3 Social impacts of digital platforms

A can of worms in governing the hybridity of Airbnb

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Introduction

Digital platforms come with the promise of a brighter future. For private companies, the brighter future means reduced costs and more income (Kerravala 2004), sustained competitive advantage (Stanko & Calantone 2011), and product and service innovations (Bharadwaj et al. 2013). Improved accessibility (McCosker 2018), better quality communication, and enhanced value creation (Parker et al. 2016) are typical gains that digital platforms promise to households. Governments can achieve better transparency, more active citizen participation (De Blasio & Selva 2019), and co-creation of public value by applying digital platforms (Meijer & Boon 2021). However, some digital platforms may benefit and harm households, companies, governments, and the voluntary sector simultaneously (Frenken & Schor 2019).

Although the benefits and disadvantages of digital platforms impact different sectors, scholars tend to approach their social impacts from an organizational (e.g., Dogru et al. 2017; Mody et al. 2017; Richards et al. 2019) or platform perspective (Parker & Van Alstyne 2005; Frenken & Schor 2019). Applying this type of analytical approach to the social impacts of digital platforms is limited because these impacts are influenced by interactions between public, private, and civil society actors and their activities. Previous literature called these interactions hybridity and attributed them to hybrid forms of governance. If these social impacts relate to more hybridity than to any particular organization or platform operating in the economy, it is peculiar that we keep analyzing such impacts through organizational or platform-centric frameworks. This chapter argues that the reasons for the limited analytic perspectives on social impacts are threefold.

First, societies cannot see the hybrid nature of digital platforms because organizational and platform narratives are more dominant and awareness about hybridity thinking remains low. Second, how public-, private-, and voluntary-sector organizations contribute to hybrid governance and hybridity in societies is rarely addressed in academic literature or the practical world. Third, hybridity in mechanisms leading to social impacts is underestimated and mostly unidentified.

To help societies understand digital platforms as hybrids, we will take one such platform as a case context and qualitatively describe the hybrid nature of this platform. We purposefully chose to use the Airbnb platform to inductively prove our

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point that digital platforms can manifest hybridity and hybrid governance. In addition, we shall show how Airbnb currently influences hybrid governance and why it would make sense to analyze social impacts from the perspective of hybrid governance. Our hermeneutic approach (Gadamer 2004) aims to establish an antithesis for the reasons justifying organizational and platform hegemony in analytical frameworks used to assess social impacts. The exploration based on document data looks back in order to look forward, and it reviews and reshapes our current knowledge about digital platforms.

Digital platforms and social impacts: The curious case of Airbnb

Airbnb is a global actor and digital platform that provides accommodations and experiences to its customers. In its 2019 business update, Airbnb (2019a) stated that its "mission is to create a world where anyone can belong anywhere," and they want to establish "an end-to-end travel platform that will handle every part of your trip". Airbnb is the world's largest accommodation provider, although it does not own the properties used in its accommodation business. In addition to places to stay, Airbnb has introduced two new service categories, experiences and, in the midst of COVID-19, online experiences. Examples of these include activities such as cooking classes, mountain biking, and planning future trips online during the current pandemic.

Following the ethos of the sharing economy, the providers of these accommodation and experience services are mostly average citizens, although companies also provide some of these services. From an economic perspective, Airbnb offers ordinary citizens an opportunity to earn additional income by allowing them to list their properties or service offerings. As providers of accommodations or services, households become entrepreneurs and hosts for tourists and temporary residents. In the Airbnb platform, companies operate through professional hosts who are property managers from the hospitality business. Compared to households that rent their properties, professional hosts offer accommodation services at resorts, nature lodges, hostel and boutique hotel rooms, serviced apartments, and traditional bed and breakfasts.

The vast majority of Airbnb users are travellers who use the Airbnb website (airbnbn.com) to search for a suitable accommodation listing. For travellers and others in need of a place to stay, Airbnb provides an authentic experience that is often more affordable than hotels and other professionally run accommodation providers. Over 500 million travellers have used Airbnb since its inception in 2008.

Airbnb started as a two-sided market (Caillaud & Jullien 2003; Rochet & Tirole 2003) that connected hosts and guests through a digital platform. With the introduction of experiences, Airbnb moved from a two-sided buyer and seller market to a multisided market (Hagiu & Wright 2015) where service and accommodation providers support each other in providing local authenticity for guests (see Guttentag et al. 2017). In a multisided transaction market, the digital platform's key role is to provide the infrastructure that connects providers of goods and services with final customers and facilitate value exchange transactions among them (e.g., Rochet & Tirole 2003).

Airbnb is a transaction facilitator between service providers and users: the guest pays with their credit card, and Airbnb holds the money until the accommodation begins. In addition to managing transactions, Airbnb provides the core infrastructure for the digital market and offers the hosts an opportunity to create value for customers. Here, providing infrastructure management means that Airbnb takes the primary responsibility and control for developing technical features of the platform and integrations with other products and services. Lowering transaction costs and building trust between service providers and users are other important activities of Airbnb. To build trust, Airbnb has established user profiles and a review system. The user reviews and profiles of service users and providers are intended to promote trust among service sellers and marketplace buyers. The given reviews accumulate a reputation score that is the single most important factor for success on the platform (see Taeuscher 2019). The user and service provider profiles show this reputation score.

In technology strategy language, Airbnb operates as a digital platform, that is, a sociotechnical assemblage that is composed of the technical elements (including software and hardware) and related organizational processes and standards (Tilson et al. 2010; De Reuver et al. 2018). In general, digital platforms provide a set of boundary resources, such as technological artifacts and regulations that "serve as the interface for the arm's-length relationship between the platform owner" and complementary service developers (Ghazawneh & Henfridsson 2013, p. 174). The main boundary resource for Airbnb is the contract mechanism that enables hosts to list their offerings. Moreover, Airbnb provides an application programming interface (API) for third-party integration and the development of listing, pricing, and guest management services. However, at the time of writing this chapter, Airbnb was not accepting new API access requests, indicating their strong control of partner selection. That is, although digital platforms are also usually generative (i.e., they enable continuous evolution of uses and functionalities; see Yoo et al. 2010), Airbnb provides limited opportunities for this.

