Essays on the Impact of Digital Platforms on Societal Challenges

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Table of Contents

Submitted Research Papers that Form Part of this Dissertation

1. Müller, M., and Neumann, J. (2025). “Bring me my Meal on your Wheel – An Empirical Analysis on the Impact of Food Delivery Platforms on Local Restaurant Employment,” *Working Paper*, Paderborn University.

2. Müller, M. (2025). “Guardians of Giving – An Empirical Analysis of the Relationship between Charitable Crowdfunding and Acquisitive Crime,” *Working Paper*, Paderborn University.

3. Seutter, J., Müller, M., Müller, S., and Kundisch, D. (2024). “Moment or Movement – the Heterogeneous Impact of the Black Lives Matter Movement on Personal and Societal Charitable Crowdfunding Campaigns,” *Internet Research*, 34(6), 2151-2174 (doi: 10.1108/INTR-11-2022-0904).

4. Müller, M., Neumann, J., and Kundisch, D. (2022). “Peer-To-Peer Rentals, Regulatory Policies, And Hosts’ Cost Pass-Throughs,” *Journal of Management Information Systems*, 39(3), 834–864 (doi: 10.1080/07421222.2022.2096541).

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5. Müller, M., and Neumann, J. (2022). "Bring me my Meal on your Wheel – An Empirical Analysis of the Impact of Food Delivery Platforms on Local Restaurant Employment," contribution at: *INFORMS Conference on Information Systems and Technology (CIST)*, Indianapolis, USA.

6. Müller, M., Neumann, J., and Kundisch, D. (2022). "Dear Guests, Please Pay for my License – Analyzing the Heterogeneous Cost-Pass-Through of Commercial and Non-Commercial Rental Suppliers in Response to Regulatory Policies," *Proceedings of the 55th Hawaii International Conference on System Sciences (HICSS)*, Virtual.

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9. Müller, M., Neumann, J., Gutt, D., and Kundisch, D. (2021). "Toss a Coin to Your Host? – Why Guests Do Not Always End Up Paying for the Cost of Regulatory Policies," contribution at: *INFORMS Conference on Information Systems and Technology (CIST)*, Virtual.

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Co-Authored Publications that are not Part of this Dissertation

1. Althaus, M., Müller, M., Bartelheimer, C., and Kundisch, D. (2024). “Paving the Way for Student-Led Publications – Development and Implementation of a Course in Information Systems with Open Educational Resources,” contribution at: *TREO Forum of the 32nd European Conference on Information Systems (ECIS)*, Paphos, Cyprus.

2. Seutter, J., Müller, M., and Kundisch, D. (2023). “Verdrängen Smart-Product-Service-Systeme die Interaktion in Online-Communities? – Empirische Evidenz aus einer Rezept-Community,“ *Wirtschaftsinformatik & Management*, 1-8.

3. Djawadi, B. M., Elrich, A., Fahr, R., Frick, B., Kaimann, D., Kundisch, D., Müller, M., Poniatowski, M., and Schäfers, S. (2023). “Subproject A4: Empirical Analysis in Markets for OTF Services,” in: *On-The-Fly Computing – Individualized IT-services in dynamic markets* (pp. 45-64). Paderborn: University Library Paderborn.

4. Seutter, J., Müller, M., Neumann, J., and Kundisch, D. (2021). “Do Smart Product Service Systems Crowd Out Interactions in Online Communities? – Empirical Evidence from a Cooking Community”, contribution at: *International Conference on Challenges in Managing Smart Products and Services (CHIMSPAS 2021)*, Virtual.

5. Müller, M., and Gutt, D. (2019). “Heart over Heels? An Empirical Analysis of the Relationship between Emotions and Review Helpfulness for Experience and Credence Goods,” *Proceedings of the 14th International Conference on Wirtschaftsinformatik (WI)*, Research-in-Progress, Siegen, Germany.

6. Müller, M., Gutt, D., and Neumann, J. (2018). „Beschreib mir deine Wohnung und ich sag‘ dir wer du bist – Eine explorative Analyse von Gastgeberpersönlichkeiten auf Airbnb,“ *Proceedings of the Multikonferenz Wirtschaftsinformatik*, Student Track, Lüneburg, Germany.

Synopsis

1. Motivation

"The platform is a simple-sounding yet transformative concept that is radically changing business, the economy, and society at large."

(Parker et al. 2016, p. 4)

Over the past 20 years, hardly any other market structure has shaped our economy and society as much as the digital platform (Eisenmann et al. 2011; Parker et al. 2016). As efficient matchmakers between the supply and demand side of a market, digital platforms enable a wide range of social and economic activities, revolutionizing the modern economy and our social coexistence in general (Fu et al. 2021; Gleiss et al. 2023; Hesse et al. 2022). These days we have a digital platform for almost every area of life: Amazon, eBay and Zalando, among others, for e-commerce; Airbnb for accommodation sharing; Uber and Lyft for mobility; Upwork and Fiverr for freelancing; UberEats and Grubhub for food delivery; Kickstarter and GoFundMe for crowdfunding—these are just a few examples that form today's digital platform landscape (Dann et al. 2022). Beyond that, many of the fastest growing and most disruptive companies in the world, like Alphabet, Amazon, Meta, and Apple, are centered around the digital platform business model (Bonina et al. 2021). These four companies alone had a market capitalization of over $10.22tn in September 2024—more than the total market capitalization of the entire Euronext stock exchange (Euronext 2024; Gawer 2021; Global Finance 2024).

The platform business model often involves a multi-sided market, where two or more user groups (e.g., customers and suppliers) are connected and the platform operates as an intermediary to facilitate transactions between these groups (Armstrong 2006; Parker et al. 2016; Rochet and Tirole 2006). The ride-hailing platform Uber is a popular example for a digital platform, where drivers (here: the supply side) are connected with riders (here: the demand side), and the platform facilitates matching in terms of timing and location between the two user groups. The key premise of digital platform markets are so-called *network effects* or *network externalities*, meaning that the platform's value increases with an increase in its user base (Katz and Shapiro 1985; Shapiro and Varian 1999). If two or more user groups are brought together, *indirect network effects* occur, meaning that an increasing number of users from one group is beneficial to the other user group and vice versa (Katz and Shapiro 1985). In the case of Uber, this means that in order to attract more drivers, the platform needs to have many riders, and riders will only join the platform when many drivers are available on the platform (Caillaud and Jullien 2003). Because of these *network effects*, digital platform markets

often have a tendency towards monopolistic structures and a higher probability of a "winner-takes-all" scenario, where the platform with the largest user base dominates almost the entire market (Caillaud and Jullien 2003; Hagiu and Wright 2015; Shapiro and Varian 1999). This is further amplified by the digital component of platforms: They can take advantage of low search and transaction costs as, contrary to a traditional setting, the market does not need to be coordinated in space and time (de Reuver et al. 2018; Gawer 2021). Moreover, the economies of scale of digital platform markets contribute to the building of monopolistic structures, as these platforms usually require high fixed costs and investments for the creation of services in the beginning, and near-zero marginal costs for each additional user (Gawer 2021). The digital component of these platforms has additionally made it possible to collect, store, and use massive amounts of data (Gawer 2021). Hence, digital platforms do not only facilitate the exchange of information and goods, but also enable the creation of entirely new services, business models, and markets based on big data analysis (Eisenmann 2006; Poniatowski et al. 2022).

Given the importance of platform business model for society and the global economy (Eisenmann et al. 2011; Parker et al. 2016), scholars from various fields (e.g., information systems (IS), management, or economics) have been studying digital platforms since the early 2000s (Liu et al. 2021). The digital platform literature is scattered and diverse, and various issues have been subject of investigation (Fu et al. 2018; Poniatowski et al. 2022; Takagi 2020). For example, early research in the IS discipline dealt with topics like multi-sidedness, multi-homing, and platform competition (van Alstyne et al. 2024). Topics like community building, governance, and openness became subsequent subjects of investigation and, in recent years, the IS literature focused on more fine-grained studies of mechanisms like interfaces, compatibility, and transaction fees (van Alstyne et al. 2024). Apart from a rather microeconomic perspective with a focus on the platform itself, the transformative effects of the platform economy on broader (macro-) economic outcomes in adjacent industries have also been examined. For example, scholars have found a negative impact of activity on the peer-to-peer (P2P) rental platform Airbnb on revenues in the adjacent hotel industry (Zervas et al. 2017). Furthermore, studies on the impact of ride-hailing platforms (i.e., Uber) suggest a negative impact on the demand in the taxi industry (Lee et al. 2018) and a significant reduction in city bus service use (Babar and Burtch 2020). However, the economic impact of digital platforms is far from being fully understood. Especially the macroeconomic impact of platforms that intend to complement adjacent industries, instead of being a substitute to it, is

unclear to date. This is the case, for example, for food delivery platforms, which cooperate with the restaurant industry to deliver online-ordered food to customers (Chen et al. 2022b). Research on the relationship between food delivery platforms and the restaurant industry has found both positive and negative effects (e.g., Chen et al. 2022b; Li and Wang 2024), revealing the need for further investigation.

Apart from the economic effects, several researchers have also analyzed the social impact of digital platforms. For example, it has been found that the introduction of ride-hailing platforms (e.g., Uber) is associated with a reduction in drunk driving (Greenwood and Wattal 2017), traffic congestion (Cheng et al. 2020), and entrepreneurial activity (Burtch et al. 2018), or that P2P lending platforms (e.g., LendingClub) are associated with an increase in abortion rates (Ozer et al. 2023). Further, the entry of matching platforms (i.e., Craigslist) has been found to increase both drug overdose deaths (Liu and Bharadwaj 2020) and HIV incidences (Greenwood and Agarwal 2016). Research has also analyzed the relationship between digital platforms and one major societal problem, namely crime. To date, this impact has been investigated for only two major types of platforms. For the P2P rental platform Airbnb, the relationship with the number of assault, robbery, burglary, and theft incidents has been analyzed (Han et al. 2022), and for the ride-hailing platform Uber, the impact on sexual assault incidents (Park et al. 2021) and hate crimes (Qiu et al. 2024) has been researched. These studies reveal a significant impact of such digital platforms on various types of crime. However, for other types of platforms, for example crowdfunding platforms, which can help people financially in situations of hopelessness and could therefore have the potential to reduce the need to commit acquisitive crime (e.g., robbery, burglary, or theft), this relationship has been largely overlooked by the literature. Moreover, discrimination represents one type of crime that has been subject of investigation on several digital platforms, like Uber (Mejia and Parker 2021) and Airbnb (Edelman et al. 2017), indicating the presence of racial discrimination on these platforms. However, how digital platforms might help to address social injustice, especially during periods of heightened media attention, remains an open issue for scholars.

As the abovementioned issues suggest, digital platforms do not solely benefit the economy and society. Rather, their potential may be a double-edged sword, and public concerns about their economic and social impact have risen considerably (Gleiss et al. 2023; Nooren et al. 2018). As a consequence, policymakers around the world have started to implement political measures aiming to regulate economic activity on digital platforms (Gleiss et al. 2023). This is the case, for example, for the P2P rental platform Airbnb, where several cities have implemented

regulatory measures (e.g., Barcelona, Miami, or New Orleans), like restricting the number of short-term rentals per year, the requirement to install safety devices (e.g., smoke detectors) or limiting the number of short-term rentals in certain areas (Nieuwland and van Melik 2020). However, the effectiveness of such policy shifts, and especially those affecting supply, demand, and bring-to-market (BTM) costs at the same time, is only investigated by a few studies. Academic research has yet to determine what types of regulations actually help in addressing the adverse impacts of digital platforms on adjacent industries and society as a whole.

