Links can inter alia take the form of temporal or material-spatial connections. For temporal connections, the sequence of practices is a key concept. For material-spatial connections, the idea of materials ‘threading through’ Hui, Schatzki, and Shove (2017) different practices (materials that move

through and link the nexus of practices) is important. Applying these concepts to the practice of private car travel reveals why this practice is so stable and hard to change: In material-spatial terms, the road system and parking sites are the primary infrastructures ‘threading through’ all sorts of practices. It is only the provision of parking sites in front of grocery stores, offices, sport centres etc. makes private car travel connect so well with shopping, working or sports practices. The connectivity of car travel is high regarding temporal links, as well. Car travel connects with all sorts of activities and fits into many kinds of sequences; some of these fit especially well together, and some even seem designed specifically to make use of a private car. For example, many sports activities require private equipment that needs to be carried by car, and many forms of holiday travel depend on the possibility of bringing many belongings (Manderscheid 2019). When using a private car, the sequence usually involves just a few elements and a short duration: the decision to go somewhere can be followed immediately by starting the trip, especially if the car is parked only a few steps away, because car-centred infrastructure threads through many practices. How do the concept of material-spatial and temporal links help to understand why some shared mobility practices spread more easily than others?

Depending on the specific practice, the number of elements involved in the sequence varies considerably. For free-floating schemes, the duration of the sequence is rather short, because free-floating schemes utilize on-demand booking, and insurance and payment do not need confirmation for every use. Peer-to-peer carsharing, by contrast, requires more planning. The vehicle may need to be booked days in advance, the time and place for the handover of the key must be arranged, and usually the booking request must be validated by the owner of the car, which adds one more step to the sequence of the practice. In many cases, the insurance must be verified for each trip, and often the car or bike is parked a considerable distance away. The beginning of the sequence (the booking request) might be far removed in time from the mobility practice itself due to the arrangements that need to be made. Additionally, the sequences must be planned through to the end, in the sense that the return time must be indicated in advance. With cargo bike-sharing, the sequence involves the same elements as peer-to-peer carsharing but can run even longer if new users need instructions on how to use the bikes. While all forms of shared mobility require checking the availability of the means of transportation, booking, and payment, the duration of each differs considerably. Only free-floating carsharing involves sequences that are comparably as short as private car travel.

Viewing shared mobility practices through the lens of material-spatial links offers important insights. At first glance, the infrastructure needed for carsharing—like roads, petrol stations and parking sites—is the same as for private car use (Kent and Dowling 2013). But the importance of this car-centred infrastructure varies considerably among the different shared mobility schemes: while peer-to-peer carsharing users demonstrate a multi-modal split, relying heavily on public transport and cycling infrastructure as well, free-floating carsharing users are less multimodal; they often combine carsharing with private car use (Ruhrt 2019). This means that free-floating carsharing can integrate well in the currently dominant car-centred infrastructure and depends less on other infrastructures. Peer-to-peer carsharing, instead, indirectly depends more on public transport and cycling infrastructure. In the case of cargo bike-sharing, the necessary infrastructure, like wide bike lanes and appropriate bike parking in dense urban areas, is often poor. Thus, the infrastructural requirements are high for cargo bike-sharing because not only is an adapted bike infrastructure necessary, but also a good public transport infrastructure. If these infrastructures are not provided where connected practices occur, like working places, shopping areas, educational institutions, sport venues, friends’ houses, etc., then it will be hard for the practice of using a cargo bike to connect with those other practices. Regarding shared mobility, secondary to the importance of material infrastructure is materials in the sense of devices that provide points of intersection with other practices. For some materials, we can observe how they and their related competences thread through different practices. Users book mobility services ever more frequently on their smartphones. For some mobility services, the smartphone is the only way to access them (e.g. for most e-scooter sharing and free-floating carsharing schemes). They are needed to locate the vehicles via GPS and to use the keyless opening feature. Inherently linked to those apps are the competences to use them. Those competences migrate between practices; the apps of the most widespread free-floating carsharing schemes integrate elements that practitioners likely know from other websites or apps. An example is the payment method; a common way to pay for shared vehicles is to use a PayPal account or credit card that is already connected to the user’s smartphone for online shopping. Peer-to-peer carsharing and

cargo bike-sharing, instead, usually require in-person key delivery involving the owner and the borrower. This not only adds an element, and thus time, to the sequence of these practices, but it also does not link or build bridges to other practices. The key to the peer-to-peer shared car or bike is not 'already there' like the smartphone; it is a distinct material element of the practices, unrelated to other practices, that needs to be integrated. It seems—as was found by Kent and Dowling on carsharing (2013)—that the fewer additional materials, devices and related skills to be integrated in the web of everyday life, the easier it is for new practices to stabilise. Materials that require the physical meeting of people seem emphatically to block the proliferation of shared mobility practices; the often-cited motto 'sharing is caring', the idea that the sharing economy creates social bonds, is questionable. Based on user statistics and the lengths sharing schemes go to eliminate the need for in-person meetings, it seems that the fewer social interactions are involved, the easier it is to integrate and grow the practice. Indeed, sharing practices based on social interactions seem to inhibit mainstream uptake of the practice. A study on social innovations for sustainable consumption confirms this finding; it concluded that alternative consumption practices, like carsharing, diffuse more widely if they are less innovative, less community-oriented and rooted in personal relationships, less dependent on self-organisation and more formalised (Jaeger-Erben, Rückert-John, and Schäfer 2017).

Given these observations, there result some possibilities to support sustainable shared mobility practices like peer-to-peer carsharing or cargo bike-sharing. A first set of possibilities aims at helping them making links with other practices, while a second set aims at breaking links involved in unsustainable mobility practices.

To make more links with other practices, it seems important to reduce the temporal duration, the need for planning and the length of the sequences of shared mobility practices (thus aligning them with more proliferated shared mobility practices). This could be accomplished, for example, by supporting carsharing within residential buildings or by supporting keyless opening systems in peer-to-peer carsharing. This innovation would require financial support for the respective appliances or 'smartcar-software' that is introduced to the market, works across car brands and replaces car computers. Also, including them in 'Mobility-as-a-service' systems (systems that bundle information about different mobility options, like public transport, shared mobility and taxi services, in one web application, including—ideally—reservation and payment modalities) helps to increase their connectivity.

However, I argue that the more powerful way to support sustainable shared mobility practices is to break links of unsustainable mobility practices. In many cases, the space for integration of environmentally more promising shared mobility practices and innovations is limited because private car use and ownership connects with so many other tightly interconnected practice complexes. Breaking links in the form of radically deprivileging private car travel changes the starting conditions and checks the advantages of unsustainable mobility practices. For instance, extending the duration associated with the practice of private car use, for example, by reducing parking spaces or creating car-free zones, could decrease the advantages of private over shared car travel. Interfering in car-friendly law (e.g. subsidies for car commuters, spatial planning that fosters urban sprawl) is another way to break links. Without breaking links, there is little chance that alternative mobility practices can compete with the systematically privileged practice of using a private car.

While the making of links—supporting shared mobility practices in integrating in everyday life—is a common strategy in research and in politics, the breaking of links is often neglected; there is literature on diffusing, spreading, upscaling and mainstreaming sustainable mobility practices and innovations, but little on how this is related to the ex-novation of the currently dominant system of automobility. Clearly, the making of links is politically more comfortable and aligns with neoliberal positions—but the focus on that strategy hinders a more effective transformation of the mobility system. At least in the field of mobility, ex-novation might be the central ingredient for successful innovations and pull-measures must be flanked by push-measures.

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**Kaja Zimmermann, Yuliya Voytenko Palgan**

### **Upscaling cargo bike sharing organisations: A case study of "Grätzlrad" in Vienna and "LastenVelo e.V." in Freiburg**

**BACKGROUND AND PROBLEM DEFINITION** - The current mobility system impacts urban living quality and human health negatively through congestion, accidents, noise, and air pollution, while also consuming large amounts of urban space. Moreover, the emissions-intensive regime of individual car ownership contributes significantly to climate change. A transition to sustainable urban mobility and a shift of transport modes are urgently needed. Cargo bikes (CBs) are one such alternative mobility solution, which has the potential to replace heavier motorized vehicles, especially for the last-mile deliveries and private logistics. It has been found that CBs can replace up to 51% of intra-urban motorized transport trips and 77% of private shopping, leisure, and commuting trips, where goods need to be transported (Wrighton & Reiter, 2016).

In the last years, CBs gained importance in national and urban cycling planning and as a lifestyle product. However, individual ownership of a CB is often impractical or expensive. Sharing CBs addresses these issues and thereby increases the accessibility of CBs. It also contributes to the increased use of CBs and follows the growing trend of the growing sharing economy. There are different ways to organize CB sharing ranging from host-based CB sharing to station-based systems. Until now, CB sharing was mainly organized through citizen-driven cargo bike sharing organizations (CBSOs) in host-based systems. In the last ten years 168 non-profit citizen driven CBSOs were founded mainly in Germany, but also in Austria, Sweden and the UK. Next to these mission driven free CBSOs, there are some municipal and commercial actors that include CB in their regular bike sharing schemes and a few companies that specialize in CB sharing.



Yet, CB sharing remains a niche in the urban mobility regime and is still used only by the early adopters. While almost one third of the German population can imagine using CB sharing, only 2% use CBs (Sinus-Institut, 2021). The group of early adopters consists of people who use bicycles as their main mode of mobility and have high environmental awareness (Becker & Rudolf, 2018a). Moreover, the early adopters of CB sharing tend to be male and have higher average education (Becker & Rudolf, 2018; Dorner et al., 2020; Hess & Schubert, 2019). Thus, CBSOs do not reach all population groups and remain below their potential for urban sustainable mobility. Upscaling CBSOs from their current niche would make CBs available for the general population while contributing to urban sustainability and living quality goals.

**AIM AND RESEARCH QUESTIONS** – Departing from the problem of urban unsustainable mobility and the unfulfilled potential of CBSOs, the aim of this study is to analyze upscaling pathways for CB sharing. This explorative research aims to describe how CBSOs can reach more people and become an integrated part of the urban mobility regime, so that CB sharing can fulfil its potential. To fulfill the research aim, the following three research questions are posed:

RQ1: How are the cargo bike sharing organizations (CBSOs) LastenVelo e.V. and Grätzlrad organized and what are their business models?

RQ2: How are CBSOs embedded in urban mobility systems and how do they interact with different stakeholders?

RQ3: What are the pathways for upscaling of cargo bike sharing?

While RQ1 is answered by analyzing the business models of the two case study CBSOs, i.e. LastenVelo e.V. in Freiburg, Germany, and Grätzlrad in Vienna, Austria, the insights for RQ2 and RQ3 are drawn from a broader set of empirical data on CB sharing in both countries.

**ANALYTICAL FRAMEWORK AND METHODOLOGY** - Since CBSOs are conceptualized as a socio-technical niche innovation it is relevant to draw on the Multi-level Perspective (MLP) and Strategic Niche Management (SNM) in constructing the analytical framework for the study. The MLP describes three levels of socio-technical systems: the landscape, which is the external context for interaction, the regime, which constitutes the rules for activities, and niches, which are protective spaces for innovation (Geels, 2002). SNM theory highlights the importance of niches as “seeds for systematic change” (Geels, 2012, p. 472) and studies how they can be developed. First, niches are shielded from the outside pressures (shielding), then nurtured through learning, expectation management and network building (nurturing), before being empowered to become competitive outside of the protective space (empowering) (Smith & Raven, 2012). This study analyses how CBSOs have been nurtured and what is required for empowering them. To structure the upscaling pathways of CBSOs, the patterns growing, replication, accumulation and transformation are used in the analytical framework (Naber et al., 2017).

Figure I - Analytical framework for niche upscaling (to be forwarded to the interested parties, if needed)

The study employs a qualitative approach, as there are no established ways for upscaling CBSOs yet. The comparative case study on LastenVelo e.V. and Grätzlrad resulted in an in-depth understanding of these two CBSOs. The cases were chosen to be similar enough but sufficiently different for comparison and analysis. They are both in German-speaking and bicycle-supportive cities, but while LastenVelo e.V. is organized by volunteers and it is station-based, Grätzlrad is organized by the municipality and it is host-based.

To answer RQ1, the business model tool developed by Curtis (2021) was applied. Data was collected from the CBSO websites and from interviews with the practitioners. Interviews with other CB sharing stakeholders served to gain a more general perspective on the CB sharing landscape to answer RQ2 and RQ3. Additionally, the initial results were discussed with academic experts in the fields of upscaling sharing economy organizations and CB sharing. Fifteen semi-structured interviews were analyzed using NVivo 12 qualitative analysis software. The categories from the analytical framework served as theoretically informed deductive

codes, while subcodes were developed inductively. The data from the interviews was triangulated with academic and grey literature on CB sharing and the intercoder reliability was tested.

**RESULTS AND ANALYSIS**– The main findings regarding RQ1 are that CBSO business models are complex and do not easily fit into the established patterns. A detailed analysis with the business model tool by Curtis (2021) showed that the case study CBSOs have high sustainability performance but limited scalability due to high organizational effort for the users, reliance on volunteers and in the case of LastenVelo e.V. unconventional revenue streams.

RQ2 on the relationships of CBSO stakeholders and how the CBSO niche is embedded in the regime was answered by analysing niche nurturing. The expectations regarding CB sharing are made concrete, for example through highlighting their potential to replace cars and reduce emissions, and they are connected to societal problems with urban mobility. However, the expectations about the extent to which CB sharing is supposed to fulfil mobility needs or simply provide an opportunity to test CBs, as well as the expectations how CB sharing should be funded, differ. This represents a barrier for upscaling.

Social networks are crucial to help the niche compete within the regime's pressures. CBSOs generally have well-established local networks and good relationships amongst each other. Surprisingly, the occurrence of commercial CBSOs is not seen as a concurrence to free CBSOs but as enriching the CB sharing landscape. The Union of the Commons Cargobikes initiatives is a key actor for networking and encouraging cooperation. Cargo bike advocacy organizations take the role of connecting different CB sharing stakeholders. Within the social networks of CBSOs, municipal actors are highlighted as especially important.

Learning is the third aspect of niche nurturing and could mainly be observed in reflections about the barriers that CBSOs encounter, the best way to organize CB sharing and about the technical issues, e.g., the booking software. The barriers stem from the limited resources of free CBSOs, but also the lack of familiarity with the concept of sharing goods. Free CBSOs and host-based sharing are seen as the pioneers of CB sharing due to their personal element, but various stakeholders agree that they have limited scalability because of the high organizational effort. Station-based CB sharing seems to be more promising to provide CBs for more people. The booking software would benefit from professionalization, which requires increased financial and human resources.

To analyze the upscaling pathways of CB sharing (RQ3), the four empowering patterns as described by Naber et al. (2017) were employed. Growing through increasing the number of shared CBs was seen as a necessity for upscaling. A larger number of CBs is more easily handled through station-based sharing and could be complemented with host-based sharing to accommodate for new users. A co-existence of different types of CBSOs could address different user groups and together create a high density of shared CBs. The Union of the Commons Cargobikes initiatives plays an important role for accumulation through connecting different CBSOs. The Union can do boundary work between the CB sharing niche and local and national political actors. Cooperations with other stakeholders interested in the transition of urban mobility systems are beneficial, for example, shared CBs could be integrated in shared mobility hubs, public transport or housing complexes. Through replication, shared CBs can be introduced and adapted to other contexts, for example, small communities. Transformation was seen by the stakeholders as adapting infrastructure to CBs, de-incentivizing cars, creating political support for CBs and a cultural transition towards the sharing economy. A key player for upscaling is municipal actors, who can support CB sharing in multiple ways, for example through funding, infrastructure adaptation, legislation and raising awareness, while assuring the accessibility of CB sharing for all.

