

# Cosmolocalism Against Platform Capitalism: Evidence From Ridesharing

Yosuke Uchiyama

*Transportation Institute, Chulalongkorn University, Bangkok, Thailand,*  
[yosuke.u@chula.ac.th](mailto:yosuke.u@chula.ac.th)

**Abstract:** The rise of digital commons has expanded shared resources and addressed some challenges of traditional commons. However, this expansion has created new boundaries, forming a complex paradigm that challenges platform capitalism and demands alternative governance models. This study conceptualises shared resources within the framework of cosmologicalism, examining their formation, the processes of enclosure under platform capitalism, and potential pathways for de-embedding. Platform capitalism utilises legal frameworks and opaque algorithmic systems to appropriate resources and dominates digital labour markets, manifesting a contemporary tragedy of the commons characterised by exploitation and profit maximisation. Using ridesharing as a case study, this research highlights the dynamic nature of cosmologicalism and proposes strategies to counter exploitation. By integrating platform cooperativism and social common capital, this study offers sustainable, equitable resource management solutions, supported by a comparative analysis of business models.

**Keywords:** cosmologicalism, digital commons, platform capitalism, platform cooperativism, social common capital, ridesharing

**Acknowledgement:** The author gratefully acknowledges the anonymous reviewers for their highly constructive feedback to improve the quality of this article.

## 1. Introduction

Under commons theory, which posits that all people benefit from shared resources, various governance arrangements have been explored across local to global scales (Hamiduddin 2017, Clancy 1997, Seabright 1993). This framework addresses the economic, environmental, and political inequalities inherent in contemporary capitalism by assigning value to all common resources (McCarthy 2005). Whilst neoliberal thought has become dominant, driving the privatisation of resources under capitalist market mechanisms, many shared resources in the modern world remain obscured from public awareness (Wittel 2013, Birkinbine 2018). The digital commons exemplify how the rapid technological developments of the late 20th and 21st centuries have created new possibilities for utilising resources as commons. As a subset of traditional commons, the digital commons transition from terrestrial spaces to cyberspace and virtual environments (Pavlov, Melville, and Plice 2005; Gastil and Richards 2017). The primary distinction between digital and traditional commons lies in the mediated transfer of resources facilitated by technological infrastructure within digital environments (Ossenaar and Reijers 2017).

Cosmolocalism, also referred to as cosmological commons, serves as a conceptual bridge between local commons and global digital commons (Kostakis and Bauwens, 2020; Bauwens and Ramos 2020; Kostakis and Bauwens 2014). Through solidarity enabled by digital infrastructures, global digital commons, such as knowledge and

software, can integrate with productive local commons across spatial and temporal boundaries. This ecosystem represents a model of commons-based, co-managed resources, fostering collaboration between global and local entities. Examples of such initiatives include Enspiral, Sensorica, Wikihouse, and Farm Hack (Kostakis and Bauwens 2020).

Extending the concept of the commons into digital spaces offers new opportunities to address the risks of over-utilisation and resource monopolies (Ossewaarde and Reijers 2017; Dulong de Rosnay and Stalder 2020). This extension also provides a framework to mitigate challenges associated with the traditional 'tragedy of the commons', such as over-utilisation in unregulated environments and resource depletion by free riders, as articulated by Hardin (1968). It represents a political mechanism to enhance the accessibility and scope of digital rights. However, Greco et al. (2004) caution that the inappropriate expansion of digital spaces may lead to a "tragedy of the digital commons," exacerbating issues such as the digital divide (Greco and Floridi 2004). For instance, Dulong de Rosnay and Stalder (2020) highlight the risks posed by inadequate legal frameworks, including limitations on supply, resource quality, and discoverability. Greco et al. (2004) further analyse the 'tragedy of the digital commons' by framing the Infosphere as a public good whose evolving nature presents new governance challenges.

A key issue facing the digital commons is its inevitable confrontation with the structures of digital capitalism, especially in an environment saturated with global information flows (Coleman and Dyer-Witford 2007). Mansell (2012) notes that real-time networks enabled by digital technologies foster open, collaborative, and collective organisation, empowering citizens (Mansell 2012). Such organisational resources and the proliferation of peer-to-peer (P2P) networks have contributed to the emergence of the modern sharing economy. Traditional commons have also facilitated online-to-offline (O2O) transitions via technological intermediaries, exemplifying the concept of cosmocalism, which broadly refers to the local utilisation of global digital commons (Papadimitropoulos 2020, Kostakis and Bauwens 2014). This model reflects shared activities leveraging communal resources from digital commons, supported by digital technologies. However, this has also blurred the distinctions between digital commons and the technology-based sharing economy, creating an illusion of close alignment (Ossewaarde and Reijers 2017).

Ossewaarde and Reijers (2017) and Papadimitropoulos (2020) argue that the digital commons, when situated within the paradigm of a capitalist or monetary economy, can foster misconceptions. Specifically, the digital commons are often conflated with platform capitalism and the sharing economy. This misrepresentation is amplified by the rise of platform capitalism, which utilises online applications to commodify shared resources and labour. As described by Srnicek (2017) and Uchiyama et al. (2022), platform capitalism represents a digital adaptation of neoliberal market activity, where markets are manipulated to maximise profit. Unlike traditional commons, which are characterised by equitable access and inclusivity, digital commons often restrict access through regulatory mechanisms (Prainsack 2019). Platform capitalism also reinforces users' dependency whilst amplifying the power and influence of platform operators. Furthermore, both corporations and states risk consolidating control over digital commons under the guise of political or economic governance (Prainsack 2019).

The digital commons represent a new frontier as both a means of resistance and an alternative mode of profit-making through digital production within the commodification of labour under platform capitalism and its neoliberal ideology (Wittel 2013, Ossewaarde and Reijers 2017). At the same time, there is an assumption that the digital

commons could transcend platform capitalism by leveraging their contextual flexibility, particularly in the governance and operation of shared resources (Papadimitropoulos 2020). This potential underscores the importance of debating whether the digital commons can offer a viable pathway beyond the constraints of platform capitalism.

Whenever problems in the capitalist economy are identified, discussions often shift towards commons-based governance of shared resources as a deviation from individual ownership models. However, this does not imply a wholesale rejection of capitalism or its replacement. Instead, it advocates for a theoretical exploration of how digital commons can facilitate freedom and less restrictive regulation in managing shared resources (Ossewaarde and Reijers 2017). Unlike traditional commons, which are tied to analogue market production, digital commons have the potential to serve as an arena for new forms of social production, beyond the direct control of conventional market structures (Benkler 2006, Wittel 2013).

Commons research is one of the most important theoretical practices in contemporary contexts, as exemplified by Elinor Ostrom's management governance research Nobel Prize for avoiding the tragedy of the commons (Šestáková and Plichtová 2019, Ostrom 1990). Prior research has relied on case studies of communities adapting the designs of Ostrom and other researchers in designing appropriate governance of digital commons (Dulong de Rosnay and Stalder 2020). Research on the digital commons has attracted theoretical interest in various fields beyond the resource management field (Papadimitropoulos 2018; Benkler and Nissenbaum 2006).