According to previous research, three key types of digital platforms exist: multisided transaction, complementary innovation, and information platforms (Cennamo 2021). Airbnb is a prime example of a digital platform that enables multisided transactions between different stakeholders. This means that experience and accommodation hosts can simultaneously sell their services to possible service users. Compared with complementary innovation platforms such as Android (i.e., the operating system), Airbnb provides limited ability to develop completely new services. At the same time, it is more than a simple information platform, such as Google Search.

Airbnb functions not only as a digital platform but also as a broader platform economy (Parker et al. 2016), where a digital platform facilitates the development of a new type of digital marketplace (Cennamo 2021). In the platform economy, the focus in competition moves from controlling the value chain to attracting generative activities to a platform (Cennamo 2021). As a platform economy, Airbnb attempts to attract new experiences as services to the platform. Operating as a platform ecosystem is the final important function of Airbnb. Adner (2017, p. 40) defined ecosystem as "the alignment structure of the multilateral set of partners

that need to interact in order for a focal value proposition to materialize". A platform ecosystem is a type of business ecosystem that is the organizational form of a platform economy. In business and platform ecosystems, the main competition takes place not between individual companies but between ecosystems as actors seek to "enlarge the pie for everyone" (Cennamo 2021, p. 266; see also Panico & Cennamo 2020). For Airbnb, this means that it must manage its business ecosystem to increase its competitiveness. To enhance its business ecosystem, Airbnb has engaged in useful collaborations outside the digital platform where guests and hosts operate. The Airbnb business ecosystem includes insurance companies as core partners and various companies that provide cleaning, property management, software, and analytics services to enable running and improving their operations (Shipilov & Burelli 2021). Observing Airbnb as a digital platform, platform economy, or business ecosystem points out that the societal scope of the tasks conducted by Airbnb varies if one moves from a digital platform perspective to business ecosystem thinking.

A range of actors competes with Airbnb. Airbnb's competitors include Expedia, Booking Holdings, hotel chains, and other established accommodation providers. From these competitors, Expedia and Booking Holdings are also major short-term rental platforms. To generate profits, Airbnb collects commissions from two sources: from the guests and the hosts providing services and accommodations. Airbnb charges a service fee for every successful transaction. For accommodation hosts, the service fee is usually 3 per cent of the amount of money transferred in the transaction. For experience providers, the same percentage is 20 per cent. Service users typically pay fees of less than 14.2 per cent of the transferred money. Airbnb gets most of its income from transactions relating to accommodations. In 2017, Airbnb generated USD$93 million in profit from $2.6 billion of revenue.

Currently, it is estimated that there are globally over 2.9 million hosts on Airbnb, and 14,000 new hosts join the platform monthly. There are now approximately seven million listings on Airbnb worldwide. A total of 100,000 cities and 220 countries have active Airbnb listings. Founded in 2008, Airbnb has raised a total of $6 billion through 29 funding rounds. Its present market capitalization is estimated at $100 billion. Airbnb has made 17 investments in start-ups and acquired 24 companies. In 2020, Airbnb (NASDAQ: ABNB) launched its initial public offering and became a company in which anyone can invest. After the first week, Airbnb was valuated at $75 billion, more than Marriot and Hilton hotels combined (Forbes 2020).

The success of Airbnb is driven by a few key factors. First, Airbnb reduces friction in the booking process by providing a standardized set of information on the listings. Second, Airbnb provides a reputation system for both guests and hosts, supporting the formation of trust between the contract parties. Other motivations for using Airbnb include the ability to interact with hosts, "locals" in the area, access to home amenities and extra space, the novelty and authenticity of the experience, and the sharing economy ethos (Guttentag et al. 2017). Lastly, the experimental nature of the Airbnb platform separates it from its main competitors, such as Booking Holdings and Expedia.

The commercial growth of Airbnb has resulted in both positive and negative social impacts. Generating revenue for hosts, enabling travelling for less wealthy people, and boosting the sharing economy and tourism in underexplored geographical locations are typical examples of the positive impacts of Airbnb (Balampanidis et al. 2021). As examples of negative social impacts, Airbnb has created unequal income distributions and illegal markets enabling tax avoidance, and it has induced higher property prices and rents, thus enforcing social segregation by driving the less wealthy people out of neighbourhoods attracting Airbnb guests (e.g., see Corporate Europe Observatory 2018; Barns 2020). Considering the social impacts of Airbnb, it is not surprising that governments and voluntary-sector organizations have begun to pay attention to Airbnb and its activities. Slowly, governments have started to intervene in the activities of Airbnb, and we are seeing an increasing number of statements about Airbnb coming from voluntary-sector actors, such as Inside Airbnb, an activist group collecting Airbnb data to support debate around the platform. Thus, recently, the hybridity of Airbnb has become more visible. However, few have acknowledged the hybrid nature of Airbnb and the meaning of this hybridity in respect to the positive and negative social impacts that have been associated with Airbnb. For this reason, this chapter argues the following:

1) Airbnb is poorly understood as a hybrid.
2) The knowledge about the role of Airbnb in hybrid governance is in a nascent state.
3) As a consequence, the hybridity in the mechanisms leading to Airbnb's social impacts has been largely neglected.

To advance our current understanding, this chapter aims to clarify how exactly Airbnb is a hybrid and why it is, therefore, part of hybrid governance. After explaining the hybrid nature of Airbnb, the chapter goes on to show that the hybridity in mechanisms leading to the social impacts of Airbnb has been largely neglected because it is difficult to capture through our current measurement systems. This chapter applies a hybrid governance view to the analysis and measurement of the social impact of Airbnb as a digital platform. Our thesis is that although there is existing literature that analyzes the impact and externalities of the likes of Airbnb broadly and at the societal level, the majority of digital platform literature focuses on the platform and actors that are near the platform core (e.g., Järvi & Kortelainen 2017). This situation makes it difficult to understand how governments should intervene in the operations of digital platforms and how digital platforms can have more influence on social impacts that they are accused or credited with causing.