**CONCLUSION AND RECOMMENDATIONS** – To conclude, CB sharing has potential to make urban mobility more sustainable, but a higher density of shared CBs and less organizational effort for the users are required to reach a broader user group. Until now, CB sharing has mainly been driven by citizen-driven organizations, however, these have limited resources for upscaling. Instead of simply increasing the number of shared CBs,

new ways of sharing CBs such as integrating them in public transport, mobility hubs or housing complexes, should be explored. Stakeholders agree that a variety of types of CBSOs will be beneficial in the future to reach different user groups. To support upscaling of CB sharing, the stakeholders should communicate about their visions for the future of CB sharing, seek ways to align the visions and to collaborate. Municipal actors play a key role in the upscaling of CB sharing not least by assuring that CBSOs reach diverse user groups. Finally, future research should evaluate the environmental and social impacts of CB sharing to validate its potential and explore the upscaling of CBSOs in different contexts.

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**Emil Beemer, Gijs Diercks, Derk Loorbach**

### **Exploring the potential of public-common partnerships for a transition to mobility commons**

Present-day mobility systems centered around automobility are ecologically unsustainable and socially unjust (Boehm et al., 2022; Sheller, 2018). Mobility systems are governed based on principles of efficiency, safety, and perpetual growth, but this way of working seems increasingly unable to decrease greenhouse gas emissions in line with planetary boundaries while providing sufficient mobility for all (Lamb et al., 2021; Mattioli et al., 2020). While there is increasing attention for a transition to sustainable mobility, efforts to accelerate this transition often remain focused on technological substitution rather than challenging deeper structures supporting the paradigm of automobility (Gössling & Cohen, 2014; Loorbach et al., 2021). In this context, the concept of ‘mobility commons’ or ‘commoning mobility’ has been proposed as a philosophy that can bring about more fundamental change (Adey et al., 2021; Nikolaeva et al., 2019). Commoning mobility involves a move towards shared ownership, a shift in values associated with mobility, and the development of new forms of governance.

Initiatives that support mobility commons have thus far emerged largely from the grassroots (Bauwens et al., 2022). Mobility cooperatives are an example of such an initiative, which offer shared ownership and

governance of (electric) vehicles to their members (Beemer et al., 2023). Beyond providing a service to their members, cooperatives see shared mobility as a means of creating healthier, more sustainable, and more connected communities. They see themselves as working towards the public good and therefore expect support and cooperation from governments. However, there are tensions between the goals and values of commoning initiatives and those of public institutions. While commoning initiatives value their autonomy and focus on their members, governments are responsible for maintaining mobility systems for a much broader community with greater divergence in needs and desires. There are therefore important questions around prioritization and democratic legitimacy when it comes to supporting commoning initiatives. We seek to untangle these tensions and understand how governments and commoning initiatives can work together to align their values. We use the concept of public-common partnerships to investigate the central research question: How can public-common partnerships for shared mobility contribute to a just mobility transition? To answer this question, we draw on literature in the fields of sustainability transitions and commons, particularly works around governance and justice (e.g. Adey et al., 2021; Frantzeskaki et al., 2012; Loorbach, 2022; Russell et al., 2022; Sheller, 2018). We expect commoning initiatives to increasingly interact with (public) incumbent actors as mobility transitions unfold, and therefore propose public-common partnerships as a form of transition governance that can accommodate these changing relations. However, our earlier work with mobility cooperatives has demonstrated that this cooperation is often obstructed by different logics, narratives of change, and conventional governance structures (Beemer et al., 2023). We will therefore organize and facilitate several sessions with commoning initiatives and policymakers in the Netherlands. Taking an action research approach, we take an active role in shaping a participatory process with actors from the public and civic domain, and are present throughout as collaborators, facilitators, and observers. This research approach is well-suited for developing multi-actor processes to transition problems (Wittmayer et al., 2014). Across four co-created sessions, we will discuss key themes of public-common partnerships by relating them to real-life cases of governments and cooperatives – for instance on how a cooperative can maintain its autonomy while in a partnership, or what measures governments can employ to support commoning. Participant observation in these sessions will be the primary source of data, supplemented by individual semi-structured interviews with participants at different stages of the process. The data will then be structured and analyzed using thematic analysis (Braun & Clarke, 2006).

The results of this process are expected to contribute to the body of knowledge around commoning and (mobility) transitions in a number of ways. First, they will yield insights into the specific perspectives of public and civic actors on the potential and pitfalls of public-common partnerships. This will give clarity on the differences, similarities, and tensions that exist between the two domains. Second, this research will develop an overview of the different forms of possible public-common partnerships for shared mobility. Based on this, the third contribution will be to shed light on the potential of PCPs to support a just mobility transition in the Netherlands. In this manner our research adds to a growing body of work in academia and practice on commoning mobility and public-common partnerships.

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**The social impact of sharing economy: investigating the role of market vs. communal relationships**

Sharing economy platforms have been on rise for some time now, with many praising its economic, environmental, and social benefits (e.g., Botsman & Rogers, 2011). Platforms that facilitate the sharing of homes, rides, knowledge, or tools allow even complete strangers to meet face-to-face and form new, potentially lasting social relationships, regardless of socioeconomic background or age differences (e.g., Fitzmaurice et al., 2016). However, an idea that seemingly emerged from a willingness to foster social and environmental change (Botsman & Rogers, 2011), is increasingly becoming a platform for profit-making (Martin, 2016; Slee, 2015). Could such economization of private property possibly harm rather than enhance social relations?

According to Fiske's (1991, 2004) model of social relations, the exchange of benefits for money is characteristic of market-pricing relationships. Market relationships do not allow for intimacy and emotional connectedness (Jiang et al., 2014; Mead & Stuppy, 2014; Vohs, 2015). When people engage in such relationships, they care about how much they get out of their investment and whether the repayment is of comparable value (Fiske, 1992; Zaki et al., 2021). In stark contrast to that, in communal relationships, people offer benefits not because they expect anything in return but because they intend to increase the recipient's well-being or happiness. Interacting with each other in a communal mode, people find it natural to be helpful, friendly, generous, and even altruistic (Clark & Mills, 1993). For this reason, in this project, we aim to investigate how the use of money in an interaction facilitated by a sharing economy platform affects people's perception of a relationship, as well as their subsequent willingness to help and socialize with each other.

Study 1a (N = 158) experimentally confirmed that a monetary transaction with the neighbor initiated through a tool-sharing application was perceived as resembling a market-pricing rather than a communal-sharing relationship. On the other hand, a non-monetary deal was perceived as expressing a relationship that more closely resembled a communal-sharing than a market-pricing relationship. In the experimental Study 1b (preregistered; N = 189) we further showed that these results were not caused by the presence of money in general (payment for access to the app) but only occurred when money was involved in a deal with the neighbor. Experimental Study 2 (preregistered; N = 197) showed that participants declared a lower willingness to help a neighbor in need when a previously described scenario involved a monetary deal compared to a non-monetary deal. This effect was mediated by the perception of the relationship with the neighbor as less communal. In experimental Study 3 (preregistered; N = 515) we showed that a greater willingness to help in a non-monetary deal condition (vs. monetary deal condition and vs. control conditions) was mediated by the perception of the relationship with the neighbor as resembling communal-sharing norms, followed by an enhanced feeling of closeness to that neighbor, but not by the perception of the relationship as following market-pricing norms. Finally, in a quasi-experimental Study 4 (preregistered; N = 465) conducted among the users of Couchsurfing and Airbnb platforms we confirmed and expanded the results obtained in Study 3. Participants declared a higher willingness to help the host and a higher willingness to maintain social ties with the host when they rented an apartment for free via Couchsurfing (a non-monetary deal) compared to when they rented an apartment for a fee via Airbnb (a monetary deal with or without the personal contact with the host). The higher willingness to help and to maintain social bonds in a nonmonetary deal group (vs. monetary deal with or without personal contact with the host) was mediated by the perception of the relationship with the host as a communal-sharing relationship followed by the higher sense of closeness to the host, but not by the perception of the relationship as market-pricing.

To sum up, this set of studies suggests that engaging in interactions enabled through sharing economy platforms does not lead to improved social bonds if direct payment is used, compared to situations with no previous interpersonal contact. However, interactions in which items are offered for free have a positive effect on willingness to help and to maintain longer contact with the other person. These results seem to be due to an increase in the perception that the relationship is governed by the communal-sharing norms of behavior, followed by an enhanced feeling of closeness to the interaction partner. The perception that the relationship follows market-pricing rules, which are typical for strangers, does not seem to affect social ties in the studied context.

Andreja Trdina, Jerneja Šavrič, Maja Turnšek

### Conceptualising techno-social entanglements of delivery practice: a micro-sociological account of platform work

Algorithms of various kinds hold the social world together,' argues Airoidi (2022, p. 1). While it is argued that platform work promotes flexible working conditions and creativity and facilitates inclusivity and labour market integration (Andjelkovic, Jakobi and Kovac, 2021), it also poses many challenges in terms of securing decent working conditions, in particular fair treatment, work autonomy, occupational safety and health, and social dialogue (Karanovic & Sapic, 2023).

Taking the case of platform delivery work, we focus on how new forms of work are informed by distinct user-machine interactions and how these interactions play into the ongoing realisation of the techno-social order we live in. As an output of the ongoing national research project The future of social dialogue in the platform economy: The case of Slovenia (Turnšek et al., 2022-25), the paper aims to conceptualise micro-processes of social interaction between workers (users) and algorithms to discuss different interaction orders and interactional outcomes, thereby providing a conceptual micro-sociological account of platform delivery work. The paper brings the idea of relationality (Bourdieu's idea of the real as relational) and the interactional perspective to the forefront of the sociological inquiry of algorithms and platform economies. It reflects more broadly on platforms as techno-social fields and calls for the future research agenda on interlinking of digital infrastructures and (pre-digital) social structures to be necessarily framed from the intersectional perspective. The majority of sociologists dealing with algorithms have considered them at best as significant, yet supposedly inanimate backdrop of social life, thereby they are usually merely observing the consequences of algorithmic processes at work and voicing concerns over the harmful socio-cultural implications of its opaqueness and unaccountability and the extent to which power and biases are embedded in and run through algorithms (e.g. Velkova and Kaun, 2019). Contrary to that, we start from the actor-network theory perspective (Latour, 2005; Law, 1990), which revises human-centric notions of agency and depicts both humans and material objects (non-humans) as actants in networks of more-than-human relations.

Against this background, we follow Airoidi's (2022) very timely theoretical contribution to the study of machine learning algorithms and his idea of machine habitus. Airoidi draws from the work of Bourdieu and advocates for algorithms to be understood as artificial social agents, actively participating in social life and contributing to the reproduction of culture and structure with its arbitrary discourses and boundaries via the machine habitus, a 'set of cultural dispositions and propensities encoded in a machine learning system through data-driven socialisation processes' (ibid., p. 113). This idea of the socialised machine rests in the endless feedback loops that affect the algorithm's distinct dispositions and thus constrain and enable its future action. Airoidi (ibid., p. 120) further argues that entanglements of socialised machines and their users are mediated at once by digital infrastructures and social structure. According to him, it is not just about the ontologically distinct agents interacting through the platform; there are embodied histories (user habitus) and encoded cultural propensities (machine habitus).

The paper sets out to rethink how the empirical findings on delivery platform work so far can build on, complement or challenge the proposed conceptual framework of Airoidi. More precisely, by applying Airoidi's (2022) conceptual toolkit of user-machine interactions to the study of platform delivery work, the paper elucidates micro-sociological foundations of platform work in the digital economy, including how techno-social order is produced and reproduced within and around micro-level human-machine interactions. Building on existing studies on delivery platform work (Briziarelli, 2018; Gregory & Maldonado, 2020; Popan, 2021) and by considering at once the degree of informational asymmetry and the strength of cultural alignment, we explicate varying interactional configurations (assisting, nudging, collaborating, misunderstanding) and distinct emerging outcomes, stretched between reinforcement of individual dispositions and their transformation.

Given that, what are then the observable regularities in the case of platform delivery work generated in the entanglements between workers' habitus on one side and socialised algorithms with their encoded set of dispositions on the other? The paper highlights that heterogenous dispositions within individual and machine habitus complicate the diachronic unfolding of practices (Airoidi, 2022), making it challenging to offer a detailed picture of myriad intertwining of individuals and socialised machines and discuss their aggregated effects on reality-in-becoming. Moreover, considering how issues of gender, ethnicity and migration status interplay with and amplify the interactional outcomes in platform economy needs to be set as a priority



research question and further examined. At the same time, research on techno-social entanglements of delivery practice should not disregard the customers (habitus) as platform users at the other end of user-machine interaction.

**Wei Shi**

#### **Sources of knowledge ambiguity in early-stage entrepreneurship in the sharing economy**

This study aims to understand the factors that lead to knowledge ambiguity in early-stage entrepreneurship in the sharing economy. While knowledge ambiguity has been widely studied in the inter-organizational context as a source of competitive advantage and in the intra-organizational context as a barrier of knowledge transfer, its origins in the early entrepreneur's knowledge-seeking process are less discussed. Prior research demonstrates the importance of knowledge seeking on startup performance, but the process of accessing and making sense of knowledge is less studied. Interview data were collected from 20 early-stage entrepreneurs in the sharing economy industries in the New York City metropolitan area. Four sources of knowledge ambiguity emerged from the data coding: complexity of knowledge in the nascent market and hybrid industry, complexity of roles and responsibilities, environmental factors, and legitimacy as a premise of knowledge transfer. Through analyzing the way entrepreneurs access knowledge and engage with knowledge sources, this study sheds light on the barriers for entrepreneurs to effectively interact with external stakeholders and assimilate information in a sharing economy context.



Mine Karatas-Ozkan, Sibel Yamak, Vadim Grinevich, Franz Huber, Katharina Oberholzner, Linda Baines

**Social media transcripts of the precariat in the gig economy**

This paper focuses on agency and precarity in the context of the gig economy (GE), which arguably offers a new form of employment relationship with a major shift in employee responsibilities and rights. Critical platform studies literature has emphasised exploitation of labour and precarity in the GE (Gebrial, 2022; Iazzolino, 2021), as well as the contested role of agency of gig workers (Anwar & Graham, 2020). This paper addresses the unresolved question of how the broader cultural and socio-economic contexts influence the discourse of exploitation versus agency of gig workers (Barratt et al., 2020; Zhou, 2022). Taking a multi-layered approach, we emphasize the broader macro-discourse underpinning the development of the GE and gig work. The paper illustrates how the contested nature of agency against the backdrop of precarity pans out in different geographical contexts.

Twitter posts were scraped using a tool called the Web Data Research Assistant (WebDataRA), with its functionality specifically focussing on Twitter (Carr, 2020). The tool continuously scrolls to the bottom of a given twitter page, prompting the server to send more data and therefore making it possible to gather all available twitter posts under a given search category. The data were collected in October-November 2020 in six socio-linguistic domains such as English, French, German, Italian, Russian and Turkish. The data were harvested from all Twitter pages which came up under different precarity related combinations of relevant search words in respective languages. Our data analysis includes three interrelated layers. The first layer is automatic content analysis which was performed using text mining software Leximancer (version 5.0). Underpinned by Bayesian theory, Leximancer undertakes both conceptual and relational content analysis. Starting with no preconceptions, Leximancer uses deep learning to extract a transparent network model of meaning from the data. By deploying an iterative and unsupervised process, Leximancer identifies frequencies and co-occurrences of concepts (Angus et al., 2013; Cheng and Edwards, 2019; Smith & Humphreys, 2006; Sotiriadou et al., 2014; Wilk et al., 2019). The most frequently co-occurring concepts are grouped together to shape a certain theme. The second layer of analysis uses social influence tags (such as Likes) to identify and explore relationships between textual concepts and their societal weight. Finally, the third layer is qualitative thematic analysis, which involved researchers reading tweets and deducing their meaning and interrelationships between them based on the whole wording of posts and in relation to relevant temporal, geographical and institutional contexts. This helped to efficiently interpret the findings within the underlying theoretical framing of the study.