In the discourse on the commons, various paradigms (e.g., platform capitalism, digital capitalism, platform cooperativism, cosmlocalism, and social common capital) are frequently associated with the commons concept. However, concepts such as the sharing economy and gig economy are sometimes mischaracterised as forms of commons, leading to conceptual ambiguities.

This study examines the interplay between platform cooperativism and social common capital as a means to counter the tragedy of the commons precipitated by platform capitalism. It does so by linking resources and activities that lie at the intersection of local commons and digital commons to the theoretical framework of cosmlocalism. The primary contribution of this research lies in its application of cosmlocalism to identify avenues for resisting the enclosure of resources and addressing the inequalities engendered by platform capitalism, with a particular focus on the case of ridesharing.

Cosmlocalism is a theoretical concept that emphasises the integration of globally shared digital resources with local physical production. It advocates a post-capitalist model of production through bridging digital and physical space (De Angelis 2019; De Angelis and Diesner 2020; Varvarousis 2020). This model seeks to foster a more sustainable and equitable ecosystem through mechanisms of self-management rooted in P2P networks and local communities, standing in opposition to the centralised, profit-driven nature of platform capitalism. Within this ecosystem, the effective coordination of interests and the establishment of shared governance frameworks open possibilities for proactive and equitable resource utilisation capable of resisting capitalist exploitation.

Section 2 begins by re-evaluating the commons-like attributes of ridesharing through the lens of cosmlocalism, focusing on how the boundaries between digital and physical resources are negotiated. It then examines the risks posed by platform capitalism's tendency to appropriate commons-based initiatives, theoretically exploring the potential for resistance within the cosmlocalism framework. Section 3 offers a comparative analysis of ride-sharing business models, highlighting how platform cooperativism and

the utilisation of social common capital provide alternatives to conventional capitalist structures. Finally, Section 4 presents the overall conclusions of the study, discussing the significance and limitations of cosmocalism as a countermeasure to platform capitalism.

## 2. Theoretical Perspectives

### 2.1. Boundary Mediation Between Commons and Digital Commons

The commons generally refer to the shared use of resources within society (Hamiduddin 2017, Clancy 1997). The key to understanding the typology and classification of commons lies in the political economy of goods and their scale.

Firstly, commons as a category of goods are characterised by excludability (the ability to limit access) and rivalry (the extent to which use by one individual limits use by others) (Papadimitropoulos 2020; Hess and Ostrom 2007; De Angelis and Harvie 2014). These properties underpin resource scarcity, often enforced through legal mechanisms, leading to the classification of goods as private, public, or common. Commons, a subset of common goods, are further divided into material commons, such as natural resources, and immaterial commons, like knowledge and culture (Papadimitropoulos 2020).

Secondly, commons are classified by scale. Global commons encompass resources beyond state jurisdictions, like the high seas and outer space (Vogler 2012, McCarthy 2005, Ranganathan 2016), whilst local commons include resources such as forests and fisheries, managed by smaller communities (Seabright 1993). Importantly, commons also include collective activities tied to their use, grounded in the equitable principle of *res communis*, where people collectively benefit from shared resources (Baer 2002, Clancy 1997).

Although commons-based initiatives often operate outside capitalism (Cumbers 2015), their open-access nature can lead to overuse, famously termed the “tragedy of the commons” (Hardin 1968). To sustain commons, regulation by public ownership, privatisation, or communities is often proposed. However, each governance model has drawbacks. Privatisation can lead to intensified exploitation (Randhir and Lee 1996) whilst community governance, popularised by Ostrom, excels at local conservation but struggles with larger-scale challenges (Ostrom 1990, Randhir and Lee 1996).

Commons differ from public goods in being self-managed by communities rather than by the state (Foster 2011). However, community management has limitations, such as monopolistic control and exclusionary practices without robust legal frameworks (Basukie, Wang, and Li 2020). Moreover, capitalist entanglements often degrade commons and create mismatches in governance boundaries (Toyoda 2018, Berkes 2006).

The digital commons, a subset of traditional commons, mediate these boundary distortions. Anchored in digital networks, they enable access through innovations like the internet, which gained prominence in the late 20th century (Fuchs 2020). Table 1 delineates the boundaries of the digital commons within the framework of local commons and the global commons ideology facilitated by technology, highlighting their adaptive scope and potential vulnerabilities, such as the risk of a ‘tragedy of the commons’ (Stern 2011, Shkabatur 2019, Seabright 1993).

<i>Type of Commons</i>	<i>Local Commons</i>	<i>Digital Commons</i>	<i>Sources</i>
<b>Coverage</b>	Community scales: Forests, Fishing grounds, Rivers, Common lands, Biodiversity, and etc.  Public scales (Common goods-like): Gas, Oil, Electricity, Other energies, Load, Transportation, Park and etc.	Digital space Cyberspace Virtual space	L: Hardin (1968); Seabright (1993); Berkes (2006); Keohane and Ostrom (1994)  D: Berglas, and Pines (1981); Pavlov et al. (2005); Gastil and Richards (2017); Ostrom and Ostrom (2019)
<b>Potential Governance Actors</b>	Public ownership Privatisation Community	Technology (Digital network; Internet server, website, email; platform application)  Community (See Rosnay and Stalder, 2020)	L: Hardin (1968); Clancy (1997); Ostrom et al. (1999); Holder and Flessas, 2008; Ranganathan (2016)  D: Dulong de Rosnay and Stalder (2020); Ossewaarde and Reijers (2017)
<b>Potential Tragedy of the (Digital) Commons</b>	Saturation Overuse Overexploitation Material monopolies	Digital divide Regulatory framework Lack of supply Low Quality Contents Spam Discoverability Conflict with digital capitalism Exploitation by platform capitalism	L: Hardin (1968); Feeny et al. (1990); Miliński et al. (2002); Holder and Flessas (2008); Toyoda (2018)  D: Greco and Floridi (2004); Pavlov et al. (2005); Dulong de Rosnay and Stalder (2020); Fuchs (2020); Papadimitropoulos (2021)

Table 1: Boundaries between Local Commons and Digital Commons

The most distinctive difference between the digital commons and traditional local commons lies in the scope of their resources and activities. Local commons are typically limited in scale, functioning primarily within community or public contexts, akin to the scale of public goods. In contrast, the digital commons extend terrestrial resources and activities into digital (virtual and cyber) spaces through technological mediation. Consequently, the management actors of the digital commons primarily consist of technology-based networks, internet servers, websites, and platforms.

Furthermore, networks enabled by digital technologies, which support open access to the digital commons, may facilitate more flexible management of traditional commons by allowing communities to co-organise online (Mansell 2012). One of the principal advantages of the digital commons is their capacity to overcome issues that have historically contributed to the ‘tragedy of the commons’, such as over-utilisation, resource depletion, and monopolisation. This is achieved through vast storage capabilities and the abundance of available options (Ossewaarde and Reijers 2017; Dulong de Rosnay and Stalder 2020).

However, previous studies have identified several concerns related to the potential tragedy of the digital commons. These include the digital divide among users, underdeveloped legislation, insufficient supply, poor content quality, spam, and issues with discoverability (Greco and Floridi 2004; Dulong de Rosnay and Stalder 2020). Moreover, the digital commons exacerbate the conflict between traditional commons and capitalism, introducing new tensions with digital capitalism and exploitation under platform capitalism (Fuchs 2020, Papadimitropoulos 2021).