Airbnb as a manifestation of hybridity

Airbnb has been analyzed as a two- (or multi-)sided market arrangement, platform economy, business ecosystem, and platform ecosystem that aims to ultimately create market value (Meyer & Cennamo 2018; Cennamo 2021; Shipilov & Burelli 2021). However, due to the pervasive impacts of Airbnb-type digitalized platforms

on societal activities, it is a limited approach to understanding the value of Airbnb to societies. With that approach to Airbnb, the analysis omits the interconnectedness of the economy, polity, and civil society, as well as value conceptualizations that those societal systems aim to serve. This omission appears to include deep ontological assumptions that treat Airbnb as a digital platform that is a closed system by nature. As such, the closed system excludes the external world from its operations and cannot, therefore, see the hybridity of Airbnb to its full extent. Complementary approaches, including platform society (Van Dijck et al. 2018) and platform urbanism (Barns 2020), place digital platforms in a larger society and theorize and investigate their impacts predominantly through a critical lens. However, this critical approach to platforms does not address the topic from the perspective of societal hybridity. What we argue here is that Airbnb is hybrid in many ways, and it can be analyzed as a hybrid constellation that aims to contribute not only to the creation of market value but also to the value creation mechanisms of public and social value (Stark 2009). To understand Airbnb as hybrid, let us examine how it contributes to public and social value creation.

While market value refers to the monetized and quantified form of worth that manifests itself in the transactional systems of societies (Arena & Gloria-Palermo 2008), the notion of public value has been conceived as something that cannot be merely encapsulated through market transactions or their residuals (Meynhardt 2009; Bozeman 2020). Benington (2011, p. 42) defined public value as first "what the public values; second, what adds value to the public sphere". Negotiations between different stakeholders and interest groups define and redefine what counts as public value (Sørensen et al. 2021). These negotiations focus on finding cognitive, goal, and practice alignment among citizens, community leaders, public authorities, scientists, experts, professionals, non-governmental organizations, and businesses (Kane et al. 2009). Usually, the results of these negotiations can be seen in the strategic goals and programmes of the governments, but there are also other venues displaying what constitutes public value. Airbnb can contribute to governments' goals to produce public value, and it can conduct practices generating public value. If Airbnb's sharing economy saves natural resources, it contributes to the United Nations and national governments' strategic goals relating to the preservation of nature. Moreover, the economic transactions on the digital platform of Airbnb are valued practices among national and global governments that emphasize economic activity, prosperity, and growth.

Constructs of social value are emblematic of the criticism toward the omnipotence of market value dominance, yet with a distinct emphasis on communities and civic action that are instrumental in facilitating social capital in societies. In the literature, social value concerns the bricolage of service impacts on different stakeholders, communities, and constituencies within society (Domenico et al. 2010). Airbnb considers itself a community of hosts and guests, and it claims to be "committed to serving all stakeholders in the Airbnb community" (Airbnb 2019b). To serve communities in travel destinations, Airbnb has provided support for rural revitalization programmes and sustainable development by partnering with local governments and organizations. Thus, it seems that Airbnb aims to produce social value and, in some cases, has provided it.

From the aforementioned, it follows that Airbnb is becoming an important actor in the networks of complex policy processes that do not follow the definitions of sectoral or organizational mandates in which individual concerns are linked to specific policy problems and where the respective accountabilities are easily demonstrated through the performance of the individual policies (Mazzucato 2021). The activities of Airbnb have important impacts on, for instance, the policy processes of alleviating social exclusion and segregation or, more generally, in developing more sustainable and socially fair cities. Consequently, Airbnb can be seen as part of the collaborative exercise between public policies and agencies, private businesses, economic institutions, and civic activities. In this chapter, such interplay is referred to as hybridity, which we apply to digitally organized platforms and ecosystems. In respect to hybridity, the prior literature refers to it as the interaction between public, private, and civil society actors and their activities involving the following four characteristics: mixed ownership, contrasting institutional logics and incongruent goals, the multiplicity of funding arrangements, and diversity of financial and social control forms (Billis 2010; Johanson & Vakkuri 2017; Vakkuri & Johanson 2020; Vakkuri et al. 2021a, 2021b). Next, we show how Airbnb reflects hybridity through these four characteristics.

Mixed ownership in Airbnb

In the hybridity literature, mixed ownership is mostly related to the pursuit of politically driven goals while exploiting private ownership and business logics and operating in global financial markets (Thynne 2011). Compared to traditional accommodation providers, Airbnb has a novel approach to ownership. The mixed ownership model of Airbnb utilizes households' and associations' ownership to get new properties listed on the digital platform. The expansion of supply is based on households', companies', and associations' capital, not Airbnb's capital. Airbnb owns the digital platform, not the rented apartments. Without the platform owned by Airbnb, households, hospitality companies, and associations cannot rent their properties for short-term use. However, there is no rental business on Airbnb if there are no households, hospitality companies, or associations renting their properties for short-term use. Because households and associations are key actors on the digital platform, mixed ownership is at the very core of Airbnb's business model.

The ownership of data is a key distinctive feature of digital platforms. Airbnb owns the data that accumulates on the platform, analyzes the data to continuously improve the platform, and serves it back to hosts to prompt and support them in helping the platform grow. Moreover, civil society organizations, data analytics firms, and researchers seek to collect this publicly accessible data for their use (Scassa 2019), and some actors, such as Inside Airbnb,[1] offer processed data packages under a Creative Commons licence that, despite its limitations (Alsudais 2021), is used frequently in business intelligence and academic research. Although this data has been collected from Airbnb's publicly available sites, it is a bit uncertain who owns the data, although Inside Airbnb claims ownership for the data collected from the sites of Airbnb.

Airbnb also encourages households to mix homeownership and business ownership. While Airbnb basically can be seen as any ordinary business firm producing value for its owners and shareholders, it utilizes, shapes, and redefines the nature of homeownership in its business processes. Traditionally, the nature of the property as a commodity has included financial aspects in the sense that it is an investment commodity with a long-term perspective. The sharing economy changes this by making it a more short-term consumer good that can be exchanged in the housing and accommodation markets. In a sense, Airbnb changes the division of labour between the economy and civil society by transforming homeowners into entrepreneurs. As a result, owning a home is no longer just owning a home: it is owning a home and a business property at the same time. Simultaneously, homeowners become proprietors of more liquid assets that can easily be exchanged for cash.