Drawing on an analysis of the public discourse taking place in the social media domain, we demonstrate the importance of structural field-level (macro) dynamics shaping the differentiated experiences of gig workers (meso-micro) that form a particular class of precariat. Lived experiences of a gig worker at the micro-individual level are closely linked to the meso-level dynamics of employer-employee relationships in a setting of a particular gig-platform governed by algorithms. All of these are embedded in the macro-context of societal players, mainly governments and technology platform companies. Our contributions are both theoretical and methodological. Theoretically, we contribute to a more sophisticated understanding of how the discourse on precarity and agency pans out in different socio-linguistic domains. The results show that the discourse varies substantially in different socio-linguistic domains, and we discuss explanations with reference to varieties of capitalism. Methodologically, we have provided a novel and robust mixed-method approach by applying both qualitative and quantitative techniques to social media analysis.

## Institutional work in the home-sharing ecosystem: How Airbnb and hotels shape Brussels regulations

Since sharing economy platforms have entered the market about 15 years ago, research on institutional work has generated growing insights on how those companies act as institutional entrepreneurs to obtain more legitimacy. While some studies in the sharing economy focused on the institutional tactics used by a single actor, typically the sharing platform (e.g., Pelzer et al., 2019; Zvolska et al., 2019), other studies have shifted the focus to a multiple-actor perspective that compares institutional tactics of platforms, incumbents, governments, and users (e.g., Boon et al., 2019; Lehmann et al., 2022). Such a multiple-actor approach helps understand actors' institutional tactics, and how their interactions may shape institutional change. The approach also sheds light on the broader sharing economy ecosystem from an institutional perspective.

This study contributes to the ecosystem perspective by analysing the institutional tactics of Airbnb and the incumbent hotel industry, and the Brussels government's regulatory response. Using content analysis of Belgian press articles from January 2008 to June 2021, we apply the theoretical framework of institutional work by Lawrence and Suddaby (2006). The longitudinal approach helps to identify how tactics and regulations have evolved over time.

Findings show that tactically speaking Airbnb took a rather smooth and cautious approach to strengthen its recognition and acceptance in Brussels. The institutional tactics most employed by Airbnb were 'constructing identities', 'defining', 'vesting', and 'educating'. The tactic of constructing identities illustrates Airbnb's efforts to profile itself as a pioneering platform that joins the renters and seekers of tourist accommodation. The company also used this tactic to highlight the diversity of hosts on its platform. The tactic of defining was used by Airbnb mainly to show how its target segment of tourists differs from hotel industry's segment. The tactic also helped to counter criticism from the hotel industry over issues of unfair competition. Airbnb employed vesting as a tactic to show their preparedness to negotiate with the Brussels government on local regulations. Lastly, Airbnb sought to strengthen legitimacy by offering the hosts various education facilities through 1) annual overviews of bookings and revenues; 2) face-to-face and online workshops to inform the community on regulations and the statute of hosts; and 3) regulatory information relevant to hosts and communities.

The Brussels hotel industry responded to Airbnb's institutional work with a set of tactics that were initially rather negative but had gradually become more accommodative towards the platform. Through 'enabling work' the hotel industry asked the government to impose regulations on Airbnb, such as mandatory registration and stricter fire safety measures, to level the playing field. Through valourizing, hotels underscored the positive values of their industry, the importance of fair competition, while it also stressed how Airbnb failed to comply with existing rules of the game. Hotels also stressed Airbnb's detrimental impact on small hotels and bed-and-breakfast owners, thus rendering the current situation unfair. By using a dark tone of demonizing, the hotel industry highlighted the negative externalities of Airbnb. Hotels pointed at the higher rents and selling prices in the local housing market, to express that Airbnb was no longer the pure sharing platform engaged in small-scale accommodation and unique home-sharing experiences it once used to be. Interestingly, four years after Airbnb's market entry, the hotel industry started to become more accommodative towards Airbnb, by stressing they were not against guest rooms or private hosts who wish to rent out a room. Table 1 shows the tactics used by Airbnb and the hotel industry.

The interplay of the tactics of Airbnb and the hotel industry helps to understand Brussels regulations. In April 2016, the Brussels Parliament approved a new law that required Airbnb hosts to officially register, meet fire safety standards, have an insurance policy, and obtain co-owners' consent for co-owned buildings. Airbnb launched a petition against the new law, yet without any outcome. This was followed in 2017 by the launch of a harmonized local tourist tax, covering both Airbnb and hotel accommodations, agreed among the Brussels government and the 19 Brussels municipalities. At the end of 2019, the city of Brussels established an Airbnb monitoring point to restrict long-term rentals. In that same year, the European Commission stated that the Brussels law on tourist accommodation was too strict. Finally, in October 2022, the Brussels government agreed on a preliminary updated, more lenient law on fire safety certificates for home-sharing accommodations. Figure 1 represents the key events that took place in the Brussels context of home-sharing and hotel accommodation.

An examination of the tactics over time has helped to understand the tensions that have evolved between two key actors in the home-sharing ecosystem: Airbnb and hotels. The findings show that Airbnb acts as an

institutional ‘creator’ rather than a ‘disruptor’ in the home-sharing market. This is relevant information for policy makers if they are to adapt their policies to meet the changing needs in the market. The findings also show that incumbents adopt tactics of newcomers, and that both actors tend to move toward operations falling under one regulatory framework. Future research should explore the different factors shaping those market dynamics. We suggest as an avenue for future research to also pay attention to sharing platforms’ business strategies, in connection to institutional tactics and strategies, to better understand the institutional outcome. This would provide a broader analysis into market forces and competitive dynamics.

**TABLE 1** Tactics of institutional work – Airbnb and hotel industry in Brussels

Elements of institutional work		Airbnb	Incumbents
CREATING	Advocacy	3	2
	Defining	9	
	Vesting	9	
	Constructing identities	28	
	Changing normative associations	6	
	Constructing normative networks	1	
	Mimicry	2	3
	Theorizing	2	
	Educating	9	
DISRUPTING	Disconnecting sanctions	32	
	Disassociating moral foundations		
	Undermining assumptions and beliefs	1	
MAINTAINING	Enabling work		19
	Policing		8
	Deterring		
	Valourizing		11
	Demonizing		13
	Mythologizing		
	Embedding and routinizing		
Other	Marketing	1	
	Accommodating		5
		<b>103</b>	<b>61</b>

**FIGURE 1** Key events of the homesharing and hotel accommodation context in Brussels<sup>1</sup>



*Note: Own figure, based on the context of Airbnb in Brussels*

## Reference list

<sup>1</sup> ‘New law’ refers to registration, fire safety, insurance and co-owners’ consent.

‘Adapted law’ refers to extended fire safety certificate and minor construction adaptations.

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**Maartje Roelofsen**

### **Feminist approaches to digitally mediated tourism and hospitality work**

In this presentation, I trace various feminist approaches to digitally mediated tourism and hospitality work. In my reflection, I first include a general and (necessarily) partial reading of how this particular field has been studied across academic disciplines, highlighting some of the theoretical and philosophical lenses that seemingly prevail. The presentation then zooms in on what lines of inquiry feminist theory has brought forth in this maturing field of research. How have feminist theories aided the study of gendered, racialized, and classed divisions of tourism and hospitality labour that prevail in platform economies? What are the various sources and dynamics of oppression that underline these kinds of work, and what role do digital platforms play in altering or sustaining these dynamics? What methodologies have brought light to the complexities and power differentials that make up digitally mediated tourism and hospitality work? How do they account for the potential strategies of resistance among workers, and the alliances and networks of solidarity that are formed? After reflecting on these questions, I suggest a few avenues for future research in digitally mediated tourism and hospitality work that remain open to feminist inquiry and other transformative, emancipatory approaches.

Florian Hawlitschek

### What's Next for the Sharing Economy? – Thoughts from an Information Systems Perspective

In March 2013 an article in the Economist titled “The rise of the sharing economy – on the internet, everything is for hire”. About ten years later, many areas of the sharing economy (SE) were struggling with the consequences of the COVID 19 pandemic (Hossain 2021). While there was a plethora of media coverage discussing the potential “end of the sharing economy” (e.g., Rudgard 2020) due the COVID-19 pandemic, it was most certainly rather an event that cleaned the market from less profitable business models that rose from the early SE phases. In fact, the pandemic could be considered as the facilitator of a new, more mature era of the SE.

Given the current situation, change for many SE businesses is very likely. Issues directly related to the pandemic, such as concerns of hygiene and limitations of contact but also more general legal concerns, and the increasingly bad image of the once praised “sharing pioneers” (Hawlitschek et al. 2018b) are encouraging platforms to think about successful means of pivoting (Guillén 2020). These pivots will need to reflect a set of key trends that may shape the future of many business models. First, a potential economic crisis in the aftermath of the Corona pandemic and the context of international conflicts could impact the SEs further development, second the climate crisis casts a shadow into the future. Third, next generation platform technologies will reshape the traditional SE platform business model. In the following, I will thus discuss some trends and perspectives, which from my point of view will shape the SE of the future – and thus pave the way for an important research field for Information Systems (IS) scholars.

**Sharing Economy and Economic Crisis – The True Currency of the Sharing Economy is not Trust but Money**  
The initial success of SE startups is often put into relation with the consequences of the 2008 financial crisis (Kathan et al. 2016; Ahsan 2020; Henry et al. 2021)– Startups such as Airbnb at this point in time offered unconventional and particularly cheap alternatives for traditional consumption and usage patterns. While paying the rent for a flat by occasionally renting out or sharing a spare room, attracted the attention of many potential suppliers, consumers found cheap alternatives to expensive hotels – especially in large cities. In these early phases of SE platforms, trust was an important prerequisite for first transactions, replacing the just developing organizational structures (Hawlitschek et al. 2016) – and still today trust plays a key role in facilitating transactions (Möhlmann 2021). However, the true currency of the SE – fueling disruption and growth – was not trust but money (Hawlitschek et al. 2018c). While the prices on SE platforms have somewhat flourished (Sumagaysay 2021) the general promise of a cheaper alternative to traditional hotel businesses still holds true today. Especially against the backdrop of the aftermath of the global pandemic and its influence on the global economic growth, a revival of the thriftiness motive in consumption patterns appears likely – especially against the backdrop of growing inflation rates and war consequences. While hotel providers (depending on their segment) either protect their incumbent market position by competing via lower prices or higher quality (Chang and Sokol 2020), the increased demand for inexpensive travel options on the one hand and the need to acquire some extra money for paying the (in many urban areas continuously rising) rent might drive the adoption of sharing platforms such as Airbnb. The same holds true for other expensive resources (such as cars, trending campervans, etc.). Nonetheless, there are some major differences in the way consumers, providers and especially regulators might react to the economic motives of participating in sharing activities in the aftermath of the global pandemic. The perception of the once praised pioneers of collaborative and somewhat more social forms of consumption has tipped. Platform companies such as Airbnb have become the face of a new era of “neoliberalism on steroids” (Acquier et al. 2017; Murillo et al. 2017) – not only exploiting platform workers but also damaging instead of helping urban areas. The issue of Sharewashing – that is “a platform operator’s efforts of misleading consumers by purposely portraying an image of social and ecological principles while the platform’s business model is actually centered around delivering utilitarian value” (Hawlitschek et al. 2018b, p.2) is thus gaining in relevance. While the social aspects of sharing are thus obviously rather a challenge than a chance, the ecologic sustainability that many SE

platform providers claim might provide a chance to attract new customers: welcome to the age of the circular economy (CE).

#### Sharing Economy and the Climate Crisis – Towards a more Circular Sharing Economy

While the concept of the CE is of a similar age as the concept of the SE, the two terms have thus far been investigated mostly separate from each other (Henry et al. 2021). This is particularly noticeable in the IS discipline. For illustrating the existing gap between the two concepts, I extracted data from Google Scholar and the AIS eLibrary for the three different search terms “sharing economy”, “circular economy”, and “sharing economy AND circular economy” for the timespan between 2013 (when the SE term was about to enter scientific and public discourse) and 2022.

In terms of scientific publications listed on Google scholar, CE has always outperformed SE. Compared to the overall amount of studies addressing or mentioning at least one of the two concepts, articles that mention both are in a clear minority. Interestingly, the IS literature (represented by articles in the AIS eLibrary) thus far has hardly covered CE at all. Only 14 articles in total included both terms, SE and CE, in the same text between 2013 and 2022. On the other hand, research on SE has led to a significant number of articles with a peak in 2019.

While in the IS discipline, research on the SE has played a significant role during the past years, the CE is just about to draw the focused attention of our field (Zeiss et al. 2021). The SE is often considered as a sub field of CE (Henry et al. 2021), inter alia since a central CE objective is the minimization of resource input and the negative environmental impacts of any economic operation (Zeiss et al. 2021). Ecologic sustainability was often assumed to be a positive side effect of many SE business models, which, however, were primarily adopted for economic reasons (Hawlitschek et al. 2018c). As outlined before, the economic advantages of many SE platform offers contributed well to the adoption of SE business models – especially in the aftermath of an economic crisis. Considering the increasing consensus on the reality of climate change and also climate crisis, the former financial lead motive might however well be tackled by environmental sustainability considerations. In the aftermath of increasing climate events such as droughts, floods etc., a shift of consumer priorities is likely. Therefore, a stronger focus on sustainability aspects of the SE that allow to draw links to the larger CE concept may well be a viable pathway for future business activities and also research. For doing so, increased efforts in integrating the sustainability discussion in the SE context (Frenken 2017; Hawlitschek et al. 2018b) with resource efficiency studies in the context of the CE is necessary. That being said, it is time to point to another important trend that is also increasingly associated with sustainable development and also the SE: Technology.

#### Sharing Economy and Disruptive Technologies: Artificial Intelligence, Blockchain, and Complex Platform Ecosystems

Three key technology trends could very likely shape the future of the SE: Artificial Intelligence, Blockchain, and Complex platform ecosystems. In fact, this “ABC” of emerging technologies is converging towards a joint phenomenon – casually referred to as the “machine economy” (Urbach et al. 2020). Urbach and colleagues suggest that the conflation of all three technology trends in one ecosystem will release their full economic potential. While in the context of other platform ecosystems related to the IoT, various attempts of leveraging new technologies in complex platform ecosystems were made (Hodapp et al. 2022), the SE has thus far had huge success based on rather simple platform architectures for two-sided markets. While at the tip of the blockchain hype, the use of blockchain technology for running “trust-free” SE platforms was frequently discussed (Glaser et al. 2019; Hawlitschek 2019) the actual realization of such platforms was slowed down by the so called trust-frontier (Hawlitschek et al. 2018a). In absence of adequate solutions for providing trusted interfaces to trust-free SE platforms, the value-add of blockchain technology and smart contracts was just too small. As a consequence, blockchain technology has not yet met the high expectations raised by the hype in the SE (Hawlitschek et al. 2020). This could however drastically change given the current advances in applications of Artificial intelligence and also the trend towards complex platform ecosystems with multiple actors. Complex platform ecosystems, for example in the context of the internet of things, rely on verifiable and safe information (Chanson et al. 2019; Hodapp et al. 2019). While technically closed and secured systems that allow for utilizing information gathered by standardized sensors actually profit from blockchain as a

platform technology (Chanson et al. 2019) – this was not the case for many SE use cases that involve human interaction (Hawlichschek et al. 2018a). Today however, with the help of AI it is conceivable to automate certain tasks that are currently performed by human beings within the processes of mutual ratings and to leverage this information for smart contracts in blockchain based systems. The conflation of AI and blockchain could be leveraged for SE platform ecosystems that utilize collected platform data for insurance purposes, service innovation, etc. Business models in this new SE context will thus become more complex. Value co-creation within the boundaries of SE platforms, will incorporate multiple corporate and private actors that take on roles, which are often more differentiated than the mere “consumer/provider/prosumer” roles on typical SE platforms. Actors can contribute various actions and assets ranging from micro-services over software application to data etc. different value capture mechanisms and platform rules then distribute the co-created value. Platform ecosystems thus form a powerful center of gravitas, fueled by network effects and self-reinforcing growth (Hodapp et al. 2019). Up to now, many platforms in the realm of the SE have not yet started to leverage their strategic position to add new platform business models to their portfolio. However, tech companies such as Google or Amazon have successfully created business blueprints for such platform games (Hodapp et al. 2022) and it is thus conceivable that with a maturing market, more successful sharing companies will tend to leverage the gravity of their ecosystem and leverage the future technology ABC.