## 2.2. The Concept of Sharing Permeates the Boundaries of the Commons

At first glance, the concepts of ‘commons’ and ‘sharing’ appear similar, as both involve the notion of sharing. However, it is essential to emphasise their differences in scope and nature. The concept of commons refers to the operation and maintenance of a

non-profit, collective management of resources by specific actors, such as communities. In contrast, traditional sharing, as a form of gift economy, manifests in three primary forms: (1) giving something without expecting it to be returned; (2) giving something with the expectation of either its return or a future reciprocal exchange; and (3) joint ownership of something, which may be used collectively or separately.

Before the commons became associated with its digital and on-demand dimensions, the profit-driven and capitalistic nature of sharing was less prominent. However, the linkage of both commons and sharing with digital technologies has led to a pronounced conceptual shift. This shift has been amplified by the emergence of the modern sharing economy, which prioritises the commercial aspects of sharing over the principle of genuine sharing. As a result, the sharing economy is often equated with 'platform capitalism'.

Among the various forms of sharing, mobility sharing and space sharing have gained considerable traction due to the rise of intermediary platforms that leverage digital technologies to efficiently connect asset owners and users (Ritter and Schanz 2019; Schor 2016). Platform firms utilise sophisticated philosophical framing and marketing strategies to emphasise non-profit aspects, actively promoting the notion of the 'equal sharing of resources' (Frenken et al. 2015; Richardson 2015; Schlagwein, Schoder, and Spindeldreher 2020). Consequently, consumers are given the illusion that the objectives of the commons align with co-management practices aimed at sustainable resource use and social equity.

The rise of the contemporary sharing economy, facilitated by Information and Communications Technology (ICT), initially suggested the possibility of a transition to a more sustainable economic consumption paradigm under neoliberalism. However, it replicates the tragic narrative of the commons in terms of equity and exploitation, driven by excessive business opportunities and value extraction in sharing activities (Martin 2016, Hossain 2020, Laurell and Sandström 2017). Ossewaarde and Reijers (2017) argue that the digital mediation of commons practices, such as accommodation sharing, creates the illusion of a 'soft digital commons', insufficient to challenge capitalist ideologies effectively. Whilst the digital commons have been framed as a political tool to oppose capitalism, in reality, they coexist with and even exhibit affinities for capitalist economic structures (Reijers and Ossewaarde 2018).

This dynamic is exemplified by the global success of platforms such as Uber and Airbnb, which exploit regulatory and institutional ambiguities stemming from the novelty of the sharing economy and the disruption of existing market ecosystems (Laurell and Sandström 2017). Such a growth-oriented business model, which disregards sustainability, has eroded the concept of genuine and equitable sharing, ushering in a paradigm that contradicts the principles of the commons (Garrity 2012).

In light of the above, it is imperative to avoid conflating the digital commons with the sharing economy under platform capitalism (Papadimitropoulos 2020).

### **2.3. Dangers of Platform Capitalism to Capture Commons**

The previous section highlighted the conflation and distinctions between the (digital) commons and the sharing economy (i.e., platform capitalism), and examined the sharing of resources closely linked to digital technologies. Within these domains, resources inherently belonging to the digital commons have become victims of platform capitalism. In other words, these activities have succumbed to platform capitalism as a novel form of capital accumulation that exploits loopholes in regulatory systems, exemplifying a modern tragedy of the commons (Arthurs 2018). Platform capitalism represents a digital transposition of neoliberal activities, rooted in digital capitalism

(Papadimitropoulos 2021). Digital capitalism, in turn, is defined as an aspect of capitalism that revolves around the production of digital goods (Fuchs 2020). As a component of capitalism, digital capitalism enhances social control through capital by creating new mechanisms of accumulation, relying on the production of digital goods and digital markets (de Rivera 2020).

Platform capitalism, as the core framework of digital capitalism, refers to the management of markets and the reproduction of capital by digital platforms through their revenue models and economies of scale (Srnicsek 2017). According to Papadimitropoulos (2021), platform capitalism primarily involves platform-based outsourcing and O2O marketplace activities. A defining characteristic of these activities is the role of digital engines that facilitate sharing activities, such as participation in digital platform markets. Within these digital marketplaces, the sharing economy manifests through the broad online sharing of idle assets, as well as gig economy activities involving the provision and sale of labour. Görög (2018) describes the gig economy as a narrowly defined subset of the sharing economy, encompassing activities like ridesharing, where labour is offered alongside the shared use of idle assets, such as vacant seats in private vehicles or motorbikes.

Operating outside the neoliberal regulatory framework, platform capitalism commodifies resources traditionally managed as commons to generate profit, whilst attracting users by organising and overseeing technology-driven labour processes (Uchiyama, Furuoka, and Akhir 2022b; Haidar and Keune 2021; Altenried 2024; Uchiyama, Furuoka, and Omar 2024). This mechanism introduces a new perspective on the tragedy of the digital commons: the internal surveillance of black-boxed algorithms and their impacts, which are based on the extensive datasets stored on platforms (Shkabatur 2019). Consequently, platform capitalism consolidates, and controls shared resources online, merging idle and labour resources existing offline and optimising them for profit generation through their exploitation (van Doorn and Badger 2020; Howson et al. 2022).

The growth of platform capitalism is propelled not only by challenges in managing digital commons and shared resources but also by a fragmented and uncoordinated legal system (Rahman and Thelen 2019). This does not imply that the legal system is underdeveloped; rather, it reflects legislation that prioritises platform companies and the venture capitalists who back them, aiming to maximise profits from shared resources. As a result, shared resources and the gig workers who rely on them are encapsulated within a multi-layered capital accumulation framework for platforms, characterised by the geographical dispersion of businesses and labour patterns inherent to platform capitalism.

#### **2.4. Ridesharing as Cosmolocalism**

The previous section delineated the boundaries between the commons and the digital commons, examining the threat posed by platform capitalism, which undermines resource management linked to digital technologies. This study situates resources and activities aimed at resisting such forces within the framework of cosmolocalism.

Cosmolocalism aspires to establish commons-based management that transcends divisions between online and offline spaces through technological mediation, counterbalancing the centralised, profit-driven nature of platform capitalism. At first glance, this boundary may appear as an ontological limit, akin to the distinction between commons and digital commons. However, boundaries in the commons are also sites of social struggle. Cosmolocalism incorporates boundary commoning (De Angelis 2017, 2019), a strategy that expands socio-spatial scales by fostering interactions between

diverse commons. It bridges offline and online commons whilst addressing their political-economic contexts. De Angelis (2017; 2019) describes this fluidity as commons management systems symbiotically layered through structural coupling, amplifying the influence of social movements and resistance at the boundaries of commons.

Cosmolocalism provides a sustainable mechanism for the co-development of platform economies and local communities by fostering interactions at the boundaries between digital and local commons. Traditional O2O activities reflect two key aspects of shared access in commons: online discovery and contracting, followed by offline sharing and consumption (Roh and Park 2019; Xiao and Dong 2015). This study identifies certain aspects of ridesharing with private vehicles as examples of cosmologicalism, forming part of the social infrastructure.