Competing and sometimes contrasting institutional logics and incongruent goals in Airbnb

In the literature, contrasting institutional logics and incongruent goals are manifested, for instance, through the logic of profit-seeking vis-à-vis the logic of effectiveness and social value (Kreps & Monin 2011; Besharov & Smith 2014). In the context of Airbnb, the institutional logics relating to neighbourhoods and buildings of residence differ from the institutional logics of the accommodation business. Homes and neighbourhoods are not developed for voluminous profit-maximizing tourist business that generates disturbances in local communities. By joining together tourism and residence mentalities in business operations, Airbnb has introduced a collision of institutional logics. One example of this is the disputes in condominiums caused by short-term renting. Airbnb guests are typically unaware of the condominium's rules and regulations, or they ignore them. Unauthorized parking, improper trash disposal, inappropriate use of the facilities, or excessive noise are typical examples of guest misconduct. Airbnb guests can also present a security risk to the condominium's community. While the logics of the accommodation business consider the dark side of tourism, the logics of neighbourhoods and residents have difficulties dealing with the adverse effects of tourist visits. As a consequence, difficult questions arise, such as who is responsible and in what way when a resident's visitors damage shared facilities or cause security threats in local communities.

From the institutional logic perspective, the collaboration of Airbnb and local governments is not unproblematic either. The growing importance of Airbnb in the urban setting may facilitate the importation of the sharing economy and an influx of visitors and increase accommodation capacity, which usually aligns well with the goals for local economic revitalization and financial sustainability of cities. At the same time, however, short-term renting services sold via Airbnb have adversely affected the housing markets by making it more difficult to find accommodations for the local population. Such negative developments make it more difficult for local governments to fight against segregation of neighbourhoods because properties listed on Airbnb pump up housing prices in popular areas and

these prices start to dictate who lives and where they live in the city. The previous examples show how the institutional business logic of Airbnb contradicts the local government policy of enabling affordable housing. The compartmentalization within the public-sector systems and decision-making means that contradictions between different logics can occur between Airbnb and particular local government departments (Karppi & Vakkuri 2020). Moreover, complex task structures in local governments increase the likelihood that some departmental policies in the local government are in contradiction with the activities of Airbnb.

Multiplicity of funding arrangements in Airbnb

In the hybridity literature, the multiplicity of funding sources and resource bases is frequently associated with the increasingly important relationships between public and private actors, namely, the relationships involving taxpayers, investors, and financiers. This applies, for instance, to public–private partnership arrangements in service delivery and large infrastructure projects (Hodge & Greve 2009). In the context of Airbnb, let us consider three important perspectives. First, households, associations, governments, and private investors provide funding for Airbnb's business operations. Airbnb utilizes funding from households, private entrepreneurs, and associations to get new properties listed on its platform. If supply increases, it is the households, private entrepreneurs, or associations that have funded this increasement, not Airbnb. Airbnb concentrates on finding the funds for the development of the digital platform. Without the funding collected by Airbnb, there is no digital platform of Airbnb on which households can offer their apartments for rent. Airbnb exists only because there is funding from investors for the business operations of Airbnb and funding from the households, private entrepreneurs, and associations securing the supply.

Second, the emergence of a home as a consumer good has an influence on the financing of dwelling houses. Buying property becomes an attractive investment opportunity for citizens because it can be rented via Airbnb. The Airbnb platform allows easy, short-term rental, which in turn promises better yield for the investment. This being the case, homeowners can finance their homes through bank loans, household capital, and/or money gained from renting on Airbnb's platform. Here, hybridity is strongly present because financing the supply side in Airbnb can combine different forms of funding.

Third, funding of the apartment is linked to the funding of the neighbourhood or city districts where the accommodation is located. Apartments renovated for the purposes of Airbnb enhance the housing conditions in the area, whereas occupancy taxes paid from the accommodation service provide funds for keeping the technical infrastructures up to date in local communities. As Airbnb is not only about the accommodation but also about the milieu where the listed property is positioned, the general housing conditions and the comfort of the living environment play a part in generating revenues for business. This has encouraged Airbnb to take part in local government development projects. As a result, we have seen public–private mixes of funding and investments in the urban development of some city districts where Airbnb operates. In this type of case, the funding of the

local government infrastructure projects becomes more hybrid. Funding of these infrastructure projects has the potential to enhance Airbnb business operations in those funded locations because improvements in living conditions have the tendency to increase locational attractiveness. Lists of the most visited tourist attractions reveal that developed nations and destinations attract tourists.

Diversity of financial and social control forms in Airbnb

In the hybridity literature, diversity of social control relates, for instance, to regulatory control of the markets, laws of government, or professional self-control (Noordegraaf 2007; Gritsenko & Wood 2020). One aspect of Airbnb is that it allows rating of the accommodation, which serves as information for quantifying and standardizing the reliability of the host who owns the rental property. It controls the minute details of their home, such as tidiness, functioning of appliances, and the availability of hot water. These are important aspects that orient customer choice, but they introduce a form of social control over these households. At the same time, the households renting the properties must adhere to the rules and regulations set by the local and central governments. Respecting domestic privacy, paying occupancy taxes, and taking care of appropriate waste disposal are typical examples of governmental means that control Airbnb hosts. In addition to the government and Airbnb, the host on Airbnb must consider the rules of the local communities. Let us consider one example. If a host constantly ignores the rules of condominiums in Finland, the condominiums can take the rented apartments under their control. Besides condominiums, the local neighbourhoods as communities have incentives to control the developments in their local surroundings. On some occasions, local communities have become active in supervising the behaviour of the visitors and in intervening in the disturbances. Local communities often exercise their control by sending complaints to the public authorities. Here, disobeying the local rules can lead to time-consuming processes where hosts have to address and settle complaints.