The abovementioned open research avenues demonstrate many facets and open scholarly issues of the platform economy, which can be encapsulated by the following research question underlying this dissertation:

Research question 1: Do digital platforms create societal challenges, or help to solve them?

Apart from this overarching research question, one of the research papers included in this dissertation explores a topic not directly related to the platform economy, namely how an emerging data ecosystem can be developed in heterogeneous and fragmented industries. Data ecosystems bring together multiple actors around shared value propositions to facilitate data-sharing between them (Fassnacht et al. 2024). Data ecosystems, and their most common underlying decentralized infrastructure, data spaces, promise to guarantee the data sovereignty of data providers (Möller et al. 2024). Even though data ecosystems and the platform economy are not directly related, some overlaps remain. For instance, data ecosystems can emerge in platform markets, either because a platform provides the necessary infrastructure for data-sharing, or because the actors within the data ecosystem are themselves digital platforms. The latter scenario is of particular societal relevance in markets where certain digital platform providers primarily pursue social goals rather than economic objectives. This is the case, for example, for the cultural event industry, where hundreds of cultural event platforms (CEPs), such as Kulturis (https://www.kulturis.online/en), Rausgegangen (Rausgegangen.de/en/) or Eventim (https://www.eventim.de/en/)—to name a few examples from Germany—exist to promote cultural events (Jarke 2023). While the privately operating CEPs primarily pursue economic interests (e.g., through ticketing services), publicly funded ones are mainly focused on increasing the visibility of diverse cultural events. Together, these CEPs constitute a highly heterogeneous and fragmented platform landscape. A cultural data ecosystem, designed to share event data among CEPs within a data space, seeks to support lesser-known creative artists and CEPs by fostering a diverse cultural landscape, promoting cooperation among CEPs, and

mitigating the emergence of dominant players in the CEP market (Acatech 2024). In light of these societal benefits, policymakers have been at the forefront of financially supporting their development, as exemplified by the European Union's (EU) allocation of two billion Euros in 2020 for this purpose (European Commission 2020a; Schurig et al. 2024). However, practical implementations of data ecosystems are often still in their early developmental stages (Fassnacht et al. 2024), highlighting the need to provide industry-specific knowledge for their development in the emerging phase. This leads to the second research question:

Research question 2: How can emerging data ecosystems be developed in highly heterogeneous and fragmented industries?

This dissertation contributes to the abovementioned questions by presenting five papers. While the first four papers address *Research question 1*, the fifth paper contributes to answering *Research question 2*. The first study of this dissertation analyzes the impact of the entry of food delivery platforms (i.e., UberEats, DoorDash, Postmates, Grubhub) on local restaurant and delivery driver employment (Müller and Neumann 2025). We apply a quasi-experimental research design on a publicly available employment dataset from the United States (US), thereby contributing to the literature on the economic impact of digital platforms. In the second study (Müller 2025), I investigate the relationship between charitable crowdfunding activity and the number of reported acquisitive crime incidents, thereby enriching the literature on the social impact of digital platforms. Here, I combine proprietary crowdfunding data from the platform GoFundMe with publicly available criminality data and various other data sources to employ a fixed effects regression analysis. The third paper analyzes how a social protest cycle for a social movement (i.e., the Black Lives Matter (BLM) movement) affected the donation behavior for charitable crowdfunding campaigns related to the movement (Seutter et al. 2024). Using a quasi-experimental research design on proprietary data from GoFundMe, we study the heterogeneous impact of the social protest cycle for campaigns with a societal and personal goal. This paper also extends the literature on the social impact of digital platforms. The fourth paper examines the price responses of P2P rental suppliers on P2P rental platforms (i.e., Airbnb) after a policy shift has been implemented which affected supply, demand, and BTM costs at the same time (Müller et al. 2022). This study also employs a quasi-experimental research design by analyzing proprietary Airbnb listing data, and enhances the current knowledge on the effectiveness of regulations that have been implemented by public authorities. To address *Research question 2*, the fifth and final paper (Althaus et al. 2025) develops a taxonomy of business models for CEPs that could participate in an emerging

cultural data ecosystem. We perform a cluster analysis to derive CEP business model archetypes and conduct interviews with these archetypes about the benefits and obstacles in an emerging cultural data ecosystem to finally derive potential focal value propositions for the ecosystem. Hence, this paper contributes to the data ecosystems literature by providing industry-specific insights into how emerging data ecosystems can be developed in highly fragmented industries.

This dissertation is structured as follows: Chapter 2 describes the conceptual basis of this dissertation. In Chapter 3, I review the current state of knowledge on digital platforms, and derive six research gaps addressed by this dissertation. Chapter 4 provides an overview of each study included in this dissertation, with additional information on the individual contributions of all co-authors and the associated scientific presentations, awards, and publications. In Chapter 5, I reflect on the research methods that have been employed in this dissertation. Lastly, Chapter 6 includes the theoretical and practical implications, outlines the limitations of the research, suggests avenues for future research, and presents concluding remarks.

2. Conceptual Basis

This chapter provides an overview of all relevant concepts underlying this dissertation. First, I provide a definition for the term "digital platform". I then introduce several other important terms in the digital platform literature that are relevant for this dissertation. Afterwards, I present two possible approaches to deal with dominant platforms. The first one is the most common attempt made by policymakers, namely regulation. The second one is rather a niche approach, which is suitable for being implemented especially in highly heterogeneous and fragmented platform landscapes. This approach involves fostering cooperation among (lesser-known) platforms, for example through data ecosystems.

2.1 Digital Platforms

Several researchers have acknowledged that there is a lack of consensus about what is meant by the term "digital platform" (e.g., de Reuver et al. 2018; Takagi 2020). Hence, for digital platform researchers, it is essential to provide a clear definition (de Reuver et al. 2018). This dissertation adopts the following definition: "A digital platform is a service that connects different groups of entities and mediates transactions through digitalized mechanisms to take advantage of network externality" (Takagi 2020, p. 452). Digital platforms have three basic characteristics: (1) they are technologically mediated, (2) they enable interaction between user groups, and (3) they allow user groups to carry out defined tasks (Bonina et al. 2021).

Digital platforms create so-called *network effects* or *network externalities*, meaning that its usefulness increases with an increasing number of users (Katz and Shapiro 1985; Shapiro and Varian 1999). Network effects are *direct*, if the value of the platform mainly originates from users of *one* user group interacting with each other (Katz and Shapiro 1985). Messengers like WhatsApp are a prominent example where *direct network effects* occur, as they become more valuable with an increasing number of end-users (de Reuver et al. 2018). Network effects are *indirect* when an increasing number of users of a *different* user group increases the value of the network (Katz and Shapiro 1985). For example, an online marketplace becomes more valuable for customers if more sellers are available on the platform, and vice versa. *Indirect network effects* can also be negative, for example in the case of online advertising, where a higher number of advertisers lower the search engine platform's value for users (de Reuver et al. 2018). Figure 1 depicts the core concepts of digital platforms, exemplified by two independent groups of users: The demand side and the supply side, each connected by the digital platform to facilitate interactions between these two user groups (Beverungen et al. 2021).

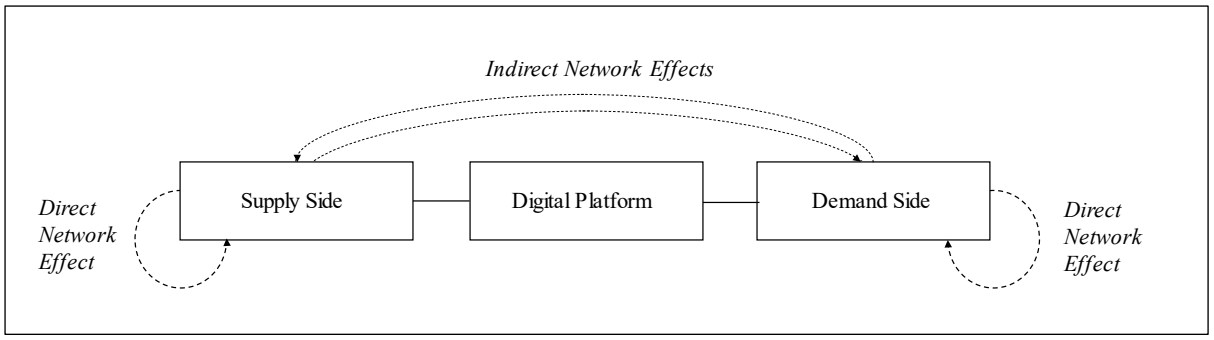

Figure 1. Core Concepts of Digital Platforms.
Source: Based on Beverungen et al. (2021) and Parker et al. (2016)

Because of the *indirect network effects* on digital platform markets, digital platforms in an early stage often face the "chicken-and-egg dilemma" (Stummer et al. 2018). This means that a critical mass of sellers on the supply side must exist in order to attract buyers on the demand side, but sellers will only join the platform if there is a sufficient number of buyers on the demand side (Armstrong 2006; Caillaud and Jullien 2003; Eisenmann 2006). Once a critical mass of users on both sides exist, the network effects stimulate the digital platform's growth (Hagiu and Rothman 2016; Stummer et al. 2018). However, these network effects also increase the probability of a "winner-takes-all" scenario, where in the end the platform with the largest number of users holds a (quasi-) monopolistic position in the market (Caillaud and Jullien 2003; Hagiu and Wright 2015). Additionally, the economies of scale in digital platform markets foster monopolistic tendencies, as these platforms typically involve high initial fixed costs for technical development, while the marginal costs of adding new users to the platform is close to zero (Gawer, 2021).

2.1.1. Platform Types

Basically, the digital platform literature differentiates between two distinct types of platforms: *transaction platforms* and *innovation platforms* (Cusumano et al. 2019). *Transaction platforms* are inspired by economic theory, and accelerate transactions between individuals or organizations that would otherwise have difficulties in finding an appropriate transaction partner by capturing and transmitting data over the Internet (Cusumano et al. 2019; Parker et al. 2016). By contrast, the engineering literature views digital platforms mostly as *innovation platforms*, which serve as a technological building block that innovators can use to develop complementary services (e.g., IOS, Android, Linux) (Baldwin and Woodard 2009; Cusumano et al. 2019). All of the digital platforms that are the subjects of investigation in this dissertation (charitable crowdfunding platforms, P2P rental platforms, food delivery platforms and CEPs)

can be classified as a *transaction platform*, as they match the supply side (i.e., rental suppliers, donors, restaurants, and cultural event providers) with the demand side (i.e., fundraisers, guests, eaters, event seekers) over the Internet. Hence, I continue with explaining some basic subtypes of *transaction platforms* that are relevant for this dissertation.