Conventional ridesharing, involving shared transport between vehicle owners and participants, is not new. It has existed in informal forms, such as carpooling and hitchhiking among family and friends (Di Febbraro, Gattorna, and Sacco 2013). Modern ridesharing combines offline activity with online platforms that match supply and demand (Furuhata et al. 2013; Amey, Attanucci, and Mishalani 2011; Amirkiee and Evangelopoulos 2018). Cosmolocalism as ridesharing shares similarities with open cooperativism, which emphasises community-oriented interests and employs digital technology to enable sustainable operations. However, whilst open cooperativism operates globally and shares resources under open licences (Pazaitis, Kostakis, and Bauwens 2017; Papadimitropoulos and Malamidis 2023), cosmologicalism focuses on localised offline activities enabled by digital technologies, offering a more region-specific approach.

A key consideration for identifying ridesharing as an activity under cosmologicalism is whether its operations are conducted on a non-profit basis. Platform capitalism's influence is evident in the rise of profit-driven ride-hailing services, which resemble commercial taxi operations. By contrast, carpooling, which shares travel costs between drivers and passengers, is less profitable for platforms and aligns more closely with commons management. Its cost-sharing model promotes sustainable resource use by efficiently utilising idle assets (commons resources).

Nevertheless, ride-hailing has been subsumed into platform capitalism, transforming cosmologicalism and its workers into mechanisms for profit generation. Platform capitalism's motivations for car-sharing activities such as ride-hailing and carpooling intersect with ecological and social objectives, including promoting sustainable transport, reducing car usage, and minimising costs (Mitropoulos, Kortsari, and Ayfantopoulou 2021; Arteaga-Sánchez et al. 2020; Amirkiee and Evangelopoulos 2018; Jacobson and King 2009). Platforms also incentivise gig workers to optimise vehicle use, fostering perceptions of flexibility and entrepreneurial autonomy (Ravenelle 2019).

However, ride-hailing embodies a significant imbalance of power within platform capitalism, which operates under an underdeveloped regulatory framework. Platforms define employment classifications and management structures for gig workers, whereas carpooling operates as a vehicle-owner-driven system. Drivers register destinations and share costs with passengers via platforms, which charge commissions but yield lower profits and involve fewer gig workers compared to ride-hailing. This enables carpooling to maintain a more commons-like sharing model.

The structural issue in ridesharing under platform capitalism lies in the expansion of profit-driven sharing activities, which exacerbate the overuse of cosmological common resources by platforms, undermining cost-sharing services. In countries heavily influenced by platform capitalism, ride-hailing often overshadows carpooling, which offers more equitable transport access. Whilst ride-hailing contributes to economic activity



and user convenience, it detracts from the equitable access characteristic of cosmopolitanism due to factors such as dynamic pricing, supply-demand imbalances, the digital divide, and accessibility issues.

Conversely, carpooling promotes cosmopolitanism-like initiatives through its cost-sharing model, supporting equitable private vehicle access whilst reducing social and economic costs. However, its lower profit margins and minimal platform involvement make it less attractive within platform capitalism. As a result, modern ridesharing has led to the tragedy of a new form of cosmopolitan commons, as its commodification through online control encroaches even on the labour market associated with it.

## 2.5. Solutions of Tragedy of ‘Cosmopolitanism’ and Theoretical Paradigm

Ridesharing plays a pivotal role in modern door-to-door transport infrastructure whilst addressing various social cost issues (Coulombel et al. 2019). Transportation has long been considered an essential public good, functioning as part of the local commons in a narrow sense. The development of digital technology has facilitated the convergence of technology and mobility, leading to the emergence of modern ridesharing. However, this concept occupies a complex position, diverging from the traditional framing of transport as a local commons.

Ridesharing can inherently be managed and operated in a commons-like manner within the framework of cosmopolitanism, which exists at the boundary between commons and digital commons. However, such activities often fall prey to new forms of enclosure, exemplifying the tragedy of the commons under platform capitalism. To counter this, boundary-commoning actions must be developed to legitimise shared spaces through interactions among diverse actors.

This study proposes two theoretical applications of cosmopolitanism to resist platform capitalism. The first involves transitioning cosmopolitan commons management from platform capitalism to platform cooperativism, a model that departs from traditional platform capitalism. Platform cooperativism establishes democratic governance through cooperatives composed of co-owners, such as workers and users, enabling collective ownership and management of common resources (Scholz 2016). This model offers a broad framework for rethinking institutional reliance on private ownership of common resources under platform capitalism (Nicoli and Paltrinieri 2019).

Platform cooperativism heralds a shift from exploitative management of private vehicles and labour practices to a more equitable governance model, challenging the dynamics of free-market competition and platform dominance characteristic of platform capitalism (Sandoval 2020, Scholz 2014). This approach proposes that cooperatives create their platforms to replace traditional ridesharing services, with beneficiaries comprising multi-stakeholder groups such as private vehicle owners, users, and investors (Papadimitropoulos 2021). Platform cooperativism is guided by four key principles: commons-based ownership, a supportive legal framework, a transparent operational mechanism, and fair evaluation of members (Uchiyama et al. 2022; Scholz 2016; Fuster Morell and Espelt 2018). First, cooperatives must establish governance based on shared ownership, ensuring equitable resource access and collaborative decision-making to collectively manage the digital commons (Papadimitropoulos 2021). Second, a supportive legal framework is necessary to safeguard co-op members' rights and promote fair benefit-sharing (Papadimitropoulos 2021). Third, cooperatives should implement transparent processes for data use and workflow, minimising excessive workplace surveillance whilst ensuring fair distribution of benefits (Pasquale 2016; Straughan and Bissell 2022). Fourth, decentralised evaluation methods should be adopted to ensure a fair assessment of members' contributions.

Despite its promise, platform cooperativism raises concerns about the professionalism and expertise required for effective governance and system management. Questions persist about how cooperatives could replicate the sophisticated algorithms and operational systems of established platforms like Uber, Grab, and Lyft. Additionally, its focus on union membership economics may necessitate adherence to specific objectives for managing cosmopolitanism, alongside independent oversight of intellectual activities (Martinelli et al. 2019). Co-op members may also require significant time and support from neutral experts to foster sustainable, professional management.

The second solution links cosmopolitanism management to social common capital, a concept proposed by Hirofumi Uzawa. Social common capital refers to resources managed and operated collectively as public goods, outside markets, and social economy structures (Uzawa 2000, Mamiya 2016). It opposes market-oriented approaches that entrust the provision of essential goods to corporations, advocating proper management of resources critical to societal well-being, characterised by the low-price elasticity of demand.

Uzawa (2005) identifies three components of social common capital: natural capital, social infrastructure, and institutional capital. Transportation, including ridesharing, is categorised as social infrastructure. Whilst it emphasises sustainable resource use akin to the commons, social common capital prioritises public management for broader societal interests. Resources must be managed by professionals with requisite ethics, expertise, and discipline (Okuno-Fujiwara and Shell 2009). These experts, elected through political processes, are accountable to the public and operate under fiduciary principles, ensuring independence from government and market standards (Uzawa 2005).