Governing the hybridity within Airbnb

To understand Airbnb as part of hybrid governance, we will review how the digital platform is currently governed by Airbnb, households, citizens, associations, and the government. After a brief review of the governance of the platform, we shall illustrate what implications the controls used by each actor have for the other actors exercising governance. In constructing our argument about the hybrid nature of governance, we shall use Ouchi's (1979, 1980) model of control to demonstrate hybridity. Therefore, we focus on market controls, bureaucratic controls, and clan controls. Moreover, we note that shared norms, values, and beliefs of the platform signify clan controls (Leoni & Parker 2019). Market control is based on price information mediated by efficient market mechanisms (Ouchi 1979, 1980), whereas bureaucratic controls are incentives, personnel capability controls, action controls, results controls, and job design. Here, personnel capability controls refer to personnel selection and training, action controls are decision rights and pre-action

reviews, and results controls point to performance measurement tracking the goal achievement (Rajala & Laihonen 2020). We use both formal and informal controls in our illustrations (e.g., Berry et al. 2009).

Airbnb, as a company, has corporate governance procedures that guide its activities. It governs its activities through its board of directors, management, internal auditors, external auditors, and stakeholder engagement. Airbnb also governs the digital platform in various ways. As a form of formal bureaucratic control, it verifies the identification of each service provider and user who wants to create an account for the Airbnb platform. Confirming the identification is a decision right and action control utilized by Airbnb. Confirming the identification of service providers is also personnel selection in some sense, as it controls who gets to provide services through the platform. To control the collaborators, Airbnb allows only a few actors to access their API and only after reviewing the possible collaborator carefully.

As a bureaucratic control, Airbnb uses results controls when it conducts account reviews. Account reviews are used in the processes in which Airbnb can deactivate or suspend the hosts or users' accounts. Account reviews ensure that service users and providers are behaving and performing according to the rules of the digital platform. The *super host* status is somewhat similar to what promotions are in conventional organizations. The super hosts show up earlier in the search results and get more reservations, which results in (Zhao & Rahman 2019) the super hosts getting more income. To be a super host, the service provider needs to achieve a certain level of performance. The performance is measured through customer reviews, response rate, cancellations, trips hosted, and trips reviewed. As such, the super host status acts as formal results control – that is, a form of bureaucratic control. Host and user dashboards revealing key performance indicators and benchmark information are informal results controls, providing ideas on how to improve user behaviour in the digital platform for increased profit. These dashboards compare the user with other users operating on the platform. For example, the dashboards reveal whether a service user or service provider has been reviewed as being below average in the reviews.

The service fees of Airbnb represent price as a formal market control. Based on the service fees, Airbnb takes smaller proportions from the accommodation services compared with experience services. This pricing policy makes accommodation services seem more profitable. The smart-pricing option in the Airbnb platform utilizes market control by automatically changing the price of accommodation to match the demand in the area. Smart pricing acts as control only if hosts allow the smart-pricing algorithm to take over their accommodation pricing. Also, by using tax planning, Airbnb can control corporate taxes paid to governments. In this way, Airbnb exercises control over government funding.

Airbnb attempts to create shared beliefs and norms by providing best practices and general tips. As an example, Airbnb provided tips for dealing with the COVID-19 pandemic in rented properties and travelling in general. These tips form a view of what to expect as a traveller and a host in terms of proper COVID-19 procedures. In the customer and service provider reviews, it is possible to exercise clan control and state in the answers to open-ended feedback

questions that COVID-19 procedures were not in line with the guidelines of Airbnb. In this manner, Airbnb can support clan control in the community.

It is not only Airbnb that controls the entrance of service providers to the digital platform. In fact, local governments in many cities require that providers register, get a permit, or obtain a licence before listing their property or accepting guests. This type of demand provides decision rights to local governments, indicating that bureaucratic controls are used to control city residents attempting to rent their places to tourists. To govern Airbnb by using decision rights, some local governments have either prohibited short-term rentals altogether or restricted the time periods that the property can be available for rent on the Airbnb platform (Corporate Europe Observatory 2018). Both of these actions have restricted Airbnb's ability to facilitate transactions relating to certain locations. Local and central governments influence the accommodation services offered on Airbnb in many ways. Public ordinance orders and local government ordinances typically at least partly control the house rules that Airbnb hosts determine. Housing regulations are known to affect the service level in accommodations. Overall, as physical spaces in cities are organized and regulated by the public sector, the bureaucratic controls of governments can enter the world of Airbnb that rents apartments in city environments.

As a formal market control, governments use income and capital income taxes, which affect the pricing of listings on Airbnb. These taxes also control the profit making of hosts and service providers. Airbnb as a company must pay corporate taxes, for example, to Ireland. In addition, some local governments collect occupancy tax that is paid by the guest. Also, fining hosts who have illegal listings has been used by the public sector. As the previous examples demonstrate, market controls of the government are deeply embedded in the transactions of Airbnb and affect the behaviour of the actors who use the digital platform. In terms of clan control, governments operate in a more indirect manner. For example, the European Union as an intergovernmental organization has supported the values and beliefs of Airbnb and its collaborators on the platform by claiming that "home-sharing represents an excellent use of resources and under-used space" (Corporate Europe Observatory 2018, p. 25). In this way, political support for the cultural values of Airbnb and its hosts and guests provides legitimation for the culture.

Service providers (i.e., hosts who can be households, associations, or private entrepreneurs) can use the Airbnb Resolution Center to send monetary requests for reimbursement or to cover damages. These requests are delivered to the guest by Airbnb, or they are addressed directly by Airbnb. The Resolution Center also operates as an arena in which monetary requests related to reimbursement, damages, or cancellations are resolved. The guests or Airbnb can make payments to the host to resolve the situation. Money requests are essentially based on prices, and as such, they are market controls. The service providers can also apply bureaucratic controls by modifying the listing availability. Managing the availability of the listing controls Airbnb's possibilities to create transactions concerning the listed property. Removing listings from the services and exiting the platform entirely by deactivating the account are informal ways to control the service offerings of Airbnb. The ability to choose the guests who can rent the apartment manifests another decision

right of the host. By controlling who rents the accommodation, hosts can exercise control over guests. As a results control, the guest ratings offer another bureaucratic control that the service provider can apply to control the behaviour of the guests. The house rules that the host can determine operate more as shared norms and clan control exercised toward guests whenever breaking the rules does not allow a claim for financial compensation. Although monetary requests could not be made, the host can always give lower ratings to users violating the house rules, which enforces clan control through bureaucratic control.