First, Paper 2 and Paper 3 of this dissertation analyze the crowdfunding platform GoFundMe. For the term crowdfunding, this dissertation employs the following definition: "Crowdfunding involves an open call, mostly through the Internet, for the provision of financial resources either in the form of donation or in exchange for the future product or some form of reward to support initiatives for specific purposes" (Belleflamme et al. 2014, p. 588). Charitable crowdfunding is a specific subtype of crowdfunding where the money is transferred to the fundraiser in the form of donations, meaning that the donor receives nothing in return (Belleflamme et al. 2014). Second, P2P rental platforms such as Airbnb can be categorized as sharing economy platforms. In this dissertation, the sharing economy is defined as follows: "the sharing economy is an IT-facilitated P2P model for commercial and non-commercial sharing of underutilized goods and service capacity through an intermediary without a transfer of ownership" (Schlagwein et al. 2020, p. 818). As Airbnb is a digital platform that connects hosts owning a property with guests that want to rent these properties for a limited time span (Airbnb 2025), the platform operates as an intermediary between these two user groups. Here, the underutilized goods are properties (e.g., houses, apartments, …) which are rented out for a specific time period without ownership transmission. Research has pointed out that sharing economy platforms disrupt traditional industries, as in the case of Airbnb, where the hotel industry's revenues decrease with increasing Airbnb activity (Zervas et al. 2017). This is because some guests would rather stay in an Airbnb property than renting a hotel room, leading to a substitution effect (Zervas et al. 2017). I refer to such platforms that substitute the respective traditional industry as *substitution platforms*. The opposite of a *substitution platform* is a *complementor platform*, where the primary idea is that the digital platform cooperates with a respective adjacent industry to deliver value for the demand side. A good example of this are food delivery platforms, which work together with restaurants (i.e., the adjacent complemented industry) to deliver food to the customers via the food delivery platform (Chen et al. 2022b).

2.1.2. Platform Business Model

Given that there are numerous types of *transaction platforms*, the business model of these platforms can also vary greatly (Täuscher and Laudien 2018). A business model describes the basic mechanisms through which a company creates value for its customers, delivers products

and/or services to the markets, generates profits, and collaborates with stakeholders (Osterwalder and Pigneur 2010). Hence, a business model can be structured according to four major elements: (1) value proposition; (2) value creation; (3) value delivery; and (4) value capture (Günzel and Holm 2013).

In the value proposition and value creation dimension, which refer to the mechanisms that allow companies to create their value proposition, digital platforms can generate value by creating trust (e.g., through review systems) or helping to find a transaction partner for an acceptable price, for example (Täuscher and Laudien 2018). In the value delivery dimension, where elements that generate value for a specific customer group are included, basic distinctions between the transaction type (digital vs. offline) and transaction content (product vs. service) can be made (Täuscher and Laudien 2018; Wirtz 2020). For example, Uber's transportation services represent offline services, while the platform Spotify offers digital products in the form of digital music (Täuscher and Laudien 2018). Furthermore, the geographical scope of the platform (e.g., global, regional, local), as well as the participants (B2B, C2C, B2C) differ for each digital platform. Lastly, in the value capture dimension, which describes how companies transform the delivered value into revenues and profits (Teece 2010), digital platforms can earn money via a commission model, a subscription model, an advertising model, or service sales (Täuscher and Laudien 2018). Further, digital platform providers need to decide whether the revenue source is the seller, buyer, a third party, or neither (Täuscher and Laudien 2018). Taken together, it is crucial for digital platforms to specify basic configurations of their business model in order to stay competitive in the market.

2.1.3. User Heterogeneity

As *transaction platforms* connect multiple sides of a market, these digital platforms naturally attract both consumers and suppliers, creating the platform's total user base. With a growing user base, several distinct user groups within the supply and demand side stand out, hereafter referred to as the *supply side heterogeneity* and the *demand side heterogeneity*.

The *supply side heterogeneity* refers to distinct groups of suppliers. For example, on the platform Airbnb, research has pointed towards a range of heterogeneous suppliers, from individuals that rent out their private apartments to commercial suppliers with professional renting experience (Ikkala and Lampinen 2015). This phenomenon is also prevalent on the e-commerce platform Ebay, where both private and commercial suppliers can offer products for purchase (Ebay 2025). On crowdfunding platforms like GoFundMe, a basic distinction

between private fundraisers and charities can be made (GoFundMe 2025). This implies that digital platforms with a larger user base typically consist of various types of suppliers with different economic and social intentions on the platform (Ikkala and Lampinen 2015). This *supply side heterogeneity* is the subject of investigation in Paper 3 and Paper 4 of this dissertation.

The *demand side heterogeneity* can, for example, comprise early adopters (i.e., those users who start using a platform nearer its inception) and late adopters (i.e., those users who start using a platform when it is more established) (Rietveld and Eggers 2018). Furthermore, a basic distinction between *users* and *non-users* of digital platforms can be made in the context of the *demand side heterogeneity*. In this context, research has found that, whether people participate on *transaction platforms*, and sharing economy platforms in particular, depends on both extrinsic motivation (e.g., economic benefits and reputation) and intrinsic motivation (e.g., enjoyment and concern for sustainability) (Hamari et al. 2016). On a more general level, participation on digital platforms also depends on the use of digital resources in general, which the literature has found not to be equally distributed across regions and subgroups, a phenomenon called the *digital divide* (Vassilakopoulou and Hustad 2023). In this context, research has revealed that socioeconomic factors, such as education, age, ethnicity, and income are key differentiators for the *digital divide*, as people with a comparably higher education, younger age, and higher income tend to use digital resources more frequently and more effectively (Vassilakopoulou and Hustad 2023). That is why research on the socioeconomic impact on digital platforms has started to analyze this impact separately for specific subgroups with respect to the *digital divide*. For example, it has been found that racial minorities and less well-educated population segments benefit systematically less from medical crowdfunding platforms (Burtch and Chan 2019). Furthermore, crowdfunding has shown to be less effective in financially disadvantaged areas (Kim and Hann 2019). Hence, there is a growing stream of literature analyzing the *digital divide* in the context of digital platform's socioeconomic consequences, a facet that is investigated in Paper 2 of this dissertation.

2.2 Dealing with Dominant Digital Platforms

Given the "winner-takes-all" dynamics in digital platform markets (Caillaud and Jullien 2003; Hagiu and Wright 2015), policymakers around the globe, like in Europe, the UK, the USA and Australia, have initiated regulatory attempts to handle those dominant platforms (Gawer 2021). However, beyond the mere regulation of digital platforms, there may be other alternatives to deal with dominant platforms. In selected digital platform markets, where some platform

providers primarily pursue social goals instead of economic goals, the European Commission has established attempts to proactively construct alternative market designs like data ecosystems to foster cooperation between (lesser-known) platforms instead of regulating dominant players (Schurig et al. 2024). These two options to deal with dominant platforms, which are the subject of investigation in Paper 4 and Paper 5 of this dissertation, are presented in the following.

2.2.1. Regulation

In 2016, the European Commission has developed a regulatory agenda on digital platforms with the main goal to create a trustworthy, lawful and innovation-driven digital platform environment in the EU (European Commission 2016; Gawer 2021). A brochure published by the European Commission in 2019 outlines a summary of the identified issues associated with the platform economy, and presents the existing EU regulations, indicating that the EU has successfully addressed many of these issues (European Commission 2019; Gawer 2021). An overview of these issues and the corresponding policy attempts by the EU can be found in Table 1.

Table 1. EU Policies Associated with Digital Platforms (European Commission 2019; Gawer 2021, p. 63).

Specific Issues	**Policies and Legislation by the EU**
Unfair practices of online platforms towards their business users	Regulation on promoting fairness and transparency for business users of digital platforms
Need to protect fundamental rights: Personal data of EU citizens	General Data Protection Regulation
Abuse of dominant position	Application of EU competition law, ongoing reflection on competition policy
Tax avoidance	Application of EU competition law, proposals for a fair taxation of the digital economy
Misuse of digital platforms by malicious actors to spread disinformation, impacting democratic participation	Self-regulatory Code of Practice, coordinating swift interventions with online platforms, support for independent fact checking and media literacy activities.

In November 2022, the European Commission enacted two further regulatory attempts for the platform economy, thereby providing the world's first comprehensive regulation for digital platforms (Krämer and Shekhar 2024): The Digital Services Act, and the Digital Markets Act (European Commission 2020b; Gawer 2021). Both acts aim to achieve the following goals: (1)

to create a safe digital space for the protection of the fundamental rights of all digital service users, and (2) to establish an environment that fosters innovation, growth, and competitiveness, both in the European market and globally (European Commission 2020b; Gawer 2021). The Digital Markets Act regulates large digital platforms (so-called gatekeepers), for example through the prohibition of discrimination in favor of their own services, or the obligation to share business user data, to ensure fair market conditions (European Commission 2020b; Gawer 2021). The Digital Services Act has a wider scope on digital services that connect consumers to goods, services, or content, and introduces obligations related to the dissemination of illegal content, thereby enhancing transparency, and protecting user's rights online (European Commission 2020b; Gawer 2021).

Beyond the EU, the USA has also made several attempts to regulate digital markets, including the American Innovation and Choice Online Act (AICOA) and the Open App Markets Act (OAMA) (Hoffman et al. 2024). The AICOA would prohibit large digital platforms from self-preferencing their own products on their platform and thus engaging in anti-competitive behavior, while the OAMA contains prohibitions to app stores, and aims to promote competition, like requiring the use of appropriate payment systems (Hoffman et al. 2024). However, neither of these two acts have been passed so far (Hoffman et al. 2024).

Apart from the digital platform-specific laws that policymakers aim to pass, specific industries in which major digital platforms operate are also subject to regulation, like the short-term rental market in which the sharing economy platform Airbnb operates (Nieuwland and van Melik 2020). Several cities around the globe, such as Amsterdam, Barcelona, San Francisco, and New York, have already implemented policy measures to counteract the adverse impact of P2P short-term rentals on housing affordability (Li et al. 2022) and on hotel revenues (Nieuwland and van Melik 2020; Zervas et al. 2017). Examples of regulations include restricting the number of short-term rentals per year, the requirement of safety devices like smoke detectors, confining short-term rentals to specific locations, or limiting the number of short-term rentals in certain areas (Nieuwland and van Melik 2020). The effectiveness of an already implemented policy measure on the short-term rental market is the subject investigated in Paper 4 of this dissertation.

2.2.2. Platform Cooperation in Data Ecosystems

Beyond the most common attempt to deal with dominant platforms, namely regulation, there are selected platform markets that are suitable for the implementation of alternative approaches to deal with dominant platforms, like fostering cooperation among (lesser-known) digital platforms. Suitable platform markets for such an approach are typically characterized by a highly heterogeneous and fragmented platform landscape, and often comprise digital platform providers that mainly pursue social instead of economic goals. A prominent example of this is the cultural event industry, where hundreds of CEPs promote a range of cultural events covering different and often overlapping geographic areas (Jarke 2023). While privately operating CEPs primarily pursue economic interests (e.g., through ticketing services), publicly funded ones are mainly focused on increasing the visibility of a diverse cultural event landscape. In such industries in particular, there are considerable public efforts to counteract the emergence of dominant players (Acatech 2024; Schurig et al. 2024). One approach by the EU has been to support (lesser-known) digital platforms through the establishment of platform cooperation in data ecosystems, for which the EU has allocated a budget of two billion Euros in 2020 (European Commission 2020a; Schurig et al. 2024).