Social common capital thus represents a form of commons management distinct from the top-down governance and resource allocation practised by platforms (Mamiya 2016). Furthermore, the selection of appropriate experts based on the principles of social common capital has the potential to enhance societal equity, fostering a more inclusive civil society compared to the proprietary and often closed nature of platform cooperativism. However, challenges arise in maintaining sustainable operations, as the infrastructural resources associated with social common capital (e.g., ridesharing) must exhibit a broader public utility than typical commons resources.

From the above discussion, this study presents a theoretical paradigm for the operation and management of cosmopolitanism, as shown in Figure 1. Effective management of ridesharing within cosmopolitanism to counter platform capitalism can be achieved by combining platform cooperativism with the principles of social common capital. Platform cooperativism facilitates smaller-scale co-use of resources by workers and users, enabling equitable distribution through democratic governance. Conversely, social common capital promotes sustainable resource management, safeguarding ridesharing as public infrastructure under the stewardship of professional experts representing citizens. This integrated approach combines the inclusivity of co-ops with the credibility of public management, thereby preventing exploitation by platform capitalism and fostering a system where shared benefits are equitably distributed.

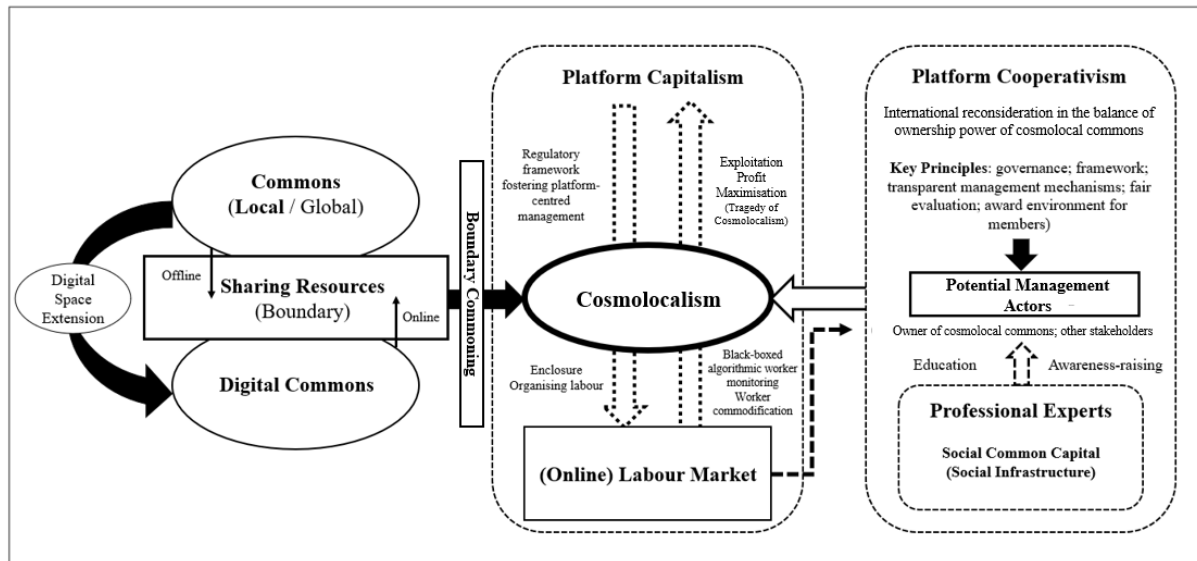


Figure 1: Theoretical Paradigm of Cosmolocalism

### 3. Ridesharing Business Model Comparisons

This section offers an empirical perspective on the theoretical paradigm governing the operation and management of cosmological commons. The study undertakes a comparative analysis of four key frameworks: (1) platform capitalism, (2) platform cooperativism, (3) social common capital, and (4) ridesharing business models that embody the characteristics of platform cooperativism and social common capital, in pursuit of optimal management strategies for cosmological commons (Table 2). By using ridesharing as a case study, the analysis provides a comprehensive empirical overview of each concept, including organisational models, revenue streams, and value propositions. It also delineates clear guidelines for leveraging theoretical frameworks associated with cosmologicalism to challenge the dominance of platform capitalism.

Type of Concepts	Platform/Service	Country/City	Overview	Organisational Model	Revenue Streams	Value Proposition
(1) Platform Capitalism	Grab	Southeast Asia	Ride-hailing app that connects drivers and riders, providing on-demand transport services across eight Southeast Asian countries	Centralised, profit-driven; controlled by a private corporation with hierarchical management	Commission-based revenue from rides, fees from drivers, advertisements	Maximise profit; prioritise convenience and wide availability for users with flexible work for drivers using highly-developed application
(2) Platform Cooperativism	La'Zooz	Israel/Tel Aviv-Yafo	Peer-to-peer, blockchain-based ridesharing platform that incentivises users and drivers through token rewards	Decentralised, peer-to-peer; users and drivers participate in a cooperative governance structure using blockchain	Token-based system; participants earn tokens for contributing to the network (e.g., driving or promoting)	Build a democratic, sustainable transportation network emphasising user and driver ownership and fairness
(3) Social Common Capital	Teshio Town Rideshare Transport Project	Japan/Hokkaido	Rural community rideshare project supported by local government (Teshio Town Officer) to meet local transport needs	Community-supported with public funding; managed in coordination with a town official and residents	Public subsidies, local government funding, small fees from users	Address local mobility challenges to access hospitals and shopping; support rural residents with limited transport options through sustainable and accessible ridesharing
(4) Platform Cooperativism + Social Common Capital	Nakatombetsu Rideshare	Japan/Hokkaido	Professional community rideshare program with local	Professional community-led, cooperative with support from	Public subsidies, small passenger fees, local government funding	Serve community mobility needs sustainably within the

	government support, offering co-operative transport in rural areas	local government and residents	town; foster local engagement and ensure accessible, affordable transport
--	--	--------------------------------	---

Table 2: Business Model Comparisons of Different Types of Ridesharing

Grab, operating in eight Southeast Asian countries, exemplifies platform capitalism. Having defeated Uber in the regional market in 2018, Grab has transitioned beyond ride-hailing to position itself as a super-app in Southeast Asia. Its business model is centralised and profit-oriented, supported significantly by various companies and venture capitalists. Grab generates revenue from driver commissions, additional services, and advertising. Its value proposition includes a highly developed app-based service for users and flexible work opportunities for drivers. However, this profit-maximising model, prioritising shareholder returns, is structured to exploit transportation resources as a form of social infrastructure.

In contrast, La'Zooz, a P2P ride-sharing service from Israel, operates based on platform cooperativism. Its decentralised governance model allows users and drivers to jointly manage the system. Leveraging blockchain technology, participants earn tokens rather than money for their contributions, promoting equity within the network. La'Zooz seeks to maximise community ownership among users and drivers, fostering a sustainable and democratic transport system.