Also, guests can use the Resolution Center to send monetary requests for reimbursement or damages. The monetary requests are delivered to the hosts by Airbnb if they are not dealt with directly by the company itself. These money requests are market controls by nature. The Resolution Center can resolve the monetary requests related to reimbursement, damages, or cancellations. In practice, the hosts or Airbnb can pay the guest to resolve the situation. As a results control, the host ratings offer bureaucratic control that the guests can use to control the behaviour of the hosts. By using search filters in the Airbnb listing search, the service users signal preferences to the hosts. This signalling sets norms for renting and creates shared beliefs about the accommodation between guests and hosts. If the host cannot fulfil the promised preferences, guests can, in some cases, send a money request or a travel issue relating to crucial deficiencies. However, not all unmatched guest preferences justify reporting a travel issue or sending a money request. Through customer reviews, unmatched preferences that do not justify reimbursements function as cultural control.

Governing the hybridity of Airbnb impacts

To understand the hybridity of social impacts, it is helpful to look at a couple of examples of such impacts. The business operations of Airbnb have been associated with unequal distribution of income as a negative social impact (Schor 2017). This means that Airbnb enforces what Barabási and Albert (1999) called *preferential attachment*, also known as the rich-get-richer effect or the Matthew effect. The sharing economy in Airbnb's platform has led to developments in which successful hosts reap the most benefits from the platform in the form of gained incomes (Picascia et al. 2017).

Income inequality is a social impact within the digital platform of Airbnb. However, the income inequality within the platform also has a social impact on society, as hosts on digital platforms are also citizens of different nations. Thus, income inequality is a national and global government problem. Some of the developments on the Airbnb platform are in contradiction with the United Nations' sustainable development goals, which have many targets relating to the achievement of a fairer distribution of income, such as "progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average", or "[a]dopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality" (United Nations 2020, p. 11). As 193 countries officially adopted sustainable development goals, the income inequality generated within the platform of Airbnb

(see Mashhadi & Chapman 2018) is a problem for many countries. From the perspective of households and associations, more equal income distribution would benefit most of the Airbnb hosts, as relatively few are among those superstars who reap the most benefits from the platform (see Brynjolfsson et al. 2010). It is important to understand the relevance of Airbnb's social impacts on government, households, and associations as non-governmental and non-profit organizations, and why and how these impacts are related to hybrid governance. Moreover, comprehending how government, citizens, households, and associations contribute to these social impacts of Airbnb makes hybridity in the mechanisms leading to Airbnb's social impacts visible.

With regulation, taxation, and other policy solutions, the government can make the income distribution more equal among the actors operating on the Airbnb platform. In other words, the bureaucratic and market controls of the government matter. Amsterdam provides a good example of how superstars can be controlled via regulation (i.e., bureaucratic control). In 2017, Amsterdam required that all hosts have to register with the authorities, and in January 2018, the period allowed for renting activities was halved from two to one month per year (Corporate Europe Observatory 2018). If one can rent their property for only one month, it is difficult to become a superstar because the number of booked nights is limited by the government. In the Finnish context, the important question relating to taxation is whether flat rate or progressive taxation should be used to tax the hosts' incomes generated through Airbnb's platform. Currently in Finland, Airbnb incomes are considered capital income, and the taxation of capital income is based on flat rates. However, flat rates have been associated with higher income inequalities in many past studies (Efremidze & Salayeva 2021), whereas progressive taxation relates to lower income inequalities (Joumard et al. 2012). To lower income inequality, the government could adopt progressive instead of flat rate taxation.

If income inequality is a problem on the Airbnb platform, Airbnb itself is not by any means innocent. The super host status as a bureaucratic control created by Airbnb generates more visitors to these actors (Han et al. 2019), as does the high reputation score on the digital platform (Zhao & Rahman 2019). Because consumers have reputation signals such as customer reviews and ratings (Dellarocas 2005; Moreno & Terwiesch 2014), they recognize and choose the most popular options on platforms (Brynjolfsson et al. 2010). Getting more visitors concentrates the revenue streams to these dominant actors operating as super hosts. Besides the super host status, performance measures as informal results controls contribute to the Matthew effect. For example, measures, such as customer reviews, lead to customer concentration on Airbnb because customers make their decisions based on these reviews (Zhao & Rahman 2019).

Guests as tourists make reservation choices, contributing to revenue concentration that leads to income inequality. This relates to the old economic thinking claiming that consumers are kings, and they have market power (Von Mises & Greaves 2007). Thus, the decision rights given to guests have an impact on income inequality. Because reputation and trust matter for guests (Zhao & Rahman 2019), it is understandable why super hosts with good reputation scores and quality services are favoured over unrated hosts on Airbnb's platform. At the same time, there

are hosts that are super hosts or pursue super host status, indicating that chances to increase incomes for households are of interest. Airbnb hosts have a strong economic incentive driving participation on the platform, whereas achieving income equality is not the main motivation for households to register as hosts on the platform (Leoni & Parker 2019).

Similarly, improving the sharing economy is not just the result of Airbnb's work. Some governments support the progress of the sharing economy by allowing Airbnb to operate in their area, while others make active efforts to prevent short-term rentals in at least some parts of the city. In 2014, Barcelona decided to suspend the issuance of permits to use apartments for short-term rental in central Barcelona, and a similar decision was made by Berlin in 2016 to limit Airbnb's sharing economy in the city (Corporate Europe Observatory 2018). Compared with Berlin or Barcelona, Finnish cities allow Airbnb hosts to operate more freely (Vuokranantajat 2019). Thus, bureaucratic controls of the government can either enable or create barriers for the sharing economy. Regulating Airbnb and its activities also influences how straightforward it is for households and companies to become part of the sharing economy movement.