The concept of ecosystems can be seen as complementary to platforms, with both representing an open architecture that reduces transaction costs (van Alstyne et al. 2024). However, even though the terms “platforms” and “ecosystems” are closely interconnected, some differences remain (Jacobides et al. 2024). While platforms provide the technical infrastructure to facilitate interactions between user groups (Parker et al. 2016), ecosystems facilitate inter-organizational collaboration through complementary resource coordination (Jacobides et al. 2018). To achieve a flourishing ecosystem, actor groups need to collaborate closely to achieve a shared outcome (Jacobides et al. 2024). Data ecosystems represent a subset of an ecosystem and can be described as the formation of multiple actors around shared value propositions to facilitate data-sharing between these actors (Fassnacht et al. 2024). As digital platforms are generally able to provide and use data, they may act as actors within data ecosystems. However, it is also possible that any other entity capable of providing and using data, such as firms, individuals, or organizations, can function as actors as well (Möller et al. 2024). Data spaces can serve as a decentralized infrastructure for data ecosystems by guaranteeing secured and trusted data-sharing with the aid of data space connectors and without a central data store, thereby enabling data sovereignty for data providers (Möller et al. 2024). Hence, data ecosystems, organized in a data space, can enable multiple digital platforms as potential actors of the ecosystem to

cooperate with each other by sharing data. This can be particularly beneficial for lesser-known digital platforms with primarily social goals, as additional data can expand their services and offerings, which may stimulate the growth of these platforms. It is also important to differentiate between the terms “data ecosystem” and “platform ecosystem”. A platform ecosystem “comprises a platform owner that implements governance mechanisms to facilitate value-creating mechanisms on a digital platform between the platform owner and an ecosystem of autonomous complementors and consumers” (Hein et al. 2020, p. 90). Hence, a platform ecosystem forms around one specific platform, while a data ecosystem is decentrally coordinated around an infrastructure (e.g., a data space), with digital platforms potentially serving as actors to exchange data within the ecosystem.

3. Body of Knowledge

There is a rich body of literature that investigates digital platforms. To provide an overview, this chapter is structured as follows: First, the conceptual model underlying this dissertation is introduced. Afterwards, existing reviews of the literature relevant to this dissertation are presented. Finally, the research gaps addressed by this dissertation are identified.

3.1 Conceptual Model

Digital platform research has emerged in various disciplines since the early 2000s, including economics, management, and IS (de Reuver et al. 2018; Poniatowski et al. 2022; van Alstyne et al. 2024). Since then, digital platform researchers have started building theories for digital platforms (Beverungen et al. 2021), for example by developing conceptual frameworks that other researchers can use to position their work within the rich body of literature. For instance, Poniatowski et al. (2022) proposes three layers of abstraction for theorizing digital platforms, namely platforms as information systems, platforms as systems for actor engagement, and platforms as ecosystems. These three layers represent the perspectives that digital platform researchers can take, moving from a narrow, technical, governance and strategy-focused view of platforms (i.e., platforms as information systems), to their ability in facilitating market interactions between multiple users (i.e., platforms as systems for actor engagement), and finally to their position within a wider competitive environment (i.e., platforms as ecosystems) (Poniatowski et al. 2022). While this framework is well-suited for analyzing platforms from an internal perspective, its widest layer (platforms as ecosystems) is limited to concepts like platform competition or multi-homing. However, it does not account for a broader, macroeconomic perspective that additionally considers the impact of platforms on socioeconomic challenges, like the economy or society. Other conceptual models for digital platforms, like those focusing on collaboration and innovation (Wegner et al. 2023), on digital platform ecosystems (Hein et al. 2020) or on governance, design, and value creation (Chen et al. 2022a) also view digital platforms from a narrow perspective and a microeconomic viewpoint, accounting only for a few stakeholders, like the demand and supply side, or the platform provider. To the best of my knowledge, conceptual models that consider a macroeconomic perspective and include the platform's broader externalities on the economy and society are scarce to date. I have only identified one conceptual model that accounts for the interaction between digital platforms and policymakers (Gleiss et al. 2023), but none for the implications of platforms for the broader economy and society. To this end, this dissertation introduces a new conceptual model for digital platforms, adopting a macroeconomic

perspective. This new conceptual model is based on the economic view of digital platforms as a *transaction platform* (Parker et al. 2016) and takes the model of Gleiss et al. (2023) as a foundation (see Figure 2).

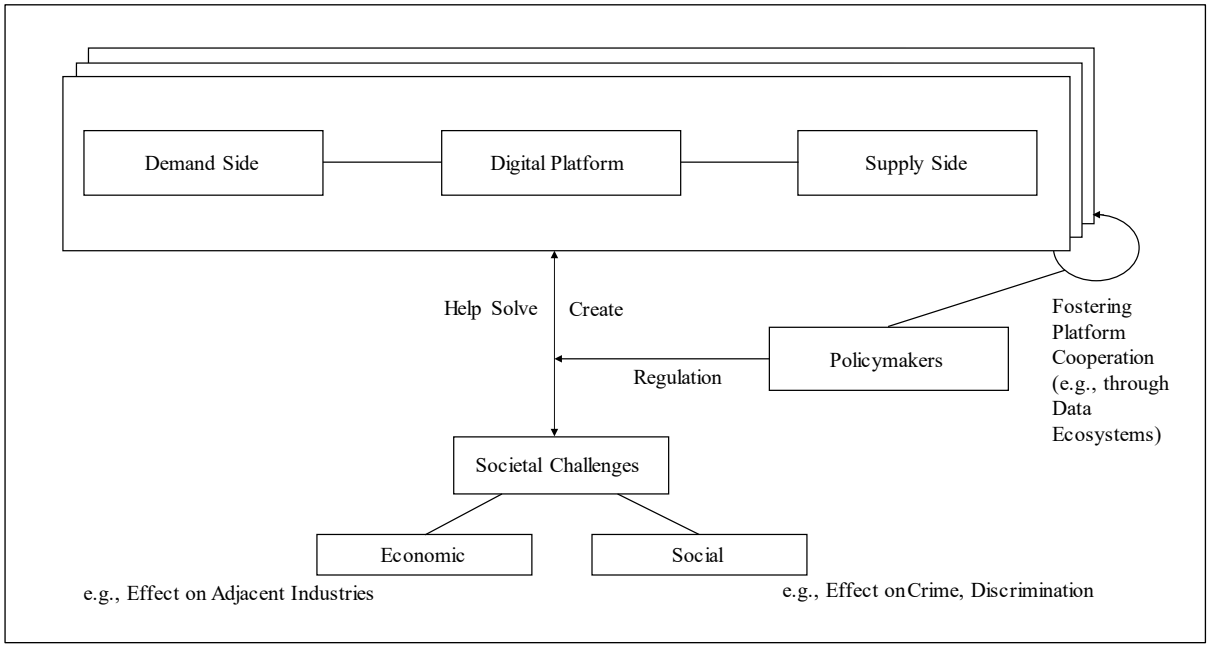

Figure 2. Conceptual Model of the Macroeconomic Effect of Digital Platforms.
Source: Based on Parker et al. (2016) and Gleiss et al. (2023).

The core of this conceptual model are digital platforms, which digitally mediate between the supply and demand side of a market by facilitating transactions and enabling the exchange of goods or services between users (Parker et al. 2016). The model presented here adopts a macroeconomic perspective on digital platforms by highlighting societal challenges associated with the platform economy. While digital platforms may help solve these challenges, they can also contribute to or even create them. Societal challenges can be divided into two categories: (1) Economic challenges, and (2) social challenges. Economic challenges include, for example, the impact of platforms on adjacent industries like on the labor market (Takagi 2020). Social challenges comprise problems that arise from social coexistence, like criminality or discrimination. Moreover, the model accounts for the critical role of policymakers in this setting (Gleiss et al. 2023). If digital platforms create severe societal challenges, policymakers need to establish and enforce regulatory measures to mitigate these negative externalities (Gleiss et al. 2023). Another approach in selected platform markets is to foster platform cooperation, for example through data ecosystems. These data ecosystems enable data-sharing between multiple actors (i.e., digital platforms), thus intending to counteract the building of monopolistic structures of one dominant platform (Schurig et al. 2024).

3.2 Existing Reviews of the Literature

Given that there is a rich body of knowledge on digital platforms, for example in the fields of IS, management, and economics, I now provide an overview of existing literature reviews covering this topic. The open research questions presented in these studies are then used as a foundation to derive the research gaps addressed in this dissertation. As the digital platform literature is highly diverse and wide-ranging, I only consider literature reviews published after 2018 in either an IS, management, or economics journal with a VHB Ranking 2024 [1] of B or higher, and which provide a clear thematic focus on either the socioeconomic impact of the platform economy, on regulatory issues, or on one specific type of digital platform (e.g., sharing economy platforms). An overview of these literature reviews can be found in Table 2. The section proceeds by presenting these reviews.

Table 2. Literature Reviews on Digital Platforms.

Study	**Research Field**	**Type of Literature Review According to Paré et al. (2015)**	**Focus on Specific Platforms**	**Thematic Focus**
de Reuver et al. (2018)	IS	Narrative Review	No	Socioeconomic Consequences
Bonina et al. (2021)	IS	Scoping Review	No	Socioeconomic Consequences (Focus on Societal Impact)
Takagi (2020)	Economics	Descriptive Review	No	Socioeconomic Consequences (Focus on Economic Impact)
Liu et al. (2021)	Management	Scoping Review	No	Socioeconomic Consequences
Fu et al. (2021)	Economics	Scoping Review	No	Socioeconomic Consequences
Gleiss et al. (2023)	IS	Meta-Analysis	No	Platform Regulation
Sutherland and Jarrahi (2018)	IS	Scoping Review	Yes	Sharing Economy Platforms
Rojanakit et al. (2022)	Management	Scoping Review	Yes	Sharing Economy Platforms
Wagner et al. (2021)	IS	Scoping Review	Yes	Freelancer Platforms
Dissanayake et al. (2025)	IS	Scoping Review	Yes	Crowdsourcing Platforms

[1] https://www.vhbonline.org/en/services/vhb-rating-2024/area-ratings

First, de Reuver et al. (2018) proposes, according to Paré et al. (2015), a narrative review for digital platforms within the IS discipline, as no explanations about the literature review process are provided. In this paper, the authors highlight the need to advance conceptual clarity by providing clear definitions of digital platforms, and propose six research questions for future avenues: "(1) Are digital platforms here to stay?, (2) How should platforms be designed?, (3) How do digital platforms transform industries?, (4) How can data-driven approaches inform digital platforms research?, (5) How should researchers develop theory for digital platforms?, (6) How do platforms affect everyday life?" (de Reuver et al. 2018, p. 124). Some of these open research questions were also mentioned and further differentiated in the other identified literature reviews. For example, Bonina et al. (2021) focusses on the societal impact of digital platforms, thereby specifying research areas for question 6 of de Reuver et al. (2018), like "Do transaction platforms exacerbate inequalities and exclusion?" (Bonina et al. 2021, p. 891) or "What is the dark side of platforms […]?" (Bonina et al. 2021, p. 893). Takagi (2020) provides a descriptive review and concentrates on the economic impact of digital platforms, thereby introducing further research avenues for question 3 of de Reuver et al. (2018). Takagi (2020) presents research opportunities in the fields of labor (e.g., organization, job creation, employment), incubation (e.g., innovation), consumption (e.g., consumer behavior), destruction (e.g., destruction of traditional industries), and wealth distribution (e.g., service trade). Liu et al. (2021) provides a scoping review and bibliometric analysis of the digital platform literature, highlighting the change of topics in the literature over time. According to their analysis, the research focus on platforms has shifted over time—from supply-side product development, to product design and open innovation, and subsequently to demand-side two-sided markets. Since 2015, research on digital platforms has increasingly centered on the sharing economy (Liu et al. 2021, p. 14). The research directions presented in this literature review also point towards exploring the socioeconomic consequences associated with the platform economy in the future, thus highlighting the need to further investigate question 3 and 6 of de Reuver et al. (2018). As Liu et al. (2021, p. 14) have pointed out, it is crucial to explore "how the interplay of technology and platforms changes the social rules and the global economy". Fu et al. (2021) note the need to explore how political regulations impact the platform economy, a research avenue that can be assigned to question 3 of de Reuver et al. (2018), as regulations often aim to reduce the adverse impact of digital platforms on traditional industries. The need to further explore the effectiveness of regulatory measures for digital platforms is also proposed by Gleiss et al. (2023).