### Concluding Note

The journey of the SE is not at its end. SE companies will need to reinvent their role in a world that is shaped by constant change resulting from crisis and disruption. The SE has the potential to make a positive contribution to a brighter future of our world. This however will only be possible with the continuous curiosity, ethical considerations and contributions of practitioners and researchers – especially in the interdisciplinary field of IS.

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## David Wachsmuth

### Short-term to long-term then back again? A big-data analysis of short-term rentals returning to the housing market during the Covid-19 pandemic

The Covid-19 pandemic caused an unprecedented collapse in demand for tourist accommodations in large cities whose short-term rental (STR) markets are dominated by commercial operations. Did this collapse lead the hosts of these commercial STRs to shift them back to the long-term rental (LTR) market? This paper develops a novel big-data methodology that relies on three sources of web-scraped data and “perceptual hashing” image matching to provide the first systematic answer to this question. I combine ongoing web scrapes of two STR platforms (Airbnb and Vrbo) and two long-term rental (LTR) platforms (Craigslist and Kijiji) in Canada's three largest cities, and extract listing characteristics as well as listing photos. A custom image matching process operating on several million of these photos allows for the unambiguous identification of nearly 10,000 short-term rentals which were returned to the long-term rental market in Canada's three largest cities during the first year of the pandemic.

I begin by situating the empirical question of commercial STR operations during the pandemic within the theoretical terrain of political economy and rentierism, developing a theoretical account of urban platforms as mediating rent flows into the built environment. Then I present the findings of the analysis. First, using seasonal-decomposition trend analysis on a comprehensive dataset of STR activity, I develop a typology of pandemic STR trajectories across Canada. In major cities the collapse of long-distance travel caused STR demand to plummet. That long-distance travel was replaced with shorter-distance travel to peri-urban tourist destinations, however, so in these areas STR demand has remained steady or even grown. But supply constraints (most likely due to competition from second-home purchases) have led that demand to manifest as higher prices rather than more reservations and listings.

Second, I identify and analyze the STR listings which returned to the long-term rental market during the first year of the pandemic. These former STRs have higher asking rents than comparable LTR listings, and the overwhelming majority of were commercial operations. I estimate that, after the first year of the pandemic, nearly half had permanently transitioned back to the long-term market, a quarter had been temporarily blocked on Airbnb and may return to being STRs in the future, and a quarter failed to be rented on LTR platforms and instead remain active on Airbnb.



I contextualize these findings with respect to existing and proposed regulatory options for localities and higher levels of government. And I conclude by discussing emerging possibilities for applying big-data methods to sharing economy research.

**Raphaela Hellmayr, Christof Falkenberg, Christian Garaus**

### **Consumer acceptance of circular business models**

Circular product design and circular business models were identified as important leverage for circular economy on organizational level (Bocken et al., 2016; Geissdoerfer et al., 2020). Beside the production-based perspective on circular business models they can be grouped in ownership based and product service-based business models, when considering the consumer perspective (Camacho-Otero et al., 2018). The consumer acceptance of circular business models is important for a transition towards circular economy. In literature different factors influencing the consumer acceptance were tested, but further research regarding the interaction of these factors is needed (Elzinga et al., 2020; Ferasso et al., 2020; Mostaghel and Chirumalla, 2021). The aim of this study is to investigate which factors jointly influence consumer acceptance of circular business models.

A consumer survey on business models based on ownership and product service systems within three industrial sectors will be tested within the Alpine region. The chosen industrial sectors are textiles, furniture, and packaging, because the lifespan of products within these sectors are relatively short, e.g., compared to buildings and infrastructure. Since the literature on factors of acceptance of circular business models is still young, it has yet to be determined which of these factors ultimately lay at the heart of the matter. In accordance to Camacho-Otero et al. (2019) the following factors can be categorised as cultural, economic, psychosocial, and sociomaterial factors. The empirical survey will be based on the factors convenience (Poppelaars et al., 2018; Tunn et al., 2019), costs/price (Kuah & Wang, 2020), risk/trust (Camacho-Otero et al., 2018, 2019; Kuah & Wang, 2020), product or service image (Poppelaars et al., 2018), (perceived) safety of a product (Calvo-Porrall & Lévy-Mangin, 2020), materialism/control (Tunn et al., 2019), environmentalism/sustainability (Raihanian Mashhadi et al., 2019), and experience with PSS (Kuah & Wang, 2020). These factors will be measured through scientifically established items and scales found in the literature. The interactions of these factors will be tested with a fuzzy-set Qualitative Comparative Analysis (fsQCA), a method of data analysis that is based on Boolean algebra. Unlike regression-based methods, fsQCA can identify combinations of factors (so-called “conditions”) that lead to outcomes that are characterized by equifinality, which means that there can be different ways to achieve a particular outcome. In our study, fsQCA can, therefore, help to identify different pathways that lead to the acceptance of circular business models. In addition, fsQCA allows for asymmetric analyses in which combinations of conditions that are necessary and/or sufficient for the presence of the outcome might be different from those configurations that explain the absence of the outcome. Based on the results from the study strategies on how to increase the consumer acceptance on circular business models should be developed.

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Ruggero Colombari, Marta Mas-Machuca, Frederic Marimon

**Modeling the complexity of collaborative consumption on digital platforms: A systematic literature review and conceptual framework**

Topic and theoretical background

Hamari et al. (2016) define "collaborative consumption" (CC) as the "peer-to-peer activity to obtain, grant, or share access to goods and services, coordinated through community-based online services". CC models are becoming popular in developed economies (Belk, 2014; Möhlmann, 2015), where they are reshaping the business models of well-established industries such as transport or tourism through digitalization and disruptive technologies. Examples are companies such as Uber, Airbnb, or Cabify. This digital transformation must be managed effectively to increase the quality of service and thus increase the satisfaction of end users. Platform-based companies and organizations require different management models than the models that are suitable for traditional companies, and the same applies to their quality management models. From the pioneering authors (Benoit et al., 2017), CC requires the interaction of three actors: (a) a platform that allows exchange, (b) a service provider (private or peer) to provide a service, and (c) a customer seeking access to a specific product or service. In other words, the end customer interacts with two agents: the platform and the particular provider (peer-provider) in a "triadic model". However, these business models are constantly evolving, and before delving into the development of new quality management models, an up-to-date conceptualization of collaborative consumption models at large is needed.

Theoretical contribution

The overarching objective is to develop models for the quality management of digital platforms in collaborative consumption (CC) from the provider's perspective, as a co-creator of value. As mentioned in the introduction, such an analysis needs to lean on a conceptual framework that is up-to-date with the evolution of sharing economy dynamics, along with a study of the state of the art of the main quality management models. This article will contribute to generate scientific-technical knowledge on conceptualizing sharing economy platforms in the context of collaborative consumption from the perspective of peers, generating a better understanding of the experience of users (customers and peers) in CC platforms. This will contribute to theory by setting the basis for the design of a quality management model for CC digital platforms, taking into account the satisfaction and perception of quality perceived by the peer provider. The focus is on the peers, so that a global vision of CC will be eventually obtained by analyzing the two perspectives of the "sharers". This is relevant in a field in which the existing theories on quality management are not adapted to the digital sector or to the algorithmic management that has recently appeared.

Research methods

To achieve the mentioned objectives, a step back concerning our current knowledge about sharing economy and digital platforms was needed, aimed at systematizing the state of the art and building new knowledge upon a solid ground. Therefore, a systematic review of academic literature was carried out to conceptualize and formalize an updated model for CC digital platforms, and identify possible related theoretical frameworks for quality management. The method consists of both traditional literature review techniques – bibliometric analysis and structured literature review with citation analysis – and the use of newer tools such as VosViewer. The database chosen for the analysis is Scopus, due to its broader range of literature which is coherent with the objective of scanning the topic in all its breadth. The search has been performed using keywords related to two main concepts: digital platforms (we divided "digital" from "platform as it sometimes appears in forms such as digital sharing economy platforms, or CC platforms and digital tools, etc.) and collaborative consumption (or sharing economy). Given the relatively low number of articles in this new field, the search Since the objective is to include the whole body of knowledge, the results have not been restricted to the subject area "BUSI" (Business, Management and Accounting). Concerning the type of documents, only English articles, books or book chapters have been included, in order to consider literature considered rigorous enough to be published, and to avoid conference works that may result too preliminary. The mentioned choices are resumed in Table 1.

**Table 1.** Systematic Literature Review – research choices.

	Choice	Rational	Items
Source	Scopus	More inclusive	
Search	TITLE-ABS-KEY ("digital" AND "platform*" AND ("collaborative consumption" OR "sharing economy" ))	Simple query to obtain the widest database for CC/sharing economy with digital platforms	540
Language	English		511
Subject area	All	Keywords are specific; the aim is exploring the topic in all literature streams	511
Contribution type	Articles, book chapters, books	Published, peer-reviewed body of knowledge	375
Years	All	No specific reason to cut	375

## Results

This section presents the results of the systematic literature review. As shown in Table 1, the study identified a total of 375 relevant articles from Scopus (see Figure 1 for the volume by year).

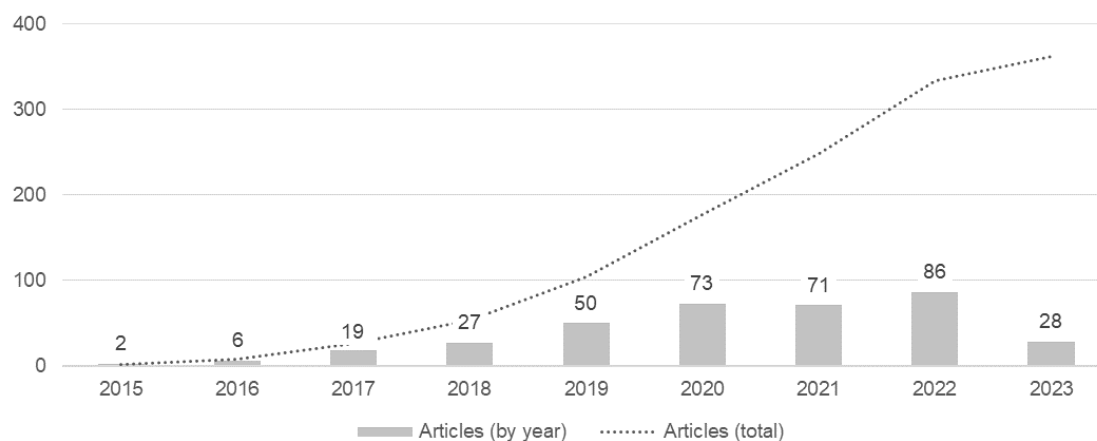


Figure 1. Sharing economy in digital platforms – scientific production by year

The analysis of the data revealed several key themes and patterns that emerged across the literature. It represents a useful tool for synthesizing the most influential research on this topic and identifying areas for future inquiry. The 20 most cited articles in the review – the “intellectual core” – are summarized in Table 2.

**Table 2.** Systematic Literature Review – intellectual core.

#	Author(s)	Year	Article title	Source	Cit.
1	Rosenblat A., Stark L.	2016	Algorithmic labor and information asymmetries: A case study of Uber's drivers	International Journal of Communication	586
2	Richardson L.	2015	Performing the sharing economy	Geoforum	308
3	Eckhardt et al.	2019	Marketing in the Sharing Economy	Journal of Marketing	307
4	Täuscher K., Laudien S.M.	2018	Understanding platform business models: A mixed methods study of marketplaces	European Management Journal	264
5	Vallas S., Schor J.B.	2020	What do platforms do? Understanding the gig economy	Annual Review of Sociology	239
6	Jin S., Kong H., Wu R., Sui D.	2018	Ridesourcing, the sharing economy, and the future of cities	Cities	204
7	Cockayne D.G.	2016	Sharing and neoliberal discourse: The economic function of sharing in the digital on-demand economy	Geoforum	176
8	Calo R., Rosenblat A.	2017	The taking economy: Uber, information, and power	Columbia Law Review	162
9	Gössling S., Michael Hall C.	2019	Sharing vs collaborative economy: how to align ICT developments and the SDGs in tourism?	Journal of Sustainable Tourism	128
10	Michellini L., Principato L., Iasevoli G.	2018	Understanding Food Sharing Models to Tackle Sustainability Challenges	Ecological Economics	127
11	Ferreri M., Sanyal R.	2018	Platform economies and urban planning: Airbnb and regulated deregulation in London	Urban Studies	119



Four main clusters emerge:

- 1) Sharing cities: keywords referred to tourism-related house rental ("tourism development", "hotel industry", "short-term rentals", "Airbnb"), its implications for the city ("housing", "urbanization", "gentrification", "smart cities"), and ways to address them ("governance", "political economy", "policy making")
- 2) Business model innovation: technical keywords related to digital platforms are connected with business keywords such as entrepreneurship, innovation, competition and marketing (here, the industry-specific terms that emerge are "Uber" and "ride-sharing")
- 3) Socioeconomics of sharing: "platform economy", "collaborative economy" and "collaborative consumption" are linked with its implications ("gig work", "regulation", "capitalism") and opportunities ("developing countries", "digital social innovation", "social impact", "sustainability"; as a third industry, "food sharing" appears in this cluster)
- 4) People's perception: here, social terms such as "trust", "privacy" and "human" appear together with business concepts related to perceived quality of service ("perception", "motivation", "consumption behaviour")

The fourth cluster, "people's perception", is the most scattered and seems to act as the glue among all the clusters. The first consideration is that the social component is fundamental for this phenomenon, which is socio-economic and also socio-technical. The second consideration is that this cluster needs to become a clearer literature stream, focused on customer's perception of service quality. Both the relevance of this cluster and its potential as a stand-alone literature stream support the need for its consolidation through theories and frameworks. This work aims to start the research in that direction, starting from two main pillars: (i) a new framework to model the interactions among CC actors, essential to build managerial tools upon it, and (ii) the identification of a literature stream that could sustain, with well-known organizational and managerial models, the development of quality management tools to be deployed for CC actors, especially companies; with its focus on quality management and people engagement, lean manufacturing shows promising features upon which to build new frameworks and models.

Concerning the modelling of CC in digital platforms, this stream shows a tendency toward substituting concepts such as "customer" or "user" with the concept of "actor". A preliminary analysis led to define that the "primitive" triadic model is evolving towards a more complex model, where  $n$  agents are involved and form a polyhedral or "multi-sided" model involving peer-providers, clients and platforms. The roles of the "sharers" (customers and providers) are becoming blurred and interchangeable: an agent can be a customer and a provider at the same time. The clear initial triangle is transitioning toward a polygon whose vertices are platforms and "sharers". This leads to the visualization of a third model in the future similar to a neural network, where each node can form part of several polyhedral cells, configuring a dense network in which "sharers" and platforms from different sectors can coexist. A first representation of the evolution among the three models is represented in Figure 3.