By providing a digital platform for households, companies, and associations to share their properties in over 220 countries, Airbnb contributes to promoting the sharing economy (Airbnb n.d.). Ensuring smooth transactions and building trust between hosts and guests with bureaucratic controls are other means through which Airbnb promotes the development of the sharing economy. As the sharing economy is at the centre stage in the business model of Airbnb, many other examples of activities boosting the sharing economy can be found in the documents of Airbnb, and we used only a few examples here.

Households, companies, and associations operating as hosts promote the sharing economy by listing their apartments on the Airbnb platform. Currently, there are over 5.6 million listings on Airbnb worldwide, indicating that hosts want to promote the sharing economy (Airbnb, n.d.). The hosts also advance sharing by providing details about their listing and their environment so that guests can choose suitable accommodations. Without these apartments and information about the accommodation services, Airbnb would not have any supply on its platform, and it would not be possible to promote the sharing economy in its current form. Thus, the hosts are focal actors in the sharing economy of Airbnb.

The guests show their support for the sharing economy by reserving accommodations, using the booked facilities, and inviting their own connections to the platform. Guests as tourists have made over one billion visits by using Airbnb (Airbnb 2019b). The behaviour of the guests in the accommodations also influences the success of the sharing economy, as misconduct has a negative impact on it in the eyes of the local communities and the public in general.

To conclude, the previous illustrations show that the negative and positive social impacts of Airbnb arise from the actions of governments, citizens, companies, and associations. For this reason, approaching these social impacts from the perspective of hybrid governance would provide a more comprehensive and systemic option compared with any compartmentalized approaches focusing on either the solutions of Airbnb, citizens, companies, governments, or associations. What we argue

here is that controlling the hybridity in the mechanisms leading to Airbnb's social impacts requires coordination and boundary-crossing collaboration in hybrid governance.

Measuring social impacts of Airbnb – A can of worms in hybrid governance

Understanding the hybridity in the mechanisms leading to Airbnb's social impacts is a prerequisite for measuring it. This means that the conceptual prisons that force practitioners and academics to divide the units of analysis into citizens and public-, private-, and third-sector actors promote more measurement practices focusing on these actors while ignoring hybrids (Vakkuri et al. 2021a, 2021b). Such a division, in a sense, denies the hybrid nature of organizational life (Johanson & Vakkuri 2017). In the context of Airbnb, this denial explains why we are talking about the social impacts of Airbnb, not the social impacts of hybrid governance revolving around the digital platform of Airbnb. This chapter is an attempt to make the hybridity relating to Airbnb visible so that we can proceed to measure its influence on Airbnb's social impacts.

The leap to the kind of thinking proposed in this chapter is significant because people have a long tradition of thinking and operating within public-, private-, or third-sector organizations. Each of these organizations has its own performance culture conceptualizing performance differently, which makes it difficult to proceed to hybrid governance and performance (Rajala 2020; Vakkuri & Johanson 2020). Due to the different performance cultures, performance information in the public sector usually differs from the performance information of private and third sectors. This creates data integration problems (Rajala et al. 2020). The information needs of individuals and organizations in the public sector are also dissimilar (e.g., Bouckaert & Halligan 2007) to the information needs in the private sector (e.g., Fitzgerald et al. 1991; Lynch & Cross 1991; Kaplan & Norton 1992; Barnabè 2011) and the third sector. Concerning the public sector's information needs, Bouckaert and Halligan (2007) talked measured information about needs, objectives, input, activity, output, effect/outcome, and trust. In the private sector, the information needs usually focus on the following nine key performance areas: personnel, leadership, learning, stakeholders, processes, products/services, financial performance, competitiveness, and value creation (Vakkuri et al. 2021a, 2021b). The third sector is typically interested in goal achievement, the system of resources contributing to survival, reputational matters, or multidimensional performances utilizing a combination of different approaches to performance (Lecy et al. 2012; Moxham 2014).

While not understanding Airbnb as a hybrid contributes to measurement problems relating to its social impacts, there are a plethora of other reasons explaining such problems. The common problem in measuring the social impacts of hybrid governance is the lack of shared information systems (Kurunmäki & Miller 2006). Creating a shared information system is far from easy due to data protection issues in the public sector (Rajala et al. 2018), and commercial confidentiality in the private sector prevents the distribution of performance information between

public and private partners (Coghill & Woodward 2005). As the information needs of the third sector can be quite different depending on the organization (e.g., Lecy et al. 2012), mixing information systems of third-sector organizations with public- or private-sector systems poses integration challenges. Without social pressure from the public, the incentives to conduct complex information system integration processes are not evident.

In the context of Airbnb, measuring the impact of Airbnb is only possible if one has access to a representative describing the platform and its social impacts. Getting data from Airbnb has been difficult for researchers (Schor 2017; Scassa 2019). Inside Airbnb presents a partial solution to the problem. Inside Airbnb is a mission-driven activist project that seeks to provide data that quantifies the impact of short-term rentals on housing and residential communities; it also provides a platform to support advocacy for policies to protect our cities from the impacts of short-term rentals. Inside Airbnb collects Airbnb data through a process of web crawling and scraping – that is, by emulating the browser of a regular Airbnb user; downloading each listing as a web page; extracting the listing metadata, reviews, and other details; and providing the result dataset in downloadable and machine-readable format. The rather peculiar and complicated way to collect the data from Airbnb results from the transparency and data sharing policies of Airbnb. Instead of Airbnb providing an API through which such data can be collected, the citizen society must rely on developing digital workarounds to be able to measure the platform.

There are several issues in using this kind of data in research or policy analysis. The data collection process is not available and therefore not observable to the user of the data. All the inherent problems of web crawling and scraping are present here, including ethics, copyright, the lability of the access mechanism, possible issues with sampling, the possibility for Airbnb to block data collection, and the low refinement level of the collected data. Once the source data is collected, a major effort is necessary to refine or "clean" the data to enable its analysis. Here, part of the cleaning is done behind the scenes by Inside Airbnb, adding to the limitations on reproducibility of the data collection and analysis process.