Furthermore, other existing scoping literature reviews on specific platform types, like the sharing economy (Rojanakit et al. 2022; Sutherland and Jarrahi 2018), freelancer platforms (Wagner et al. 2021), and crowdsourcing platforms (Dissanayake et al. 2025) additionally point towards the need to explore platform regulation and the economic impact of platforms (question 3 of de Reuver et al. 2018), and to employ specific methods, like design-oriented research (question 2 of de Reuver et al. 2018) and data-driven approaches (question 4 of de Reuver et al. 2018).

Taken together, despite the rich body of literature on digital platforms from various research fields, the literature reviews discussed above emphasize several still open issues that call for future research. In particular, the questions, "How do digital platforms transform industries?" (question 3 of de Reuver et al. 2018) and "How do digital platforms affect everyday life?" (question 6 of de Reuver et al. 2018) are recurrently identified as critical areas for future research (see Table 3). This dissertation builds on these two open research questions to identify research gaps that are addressed in the papers included in this dissertation. Furthermore, this dissertation contributes to the methodologically focused question 4 posed by de Reuver et al. (2018), namely, "How can data-driven approaches inform digital platform research?" (see Table 3).

Table 3. Selected Open Research Questions Mentioned by the Digital Platform Literature.

Open Research Question Relevant to this Dissertation	**Question No. of de Reuver et al. (2018)**	**Mentioned also by**
How do digital platforms transform industries?	3	Takagi (2020), Liu et al. (2021), Fu et al. (2021), Gleiss et al. (2023), Rojanakit et al. (2022), Sutherland and Jarrahi (2018), Dissanayake (2025)
How do digital platforms affect everyday life?	6	Bonina et al. (2021), Liu et al. (2021), Sutherland and Jarrahi (2018)
How can data-driven approaches inform digital platform research?	4	Wagner et al. (2021)

3.3 Research Gaps

Building on the three abovementioned open research questions from de Reuver et al. (2018) and further literature reviews, I next derive the research gaps that the papers of this dissertation address.

3.3.1. Economic Challenges

On the conceptual level of the economic challenges that are associated with digital platforms (see Figure 2), de Reuver et al. (2018) proposes the research question of how digital platforms

transform industries (question 3). This question is targeted at the transformative and disruptive nature of the platform economy, which has a wide-ranging impact on many traditional industries today (Parker et al. 2016). In this context, prior literature has already highlighted the significant impact of the sharing economy platform Airbnb on the hotel industry. For example, in Texas, each additional 10% increase in the Airbnb market is associated with a 0.39% decrease in hotel room revenues (Zervas et al. 2017). Furthermore, as Airbnb may induce landlords to switch from a long-term rent of their property to a short-term rental model via the platform, the impact of Airbnb on housing rentals has also been investigated (Li et al. 2022). Li et al. (2022) found that Airbnb mildly cannibalizes the long-term rental supply, with cities where Airbnb is more popular experiencing a larger rental supply reduction (Li et al. 2022). Furthermore, research investigated the impact of ride-hailing platforms (i.e., Uber) on traditional industries, finding a significant negative impact on the demand in the taxi industry (Lee et al. 2018), and a significant reduction in the utilization of city bus services (Babar and Burtch 2020). The impact of digital platforms on macroeconomic outcomes like, employment in adjacent traditional industries, have also been investigated. For example, research has found that the entry of Uber has a positive impact on labor force participation, and a negative impact on employment in traditional industries in general (Li et al. 2021). Further, the entry of the freelancer platform TaskRabbit has been found to significantly decrease full-time housekeeping employment (Guo et al. 2024).

Each of the abovementioned digital platforms (Airbnb, Uber, and TaskRabbit) offers a substitute for the services provided by respective adjacent traditional industries (i.e., the hotel, taxi, and housekeeping industry). While the impact of such *substitution platforms* has been well studied, the relationship between *complementor platforms* and the adjacent complemented traditional industry is less well understood. Food delivery platforms, for example, are a type of *complementor platform*, as they cooperate with the traditional restaurant industry to deliver food directly to the customer's doorstep with the aid of a digital platform and gig workers (i.e., delivery drivers) (Chen et al. 2022b). Even though food delivery platforms often promote themselves as additional demand generators for restaurants (Hadfield 2020), research on the impact of food delivery platforms on the restaurant industry has found mixed results. An empirical study has discovered that restaurants in Chicago overall benefit from food delivery platforms by increasing restaurants' total takeout sales and generating additional dine-in traffic through positive spillover effects (Li and Wang 2024). Furthermore, Azzoni et al. (2025) show that in two Brazilian cities, areas with a higher share of restaurants cooperating with the food

delivery platform iFood are associated with an increase in restaurant employment. By contrast, theoretical studies have found that food delivery platforms do not necessarily increase restaurants' demand and may even decrease their margins (Chen et al. 2022b; Feldman et al. 2023). Given these possible positive and negative effects, a macroeconomic analysis that investigates restaurant and delivery driver employment, for example, could shed further light on the relationship between *complementor platforms* and traditional complemented industries, potentially revealing information about the long-term impacts of such *complementor platforms*. Even though the macroeconomic impact of several digital platforms for traditional industries has been researched, studies on the macroeconomic impact of *complementor platforms* like food delivery platforms on traditional complemented industries remain scarce. This leads to the first research gap:

Gap 1: There is a lack of knowledge about the impact of complementor platforms on macroeconomic outcomes in adjacent complemented traditional industries.

3.3.2. Social Challenges

Beyond the economic challenges that are associated with digital platforms, de Reuver et al. (2018) also identified the impact of digital platforms on social aspects as an area for future research, with question 6 about how digital platforms affect everyday life. Several researchers in the field of IS have already examined the impact of digital platforms on a range of societal outcomes. For example, it has been shown that the entry of the ride-hailing platform Uber has a negative impact on drunk driving (Greenwood and Wattal 2017), traffic congestion (Cheng et al. 2020), and bankruptcy filings (Nian et al. 2021), while the entry of Craigslist has been associated with an increase in HIV incidents (Chan and Ghose 2014) and drug abuse (Dhanorkar 2019). Prior research has also examined the relationship between digital platforms and one major societal challenge, namely criminality. Here it has been found that a reduction in the number of Airbnb listings leads to a reduction in the number of assault, robbery, and burglary incidents, but in an increase in theft incidents (Han et al. 2022). Furthermore, the entry of Uber into a city has led to a reduction in both the number of rape incidents (Park et al. 2021) and the number of hate crimes (Qiu et al. 2024). However, for other types of platforms, the relationship between digital platforms and crime has been largely overlooked so far. In this context, especially crowdfunding platforms appear to be a promising approach in fighting crime. As these platforms can provide financial resources to people in times of (financial) hardships, they may potentially diminish the need to commit crime, and especially crime committed for material gain (i.e., acquisitive crime such as robbery, burglary, and theft) as a

last resort. Even though prior literature has revealed that both lending and charitable crowdfunding platforms are associated with a reduction of personal bankruptcy filings (Burtch and Chan 2019; Wang and Overby 2022), the relationship between crowdfunding platforms and acquisitive crime has not yet been investigated. This results in the following research gap:

Gap 2: There is a lack of knowledge about the relationship between crowdfunding platforms and acquisitive crime.

In addition to the financing of individuals with liquidity problems, crowdfunding platforms, and especially charitable crowdfunding platforms, can also be used to obtain financial support for wider societal concerns, such as causes related to social injustice. Social injustice encompasses a wide range of structural disparities, including discrimination based on race, gender, or sexual orientation, amongst others. Some of these inequalities periodically gain public attention through increased media coverage, often catalyzed by social protest cycles as part of social movements. Social movements emerge when people unite to take collective action as upstanders, often coordinated in an organized manner, to address a shared societal concern (e.g., the BLM movement or the "Me Too" movement) (Nardini et al. 2021). Social protest cycles serve as the micro-foundation for social movements (Tarafdar and Kajal Ray 2021), which are characterized by short periods of intense protest activities, beginning with a triggering event, escalating to a peak, and finally declining (Tarrow 2011).

Prior empirical work has already examined the relationship between digital platforms and several forms of social injustice that can be tackled by diverse social movements. For example, the prevalence of discriminatory behavior on digital platforms based on race (e.g., Edelman et al. 2017; Mejia and Parker 2021; Younkin and Kuppuswamy 2018), gender (e.g., Chan and Wang 2018), and sexual orientation (e.g., Mejia and Parker 2021) has been identified. Furthermore, research has revealed that discrimination is present across multiple digital platforms, including P2P rental platforms (Edelman et al. 2017), ride-hailing platforms (Mejia and Parker 2021), labor market platforms (Chan and Wang 2018), and crowdfunding platforms (Younkin and Kuppuswamy 2018). What remains unclear to date is whether increased media attention caused by social protest cycles for social movements has an impact on user behavior on digital platforms. On the one hand, it remains unclear whether the increased media attention for social injustice as part of a social protest cycle reduces discriminatory behavior on digital platforms. On the other, there is only limited knowledge about which digital platforms have the potential to proactively support causes related to social injustice after they have garnered attention from the media. In this context, charitable crowdfunding platforms in particular have

the potential to address social injustice, as they can be effectively used to collect money for affected people. However, the literature remains silent about the impact of media attention on donation behavior for charitable crowdfunding campaigns related to social injustice. This leads to the following research gap:

Gap 3: There is a lack of knowledge about the relationship between increased media attention for social injustice and the donation behavior for related charitable crowdfunding campaigns.

3.3.3. Regulation

As mentioned before, the platform economy may also entail various negative economic and social consequences. Apart from their adverse impact on traditional industries and society in general, critical issues such as labor and contracting, safety and insurance, and standardization remain (Gleiss et al. 2023; Zuluaga 2016). Therefore, both scholars and policymakers have acknowledged the need to address these issues more proactively (Gleiss et al. 2023; Nooren et al. 2018). As these issues are targeted at the conceptual level of regulation (see Figure 2), they can be assigned to question 3 of de Reuver et al. (2018). A prominent example where the public demand for regulation has increased in recent years are P2P rental platforms like Airbnb, where local residents increasingly complain about the growing touristification in neighborhoods (Stergiou and Farmaki 2020). To this end, several cities have started to implement policy measures to regulate economic activity on P2P home sharing platforms, such as Barcelona, Miami, or New Orleans (Nieuwland and van Melik 2020). Examples include restricting the number of short-term rentals per year, the requirement to install safety devices (e.g., smoke detectors) or limiting the number of short-term rentals in certain areas (Nieuwland and van Melik 2020).