Whilst ride-sharing services governed by social common capital are rare, the carpooling project in Teshio Town, Japan, exemplifies such an approach. As an ageing and depopulated area, Teshio Town faces significant transport infrastructure challenges, with no train services and limited bus availability. The carpooling service primarily supports elderly residents needing transport for hospital visits or trips to larger commercial centres 70 km away. Public management, a hallmark of social common capital, is evident in Teshio Town's carpooling initiative, which is overseen by a single town hall official. Unlike profit-driven ride-hailing services, which are strictly regulated in Japan due to central government and taxi industry interests, the service operates under local authority management to meet the community's transport needs. It emphasises mutual aid within the community, with revenues sustained through public subsidies and modest usage fees. The initiative prioritises public welfare, providing essential infrastructure whilst resisting the vested interests of centralised authorities and businesses.

Similarly, the carpooling project in Nakatombetsu Town, Japan, represents an innovative transport model rooted in cosmopolitanism, incorporating characteristics of both platform cooperativism and social common capital. As part of the town hall's commons creation policy, this mutual aid carpooling system addresses the transport vacuum in an ageing and depopulated area. The project employs a decentralised operating model co-managed by local residents and the local government. Initially, a group of experts, comprising town hall staff, university professors, community managers, platform developers, and regulators managed the project. Over time, management responsibilities transitioned to resident drivers, who now collaborate with the town hall to safeguard the carpooling system as cosmopolitan-commons. Revenues are supported through public subsidies, modest user fees, and local authority contributions. The project integrates local welfare and digital infrastructure to deliver affordable and sustainable transport for the entire community.

These comparative cases, such as La'Zooz, the Teshio Town project, and the Nakatombetsu Town project, highlight a shared commitment to long-term, sustainable value creation in opposition to platform capitalism, perpetuating the tragedy of

cosmolocal commons. In particular, the Nakatombetsu case underscores the potential for ridesharing to generate social value through the sustainable management of commons for public welfare, facilitated by professional communities.

#### 4. Conclusion

Commons theory, which advocates for equal access to shared resources, has extended into the digital realm, creating new opportunities to challenge the neoliberal, profit-driven exploitation of resources. However, the paradigm shift from traditional to digital commons has introduced new boundaries that transcend their respective characteristics. Whilst cosmolocality aspires to autonomy from capitalism by connecting global and local productive resources, in practice, digital commons linked to local resources are increasingly undermined by platform capitalism, leading to a new tragedy of the commons. This study explores the potential of cosmolocality as a commons framework that bridges the analogue and digital realms to counter the dominance of platform capitalism, using ridesharing as a case study. It demonstrates that platform cooperativism and the application of social common capital principles can provide effective strategies to address the challenges posed by platform capitalism. Whilst examples of ridesharing initiatives highlight the importance of equitable and sustainable resource circulation within the cosmolocality paradigm, further discussion is needed to assess their ability to offer a viable alternative to platform capitalism.

#### References

- Altenried, Moritz. 2024. Mobile Workers, Contingent Labour: Migration, the Gig Economy and the Multiplication of Labour. *Environment and Planning A: Economy and Space* 56 (4): 1113-1128.
- Amey, Andrew, John Attanucci and Rabi Mishalani. 2011. Real-Time Ridesharing: Opportunities and Challenges in Using Mobile Phone Technology to Improve Rideshare Services. *Transportation Research Record* 2217 (1): 103-110.
- Amirkiaee, S. Yasaman and Nicholas Evangelopoulos. 2018. Why do People Rideshare? An Experimental Study. *Transportation Research Part F: Traffic Psychology and Behaviour* 55: 9-24.
- Arteaga-Sánchez, Rocío, Maria Belda-Ruiz, Alejandro Ros-Galvez and Alfonso Rosa-Garcia. 2020. Why Continue Sharing: Determinants of Behavior in Ridesharing Services. *International Journal of Market Research* 62 (6): 725-742.
- Arthurs, Harry. 2018. Chapter II: The False Promise of the Sharing Economy. In *Law and the "Sharing Economy"*, edited by McKee Derek, Makela Finn, and Scassa Teresa, 55-72. Ottawa: University of Ottawa Press.
- Baer, Paul. 2002. Equity, Greenhouse Gas Emissions, and Global Common Resources. *Climate Change Policy: A Survey*: 393-408.
- Basukie, Jessica, Yichuan Wang and Shuyang Li. 2020. Big Data Governance and Algorithmic Management in Sharing Economy Platforms: A Case of Ridesharing in Emerging Markets. *Technological Forecasting and Social Change* 161: 120310.
- Bauwens, Michel and Jose Ramos. 2020. Re-Imagining the Left Through an Ecology of the Commons: Towards a Post-Capitalist Commons Transition. In *The Radical Left and Social Transformation*, 169-186. London: Routledge.
- Benkler, Yochai. 2006. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven: Yale University Press.
- Benkler, Yochai and Helen Nissenbaum. 2006. Commons-Based Peer Production and Virtue. *Journal of Political Philosophy* 14 (4): 394-419.
- Berkes, Fikret. 2006. From Community-Based Resource Management to Complex Systems: The Scale Issue and Marine Commons. *Ecology and Society* 11 (1): 45.

- Birkinbine, Benjamin J. 2018. Commons Praxis: Toward a Critical Political Economy of the Digital Commons. *tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society* 16 (1): 290-305. <https://doi.org/10.31269/triplec.v16i1.929>.
- Clancy, Erin A. 1997. The Tragedy of the Global Commons. *Indiana Journal of Global Legal Studies* 5: 601-620.
- Coleman, Sarah and Nick Dyer-Witford. 2007. Playing on the Digital Commons: Collectivities, Capital and Contestation in Videogame Culture. *Media, Culture & Society* 29 (6): 934-953.
- Coulombel, Nicolas, Virginie Boutueil, Liu Liu, Vincent Viguié and Biao Yin. 2018. Substantial Rebound Effects in Urban Ridesharing: Simulating Travel Decisions in Paris, France. *Transportation Research Part D Transport and Environment*. 71: 110-126. <https://doi.org/10.1016/j.trd.2018.12.006>.
- De Angelis, Massimo. 2017. *Omnia Sunt Communia. On the Commons and the Transformation to Postcapitalism*. London: Zed Books.
- De Angelis, Massimo. 2019. Migrants' Inhabiting Through Commoning and State Enclosures. A Postface. *Citizenship Studies* 23 (6) 6: 27-636.
- De Angelis, Massimo and Dagmar Diesner. 2020. "A Revolution Under our Feet": Food Sovereignty and the Commons in the Case of Campi Aperti. *In Commoning the City*, 69-85. London: Routledge.
- De Angelis, Massimo and David Harvie. 2014. The Commons. In *The Routledge Companion to Alternative Organizations*, edited by G. Cheney M. Parker, V. Fournier and C. Land, 280-294. London: Routledge.
- de Rivera, Javier. 2020. A Guide to Understanding and Combatting Digital Capitalism. *tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society* 18 (2): 725-743. <https://doi.org/10.31269/triplec.v18i2.1173>.
- Di Febbraro, Angela, Enrico Gattorna and Nicola Sacco. 2013. Optimization of Dynamic Ridesharing Systems. *Transportation Research Record* 2359 (1): 44-50.
- Dulong de Rosnay, Mélanie and Felix Stalder. 2020. Digital Commons. *Internet Policy Review* 9 (4): 1-22.
- Foster, Sheila R. 2011. Collective Action and the Urban Commons. *Notre Dame Law Review*. 87 (1): 57-134.
- Frenken, Koen, Toon Meelen, Martijn Arets and Pieter van de Glind. 2015. Smarter Regulation for the Sharing Economy. *Guardian*. <https://www.theguardian.com/science/political-science/2015/may/20/smarter-regulation-for-the-sharing-economy>. Accessed on 20 May 2024.
- Fuchs, Christian. 2020. The Ethics of the Digital Commons. *Journal of Media Ethics* 35 (2): 112-126.
- Furuhata, Masabumi, Maged Dessouky, Fernando Ordóñez, Marc-Etienne Brunet, Xiaoqing Wang and Sven Koenig. 2013. Ridesharing: The State-of-the-Art and Future Directions. *Transportation Research Part B: Methodological* 57: 28-46.
- Fuster Morell, Mayo and Ricard Espelt. 2018. A Framework for Assessing Democratic Qualities in Collaborative Economy Platforms: Analysis of 10 Cases in Barcelona. *Urban Science* 2 (3): 61.
- Garrity, Edward J. 2012. Tragedy of the Commons, Business Growth and the Fundamental Sustainability Problem. *Sustainability* 4 (10): 2443-2471.
- Gastil, John and Robert C. Richards. 2017. Embracing Digital Democracy: A Call for Building an Online Civic Commons. *PS: Political Science & Politics* 50 (3):758-763.
- Greco, Gian Maria and Luciano Floridi. 2004. The Tragedy of the Digital Commons. *Ethics and Information Technology* 6 (2): 73-81.
- Haidar, Julieta and Maarten Keune. 2021. Introduction: Work and Labour Relations in Global Platform Capitalism. In *Work and Labour Relations in Global Platform Capitalism*, 1-27. Cheltenham: Edward Elgar Publishing.