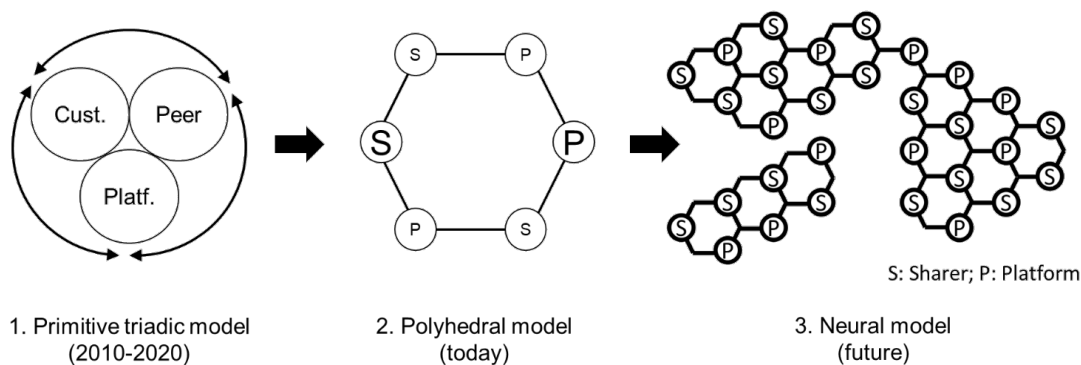


Figure 3. From triadic to neural models (own elaboration based on Hamari et al., 2016; Benoit et al. (2017) Just as Smart-cities or Smart-mobility exist, a new approach to quality management (Smart-quality) would emerge in such ecosystems. Further literature review and systematic analysis will allow to define them and outline a comprehensive and updated CC digital platform management model. By classifying platforms and actors based on defined parameters, and analyzing quality management practices in digital services, it will

also be possible to develop a theoretical model of quality management for CC digital platforms and evaluate its impact on all sectors of the economy, including those where this type of platform is not yet being implemented. An opportunity in this sense is represented by the vast organizational literature focused on quality management, also drawing from practices and principles of well-established management systems such as lean manufacturing. This stream of literature is totally unexplored in the context of sharing economy, to which it might contribute by providing solid and purposeful frameworks, especially concerning quality management. In the long term, this will enable the creation of innovative solutions to optimize the use of collaborative consumption platforms and increase peer satisfaction.

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Frederic Marimon, Anna Akhmedova Usacheva, Silvia Tiralongo, Maurizio Galetto

### The measurement of engagement in food delivery app: Developing and validating the customer engagement between consumer and platform through a scale.

The objectives of the work are (i) to analyze customer engagement (CE) within the world of food delivery applications, (ii) to understand its effects and (iii) to find metrics to analyze CE.

For this, an in-depth study of the literature will be carried out to analyze the first dimensions correlated with CE and related variables. Then, through focus groups, the previously chosen variables will be better defined. Following this, using some statistical techniques including factor analysis, a scale will be identified to describe CE in online food delivery applications.

The work will be divided first into a qualitative part that will explore the issues mentioned above and a second, a quantitative part that will serve to reach a definitive scale.

The food delivery scale was developed following (Churchill, 1979) criteria for its development.

To define the scale, it is important to understand what engagement is and from which discipline it originated in order to define the dimensions related to engagement on online platforms.

In the first section of the paper, a literature review will be conducted to better understand the term engagement and CE through the transition from the offline world to the online world. Then, the world of the peer-to-peer economy will be analyzed to distinguish sharing economy platforms from crowdsourcing platforms, to arrive at the final definition of online food delivery apps. Subsequently, it will be possible to analyze in depth the online food delivery platforms (OFDP) and its market. All this will help to understand the dimensions that make up CE.

A questionnaire will be designed based on our experience and on the literature. Next, an initial focus group will be held to adjust the questionnaire and have the definitive version. It will be sent to users to obtain a sufficient sample to be able to conduct an exploratory factor analysis from which we will obtain the necessary metrics to identify the scale and the dimensions in which CE is deployed. After the exploratory factor analysis, the reliability analysis will be performed.

The expected results refer to the identification of the appropriate dimensions that reflect CE in OFDP to understand if they correspond to the usual dimensions identified for CE in the literature (vigor, absorption and dedication), or if different ones can be identified.

To do this, however, it was also necessary to perform a factor analysis on the dimensions prior to customer participation to ensure that the user was following a logical path in completing the questionnaire.

The main result found was obtaining a new dimension for CE that reflects a relevant part in the relationship with food delivery applications. This dimension was called ""regularity"" and reflects the fact that in OFDP, the most important thing with regard to CE is to create that relationship that makes the user use only that app anyway and not any other. The presence of competitors that are very similar to each other makes it difficult for the client to create a relationship such that they use a single application over all others. This makes it clearer how important it is to focus on the dimension ""regularity"" and how this should be considered a separate dimension from the other three.

Another interesting result was to observe that some dimensions included in previous models have been modified in their composition by adapting them to the food delivery service environment.



**Mark Gleim, Alexander Davidson**

### **Peer-to-Peer Equity: An Examination of Gig Worker Earnings and Strategies to Ensure Fairness**

The sharing economy has democratized industry marketplaces by removing restrictions to entry for new workers. Sharing economy platforms introduce flexibility that can benefit people who are unable to meet the demands of a rigid schedule (Lehdonvirta, 2018). Employment in the sharing economy also provides flexible schedules and freedom, as well as transparent pay rates and the opportunity to earn equitable pay. Given the continuous discourse on the earnings gap, the present research examines earnings differences attributed to individual differences and platform mechanisms with the goal of developing a conceptual model to help sharing economy platforms create equitable marketplaces for workers. Many sharing economy platforms present an opportunity to reduce earnings differences since they grant greater flexibility and allow workers to set their own prices, and therefore introduce a unique context by which to examine the phenomena (Lin et al., 2019; Ozbal et al., 2020).

In recent years, the sharing or “gig” economy—which refers to “a labor market of ad hoc, short-term, freelance, or otherwise non-permanent jobs” (Gleim et al., 2019; p. 142)—has grown dramatically due to the proliferation of digital platforms and supply-side flexibility (Zervas et al., 2017). The sharing economy provides a unique form of employment compared to the traditional, full-time workforce. Workers are considered independent contractors, not employees. This arrangement provides financial advantages to the platforms and allows for workers to have more flexibility and autonomy (Gleim et al., 2019). In turn, these freedoms empower workers to experiment with new marketing approaches, advertising strategies, and pricing mechanisms (Einav et al., 2016).

#### **Earnings in the Gig Economy**

##### **Individual-level Factors**

A majority of rideshare earners, both in the US and the UK, participate in the gig economy to supplement their household income. The flexibility of ridesharing enables many drivers to earn money on the side, with most working fewer than 10 hours per week and at the leisure of their own schedule. Rideshare earners are most likely to be in their 20s or 30s and from the bottom half of the income distribution (Anderson et al., 2021; Berger et al., 2019).

Earnings have been shown to vary based on race, but this depends on the platform. For example, on Airbnb, ethnic minority versus majority hosts are more likely to rent out listings in undesirable locations and receive lower prices for their properties (Edelman & Luca, 2014). In contrast, there is no evidence to suggest that the race of a rideshare workers impacts their earnings (Hall & Krueger, 2018).

Earnings differences have been observed between genders and across platforms. Female Uber drivers, for example, have been shown to earn 7% less than males with research suggesting that males drive faster and are more flexible with times and locations, therefore they are able to serve more passengers and resultingly generate higher earnings (Cook et al., 2021). Similar differences have been found on Amazon’s Mechanical Turk, Etsy, and Freelancer (Jourdain, 2021; Liang et al., 2018; Litman et al., 2020). On Airbnb, lower earnings among female hosts have been attributed to them setting lower prices, accepting fewer stays, and obtaining a fewer number of guests per stay (Davidson & Gleim, 2022).

##### **Platform-level Factors**

Across the gig economy, workers can earn income through price-setting and non-price-setting platforms. Price-setting platforms, such as Airbnb, TaskRabbit, and Turo allow workers to set their own prices for the services they offer. On Airbnb, for example, hosts determine a nightly price for their accommodation that can be customized based on particular days (e.g., weekends), dates (e.g., holidays), or duration (e.g., long-term discount pricing) (Airbnb, 2023a).

Non-price-setting platforms, such as Uber, Lyft, and Doordash, do not allow workers to set their own prices and instead rely on a pricing algorithm determined by the platform. On Uber and Lyft, for example, the platforms determine a ride’s fare based on the estimated length and duration of the trip (Uber, 2023a).

## Conclusion

Employment opportunities in the sharing economy are prevalent for nearly anyone seeking work. The flexibility and transparent pay rates should enable workers to earn equitable pay, however that has yet to occur. However, earnings differences persist. Given the earnings gap in the sharing economy, we seek to develop a conceptual model for sharing economy platforms to help ensure equitable pay for workers. The model is in development and we plan to have a draft of it for presentation and refinement at the conference.

References available upon request.

Francesco Pasimeni, Tommaso Ciarli

### Do Consumers Shift from Private to Shared Ownership?

Most households in higher-income countries own a range of domestic appliances, such as vacuum cleaners, washing machines and drills, which are idle most of time (Princen 1999, Peattie 2010, Baudrillard 2016), use a share of the bandwidth of their internet connection, and own cars, which are parked most of the time (Shaheen & Cohen 2013, Frenken & Schor 2017). Could these households coordinate to purchase and consume these goods collaboratively? Shared ownership may reduce inequalities, making expensive goods accessible to more consumers, and is likely to be more sustainable for the environment, reducing the number of goods produced and therefore the material extracted (Albinsson & Perera 2012, Chander & Muthukrishnan 2015, Goedkoop & Devine-Wright 2016). However, coordinating a shared purchase comes with coordination costs.

In this paper, we develop a simple model to investigate under what conditions consumers might shift from individual ownership and consumption of goods to shared ownership and consumption. Sharing is a collective decision which requires the formation of a coalition of consumers.

To study the relation between consumption choice and coalition formation, we extend Pasimeni & Ciarli (2018) Agent-Based Model (ABM) with heterogeneous users who consume a service over a finite amount of time periods (e.g., urban transportation) choosing between three options: a public service (e.g., bus), individual ownership (e.g., individual car) or shared ownership (e.g., shared car). The choice between the three different modes of purchasing the service depends on the consumer's utility, which is a function of consumers characteristics (i.e., income, demand for the service and preferences) and the service characteristics (i.e., cost and supply capacity).

To study under which conditions consumers shifts from individual to shared ownership, we employ a multi-step global sensitivity analysis of the full parameter space of the model defining consumer and product characteristics (e.g., Dosi et al. 2018). First, to reduce the dimensionality of the model, we first conduct a preliminary screening of the parameters using the Elementary Effects (EE) method (Morris 1991, Campolongo et al. 2007) and identify the parameters most relevant to model output. We then apply the Near Orthogonal Latin Hypercube (NOLH) DoE to optimise the number of model sampling points to be observed for the selected parameters (Cioppa & Lucas 2007). Based on these observed points, we use the Kirging meta-model to study the parameter space (Rasmussen & Williams 2006), in which the number of consumers opting for shared purchase is maximised. Finally, we run a global sensitivity analysis using the Sobol decomposition to evaluate the individual and interaction effects of the model parameters on the variance of the model output (Saltelli et al. 2000, Saltelli & Annoni 2010).

The novelty of this procedure is that it enables to find the relevant niche as a sub-space of the parameter space, where the niche is defined as the model configuration whose parameters provide supporting conditions for shared consumption and ownership to emerge. We find that shared ownership emerges under a narrow combination of conditions (parameter values). Generally, consumers prefer to use either the public service or, if they have sufficient budget, to purchase their own individual good.

We also study what drives the transition from individual to shared ownership, focusing on the parameter space in which at least some consumers have a preference to share. We find that the small niche of consumers that opt for the shared purchase has a relative higher need for the service and a relatively lower income, which makes the individual good non viable. Shared ownership replaces individual ownership, but does not affect the number of consumers relying on the public service. As a result, the transition from individual to shared ownership significantly reduces the cumulative number of goods sold in the economy, enabling a more sustainable model of consumption.

We study two potential policy incentives that may affect the transition to shared ownership: price and capacity of the good. As expected, we find that reducing the relative price of using the shared good relative to using the individual good, can push consumers to share. But the capacity and cost of the good also are critical: consumers groups are unlikely to emerge in the case of very large goods, since this would involve very large coalitions, which increases the coordination costs.

This paper contributes to the literature that studies the role of the sharing economy in enabling environmentally sustainable and more inclusive consumption practices. Some studies find that sharing promotes collaborative consumption of existing products and reduces the need for new products to be manufactured and purchased, thus reducing the environmental impact associated with the extraction of natural resources (Botsman & Roger 2011, Cohen & Munoz 2016, Fremstad et al. 2018). Other studies argue that sharing enables social inclusion by providing access to goods and services to people who might not afford them otherwise (Belk 2014b, Hamari et al. 2016). We make two main contributions to this literature.

First, we shift the analysis from collaborative consumption – the key model of the sharing economy (Botsman & Roger 2010, Belk 2014b, Hamari et al. 2016) – to shared ownership and consumption. The sharing economy literature has extensively analysed changes in consumer behaviour from enduring individual ownership of a good to ephemeral and dematerialised consumption of a good accessed temporarily (Bardhi & Eckhardt 2017). But, it overlooks the case of the good being owned by a group of users: shared ownership (Pasimeni 2021). This difference has implications for the distribution of wealth among individuals (Richardson 2015, Martin 2016, Acquier et al. 2017), as most sharing economy practices use business models that are similar to the renting model, also defines as pseudo-sharing (Belk 2014a, Eckhardt & Bardhi 2015).

Second, we provide a theoretical model to analyse experiences of shared ownership, and study conditions under which they can diffuse. The transportation literature has presented successful cases of “true” sharing (Belk 2017, Dreyer et al. 2017, Czako et al. 2019), like the Swedish Goteborgs Bilkoop. In this scheme, local communities share the ownership of a car, which has allowed lowincome consumers to increase their access to flexible transportation. User cooperative is another form of true sharing, like the large car sharing clubs in Switzerland (Truffer 2003, Vaskelainen & Munzel 2018), the food cooperatives in Germany (Vogeler et al. 2021) and Portugal (Moreira & Morell 2020) or the energy communities (Yildiz et al. 2015, Bauwens et al. 2016, Pasimeni 2019). Building on these case studies, our model studies the condition under which they can be successfully implemented in other regions and for other goods and services.

Our model of shared ownership contributes also to the theory of clubs (Buchanan 1965, Lindenberg 1982). Buchanan defines club goods those that cannot be categorised as neither purely public nor purely private. For these goods, cost-sharing is possible through clubs, and club formation depends on “the extension of ownership-consumption rights over differing numbers of persons” (Buchanan 1965, p.1). Lindenberg extended Buchanan’s work by analysing the conditions under which the decision to jointly own a good is preferred to individual ownership. The author focuses on goods that are not affordable for the majority of consumers, who have an opportunity to access them by forming groups (Lindenberg 1982). We contribute to those literatures in two main ways. First, our model combines the models on coalition formation with those on owning and sharing a good in a club by studying under which conditions consumers form coalitions to share ownership. Second, we analyse the conditions under which such coalitions to share a good are likely to emerge.

In sum, we know very little about the drivers of shared ownership and consumption, and this is how this paper makes a unique contribution to the literature on sustainable consumption behaviour, the literature on the sharing economy and on fractional ownership, and the literature on clubs and sharing groups. We do this by conceptualising the so called “true” sharing through the theory of clubs and building on examples of user cooperatives. Our contribution opens up a research avenue to broaden the concept of sustainable shared consumption (Safarzyńska 2013).

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**Monica Bernardi**

### **Evolving city, changing narratives in the smart city: from sharing to circular**

In all cities and urban areas, the risks that people and assets must face from disasters associated with climate change are increasing (IPCC, 2022). The Intergovernmental Panel on Climate Change (IPCC) has warned that the world is already experiencing the impacts of climate change and that these impacts are likely to become more severe in the future without rapid and substantial reductions in greenhouse gas emissions (IPCC, 2021). Urbanization, overpopulation, and overconsumption are also contributing to environmental issues, in a kind of vicious circle (i.e. resource scarcity, pollution, ageing infrastructures...). Cities account for a significant portion of global greenhouse gas emissions, with urban areas responsible for around 70% of global energy-related CO<sub>2</sub> emissions (UN-Habitat, 2016). In addition, as the global population continues to grow, the demand for resources such as food, water, and energy is increasing. This can lead to overuse of resources and depletion of natural resources, exacerbating environmental problems such as climate change, pollution, and deforestation. Despite cities are a key contributor to climate change, they can also offer a part of the solution reducing greenhouse gas emissions and promoting decarbonisation (Bulkeley, 2013; van der Heijden et al.,

2019). Therefore, it becomes especially important to consider the city vision implemented to tackle urban challenges, in particular in the framework of climate change. In urban studies, the fundamental question is indeed how cities can prepare and adapt, both materially and immaterially, to the difficult scenarios posed by climate change (IPCC 2022).