However, only a few studies have investigated the direct effect of policy measures concerning P2P rental platforms that have already been implemented. For example, Chen et al. (2021) found that the introduction of licensing costs for P2P rental suppliers on the platform Airbnb decreases supply in the short-term but increases it in the long term. Moreover, when tax-raising policies are implemented, research has demonstrated that this measure significantly reduces both listing revenues and sales (Cui and Davis 2022). This tax policy also has a significant impact on the price setting behavior of P2P rental suppliers, finding evidence for a cost pass-through from these suppliers to the customers, with 74% of the tax passed through to the customers, and 26% to the hosts (Cui and Davis 2022). However, the pricing responses of P2P rental suppliers on policy shifts in which multiple measures are implemented simultaneously

(e.g., the introduction of BTM costs through a licensing system while simultaneously banning P2P short-term rentals one specific area like the city center) is missing so far. This is surprising, as cities around the world often implement several measures simultaneously (Nieuwland and van Melik 2020), with potentially adverse effects on supply, demand, and BTM costs, which in turn might affect the price reactions of P2P rental suppliers. Moreover, the supply side of P2P rental markets is highly heterogeneous, comprising both commercial suppliers with professional renting and price-setting experience, and non-commercial individuals who rent out their private homes and have only little economic expertise (Ikkala and Lampinen 2015). It remains unclear how these different types of suppliers respond to a policy shift which simultaneously affects supply, demand, and BTM costs, and whether these regulations actually help in addressing the adverse impacts of P2P rental platforms. This results in the following research gap:

Gap 4: There is a lack of knowledge about how different types of suppliers on P2P rental platforms respond to a policy shift, which simultaneously affects demand, supply, and BTM costs.

3.3.4. Platform Cooperation in Data Ecosystems

Beyond the regulatory attempt to deal with dominant platforms, there are also selected platform markets which could benefit from the implementation of alternative approaches initiated by policymakers, such as measures aimed at fostering cooperation among (lesser-known) digital platforms. Suitable platform markets for such an approach are typically characterized by a highly heterogeneous and fragmented platform landscape and often comprise some digital platform providers that primarily pursue social rather than economic goals. Industries served by digital platform providers with primarily social goals often relate to questions of social coexistence and therefore can be assigned to question 6 of de Reuver et al. (2018). A prominent example for such an industry is the cultural event industry, where numerous CEPs co-exist to promote cultural events (Jarke 2023). While privately operating CEPs primarily focus on economic interests (e.g., through ticketing services), publicly funded CEPs are mainly concerned with supporting the diverse cultural landscape. As a result, the cultural event industry is characterized by a highly fragmented and heterogeneous platform landscape. To prevent the formation of monopolistic structures, and to support lesser-known CEPs and cultural artists in the cultural event industry, policymakers (i.e., the EU) have initiated specific support measures, such as the initiation of platform cooperation through data ecosystems (Acatech 2024; Schurig et al. 2024). In the cultural event industry, a data ecosystem would

enable (event) data-sharing among CEPs within a dataspace, to strengthen collaboration among CEPs, increase the visibility of cultural events, and enhance the value of (lesser-known) CEPs by expanding the range of events available on their platform (Acatech 2024). However, for a data ecosystem to emerge and succeed, significant efforts in both design and collaboration among participating actors are required (Möller et al. 2024). Hence, we find that the practical implementation of data ecosystems is often still in its infancy (Fassnacht et al. 2024). As actors' willingness to participate in the ecosystem depends on whether their own business model value creation mechanisms align with at least one of the focal value propositions of the data ecosystem (Heinz et al. 2022), it is crucial to gain industry-specific knowledge about the business model archetypes of potential actors. These archetypes can be used as a foundation to develop focal value propositions for the ecosystem, identify potential actor roles, and assign corresponding ecosystem activities for each archetype. However, such knowledge is currently missing in the literature, leading to the fifth research gap:

Gap 5: There is a lack of industry-specific knowledge about archetypal business models that can be used to develop focal value propositions, identify actor roles, and assign corresponding activities in an emerging data ecosystem.

3.3.5. Methodological Research Gap

Apart from outlining open topic-related research avenues for digital platforms, de Reuver et al. (2018) also suggests methodological avenues for future research, and poses the research question on how data-driven approaches can inform digital platform research (question 4). First, de Reuver et al. (2018) propose that, as more and more open data sources become available, digital platform research could expand beyond the use of proprietary or commercially licensed data (de Reuver et al. 2018). In this context, researchers are advised to conduct secondary analysis of publicly available data such as blogs (e.g., Eaton et al. 2015). Second, the authors point out that most platform studies consider only one snapshot in time, lacking an understanding of how user behavior on digital platforms changes over time (de Reuver et al. 2018). Hence, de Reuver et al. (2018) calls for digital platform studies with a longitudinal research design. Taken together, these aspects lead to the following methodological research gap:

Methodological Research Gap: There is a lack of digital platform studies with a longitudinal research design and use of publicly available data.

The studies by Müller et al. (2022) and Seutter et al. (2024) address this methodological research gap by employing a longitudinal research design and drawing on a proprietary panel dataset from two major digital platforms (Airbnb and GoFundMe), covering a period of more than one year. Furthermore, in Müller and Neumann (2025) and Müller (2025), we analyze data from an even longer timespan (9-10 years), and mostly draw on publicly available data. Hence, the abovementioned papers that form part of this dissertation directly contribute to the methodological issues outlined by de Reuver et al. (2018).

The papers of this dissertation can be classified into the conceptual model presented in Section 3.1. and address the six identified research gaps (see Table 4). While the first four gaps can be assigned to the overarching *Research question 1* of this dissertation ("Do digital platforms create societal challenges, or help to solve them?"), the fifth gap can be assigned to the overarching *Research question 2* of this dissertation ("How can emerging data ecosystems be developed in highly heterogeneous and fragmented industries?"). The sixth gap is of a methodological nature and is therefore not assigned to any one of the overarching research questions of this dissertation, as these questions are primarily content-related rather than methodological.

Table 4. Research Gap, Conceptual Classification, and Open Research Question for Submitted Papers.

Research Gap	**Conceptual Classification**	**Question of de Reuver et al. (2018)**	**Paper**
Gap 1: There is a lack of knowledge about the impact of complementor platforms on macroeconomic outcomes in adjacent complemented traditional industries.	Economic Challenges	How do digital platforms transform industries?	1. Müller, M., and Neumann, J. (2025). "Bring me my Meal on your Wheel – An Empirical Analysis on the Impact of Food Delivery Platforms on Local Restaurant Employment," *Working Paper*, Paderborn University.
Gap 2: There is a lack of knowledge about the relationship between crowdfunding platforms and acquisitive crime.	Social Challenges	How do digital platforms affect everyday life?	2. Müller, M. (2025). "Guardians of Giving – An Empirical Analysis of the Relationship between Charitable Crowdfunding and Acquisitive Crime," *Working Paper*, Paderborn University.
Gap 3: There is a lack of knowledge about the relationship between increased media attention for social injustice and the donation behavior for related charitable crowdfunding campaigns.			3. Seutter, J., Müller, M., Müller, S., and Kundisch, D. (2024). "Moment or Movement – The Heterogeneous Impact of the Black Lives Matter Movement on Personal and Societal Charitable Crowdfunding Campaigns," *Internet Research*, 34(6), 2151-2174
Gap 4: There is a lack of knowledge about how different types of suppliers on P2P rental platforms respond to a policy shift, which simultaneously affects demand, supply, and BTM costs.	Regulation	How do digital platforms transform industries?	4. Müller, M., Neumann, J., and Kundisch, D. (2022). "Peer-To-Peer Rentals, Regulatory Policies, And Hosts' Cost Pass-Throughs," *Journal of Management Information Systems*, 39(3), 834–864.
Gap 5: There is a lack of industry-specific knowledge about archetypal business models that can be used to develop focal value propositions, identify actor roles, and assign corresponding activities in an emerging data ecosystem.	Platform Cooperation (e.g., through Data Ecosystems)	How do digital platforms affect everyday life?	5. Althaus, M., Vorbohle, C., Müller, M., and Kundisch, D. (2025). "Setting the Stage for a Flourishing Cultural Data Ecosystem: A Spotlight on Business Models of Cultural Event Platforms," *Electronic Markets (forthcoming)*.
Methodological Research Gap: There is a lack of digital platform studies with a longitudinal research design and use of publicly available data.	n/a	How can data-driven approaches inform platform research?	1. Müller and Neumann (2025) 2. Müller (2025) 3. Seutter et al. (2024) 4. Müller et al. (2022)

4. Overview of Papers that Form Part of this Dissertation

In the following, I present five research papers that form the core part of this dissertation. While the first four papers contribute to answering the overarching *Research question 1* of this dissertation, the fifth paper addresses *Research question 2*. All of the submitted papers utilize quantitative research methods, with the majority employing a quasi-experimental research design. In the first paper (Müller and Neumann 2025), we examine the impact of the entry of *complementor platforms*, namely food delivery platforms (UberEats, DoorDash, Postmates and Grubhub) on local restaurant and delivery driver employment in the US. The staggered entry of food delivery platforms into US-based metropolitan areas is used to compare untreated metropolitan areas (areas in which food delivery platforms have not yet entered) with treated metropolitan areas (areas in which food delivery platforms have already entered) in a Difference-in-Differences (DiD) specification. In the second paper (Müller 2025), I examine the relationship between charitable crowdfunding activity and the number of reported acquisitive crime incidents in the US. By combining proprietary crowdfunding data from GoFundMe with crime data from the FBI, and enriching this dataset with socioeconomic data, bankruptcy filing information and disaster incident data, I employ a regression analysis with US-county fixed effects, and examine the *demand side heterogeneity* (i.e., the *digital divide*) in this relationship. In the third paper (Seutter et al. 2024), we analyze how a social protest cycle for a social movement (i.e., the BLM movement) affected the donation behavior for charitable crowdfunding campaigns related to the movement. Employing a quasi-experimental research design on a GoFundMe dataset, we not only investigate the effect on donations for campaigns related to the movement, but also examine the *heterogeneous supply side* impact of the social protest cycle for campaigns with a societal and personal goal. In Müller et al. (2022), we investigate the price reactions of P2P rental suppliers in response to a policy shift on the P2P rental market which simultaneously affected supply, demand, and BTM costs. A DiD analysis is conducted to compare price setting behaviors of the *heterogeneous supply side* (i.e., commercial and non-commercial suppliers) in a city where the policy had been implemented (i.e., New Orleans) with cities where no such policy had been introduced at the same time (i.e., New York, San Francisco, and Portland). Finally, in Althaus et al. (2025), we develop a taxonomy of business models for CEPs that could participate in an emerging cultural data ecosystem, and perform a cluster analysis to derive CEP business model archetypes. Additionally, we interview industry representatives of these archetypes to shed light on the benefits and obstacles of participating in a cultural data ecosystem. We draw on these results

to identify potential focal value propositions, corresponding actor roles and activities for the emerging ecosystem.

Table 5 provides an overview of the submitted research papers with their corresponding research question(s), methodology, theoretical foundation, and data sources. In the following, I summarize each of the five research papers, provide information about individual author contributions, and present the scientific dissemination of each paper.

Table 5. Properties of Submitted Research Papers.