- Hamiduddin, Iqbal. 2017. Community Building: Self-Build and the Neighbourhood Commons. In *Self-Build Homes*, edited by Iqbal Hamiduddin and Michaela Benson, 17-37. London: UCL Press.
- Hardin, Garrett. 1968. The Tragedy of the Commons. *Science* 162 (3859): 1243-1248.
- Hess, Charlotte and Elinor Ostrom. 2007. *Understanding Knowledge as a Commons: From Theory to Practice*. Cambridge, MA: The MIT Press.
- Hossain, Mokter. 2020. Sharing Economy: A Comprehensive Literature Review. *International Journal of Hospitality Management* 87: 102470. <https://doi.org/10.1016/j.ijhm.2020.102470>.
- Howson, Kelle, Fabian Ferrari, Funda Ustek-Spilda, Nancy Salem, Hannah Johnston, Srujana Katta, Richard Heeks and Mark Graham. 2022. Driving the Digital Value Network: Economic Geographies of Global Platform Capitalism. *Global Networks* 22 (4): 631-648. <https://doi.org/10.1111/glob.12358>.
- Jacobson, Sheldon H. and Douglas M. King. 2009. Fuel Saving and Ridesharing in the US: Motivations, Limitations, and Opportunities. *Transportation Research Part D: Transport and Environment* 14 (1): 14-21. <https://doi.org/10.1016/j.trd.2008.10.001>.
- Kostakis, Vasilis and Michel Bauwens. 2014. *Network Society and Future Scenarios for a Collaborative Economy*. Berlin/Heidelberg: Springer.
- Kostakis, Vasilis and Michel Bauwens. 2020. Grammar of Peer Production. *The Handbook of Peer Production*, edited by Mathieu O'Neil, Christian Pentzold, and Sophie Toupin. 19-32. Hoboken, NJ: John Wiley & Sons.
- Laurell, Christofer and Christian Sandström. 2017. The Sharing Economy in Social Media: Analyzing Tensions Between Market and Non-Market Logics. *Technological Forecasting and Social Change* 125: 58-65. <https://doi.org/10.1016/j.techfore.2017.05.038>.
- Mamiya, Yosuke. 2016. Commons Toshite No Shakai Teki Kyoutsu Shihon To Sono Management [Social Common Capital as a Commons and its Management]. *Journal of Water and Environmental Issues* 29 (2): 20-25.
- Mansell, Robin. 2012. Promoting Access to Digital Knowledge Resources: Managing in the Commons. *International Journal of the Commons* 7 (2): 255-277.
- Martin, Chris J. 2016. The Sharing Economy: A Pathway to Sustainability or a Nightmarish Form of Neoliberal Capitalism? *Ecological Economics* 121: 149-159. <https://doi.org/10.1016/j.ecolecon.2015.11.027>.
- Martinelli, Francesca, Samuele Bozzoni, Simone Caroli, Francesca Tamascelli and Giuseppe Guerini. 2019. *Platform Cooperativism in Italy and in Europe*: Working paper CIRIEC No. 2019/27. <http://doi.org/10.25518/ciriec.wp201927>.
- McCarthy, James. 2005. Commons as Counterhegemonic Projects. *Capitalism Nature Socialism* 16 (1): 9-24.
- Mitropoulos, Lambros, Annie Kortsari and Georgia Ayfantopoulou. 2021. A Systematic Literature Review of Ride-sharing Platforms, User Factors and Barriers. *European Transport Research Review* 13 (1): 61.
- Nicoli, Massimiliano and Luca Paltrinieri. 2019. Platform Cooperativism: Some Notes on the Becoming "Common" of the Firm. *South Atlantic Quarterly* 118 (4): 801-819.
- Okuno-Fujiwara, Masahiro and Karl Shell. 2009. An Interview with Hirofumi Uzawa. *Macroeconomic Dynamics* 13 (3): 390-420.
- Ossewaarde, Marinus and Wessel Reijers. 2017. The Illusion of the Digital Commons: 'False Consciousness' in Online Alternative Economies. *Organization* 24 (5): 609-628.
- Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge, UK: Cambridge University Press.
- Papadimitropoulos, Evangelos. 2021. Platform Capitalism, Platform Cooperativism, and the Commons. *Rethinking Marxism* 33 (2): 246-262.
- Papadimitropoulos, Vangelis. 2018. Commons-Based Peer Production in the Work of Yochai Benkler. *tripleC: Communication, Capitalism & Critique*. Open Access Journal for a Global