If one can compile a representative and credible dataset on Airbnb, it becomes possible to analyze many of the mechanisms internal to the Airbnb digital platform. One can, for example, estimate the impact of trust (reputation) in the value (asking price) of the listing or analyze whether preferential attachment drives the formation of connections on the platform, giving rise to superstars and rich-get-richer dynamics. However, turning our attention from mechanisms generating changes within the platform to the externalities of Airbnb as a digital platform is much more complicated, and it requires databases about the world surrounding the digital platform.

Discussion and conclusions

The global scaling of the sharing economy has brought about some fundamental changes to modern society, which highlight various aspects of hybridity. What we are currently seeing are changes in the interactions between government, private

sector, and civil society. Co-production, co-design, and collaborative governance movements all hybridize societal actors. Airbnb hybridizes many things in our societies as well. In Airbnb's sharing economy, every property owner becomes a potential landlord. The cultural aspect is that the idea of home transforms into a business opportunity. This is not to belittle the nature of property as an asset, but the change alters the property as a long-term investment good into a short-term consumer good. At the same time, it transforms the government–citizen relationship into a relationship between the government and an entrepreneur. To put it otherwise, home has become a subject for business transactions and government business policies, and it is no longer only a sanctuary for the family within civil society which the governments protect with public ordinance orders.

The second aspect of hybridity relates to the regulations governing hybrids. The point here is that, in many cases, public authority is unprepared to keep up with the pace of technological developments introducing new forms of hybrids that endanger safety, justice, and order in societies. Airbnb is one prime example of these types of developments. This is a governance problem, as governments have to produce innovative solutions to secure safety, justice, and order in societies. The sharing economy challenges the existing regulatory framework by extending the borders of the hospitability business to the domestic lives of households. The obvious concern from a government point of view is the possible losses in tax revenue, as it is difficult to monitor how homeowners are making money on Airbnb's digital platform. Also, the responsibility issues relating to health and safety can be problematic when tourists cause problems in facilities and neighbourhoods designed for permanent residency. The responsibilities between tourists and homeowners are unclear when tourists damage the facilities of condominiums. Is the responsibility shared, which makes the responsibility hybrid by nature, or does one party take responsibility for the damages? The governments also might have difficulties in supervising who is unemployed and who is not if Airbnb hosts do not register their status in any governmental system. Households can have hybrid identities: a host on Airbnb and unemployed in government systems.

Third, the sharing economy hybridizes urban and rural communities. The attractive neighbourhoods can become areas where tourists blend with local communities. This hybridizes the community identity. The results of the blending can be controversial, as the travellers' genuinely good intention to blend in with the local population can end up with local residents being strangers within their own communities. In terms of hybridity, these developments tend to integrate civil society and business together in a new way. Some of the developments are positive and some are negative, but local governments face a situation in which there are no easy solutions.

Overall, the hybridization poses governance challenges, as the developments seem to highlight the need to move from corporate governance to hybrid governance. Prior research on hybridity and hybrid governance has extensively and, to some extent, excessively emphasized the primacy of organizational reasoning in the governance of performance. With the emphasis on the analysis of hybrid organizations, the research has provided rich and already fairly nuanced accounts of hybridity in organizational spheres, including, for instance, the

institutional logics describing valuable activities of state-owned enterprises, non-profit organizations, social enterprises, and municipally owned corporations (Billis & Rochester 2020; Besharov & Mitzinneck 2021; Vakkuri et al. 2021a, 2021b). The research tradition reflects a sequential, linear process of evaluating complicated societal activities because performance measurement has usually focused on the rationality of mechanisms through which "organizational" goods are transformed into "public" or "common" goods (Vakkuri & Johanson 2020). The research foci in previous studies have mostly excluded the more difficult performance measurement and management topic: the social impacts of hybridity. The analysis of digital platforms and ecosystems as hybrid entities, including public–private–civil society links, clearly suffers from such a caveat in research tradition. Therefore, we have in this chapter argued that research should also be able to more fully understand the governance and management of institutional hybridity and its social impacts. This type of understanding necessitates that we start to examine the complicated inter-sectoral and inter-organizational interactions of micro-, meso- and macro-level activities and impacts (Dopfer et al. 2004). In this chapter, we analyzed Airbnb as an ecosystem transcending both the levels of societal governance and traditional sectors of public, private, and civil society. The chapter shows that social impacts associated with Airbnb actually are not just based on Airbnb's actions and inactions but also on the conduct of other actors.

The attempt to discuss hybridity through activities seen in hybrid governance is closely intertwined with the lack of proper data. In terms of data, current statistics often delegate the representation of economic activities to either organizations (micro) or to nation-states (macro), or, respectively, to either the public or private realm. Therefore, in the context of platforms and ecosystems with hybridity characteristics, we have only a rudimentary understanding of the processes, outputs, and outcomes of ecosystems in general (Johanson & Vakkuri 2017), let alone ecosystems that are cross-sectoral and transcending the boundaries between government, business, and civic activities. Simply put, we lack proper data, applicable conceptualizations, and methodological tools to assess the extent and intensity of hybridity among ecosystems. These shortfalls have their roots in disintegrated information systems operating within sectoral boundaries, organization-centric thinking, and different performance cultures of the public, private, and third sectors. Social pressures to measure the effects of hybridity are also largely missing.

For a more detailed account of hybridity in platforms and social impacts, our chapter has introduced three important agendas for future research:

1 Studies should aim for more sophisticated identification of the forms of hybridity in the contexts of digital platforms.
2 Mapping out the relationships between organizations, digital platforms, and hybrid governance is of importance to research and practice.
3 Explaining the impacts of hybridity on the conceptualization, measurement, and governance of the social impacts of digital platforms is a priority for future investigations.

Although our results offer valuable contributions to research on hybridity in digital platforms, our analysis should not be considered exhaustive. More research is required to provide even more elaborate accounts of the complicated and multifaceted links between hybridity and digital platforms in society.

Note

1 About Inside Airbnb: http://insideairbnb.com/about.html

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