Paper	**Research Question(s)**	**Research Method**	**Theoretical Foundation**	**Data Sources**
Müller and Neumann (2025)	What effect does the entry of food delivery platforms have on local restaurant and delivery driver employment?	Quasi-experiment	Channel capability theory (Avery et al. 2012)	Current Population Survey, Press releases/news reports of food delivery platform entries
Müller (2025)	What is the relationship between charitable crowdfunding activity and the number of reported acquisitive crime incidents? How does the socioeconomic status moderate the relationship between charitable crowdfunding activity and the number of reported acquisitive crime incidents?	Regression analysis with fixed effects	Macro strain theory (Agnew 1999)	GoFundMe, FBI, American Community Survey, Federal Judicial Center, Federal Emergency Management Agency
Seutter et al. (2024)	How does a social protest cycle for the BLM movement affect the donation behavior for charitable crowdfunding campaigns related to the BLM movement, taking into consideration the difference between campaigns with a personal versus a societal goal?	Quasi-experiment	Construal level theory (Trope and Liberman 2010)	GoFundMe
Müller et al. (2022)	How did commercial and non-commercial P2P rental suppliers set their prices in response to a policy shift which affected supply, demand, and BTM costs?	Quasi-experiment	Analytical model on the economic effects of introducing BTM costs to a sharing market (Filippas et al. 2020)	Airbnb, New Orleans' government (Department of Safety and Permits)
Althaus et al. (2025)	What are the archetypal business models for CEPs that could participate in an emerging cultural data ecosystem? Which potential actor roles and activities would CEPs with different archetypal business models fulfill in the cultural data ecosystem?	Taxonomy development, Cluster analysis, Interview study	Ecosystem-as-structure view (Adner 2017; Hou and Shi 2021)	Academic literature, CEP websites, CEP platform providers

4.1 Müller and Neumann (2025)

Despite a growing body of literature examining the economic consequences of the platform economy, little is known about how *complementor platforms* impact macroeconomic outcomes in adjacent industries, particularly those that are complemented by the platform's products or services. A prominent example for *complementor platforms* are food delivery platforms, which employ gig workers (delivery drivers) to deliver food from restaurants directly to the customer, while the order is transmitted online via a platform. Given this convenient and speedy service for customers, food delivery platforms have become an established part of urban dining culture. To explore the macroeconomic consequences associated with these food delivery platforms, and especially their effect on employment in adjacent complemented industries (the restaurant and delivery driver industry), a quasi-experimental research design was employed. We utilize the staggered entry of the four largest food delivery platforms (i.e., Grubhub, Postmates, UberEats, and DoorDash) into US-based metropolitan areas to quantify the impact of the platform entries. Consistent with channel capability theory, our analysis shows that food delivery platforms cannibalize the dine-in channel of restaurants, as the entry of delivery platforms significantly decreases the number of restaurant industry workers, and particularly the number of dine-in service workers. We further show that this decrease is only partially compensated for by an increase in delivery drivers. Moreover, we find that the decline in the number of dine-in service workers is more pronounced for female workers and white workers, while the increase in the number of delivery drivers is particularly observable for females, black people, and people under the age of 40. These findings are not only relevant to scholars and stakeholders in the restaurant industry but also to policymakers.

Table 6. Müller and Neumann (2025): Bring me my Meal on your Wheel – An Empirical Analysis on the Impact of Food Delivery Platforms on Local Restaurant Employment.

Joint Work	Co-authorship with J. Neumann (70% M. Müller, 30% J. Neumann) ▪ Literature review jointly with J. Neumann ▪ Concretization of the research question jointly with J. Neumann ▪ Positioning of the paper jointly with J. Neumann ▪ Hypotheses development by M. Müller ▪ Data collection from the Current Population Survey by J. Neumann ▪ Data collection from press releases and news reports by J. Abraham, M. Althaus and N. Chuzhova (Student assistants) ▪ Data preparation jointly with J. Neumann ▪ Empirical analysis jointly with J. Neumann ▪ Write-up of paper jointly with J. Neumann ▪ Write-up of the response to the reviewers and revision for the HICSS version of the paper jointly with J. Neumann ▪ Feedback, comments, and corrections by J. Neumann
Awards	▪ Best Paper Award Nominee at **56th Hawaii International Conference on System Sciences** for Bring me my Meal on your Wheel – An Empirical Analysis on the Impact of Food Delivery Platforms on Local Restaurant Employment.
Presentations	▪ 01/2023: Müller, M., Neumann, J. 2023. Bring me my Meal on your Wheel – An Empirical Analysis of the Impact of Food Delivery Platforms on Local Restaurant Employment, contribution at: **Hawaii International Conference on System Sciences (HICSS)**, Maui, USA. (presented by M. Müller). ▪ 10/2022: Müller, M., Neumann, J. 2022. Bring me my Meal on your Wheel – An Empirical Analysis of the Impact of Food Delivery Platforms on Local Restaurant Employment, contribution at: **INFORMS Conference on Information Systems and Technology (CIST)**, Virtual. (presented by M. Müller).
Scientific Dissemination	▪ The work on this paper started in March 2020. ▪ An earlier version of this paper was published in the proceedings of the **Hawaii International Conference on System Sciences (HICSS)**, 2023 (VHB-Rating 2024: B). ▪ The paper is currently under review at **Business & Information Systems Engineering (BISE)** (VHB-Rating 2024: B).

4.2 Müller (2025)

This study answers the call for research made by Agrawal et al. (2014) to investigate the effects of crowdfunding on society. Specifically, I analyze the relationship between charitable crowdfunding activity and the number of acquisitive crime incidents. When people face a situation of hopelessness due to a pressing cash flow crisis, some respond by committing acquisitive crime. As an IS-enabled funding process, charitable crowdfunding offers a novel opportunity to solve liquidity problems for individuals by extending previous channels in money acquisition from the close circle of friends and family to the vast digital community worldwide. Informed by macro strain theory, charitable crowdfunding thus bears the potential to mitigate acquisitive crime by offering a coping mechanism for people under financial pressure. To analyze the relationship between charitable crowdfunding activity and acquisitive crime, a novel panel dataset was constructed that combines charitable crowdfunding data from GoFundMe with crime data from the FBI, and socioeconomic data, bankruptcy filing information, and disaster incident data in the US. The fixed-effects regression results reveal a significant negative relationship between the number of charitable crowdfunding campaigns and acquisitive crime, especially for burglaries, thefts, and motor vehicle-thefts. I also analyze the *heterogeneous demand side*—that is, the *digital divide,* in this setting—finding that the negative relationship between charitable crowdfunding activity is more pronounced in counties with a higher proportion of residents on comparably higher incomes, with higher education, and lower unemployment rates—characteristics that are commonly associated with digitally advantaged populations. As these findings highlight the potential of charitable crowdfunding to alleviate societal problems, they are relevant not only to researchers, crowdfunding platform providers, and users, but also to policymakers.

Table 7. Müller (2025): Guardians of Giving – An Empirical Analysis of the Relationship between Charitable Crowdfunding and Acquisitive Crime.

Joint Work	Single authored paper
Presentations	▪ 06/2024: Müller, M. 2024. Guardians of Giving – An Empirical Analysis of the Relationship between Charitable Crowdfunding and Acquisitive Crime, contribution at: **Pre-ECIS Workshop on Emergent Technologies, DEI, & Sustainable Humanitarian Progress: Where are we now?**, Paphos, Cyprus.
Scientific Dissemination	▪ The work on this paper started in January 2023. ▪ An earlier version of this paper has been accepted for publication in the proceedings of the **European Conference on Information Systems (ECIS)**, 2025 (VHB-Rating 2024: A), publication is forthcoming.

4.3 Seutter et al. (2024)

When social injustice receives heightened media attention through social movements and social protest cycles, charitable crowdfunding platforms offer a great opportunity for the general public to proactively support equality by donating money to affected people. This paper examines how the Black Lives Matter (BLM) movement and the associated social protest cycle that erupted after the death of George Floyd have influenced donation behavior for campaigns supporting the black community. We apply a quasi-experimental research design on an extensive GoFundMe dataset by comparing the donation behavior for campaigns that are thematically aligned with the BLM social movement with campaigns covering other topics. Furthermore, we examine the *heterogeneous supply side* impact of the social movement's media attention and social protest cycle by analyzing its impact separately for campaigns with either a personal or a societal goal. In total, our empirical analysis comprised 67,905 campaigns and 1,362,499 individual donations. We find a substantial rise in donations for campaigns supporting the black community after George Floyd's death, which lasts substantially longer for campaigns with a societal than with a personal funding goal. Informed by construal level theory, we attribute this heterogeneity to changes in the level of abstractness of the problems that social movements aim to tackle. This research contributes to the understanding of individual donation behavior in charitable crowdfunding and highlights the important role played by charitable crowdfunding campaigns in promoting social justice as part of social protest cycles.

Table 8. Seutter et al. (2024): Moment or Movement – The Heterogeneous Impact of the Black Lives Matter Movement on Personal and Societal Charitable Crowdfunding Campaigns.

Joint Work	Co-authorship with J. Seutter, S. Müller and D. Kundisch (40% J. Seutter, 40% M. Müller, 5% S. Müller, 15% D. Kundisch) ▪ Literature review jointly with J. Seutter and S. Müller ▪ Concretization of the research question jointly by all authors ▪ Positioning of the paper jointly by all authors ▪ Hypotheses development by J. Seutter ▪ Data collection from GoFundMe jointly with J. Seutter and N. Krüger (Student assistant) ▪ Preparation of empirical analysis (e.g., variable development) jointly with J. Seutter and S. Müller ▪ Empirical analysis by M. Müller ▪ Write-up of initial paper jointly with J. Seutter and S. Müller ▪ Write-up of the response to the reviewers and revision for the ICIS and the HICSS versions of the paper and the Internet Research revisions jointly with J. Seutter and S. Müller ▪ Re-writing of introduction by D. Kundisch ▪ Feedback, comments, and corrections by D. Kundisch
Awards	▪ Best Short Paper Runner-Up at **42nd International Conference on Information Systems** for Moment or Movement – An Empirical Analysis of the Heterogeneous Impact of Media Attention on Charitable Crowdfunding Campaigns (Research-in-Progress). ▪ Best Paper Award Nominee at **55th Hawaii International Conference on System Sciences** for Moment or Movement – An Empirical Analysis of the Heterogeneous Impact of Media Attention on Charitable Crowdfunding Campaigns.

Presentations	▪ 09/2022: Seutter, J., Müller, M., Müller, S., Kundisch, D. 2022. Moment or Movement – An Empirical Analysis of the Heterogeneous Impact of Media Attention on Charitable Crowdfunding Campaigns, contribution at: **Fakultätsforschungsworkshop of Paderborn University**, Melle, Germany. (presented by M. Müller and J. Seutter). ▪ 01/2022: Seutter J., Müller M., Müller S., Kundisch D. 2022. Moment or Movement – An Empirical Analysis of the Heterogeneous Impact of Media Attention on Charitable Crowdfunding Campaigns, contribution at: **Hawaii International Conference on System Sciences (HICSS)**, Virtual. (Session without presentation, all authors were present). ▪ 12/2021: Müller M., Seutter J., Müller S., Kundisch D. 2021. Moment or Movement – An Empirical Analysis of the Heterogeneous Impact of Media Attention on Charitable Crowdfunding Campaigns, contribution at: **International Conference on Information Systems (ICIS)**, Research-in-Progress, Austin, USA. (presented by M. Müller). ▪ 09/2021: Seutter, J., Müller, M., Müller, S., Kundisch, D. 2021. Moment or Movement – An Empirical Analysis of the Heterogeneous Impact of Media Attention on Charitable Crowdfunding Campaigns, contribution at research seminar: Grenoble École de Management, Grenoble, France. (presented by J. Seutter).
Scientific Dissemination	▪ The work on this paper started in September 2020. ▪ Earlier versions of this paper were published in the proceedings of the **International Conference on Information Systems (ICIS)**, 2021 (VHB-Rating 2024: A) and the proceedings of the **Hawaii International Conference on System Sciences (HICSS)**, 2022 **(**VHB-Rating 2024: B). ▪ The paper was initially submitted to **Internet Research** in November 2022. ▪ The paper was published with **Internet Research** after three rounds of revision in February 2024 (VHB-Rating 2024: B).