- Sustainable Information Society*. 16 (2): 835-856. <https://doi.org/10.31269/tri-plec.v16i2.1009>.
- Papadimitropoulos, Vangelis. 2020. *The Commons*. London. University of Westminster Press.
- Papadimitropoulos, Vangelis and Haris Malamidis. 2023. Prefiguring the counter-hegemony of open cooperativism: The Case of Open Food Network. *Journal of Rural Studies* 101: 103067.
- Pasquale, Frank. 2016. Two Narratives of Platform Capitalism. *Yale Law & Policy Review* 35 (1): 309-319.
- Pavlov, Oleg V., Nigel P. Melville and Robert K. Plice. 2005. Mitigating the Tragedy of the Digital Commons: The Problem of Unsolicited Commercial E-Mail. *Communications of the Association for Information Systems* 16: 73-90.
- Pazaitis, Alex, Vasilis Kostakis and Michel Bauwens. 2017. Digital Economy and the Rise of Open Cooperativism: The Case of the Enspiral Network. *Transfer: European Review of Labour and Research* 23 (2): 177-192.
- Prainsack, Barbara. 2019. Logged out: Ownership, Exclusion and Public Value in the Digital Data and Information Commons. *Big Data & Society* 6 (1): 1-15. <https://doi.org/10.1177/2053951719829773>.
- Rahman, K. Sabeel and Kathleen Thelen. 2019. The Rise of the Platform Business Model and the Transformation of Twenty-First-Century Capitalism. *Politics & Society* 47 (2): 177-204.
- Randhir, Timothy O. and John G. Lee. 1996. Managing Local Commons in Developing Economies: An Institutional Approach. *Ecological Economics* 16 (1): 1-12.
- Ranganathan, Surabhi. 2016. Global Commons. *European Journal of International Law* 27 (3): 693-717.
- Ravenelle, Alexandra J. 2019. "We're not Uber:" Control, Autonomy, and Entrepreneurship in the Gig Economy. *Journal of Managerial Psychology* 34 (4): 269-285.
- Reijers, Wessel and Marinus Ossewaarde. 2018. Digital Commoning and its Challenges. *Organization* 25 (6): 819-824.
- Richardson, Lizzie. 2015. Performing the Sharing Economy. *Geoforum* 67: 121-129.
- Ritter, Martin and Heiner Schanz. 2019. The Sharing Economy: A Comprehensive Business Model Framework. *Journal of Cleaner Production* 213: 320-331.
- Roh, Minjung and Kiwan Park. 2019. Adoption of O2O Food Delivery Services in South Korea: The Moderating Role of Moral Obligation in Meal Preparation. *International Journal of Information Management* 47: 262-273. <https://doi.org/10.1016/j.ijinfomgt.2018.09.017>.
- Sandoval, Marisol. 2020. Entrepreneurial Activism? Platform Cooperativism Between Subversion and Co-optation. *Critical Sociology* 46 (6): 801-817.
- Schlagwein, Daniel, Detlef Schoder and Kai Spindeldreher. 2020. Consolidated, Systemic Conceptualization, and Definition of the "Sharing Economy". *Journal of the Association for Information Science and Technology* 71 (7): 817-838. <https://doi.org/10.1002/asi.24300>.
- Scholz, Trebor. 2016. *Platform Cooperativism. Challenging the Corporate Sharing Economy*. New York: Rosa Luxemburg Foundation.
- Scholz, Trebor. 2014. Platform Cooperativism vs. the Sharing Economy. *Big Data & Civic Engagement* 47: 47-52.
- Schor, Juliet. 2016. "Debating the Sharing Economy." *Journal of Self-Governance and Management Economics* 4 (3): 7-22.
- Seabright, Paul. 1993. Managing Local Commons: Theoretical Issues in Incentive Design. *The Journal of Economic Perspectives* 7 (4): 113-134.
- Šestáková, Anna and Jana Plichtová. 2019. Contemporary Commons: Sharing and Managing Common-Pool Resources in the 21st Century. *Human Affairs* 29 (1): 74-86.
- Shkabatur, Jennifer. 2019. The Global Commons of Data. *Stanford Technology Law Review*. 22: 354-411.
- Srnicek, Nick. 2017. *Platform Capitalism*. Cambridge: Polity Press.



- Stern, Paul C. 2011. Design Principles for Global Commons: Natural Resources and Emerging Technologies. *International Journal of the Commons* 5 (2): 213-232.
- Straughan, Elizabeth R. and David Bissell. 2022. Working in the Gig Economy is Boring: Non-Encounters and the Politics of Detachment in Platform Capitalism. *The Geographical Journal* 188 (4): 534-545. <https://doi.org/10.1111/geoj.12453>.
- Toyoda, Mitsuyo. 2018. Revitalizing Local Commons: A Democratic Approach to Collective Management. In *From Biocultural Homogenization to Biocultural Conservation*, edited by Ricardo Rozzi, Roy H. May Jr, F. Stuart Chapin Iii, Francisca Massardo, Michael C. Gavin, Irene J. Klaver, Aníbal Pauchard, Martin A. Nuñez and Daniel Simberloff, 443-457. Cham: Springer International Publishing.
- Uchiyama, Yosuke, Fumitaka Furuoka and Md Nasrudin Md Akhir. 2022. Gig Workers, Social Protection and Labour Market Inequality: Lessons from Malaysia. *Jurnal Ekonomi Malaysia* 56 (3): 165-184. <http://dx.doi.org/10.17576/JEM-2022-5603-09>.
- Uchiyama, Yosuke, Fumitaka Furuoka, Beatrice Lim, Khairul Hanim Pazim, Elayaraja Aruchunan, Rohayati Paidi, Larisa Nikitina and Siti Aminah Omar. 2022. Adaptability of Platform Cooperativism in the Malaysian E-hailing Sector: A Conceptual Study. *Platform: A Journal of Management and Humanities* 5 (2): 27-35.
- Uchiyama, Yosuke, Fumitaka Furuoka and Siti Aminah Omar. 2024. The Rise and Contestation of Platform Capitalism: Evidence from Two Food Delivery Blackouts in Malaysia. *Journal of Industrial Relations*: 00221856241294107.
- Uzawa, Hirofumi. 2000. *Shakai Teki Kyoutsu Shihon [Social Common Capital]*. Vol. 239. Tokyo: Iwanami Shoten.
- Uzawa, Hirofumi. 2005. *Economic Analysis of Social Common Capital*. New York: Cambridge University Press.
- van Doorn, Niels and Adam Badger. 2020. Platform Capitalism's Hidden Abode: Producing Data Assets in the Gig Economy. *Antipode* 52 (5): 1475-1495. <https://doi.org/10.1111/anti.12641>.
- Varvarousis, Angelos. 2020. The Rhizomatic Expansion of Commoning Through Social Movements. *Ecological Economics* 171:106596.
- Vogler, John. 2012. Global Commons Revisited. *Global Policy* 3 (1): 61-71. <https://doi.org/10.1111/j.1758-5899.2011.00156.x>.
- Wittel, Andreas. 2013. Counter-Commodification: The Economy of Contribution in the Digital Commons. *Culture and Organization* 19 (4): 314-331.
- Xiao, Shengsheng and Ming Dong. 2015. Hidden Semi-Markov Model-Based Reputation Management System for Online to Offline (O2O) E-Commerce Markets. *Decision Support Systems* 77: 87-99. <https://doi.org/10.1016/j.dss.2015.05.013>.

## About the Author

### *Yosuke Uchiyama*

Yosuke Uchiyama is a researcher at the Chulalongkorn University Transportation Institute, Thailand. His expertise lies in the gig economy, informal and shared mobility, platform studies, sociology of labour, and regulatory policy. He has contributed to research on the platform gig economy in Southeast Asia, particularly Malaysia, under Malaysia's Fundamental Research Grant Scheme (FRGS) by the Ministry of Education. He was also a contributor to the Special Report on the 'Asian Gig Economy', produced by Monash University in collaboration with the Asia Research Centre at the University of Indonesia. His research and commentary have been published in various international journals and online media outlets.