In this sense, the sharing economy and the adoption of city policies to embrace sharing and collaborative practices, were welcomed as a reply to economic, social but also environmental crises. Smart cities all over the world, already set to use technologies for the benefit of the citizens, started to shape programs and implement policies to become sharing cities and adopt collaboration as a lever to solve urban tensions. Some examples are the cities of Seoul, Amsterdam, Milan, Toronto, Copenhagen, Melbourne, and many more, which have promoted sharing and collaborative programs, practices and businesses in order to reduce the environmental impacts (i.e. reducing waste, encouraging the use of sustainable transportation modes...), promote social inclusion and the strengthen of communities (providing access to goods and services that may be otherwise out of reach for someone...), boost local economies (by creating new job opportunities, supporting small and medium-sized enterprises, and promoting entrepreneurship), and thus enhance the general quality of life of citizens and communities (by providing access to affordable and convenient goods and services, reducing traffic congestion, promoting community building and social interaction...) (among the others: Martin, 2016; Böckera, Meelen, 2017). Nevertheless, after the first enthusiasm, the sharing economy showed its “pervert” side, in particular through the major commercial platforms which tend to reproduce old neoliberal economic practices (Gössling, Hall 2019) requiring to cities to adopt accurate governance models to manage it; thus, the commitment of cities to preserve themselves and citizens from the negative impacts of platformisation has increased. The covid-19 pandemic has also initially reduced the adoption of some sharing practices, while some others have experienced an increase in use (Bernardi, 2020), and in general today digital platforms, also in the platform cooperative versions, are massively used for any everyday life activity (Mannan and Peck, 2021). Cities are more and more crossed by platforms for mobility, entertainment, travel, ecommerce, food provision, etc. In addition, there is a consolidation of collaborative and sharing practices with a hybrid nature, mixing online and offline life (repair cafès, tool libraries, swap parties, shared gardens...).

Today, with the climate emergence, this type of initiatives finds a new concrete expression in terms of circularity, matching the sharing economy values with those of circular economy in order to tackle the urban challenges. Sharing can indeed contribute to reduce waste and resource consumption while circular practices can help to create closed-loop system that maximizes resource efficiency and minimizes waste. This match can be observed in various sectors such as mobility, food, energy, waste management. The REVOLVE framework systematized by the Ellen MacArthur Foundation includes “share” and “exchange” as actions beside regenerate, optimise, loop, and virtualise. What was a sharing city, become more and more a circular city, a city that practices circular economy principles to close resource loops, in partnership with the city’s stakeholders (citizens, community, business and knowledge actors) (Prendeville et al. 2018). The sharing economy becomes a tools to help cities in being regenerative and adaptive urban ecosystems, closing resource loops, reduce waste, and diminish the ecological footprint (Williams, 2021).

From this point of view, smart cities are widening their approach to sustainability, betting even more on technology to achieving it, and also on circular economy practices, being aware that the sharing economy alone is not enough to address the root causes of unsustainable urban development. The circular economy, in this sense, offers a sustainable approach to resource use that can contribute to reducing emissions and mitigating climate change.

In order to see this scaling up did by smart cities, which are evolving including circular practices besides the sharing ones, the case of Milan is analysed. The city is one of the most international renowned smart city which has embraced the sharing economy becoming a sharing city and today is implementing circular practices and programs in various fields to realize its vision of a future-proof city (Prendeville et al. 2018). The project Milan Smart City kicked off in 2012 with the idea of cultivating not only technological competence but also economic development combined with social inclusion, innovation, training, research and participation. From this project the city, in view of Expo2015, included an important reflection about the sharing economy that put Milan at the forefront among the world sharing cities. Indeed, Milan was one of the first cities in Europe to embrace the sharing economy, launching its “Sharing City” program in 2013. The program aimed

to promote sharing and collaborative consumption practices among citizens and businesses, including initiatives such as shared mobility schemes, collaborative housing, the sharing of tools and equipment, while fostering social innovation and promoting social inclusion. Milan Sharing City worked for creating a thriving ecosystem to support sharing and collaborative programs, initiatives and businesses; it is part of the main European sharing city networks (Sharing City Action and Sharing City Alliance) and it also took advantage of European funds to transform an entire neighbourhood in an almost zero-energy smart district under the 'Sharing Cities' project (in the context of the 'Horizon 2020' program) (Bernardi, Diamantini 2018).

Today Milan is widening its social innovation approach to smart and sharing including circularity as further criteria to tackle urban challenges. The city has also been selected as one of the “100 climate-neutral and smart cities by 2030” – together with other 8 Italian cities – within an EU Mission that aims to promote the climate neutrality of European cities addressing clean mobility, energy efficiency and green urban planning. In terms of circularity, Milan has recently launched the project “MilanoCircolare” dedicated to those involved in the circular economy in the city, paying particular attention to the fashion and design sectors. The project is developed starting from the Piano Aria Clima project, where the Municipality of Milan intends to work on an Action Plan on the Circular Economy. The goal is to transform the huge deposit of municipal waste into a resource to reduce the consumption of raw materials and energy, and create new job and business opportunities. It's important to note that the city did not experience a shift from sharing economy to circular economy, rather it can be seen as a continuum of practices which incorporate elements of both sharing and circular economies simultaneously. In Milan, while the city has a history of promoting sharing economy initiatives, it has also been actively implementing circular economy practices such as waste reduction and recycling, sustainable mobility, and the promotion of sustainable and local food systems (Milan Food Policy). The incorporation of circular economy practices into Milan's urban policies can be seen as a way of expanding and deepening the city's sustainability efforts beyond the sharing economy model. This shift is not just about adding new practices, but about reimagining the entire economic system in a more sustainable and equitable way. Through the adoption of circular economy practices, Milan is able to further reduce waste, increase resource efficiency, and promote more sustainable consumption patterns, all of which contribute to the city's overall efforts to tackle climate change.

As usually happen, also for the circular economy a boost comes from the action of funding agencies as the European Union. The EU has made the circular economy a priority, with a goal of achieving a carbon-neutral Europe by 2050. This has led to increased funding opportunities for circular economy projects in cities, which in turn may be driving the shift towards circularity.

The study is at its preliminary stage and it is investigating the new narratives linked to the idea of circular city in Milan.



Christian Bruck, Alexander Engelmann, Georg Reischauer, Werner Hoffmann

### Governing B2B Marketplaces in Nascent Industrial Markets

Topic. We are witnessing a rapid growth of business-to-business (B2B) marketplaces in industrial markets. B2B marketplaces challenge corporate strategies of incumbent firms (Adner & Lieberman, 2021; Danuso, Giones, & Ribeiro da Silva, 2022; Menz et al., 2021) and existing strategic relationships in the supply chain and entire industry architectures (Jacobides, MacDuffie, & Tae, 2016; Kapoor, 2013). B2B marketplaces also come with several benefits for different user groups (Kaplan & Sawhney, 2000; Landsperger & Spieth, 2011). One benefit is a widened market reach for buyers and sellers—sellers get access to new customers beyond local reach and buyers enjoy wider offerings (Lanzolla & Frankort, 2016); this generates cross-side value in that additional users on one side add value to users on the other side (Anderson, Lopez, & Parker, 2022). Still another benefit is neutrality as B2B marketplaces neither prefer buyers (e.g., when aggregating buyers to negotiate price reductions) nor sellers (e.g., when aggregating sellers to widen their market reach) (Kaplan & Sawhney, 2000). Capitalizing on these benefits is challenging, however, as it requires optimal platform governance choices—effective incentive and control mechanisms implemented by the platform owner.

Although platform governance research sparked in recent years (Chen, Tong, Tang, & Han, 2022a), it is currently somewhat biased towards “computer, smartphone, and video game industries, followed by e-commerce and media”. As consequence, leading scholars called for greater diversity in empirical settings (Rietveld & Schilling, 2021: 1546). This is because the contingency factors that shape optimal governance and design choices vis-à-vis different platform contexts (e.g., cross-sectional differences in industries, institutions, and geographic locations) remain understudied, not only in general (Chen et al., 2022a) but also in the rapidly emerging field of B2B platform research (Anderson et al., 2022; Shree, Singh, Paul, Hao, & Xu, 2021). We address these calls, our aim being to develop theory on platform governance in the context of nascent markets.

Theoretical background. A platform is a meta-organization that (1) federates and coordinates actors; (2) creates value through economies of scope in supply and/or in demand; and (3) entails a modular technological architecture (Gawer, 2014; Kretschmer, Leiponen, Schilling, & Vasudeva, 2022). There are different types of platforms. The distinction between transaction platforms and innovation platforms (Cusumano, Gawer, & Yoffie, 2019) often serves as a starting point. Airbnb, Uber, and eBay are examples of transaction platforms (or marketplaces) that match multiple sides and enable efficient transactions (Evans & Schmalensee, 2016; Gawer, 2021; McIntyre, Srinivasan, Afuah, Gawer, & Kretschmer, 2021). Innovation platforms such as Android or PlayStation enable interfirm collaboration: complementors co-innovate based on the core functionality, infrastructure, and coordination of a digital platform (Cennamo & Santaló, 2019; Gawer, 2022; Jacobides, Cennamo, & Gawer, 2018; Kretschmer et al., 2022; Ozalp, Cennamo, & Gawer, 2018).

The strategies that these platforms pursue have been a key object of inquiry (e.g., Cennamo, 2021; Kretschmer et al., 2022; Stonig, Schmid, & Müller-Stewens, 2022). For instance, studies showed how digital platforms grow at the expense of incumbent firms through championing alternative discourses and frames, such as public interests or entrepreneurship (Ansari, Garud, & Kumaraswamy, 2016; Gurses & Ozcan, 2015; Gurses, Yakis-Douglas, & Ozcan, 2022). Moreover, platforms grow by broadening their scope and targeting users from their existing digital platform (e.g., Uber Eats, which is about food delivery, that also targets users of Uber, which is about ride-hailing) (Müller, Kijl, & Visnjic, 2018). Interestingly, so far, scholars have mainly examined strategies of platforms that involve individuals as end-user (in the case of gaming platforms, such as PlayStation, or consumer-oriented gaming systems, such as Android or iOS) or as transaction party (e.g., marketplaces such as Uber) (McIntyre & Srinivasan, 2017; Rietveld & Schilling, 2021). Thus, focusing on actor types involved on platforms, most knowledge was generated by studying strategies of platforms that specialize in business-to-consumer (B2C) relationships.

Empirically however, transaction and innovation platforms that specialize in business-to-business (B2B) relationships – B2B platforms for short – have been growing rapidly in recent years. For instance, Mercateo, a European platform founded 1999, offered around 111 million industrial goods and had a revenue of 316 million EUR in 2019. Grainger, founded in 1997 in the United States (US), recorded net sales of 4.4 billion USD in 2020. Likewise, the 2020 MIT Platform Strategy Summit Report identified platforms in industrial markets as

a major trend (MIT, 2020). B2B platforms have been asserted to widen the market reach for buyers and sellers – sellers get access to new customers and buyers enjoy wider offerings (Lanzolla & Frankort, 2016) and allow greater innovation. Second, by automating transactions (as in the case of Mercateo) and collaborations (as in the case of the industry platform MindSphere by Siemens), B2B platforms reduce search costs and information ambiguity (Dushnitsky & Klueter, 2017). Overall, as recently pointed out by Anderson, Lopez, and Parker (2022) there is growing recognition for the distinctiveness of B2B platforms and the need for more research that explicitly considers how transactions and joint innovation activities between businesses unfold on B2B platforms. This is an important research gap, as insights from the mainstream platform literature that draws predominantly on B2C platforms, is neither directly applicable nor replicable to the B2B context (Jovanovic, Kostić, Sebastian, & Sedej, 2022).

With the rapid diffusion of digital platforms, scholarly discourse about platform governance—the overarching rules, “including hard regulations and soft nudges” (Zhang, Li, & Tong, 2022: 600)—has sparked in recent years (e.g., Chen, Yi, Li, & Tong, 2022b; Wareham, Fox, & Cano Giner, 2014). This research shows that governance choices of platform owners are key for ultimately orchestrating resources and business activities (Chen et al., 2022a). More precisely, platform governance refers to “a set of overarching rules, constraints, and inducements that platform owners develop and utilize to address market frictions in coordinating and deploying co-specialized capabilities” (Chen et al., 2022a: 153), and emerges as a vibrant research conversation. For example, Lanzolla and Frankort (2016) show for the case of an Italian B2B marketplace that the information provided about the geographic location and the legal status increases the buyer’s likelihood of contacting the seller. Future research should develop divergent mechanisms through which multiple signals can be combined by the recipients. Importantly, effective incentive and control mechanisms choices made by the platform owner are crucial factors in platform governance (Chen et al., 2022a).

The platform governance literature identified several sets of rules (Felin & Zenger, 2014; Saadatmand, Lindgren, & Schultze, 2019). One set are membership and participation rules—“to ensure the quality of complements and clarify who can connect to and innovate on top of the platform” (Gawer, 2022: 114). Platforms can define different participation rules for different members (Wareham et al., 2014) and vary the strictness of particular rules. For instance, while Apple is known for its rather tight control of the iOS platform, Google’s Android tends to be less rigid (Kapoor & Agarwal, 2017). Another set of rules are support rules (Huber, Kude, & Dibbern, 2017; Wareham et al., 2014). Wareham et al. (2014) distinguished between two groups (see also Reischauer & Mair, 2018).

Specifically, we can expect differences to marketplaces in consumer markets because of the distinct affordances of marketplaces in nascent industrial markets in at least two ways. (1) Industrial goods often require special logistics. For example, hydrochloric acid, steel, or high-density polyethylene are hard to ship via general logistic providers such as UPS or FedEx that are key for consumer marketplaces such as Amazon (Kaplan & Sawhney, 2000). (2) Industrial goods can be large and complex (e.g., wind turbines, tons of raw material) or dangerous (e.g., acid) (Cui, Li, & Li, 2019; Hein, Weking, Schreieck, Wiesche, Böhm, & Krcmar, 2019). We thus can expect that marketplaces have to invest more time and resources to screen users (i.e., customers, complementors, and other users) on all sides (Cui et al., 2019).

Despite these advances, we still do not know enough about the governance of B2B marketplaces. In fact, as has been recently contended by Anderson et al. (2022), we cannot readily extrapolate the insights from B2C to B2B markets in which various contingencies may shape governance choices. For instance, B2B platforms tend to have higher operational complexity, sophistication, and are faced by higher data governance concerns. As a result, “gaining rapid scale, building network effects, leveraging lock-in” (Anderson et al., 2022: 9) may represent key strategic challenges for B2B platform owners. However, we yet do not know enough about how B2B marketplaces address these challenges. Shree et al. (2021) call for a deeper study of the factors that lead to successful B2B platforms. Whereas past studies have primarily focused on the IT/IS technical perspective, it is fruitful to study strategies from the perspective of the platform owner. Second, we do not know much about the factors shaping the choice of platform governance practices. In other words, we know little about the contingencies of platform governance practices. We can, for instance, expect that the features of industrial goods outlined in the previous paragraph are important. Likewise, firm-level factors such as ‘legal status’ (Lanzolla & Frankort, 2016) might play a role. For example, we can expect that market entry modes – whether a marketplace is a start-up or owned by an incumbent – matter. But empirically grounded insights

on these issues are currently scarce. To address this gap, we therefore ask the following research question: How are B2B marketplaces in nascent industrial markets governed?

**Research methods.** Due to the exploratory nature of our research question, we opted for a comparative case study design (Eisenhardt, 1989). We iteratively met in the author team to discuss and settle on deviating views or inconsistencies that resulted from independent coding. As characteristic for qualitative research, each step had several iterations and discussions amongst the authors. With this design, we follow the observation by Rietveld and Schilling (2021: 1547) that “it would also be good to have more in-depth case study research with the aim of developing novel theory that more richly reveals the ways that platforms compete” (see also, Anderson et al., 2022; Shree et al., 2020). We sampled 12 cases in the German manufacturing industry where B2B marketplaces are rapidly emerging since 2014. The setting is attractive because marketplaces for industrial goods that are in an early stage of market formation (Santos & Eisenhardt, 2009), thus representing a nascent market, i.e., an emerging “economic exchange structure characterized by buyers, sellers, and a label” (McDonald & Eisenhardt, 2019: 485).

Following the recommendation of Gibbert, Ruigrok, and Wicki (2008) to ensure construct validity of case studies through triangulation, we utilized four data sources: (1) 42 semi-structured interviews with managers from sampled cases; (2) approximately 2000 pages of case archival data (internal documents, public documents, and firm-specific press coverage); (3) 42 semi-structured interviews with industry experts; (4) and 1300 pages of industry archival data obtained through Factiva (Henkel, Schöberl, & Alexy, 2014). We used the cross-case analysis technique suggested by Eisenhardt (1989) in two steps. In the first step, we carried out a within-case analysis. In the second step, we carried out a cross-case analysis. Each step focused on governance choices and their antecedents, contingencies, and outcomes, as units of analysis.

**Expected contribution and results.** We found that the governance systems of the surveyed marketplaces are characterized by four sets of rules: (1) transparency rules relates to the visibility of shared information to buyers and sellers; (2) gatekeeping rules are about rules that determine who can be a seller (Zhang et al., 2022); (3) logistic rules refers to rules on how to integrate offerings after a completed transaction; (4) segmentation rules are about creating different user groups.

However, not every surveyed marketplace had all rules set in place, indicating that each dimension varies between ‘high’ and ‘low’. We systematized this variation by developing three configurations (Saadatmand et al., 2019) of rule sets and thus governance system types that are summarized in the upper part of Table 1. (1) Bureaucratic governance defines a more restrictive approach towards using the platform. (2) Enabler governance is about attracting and retaining users. (3) Essentialist governance refers to a governance approach that is only concerned with providing basic structures of a transaction.

We further found that a key antecedent of choosing a governance system type was market entry, i.e., whether a b2b marketplace was an incumbent-hosted platform or a new platform venture. See lower part of Table 1 when we observed which market entry.

Our paper contributes to the platform governance literature (Chen et al., 2022b; O’Mahony & Karp, 2022; Reischauer & Mair, 2018; Saadatmand et al., 2019; Zhang et al., 2022) by offering a rule-based understanding of platform governance systems that are not, as dominantly studied so far, concerned with governing individual users but organizations. We build on that notion by focusing on specifics of nascent industrial markets, shedding light on the critical governance choices of platform owners, including their antecedents and contingencies and also focusing on the trade-offs platform owners face while making such governance choices (e.g., selection of complementors, degree of transparency, neutrality). We further contribute to the emerging discourse of the role of transparency in platform governance by shedding light on the moderating factors that shape the degree of transparency (e.g., varying amount of information provision by platform owners to complementors and/or other users) (Anderson, et al., 2022; Chen et al., 2022a; Dushnitsky & Klueter, 2017). In addition, we will contribute to the question of the sweet spot of platform crowdedness, that is about the trade-off of selecting which and how many complementors. Thus, we contribute to the emerging literature on B2B marketplaces (Anderson et. al, 2022; Chen et al., 2022a; Kaplan & Sawhney, 2000; Lanzolla & Frankort, 2016) by shedding light on the governance systems and approaches in this specific sector.

Overall, our paper aims to contribute to the understanding of the strategies of B2B platforms. Specifically, it discusses how B2B platforms attain legitimacy, grow, and enable innovation. We discuss the governance mechanisms of B2B platforms based on data for the German manufacturing industry, and challenge and

advance the understanding of the distinctiveness of B2B platform strategies. In doing so, we especially follow Evans and Gawer (2016: 6) who argued that “[p]latforms change what it means to lead organizations, forcing them [and us management scholars] to re-think their strategies, business models, leadership, organizational structures”. Providing a big picture helps further research to validate and expand governance systems in nascent industrial markets where B2B platforms are becoming increasingly important.

Ying Yin, Xishu Li, Rob Zuidweijk

#### **Once Bitten, Twice Shy? Information Disclosure and Revenue Sharing on Sharing Economy Platforms**

Information disclosure and revenue sharing are critical to sharing economy platforms' business. We study how a sharing economy platform should strategically disclose information and share revenue with its content supplier in repeated sharing activities. At the beginning of each period, the platform makes decisions regarding the revenue-sharing ratio and the how much revenue information to disclose. The content supplier evaluates the benefits of participating in the sharing activity, considering his trust in the platform's information. At the end of each period, the platform shares revenue with the supplier, and may also disclose the revenue-sharing ratio. When making decisions in each period, the platform considers the supplier's trust and his expected revenue-sharing ratio in that period which are unknown and unobservable by the platform directly. We address this challenge by using the framework of partial observed Markov decision processes (POMDP) to model the platform's two beliefs about the two unobservable uncertainties. Furthermore, we model the transition of the two uncertainties from the supplier's perspective using the concept of human reinforcement learning.

By solving the modeled POMDP, we derive the optimal policy for information disclosure and revenue sharing for the platform in a finite discrete operation time horizon. Our findings indicate that the platform should slightly inflate the disclosed forecast to encourage the supplier to serve more while keeping the revenue-sharing ratio slightly higher than the supplier's expectation. Additionally, both the platform and the supplier benefit from the optimal information disclosure policy compared to a non-information-sharing scenario. Based on our findings, we offer practical guidelines to sharing economy platforms on how to adopt an effective information sharing and revenue sharing policy while considering the supplier's trust transition.

Kelvin Wade Ivankovic

#### **The B2B sharing economy: Exploring the potential of B2B resource sharing for innovation, sustainability, and entrepreneurship**

The sharing economy (SE) has been a rapidly growing area of research over the past decade. While much of the early research on the SE focused on peer-to-peer (P2) and business-to-consumer (B2C) sharing, there has been increasing interest in business-to-business (B2B) sharing in recent years (Gesing, 2017; Nordic Council of Ministers, 2017). Considering the significant growth of the SE in the P2P market, one could imagine that the next logical step for the SE is the B2B market (Esselin & Falkenberg, 2019). The possible implications of this B2B SE model are important and recent developments in the SE have heightened the need to understand how businesses interact in this space. However, there is still much that we do not understand about the B2B SE. The primary objective of this PhD project is to address this gap in the literature by researching the SE in the B2B context.

The first article in this project focuses on start-ups that use B2B sharing platforms. It is well recognised that, while start-ups are important drivers of employment and innovation, the failure rates of these businesses is significant. According to Islami et al. (2019), barriers to entry and the liability of newness are critical stumbling blocks for young companies. The primary objective of the first article in this PhD project is to explore the potential of the B2B SE and how this model can be utilised to help reduce the liabilities of being a new enterprise and to enhance start-ups' chances of success in the early phase of business development and market entry. The B2B SE has the potential to enable entrepreneurs to bypass traditional barriers to market entry by enabling them to access expensive equipment and facilities that they require to develop their

products and businesses via SE platforms (Frenken & Schor, 2017). The exchange of resources is particularly important for new businesses which often have limited resources (Grondys, 2020).

An embedded multiple-case study design (Yin, 2018) was used to examine the relationships, challenges and outcomes associated with B2B resource sharing. A combination of observation, interviews, and document review was used to gather data. Purposeful sampling was used to select research participants in both Norway and South Africa. Interviews were conducted with entrepreneurial leaders of start-up companies, resource providers and facilitators. 18 interviews were conducted, 8 in South Africa and 10 in Norway. The interviews, each of which lasted between 50 and 120 minutes, were conducted in English and Norwegian. The interview recordings were transcribed, and thematic analysis was conducted using NVivo12. The comparative perspective made it possible to explore differences and similarities in the B2B SE model across countries, and further to understand how start-ups may benefit from the model.

The research conducted for this first article uncovered several novel findings regarding the B2B SE model and how it can be utilised to support start-ups in the early phase of business development and market entry in both the Norwegian and South African contexts. The research findings present how the SE centres in Norway and South Africa facilitate the sharing of both tangible (e.g., expensive equipment and technologies, co-working space) and intangible resources (e.g., networks, information, knowledge, data, and services) through internal acquisitions and partners in the regional ecosystem. The centres facilitate increased collaboration between ecosystem actors and also increase flexibility and reduce the risk for start-ups. The research findings also highlight several dilemmas and challenges associated with this model. For instance, complexities such as power asymmetry, trust, and opportunism, intellectual property rights issues, and uneven share of costs and benefits make it challenging to manage these centres.

This research contributes to the nascent and growing body of knowledge on the B2B SE. The scientific relevance of this paper stems from the contributions that are made to the nascent and growing body of knowledge on the SE, whilst broadening the discussion to include an entrepreneurial perspective. Considering the limited research in this field, these research findings form a basis for discussion, critique and/or support of future research. This study also aims to provide practical insight for firms and entrepreneurs either currently or seeking to participate in B2B sharing schemes, as well as for policymakers and regulators. The research findings also offer valuable insight for policymakers in both Norway and South Africa as well as for public actors who wish to regulate or support the SE. As a part of the EU2020 Strategy, there was an effort to integrate shareability into the EU innovation policies, SE centres such as these offer an avenue to achieve this. The subsequent articles in this PhD project focus on the B2B SE from a systems perspective, B2B SE business models and sustainability transitions.

**Barbara Hartl, Sarah Marth, Eva Hofmann, Elfriede Penz**

**The sharing economy and its dark sides - Social representations of the sharing economy**

Communicating with one another requires a common understanding of collective ideas and phenomena. This happens through negotiating the meaning of new ideas and phenomena and results in social representations, which comprise collective values, ideas or knowledge regarding the phenomenon. The aim of this research is to compile and compare how a new phenomenon, the sharing economy, is represented in social media, in traditional newspapers (representing 'classic media') and individuals' associations in surveys. The sharing economy represents an ideal case for the following reasons: (i) Novelty: The term was first used only in 2007 by Lawrence Lessig, professor at Harvard Law School. (ii) Diversity and Ambiguity: The term describes a variety of activities that provide consumers with access to goods, without transfer of ownership. The sharing economy covers a range of transactions in almost all business areas, including accommodation and traffic (e.g., ride sharing). Within this maze, it is difficult to discern where actual sharing ends and commerce begins. (iii) Relevance: The number of sharing organisations and initiatives, as well as academic conferences and workshops on the sharing economy has grown considerably. Only recently, academic and political debates about the dark sides of the sharing economy and possible regulations and bans emerge. The aim of this research is to analyse and compare the social representation of the concept "sharing economy" in social media and classic media and contrast it with individuals' self-reported associations. For this purpose, we collected a comprehensive dataset: We assessed the social representation of the "sharing economy": in (1) a specific social media channel, Instagram, by analyzing a random sample of all posts that use the hashtag #sharingeconomy, contrasting it with the representation in (2) classic media by analyzing all newspaper articles addressing the sharing economy in two German newspapers and two British newspapers, and with (3) representative surveys in Germany and UK. Results reveal that the overall evaluation of the sharing economy was mainly positive in the survey and social media. Only newspapers extensively discuss the downsides of the sharing economy from different perspectives, mentioning ecological, social, economic, financial, as well as legal and security issues associated with the sharing economy.

**Oksana Mont, Yuliya Voytenko Palgan, Lea Fünfschilling**

**Comparison of institutionalisation pathways of the sharing economy across five global cities**

In the past decade, the sharing economy has swept the world off its feet with innovation that promised to unleash people's riches, providing easy access to what one needs and what another has in her possession. The brilliant idea was supposed to reduce the need to continuously extract precious resources and drastically reduce the waste that humans tend to produce. Diverse sharing economy organisations have emerged in cities worldwide, encompassing both large-scale digital platforms and local off- and online sharing initiatives that facilitate the exchange of goods and services between peers and organisations. Many proponents saw the potential of the sharing economy in being able to address some of the challenges related to current consumption and production patterns. Thus, it is essential to understand how the sharing economy evolves in different institutional contexts and what role geographically diverse places play in shaping the landscape of the sharing economy.

Our study analyses and compares the institutionalisation pathways of the sharing economy in five cities - Amsterdam, Toronto, Shanghai, Melbourne, and Seoul. By studying the discursive structures, i.e., shared patterns of meaning and communication, and how they are translated into more material structures across cities, we seek to understand whether the sharing economy has been institutionalised, what forms of the sharing economy were institutionalised and why. Using data from a 5-year project that includes more than 200 interviews with diverse actors in the sharing economy landscape in 5 cities, we discuss whether there is evidence of the diversity of institutionalisation pathways across cities or whether we witness some convergence around a particular type of the sharing economy. We explore how a local context influences the discursive shaping of the sharing economy, its legitimacy across cities, and how existing institutions and material structures shape the new phenomenon. Material structures include various artefacts, including

policies, buildings and sites, and organisational structures such as departments or units. These material structures provide a more formal and physical anchoring for discursive ideas, lend them more stability and make them more tangible to be carried on in a more robust and institutionalised way. Also critical is the role of different agents in shaping the sharing economy. In our study, we specifically investigate the role of municipalities and city councils in developing discourses and material structures in the context of national and state policies on the sharing economy.

Our data demonstrate that discursive structures such as the rhetoric of community and commons, trust and social cohesion have helped legitimise the emergence of new material structures, such as online platforms and peer-to-peer networks that facilitate the exchange of goods and services. This rhetoric helped fuel the growth of sharing economy giants like Airbnb and Uber, which became beacons of neoliberal capitalism. So, although the discourse around the sharing economy often highlights the potential benefits of peer-to-peer exchange, the material structures that enable and support these exchanges are often highly centralised and large-scale.

Cities play an essential role in shaping what types of sharing organisations gain legitimacy, engage in discursive struggles and become institutionalised and not.

Amsterdam has embraced the sharing economy mainly through space and mobility sharing, and much less through sharing of physical goods. To reduce the adverse sustainability effects of the sharing economy, the city implemented proactive regulations that ensure fair competition between traditional businesses and sharing economy platforms, limit the scale of the sharing economy and safeguard the interests of consumers and sharing economy workers. Since its emergence in the city in 2010, the sharing economy rhetoric has first evolved into a platform economy before the pandemic and become part of the so-called “doughnut Amsterdam”, a circular economy approach to urban development and planning that should help the city recover after the pandemic.

The sharing economy organisations in Toronto, especially in the mobility sector, play an essential role in providing alternative mobility options against the background of insufficient public transit services. Accommodation sharing does not fulfil a similar role, as Toronto had a good hotel infrastructure. The arrival of Airbnb and its competitors caused several hotels to close and reduced affordable housing, especially in the city centre. The City of Toronto and Ontario Province were early leaders in developing policies for the sharing economy around 2016. However, recently, they have assumed a more reactive role, developing policies in response to adverse impacts of the large sharing economy organisations rather than capitalising on and strategically shaping the sustainability potential of sharing. This might be associated with the fast pace of development in the digitalised sharing economy – platform economy, compared to the sometimes slow processes associated with city policy development.

Shanghai has experienced rapid growth of sharing economy platforms, as in China, sharing economy encompasses any internet platform that facilitates access to goods and services. Features such as sharing idling capacity or the two-sided markets are disregarded. The primary business model in the sharing economy landscape in Shanghai is B2C compared to peer-to-peer platforms, with online platforms offering access to newly produced goods through online channels and apps. Since the sharing economy is driven by technology, large tech companies such as Alibaba & Meituan heavily invest in the sector. Chinese sharing companies, such as Didi and Tujia, are more popular among the population, while Uber and Airbnb have higher acceptance among tourists. The city has faced challenges related to the lack of regulations and governance frameworks for these platforms, leading to concerns about safety and consumer protection issues. The gig economy - technology platforms mediating access to services – is also often included under the umbrella of the sharing economy in China.

The sharing economy in Melbourne is diverse, ranging from sharing of cars, bikes and accommodation to an entire network of toy libraries across Australia and shared spaces for creative activities, which we have not encountered in other cities we have studied (Amsterdam, Toronto, and Shanghai). Specific to Melbourne are several sharing organisations that cater their services to women and children, such as a ride-hailing platform Shebah, a co-working space combined with day-care services offered by Happy Hubbub and multiple community-based toy libraries. These sharing organisations emerge in response to limited public childcare services and expensive private offerings. The sharing economy concept is relatively well-known among the public in Melbourne. Most people typically know of the larger platforms, such as Uber and Airbnb, and

sometimes local car-sharing initiatives like GoGet or CarNextDoor. However, many smaller initiatives remain virtually unknown and struggle to scale up. The sharing economy also has a small place in public governance agendas regarding sustainable development. Recently, the notion of the circular economy seems to have come to the fore and become a more important goal for the city councils and the Victorian government.

Seoul has promoted the sharing economy as a means of creating social and environmental benefits, with initiatives that encourage the sharing of public spaces and resources. The city has also implemented regulations that support the growth of sharing economy platforms while ensuring fair competition and consumer protection.

The sharing economy in Seoul can be divided into two parts. On the one hand, the Sharing City Seoul programme was initiated by Mayor Park and has been run by the Seoul Metropolitan Government since 2012. During that time, more than 140 sharing projects have been implemented to address the social and environmental challenges that the city has been facing. A specific program for its implementation has been developed, the third stage of which has now been implemented. One of the unique features of this programme is the annual public surveys organised by the Seoul Metropolitan Government that demonstrate high levels of familiarity of Seoulites with mobility and accommodation-sharing organisations. On the other hand, there is another type of sharing economy perhaps even larger in scale than the SMG-driven programme. It is driven by large investment companies and conglomerates that support for-profit sharing organisations purely for economic reasons.

Across cities, mobility and space sharing is much more prominent and large-scale compared to goods sharing. Also, the awareness about mobility and accommodation sharing is often much higher than goods sharing. Awareness levels vary across the cities, with some city governments purposefully investing in public awareness surveys. The impact that mobility and accommodation sharing have on cities is also the reason why these sectors are often regulated. On the other hand, goods sharing is often small-scale, rarely regulated and known to a small part of the population. In Australia, however, we uncovered two sharing networks with a long history and national presence, Toy Libraries Australia, which represents over 260 not-for-profit toy libraries across the country, and Mens Shed, where men come to do their do-it-yourself (DIY) projects and borrow tools. However, no institutional structures at the city or county level would support, normalise or scale up these initiatives. When studying the institutionalisation of the sharing economy in different cities, we witness how local economic, political and cultural aspects shape the design and operations, institutional work and legitimacy building by different sharing organisations. At the same time, the prevailing global structures and institutional logics mould the local translations of the global phenomenon. The resulting reality is a mesh of global and local discourses and structures.

The rise of the sharing economy has been accompanied by a growing concern that the original ideals of sharing and community might have been lost as large corporations have co-opted the concept and turned it into a profit-driven business model. What has become institutionalised is not the original idea of sharing idling resources among peers. What we fail to see is a change towards a different logic of organising the way we produce and consume that is more sustainable. This co-optation is not unique to the sharing economy. In other areas, large corporations have expropriated social innovation ideas and transformed them into businesses that fit within the mainstream regime rather than challenge it. The power of cities to shape the sustainability of the sharing organisations is often limited to guarding against adverse effects. The majority of cities we studied display high path dependency, i.e., they tend to support what is known or what at least fits well within the prevailing discursive and material infrastructures. This cannot be said about organisations that adhere to ideals of sharing idling resources that often question the central premises of the capitalist economies – utility maximisation at any cost and growth. Therefore, these organisations put into question the logics that underpins the activities and structures of city administrations themselves.

We conclude that what became institutionalised is a particular type of the sharing economy – for-profit and large-scale – that strengthens the prevailing institutions rather than questions or overhauls them. The discursive and material structures associated with this type of the sharing economy reinforce existing power structures and imbalances. They also tend to strengthen institutions and discourses that limit opportunities for more bottom-up and democratic forms of sharing, which remain faithful to the nature of sharing but continue to exist as a niche phenomenon. So once again, we seem to be losing the opportunity to reshape how we consume and produce.



Mayya Shmidt

## Sharing economy in Sweden: an ethnographic study of the organizational landscape of non-commercial sharing services in four cities

The proposed paper is a part of an on-going dissertation project that examines Sharing economy organizing in non-for-profit sector in Sweden. What came to be called the “sharing economy” – defined loosely as “for-profit and non-profit peer-to-peer sites serving individuals in offline exchanges” (Schor 2020) emerged on the U.S. scene in the aftermath of the Great Recession and the Occupy Wall St. movement (Horowitz 2011), as a need to “do more with less”. While most accounts on the sharing economy concentrate on the commercial players, as long as the earliest platforms associated with the sharing economy were more or less straightforward extension of market economy, following “business as usual” rules (Schor 2014), community initiatives are neglected in academic research. The non-for-profits, however, have been integral for the emergence and development of the field from the very beginning (Schor 2020). Research that explicitly addresses organizing of non-for-profits in the sharing economy is however lacking.

Using rich explanatory potential of neo-institutional theory in organizational analysis, this paper has a purpose of analyzing institutionalization of the organizational field for nonprofit sharing - a community of organizations that partakes a common meaning system and whose participants interact more frequently and faithfully with one another than with actors outside the field (Scott 1995, p.56) To this end, it asks the following research questions: How and why certain actors come together as a field for sharing economy organizations? What participation in a field of SE organizations ultimately means for the inner workings of a non-for-profit organization? How do field members relate to each other?

The contribution is informed with 20 in-depth interviews with stakeholders: CEO’s and board members of several SE organisations, as well as representatives from municipalities, academia, strategic innovation projects, and a cooperative enterprise. The fieldwork was situated in 4 cities: Stockholm, Gothenburg, Malmö, Umeå, which have become testbeds for the “Sharing Cities Sweden”, a national program for the sharing economy of cities, and therefore accommodate a range of initiatives in the sphere of sharing economy.

Li Yan

**'A Crisis of Trust?': A Study of service provider's and consumer's trust in China's Sharing Economy**

Research Topic

Trust is one of the foundations and prerequisites of the sharing economy's development. My PhD research project aims to explore the factors, such as perceptions of precariousness, exploitation, uncertainties, government policies and community formation, beyond demographics, that impact service providers' and consumers' trust in ridesharing and peer-to-peer rental accommodation in China.

Research Questions

Through the literature review, there are four research questions raised. First, what are the most important factors that generate service providers' and consumers' trust? Second, how different are the factors that generate trust across ridesharing and peer-to-peer accommodation? Third, how different are the trust levels of service providers and consumers between ridesharing and peer-to-peer accommodation? And do they differ across populations? Fourth, what effect do government policies and regulations have on trust levels across service providers and consumers in ridesharing and peer-to-peer accommodation?

Research Contributions

This research project contributes to the extant literature in this field in five ways. First, most of the research focuses on western countries, so my research provides a unique perspective in the Chinese context. Second, the role of the Chinese government's policy and platform capitalism are investigated in my research. Third, this research investigates both service providers' and consumers' trust and compares them. Fourth, this research makes a comparison of trust across ridesharing and peer-to-peer accommodation. Fifth, most research in this field use qualitative or quantitative method to analyse data, but this research uses the exploratory sequential mixed method approach.

Research Methods

Exploratory sequential mixed methods, which begin with qualitative data and then collect quantitative information, are implemented in this research. Specifically, qualitative research, as a supplementary method in this study, helps explore the factors that impact service providers' or consumers' trust and informs the questionnaire design.

In the qualitative research, four types of semi-structured interview guides are designed for ridesharing drivers and passengers, and peer-to-peer accommodation hosts and guests. A total of 21 participants take part in online semi-structured interviews. Among them, there were 6 peer-to-peer accommodation hosts, 4 peer-to-peer accommodation guests, 7 ridesharing passengers, and 4 ridesharing drivers, which cover different age groups and genders. Data collected from semi-structured interviews are analysed through thematic analysis. In the quantitative research, online surveys aim to explore the factors that impact and their contributions to service providers' and consumers' trust in the ridesharing and peer-to-peer accommodation industries. Insights from semi-structured interviews and literature review help to design four types of questionnaires for drivers and passengers in the ridesharing, and hosts and guests in the peer-to-peer rental accommodation. To make the questionnaires and data analysis results more comparable among different trustors, the wording in the four questionnaires was designed as consistent as possible. The expected sample size of passengers and guests is 1000 each of them, and the expected sample size of drivers and hosts is 300 each of them. The quantitative data in this research will be analysed by partial least squares (PLS) and structural equation modelling (SEM) methods.

Expected results

This is my PhD project, and I am at the beginning of the year three research, so at present, the qualitative data analysis, questionnaire design and quantitative data collection have been completed, but the quantitative data analysis has not been started. At the conference, the result of the driver's survey will be presented.

Some preliminary findings of the factors that impact service providers' trust from the qualitative research are presented in this abstract. First, the exploitation of sharing economy platforms, such as the number of hours workers have to work each day, the number of commission fees charged by the platform, whether platforms protect worker's personal information or not, and platforms have harsh requirements on workers or not may potentially influence the formation of service provider's trust. Second, the fairness of the sharing economy

platform, such as whether the dispute resolution mechanism on platforms is fair or not, whether platforms have big data personalised price discrimination or not, is the other factor that may affect service providers' trust.

**Nicole Stofberg, Francesca Ciulli, Flore Bridoux, Florian Hawlitschek, Sander Limonard**

### **Value co-creation in sharing service ecosystems: the role of institutional arrangements and social norms**

The rise of the sharing economy as a new economic model has elicited debates on the extent to which a sharing platform should intervene to coordinate sharing transactions and the degree to which user interactions should be encouraged. Starting from the service-dominant logic literature, we investigate car sharing platforms' institutional design choices, conceptualized as: (1) platform intermediation, i.e., the degree to which platforms implement tools to directly coordinate sharing exchanges and provide assurances; and 2) consociality, i.e., the extent to which consumers interact with one-another, and how they impact value creating behavioral outcomes.

The importance of these two design choices is subject to debate in the sharing economy literature. While originally, the act of sharing was perceived as being part of a communal ethos, an increasing number of sharing platforms has concentrated on platform intermediation and has dismissed consociality as a design choice. In this view, users are assumed to prioritize utilitarian value over social value. In this way, consociality does not necessarily help a sharing platform succeed. Some scholars have, however, suggested that sharing platforms' users value social connections in a different manner. This body of literature on the value of consociality is of an exploratory nature and lacks conceptual clarity and a clear relation to the platforms' success. This gap motivates our work. We argue that platform intermediation and consociality play different roles in supporting value co-creation.

Our prediction was that these two governance practices trigger different value co-creating behavioral outcomes that are both crucial to the long-term success of sharing platform, namely willingness to participate and altruistic citizenship behaviors (i.e. voluntarily undertaking extra-role activities that benefit others). In sharing contexts, value co-creation is impossible without participation intent. Following the service-dominant logic, we assume that value creation is also contingent on the positive engagement of ecosystem actors, as they are responsible for delivering a positive service experience to the other members.

Specifically, we hypothesize that strong platform intermediation positively impacts consumers' willingness to participate, by creating a safer and more predictable sharing environment, whereas high consociality fosters the relational bonds needed to nudge sharing citizenship behaviors. Building on the social norms theory and Fiske's (1991, 1992) relational models theory, we additionally explore the mediating effect of descriptive and injunctive social norms on the relationships between the two institutional arrangements and the two aspects of users' value co-creation.

Using a vignette-based experiment (n=1675), this study's findings support earlier claims made by sharing scholars (Lu et al., 2021) that strong platform intermediation (irrespective of consociality levels) drives willingness to participate. In line with predictions, we found consociality to drive citizenship behaviors, and perceived injunctive relational norms to mediate these relationships. Additional analyses further revealed that social norms act as a third mediator, in the relationship between the degree of consociality and citizenship behaviors.

Our work makes three contributions to the literature. First, and in line with our expectations, we found that platform intermediation drives willingness to participate on a sharing platform, while consociality drives positive engagement behaviors. Both types of institutional arrangements matter, but they have a distinct impact on value co-creation. Second, our work advances research on digitally based service ecosystems by providing a lens through which to view how institutional choices result in the creation of shared practices, which generate different engagement behaviour. A third contribution of this research is to investigate exactly how institutional arrangements, through their formal and informal design choices, shape heuristics regarding appropriate behavioral responses and how these in turn, drive our behavioral outcomes. Consociality design features – such as allowing free floating communications off and on-line, peer review systems and the ability to meet and befriend one's neighbors – led our participants to mentally frame relationships with their sharing

peers more strongly in terms of generalized and tit-for-tat 'reciprocity' as normatively appropriate behavioral responses in sharing transactions. Given these findings, we believe future research is needed to dig further into the differential impact of consociality design choices and their effect on sharing platforms.

**Stefan Kefer, Christian Garaus**

### **Psychological and behavioral factors impacting the adoption of carsharing in Vienna: A fuzzy-set qualitative comparative analysis**

Innovative mobility services have emerged in many cities across Europe, leading to a remarkable transformation of transport provision (Nansubuga, 2021). Free-floating carsharing, in particular, has enabled short-term access to cars on an as-needed basis. In Europe, carsharing has experienced remarkable growth in recent years and is often perceived as a shift toward sustainable mobility by requiring fewer vehicles that are used more efficiently. Since one carsharing vehicle can replace up to 11 passenger cars, the potential for greenhouse gas savings due to fewer vehicles generated is large. Especially when it comes to electric vehicles replacing conventional cars, the potential for CO<sub>2</sub> savings is again significantly increased and further savings can also be realized due to less traffic (Nijland and van Meerkerk, 2017).

While a growing number of studies have examined the behavior of individuals, most authors analyze carsharing in contexts where this service is not yet available, and usually in a way that tends to examine individual effects (Alonso-Ameida, 2019). Little is yet known about interactions, particularly of psychosocial aspects (e.g., psychological ownership) (Baker, 2021). In our paper, we therefore address the research question of what configurations of psychological and behavioral factors influence carsharing adoption.

Our study is currently still in an early phase. An empirical survey has not yet been conducted. However, it is planned that we will develop a list of socio-demographic characteristics, mobility-related attributes, and psychological attitudes based on the literature to date, which together may influence carsharing use (Burghard, 2022). These factors will subsequently be tested in a quantitative questionnaire for the city of Vienna, where several carsharing operators are active. The city of Vienna is also particularly interesting because, in addition to private providers, the city itself acts as a municipal operator. It thus takes on a certain pioneering role in this context. The data is analyzed using fuzzy-set Qualitative Comparative Analysis (fsQCA). This method has the advantage over regression-based methods that it identifies different combinations of factors (so-called "conditions") that can equifinally lead to the same outcome (in our case: use of car sharing). In addition, fsQCA allows for asymmetric analyses, which means that the absence of those combinations of conditions that explain the use of car sharing do not necessarily have to explain the non-use of car sharing. Thus, it can be clearly differentiated which conditions jointly lead to use and which to non-use. From a carsharing research perspective, we contribute to the discourse on which factors promote or inhibit the use of car sharing. By focusing on psychosocial aspects, we contribute to a research strand that has been particularly active in recent years (Alonso-Almeida, 2019). In addition to the scientific contribution, our work also has implications for practice. For municipal planners and policy makers, knowledge about the interplay of those factors that collectively influence carsharing use is significant to better understand their potential impact on travel behavior and sustainability.

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