4.4 Müller et al. (2022)

In this paper, we empirically analyze the impact of a policy regulation implemented on a P2P rental market on the prices charged by different types of rental suppliers. As P2P rental markets have been shown to adversely impact both the traditional hospitality industry and the private housing market, and its affordability, localities around the globe have implemented policies to address these issues. However, little is known how rental suppliers respond to such regulations. To this end, we analyze the impact of a policy implemented in New Orleans, which introduced BTM costs through a mandatory licensing system while simultaneously banning listings from one city center neighborhood. We employ a quasi-experimental research design on a dataset of the sharing economy platform Airbnb with more than 50,000 individual listings, and enrich this dataset with data from the New Orleans government Department of Safety and Permits that indicates which P2P rental supplier purchased a commercial or a non-commercial license for their listing. This allowed us to examine the policy's impact on the *heterogeneous supply side*. We find that, while non-commercial hosts completely pass their additional costs onto consumers, irrespectively of shifts in demand and supply, commercial hosts respond in a more nuanced way. Those with legalized listings located in the city center only partially pass on their costs to guests, while even decreasing their prices in the rest of the city. This study not only contributes to the understanding of pricing in P2P rental markets and its effects, but its findings could also inform localities and support policy analytics. With P2P renting remaining attractive in city parts where BTM costs can easily be passed through to consumers, our findings suggest that these regulatory policies fall short of reducing pressure on housing affordability in the city center.

Table 9. Müller et al. (2022): Peer-To-Peer Rentals, Regulatory Policies, And Hosts' Cost Pass-Throughs.

Joint Work	Co-authorship with J. Neumann and D. Kundisch (70% M. Müller, 20% J. Neumann, 10% D. Kundisch) [2] ▪ Concretization of the research question jointly by all authors ▪ Positioning of the paper jointly by all authors ▪ Literature review jointly with J. Neumann ▪ Identification of theoretical background and hypotheses development jointly with J. Neumann ▪ Data collection by M. Müller ▪ Data preparation by M. Müller ▪ Empirical analysis by M. Müller ▪ Write-up of initial paper jointly with J. Neumann ▪ Write-up of the response to the reviewers and revision for the ICIS and the HICSS versions of the paper and the Journal of Management Information Systems revision jointly by all authors ▪ Feedback, comments, and corrections by J. Neumann and D. Kundisch
Awards	▪ **Dean's Young Scholar Research Award** for M. Müller, awarded by the Dean of the Faculty of Business Administration at Paderborn University for the article "P2P Rentals, Regulatory Policies, and Host's Cost-Pass Throughs", which was published in the Journal of Management Information Systems (JMIS). ▪ Best Paper Award Nominee at **55th Hawaii International Conference on System Sciences** for Dear Guests, Please Pay for my License – Analyzing the Heterogeneous Cost-Pass-Through of Commercial and Non-Commercial Rental Suppliers in Response to Regulatory Policies.

[2] In the ICIS version of this paper, D. Gutt was also a co-author, but left the author team for the HICSS and JMIS version.

Presentations	▪ 06/2022: Müller, M., Neumann, J., Kundisch, D. 2022. Peer-To-Peer Rentals, Regulatory Policies, And Hosts' Cost Pass-Throughs, contribution at: **Student's Initiative MTP – Marketing between Theory and Practice**, Paderborn, Germany. (presented by M. Müller). ▪ 01/2022: Müller, M., Neumann, J., Kundisch, D. 2022. Dear Guests, Please Pay for my License – Analyzing the Heterogeneous Cost-Pass-Through of Commercial and Non-Commercial Rental Suppliers in Response to Regulatory Policies, contribution at: **Hawaii International Conference on System Sciences (HICSS)**, Virtual. (presented by M. Müller). ▪ 10/2021: Müller, M., Neumann, J., Kundisch, D. 2021. Toss a Coin to Your Host? – Why Guests Do Not Always End Up Paying for the Cost of Regulatory Policies, contribution at: **INFORMS Conference on Information Systems and Technology (CIST)**, Virtual. (presented by M. Müller). ▪ 12/2020: Müller, M., Neumann, J., Gutt, D., Kundisch, D. 2020. Toss a Coin to your Host – How Guests End up Paying for the Cost of Regulatory Policies, contribution at: **International Conference on Information Systems (ICIS)**, Virtual. (presented by M. Müller). ▪ 11/2020: Müller, M., Neumann, J., Gutt, D., Kundisch, D. 2020. Toss a Coin to your Host – How Guests End up Paying for the Cost of Regulatory Policies, contribution at: **Fakultätsforschungsworkshop of Paderborn University**, Virtual. (presented by M. Müller).
Scientific Dissemination	▪ The work on this paper started in October 2019. ▪ Earlier versions of this paper were published in the proceedings of the **International Conference on Information Systems (ICIS)**, 2020 (VHB-Rating 2024: A) and the proceedings of the **Hawaii Conference on System Sciences (HICSS)**, 2022 (VHB-Rating 2024: B). ▪ The paper was initially submitted to the **Journal of Management Information Systems (JMIS)** in March 2022. ▪ The paper was published in the **Journal of Management Information Systems (JMIS)** after two rounds of revision in July 2022 (VHB-Rating 2024: A).

4.5 Althaus et al. (2025)

Even though data ecosystems are capable of generating valuable business opportunities, research on their emergence within specific industries is limited. One industry where a data ecosystem is currently emerging in Germany is the cultural event industry, which is characterized by a multifaceted landscape and a very fragmented and heterogeneous market of CEPs. A cultural data ecosystem designed to share event data across CEPs in a data space would not only foster data-driven innovation but also value creation in the cultural event sector. However, CEPs' willingness to participate in such a data ecosystem depends on whether the value creation mechanism of their own business model aligns with at least one of the focal value propositions of the ecosystem. To analyze the current CEP landscape that forms the basis of the cultural data ecosystem, we develop a taxonomy of CEP business models. Next, we perform a cluster analysis to derive six CEP business model archetypes. Using these archetypes as a foundation, and based on a workshop and interviews with representatives from eight diverse CEPs, we identify the benefits and obstacles of these archetypes if they were to participate in a cultural data ecosystem. This allows us to derive potential focal value propositions for participation in the emerging cultural data ecosystem, and the corresponding actor roles and activities for each of these CEP archetypes. Our work contributes to the discussion on taxonomies of data-sharing business models, and the emergence of data ecosystems in the cultural event industry.

Table 10. Althaus et al. (2025): Setting the Stage for a Flourishing Cultural Data Ecosystem: A Spotlight on Business Models of Cultural Event Platforms.

Joint Work	Co-authorship with M. Althaus, C. Vorbohle and D. Kundisch (30% M. Althaus, 30% C. Vorbohle, 30% M. Müller, 10% D. Kundisch) [3] ▪ Literature review jointly with M. Althaus and C. Vorbohle ▪ Concretization of the research question jointly by all authors ▪ Positioning of the paper jointly by all authors ▪ Data collection from CEPs jointly with M. Althaus, C. Vorbohle, A. Schmitt-Chandon, M. Peter and N. Chuzhova (Student assistant) ▪ Taxonomy development jointly with M. Althaus and C. Vorbohle ▪ Taxonomy classification jointly with M. Althaus, C. Vorbohle and A. Rinkowski, N. Chuzhova, N. Grieger, F. Fink, D. Funk and K. Zunke (Student assistants) ▪ Taxonomy evaluation by M. Althaus and C. Vorbohle ▪ Cluster analysis by M. Althaus ▪ Execution and analysis of interviews jointly with M. Althaus and C. Vorbohle ▪ Write-up of initial paper jointly with M. Althaus and C. Vorbohle ▪ Write-up of the response to the reviewers and revision for Electronic Markets jointly by all authors ▪ Feedback, comments, and corrections by D. Kundisch
Presentations	▪ 09/2023: Althaus, M., Grieger, N., Vorbohle, C., Müller, M., and Kundisch, D. (2023). Business Models for Cultural Event Platforms – A Taxonomy Approach, contribution at: **Mediterranean Conference on Information Systems (MCIS) and the Middle East & North Africa Conference on Digital Information Systems (MENACIS)**, Madrid, Spain. (presented by M. Althaus). ▪ 08/2023: Althaus, M., Grieger, N., Vorbohle, C., Müller, M., and Kundisch, D. (2023). Business Models for Cultural Event Platforms – A Taxonomy Approach, contribution at: **International Conference on Challenges in Managing Smart Products and Services (CHIMSPAS)**, Bielefeld, Germany. (presented by M. Althaus).

[3] In the MCIS/MENACIS version of this paper, N. Grieger was also a co-author, but left the author team for the Electronic Markets version.

Scientific Dissemination	▪ The work on this paper started in February 2023. ▪ An earlier version of this paper was published in the proceedings of the **Mediterranean Conference on Information Systems (MCIS) and the Middle East & North Africa Conference on Digital Information Systems (MENACIS)**, 2023 (VHB-Rating 2024: D). ▪ The paper was initially submitted to **Electronic Markets** in February 2024. ▪ The paper has been accepted for publication at **Electronic Markets** after three rounds of revision in May 2025 (VHB-Rating 2024: B), publication is forthcoming.

5. Reflection on Methodology

This chapter provides a reflection on the research methods employed in this dissertation. By critically assessing the assumptions that need to be fulfilled for employing these research methods, I elaborate on the methodological strengths and weaknesses of each research paper. Additionally, I reflect on my personal experiences and the learnings I gained from the application of the research methods.

All of the five studies that are part of this dissertation employ quantitative methods, relying on empirical analysis based on observational data. Only in one paper, we additionally employ qualitative methods (Althaus et al. 2025). In general, dealing with observational data comes along with two major concerns: (1) establishing causality (Angrist and Pischke 2009), and (2) identifying the theoretical mechanism (Bromiley and Johnson 2005).

First, regarding the establishment of causality, experimental research is often considered as the "gold standard" in research designs, as it is most suited for establishing causal relationships between two variables of interest (Bhattacherjee 2012). In this design, "one or more independent variables are manipulated by the researcher (as treatments), subjects are randomly assigned to different treatment levels (random assignment), and the results of the treatments on outcomes (dependent variables) are observed" (Bhattacherjee 2012, p. 83). A quasi-experiment is a specific form of experiment, where the treatment does not necessarily need to be randomly assigned, but is often allocated to a specific organization, for example, and a different organization in the same industry serves as the control group (Bhattacherjee 2012).

Three studies in this dissertation employ a quasi-experimental research design (Müller et al. 2022; Müller and Neumann 2025; Seutter et al. 2024) by using a DiD specification. A DiD framework compares changes in an outcome variable (the dependent variable) over time between a group that receives a treatment during the observation period, and a control group that does not (Angrist and Pischke 2009). Specifically, in Müller et al. (2022), we compare price setting behaviors (i.e., the dependent variable) of P2P rental suppliers in a city where a regulatory policy was implemented (i.e., the treatment city New Orleans) with cities where no regulatory policy had been introduced during that time (i.e., the control cities are New York, San Francisco, and Portland). In Seutter et al. (2024), the death of George Floyd on 25th May 2020 serves as the treatment event, and donation behavior (the dependent variable) is compared between campaigns that are thematically aligned with the interests of the black community (the treatment group) and campaigns that cover other topics (the control group) before and after the

event. In Müller and Neumann (2025), we employ a staggered DiD estimation (Callaway and Sant'Anna 2021), as the treatment (the entry of food delivery platforms) happened at different points in time for metropolitan areas. Here, we compare restaurant and delivery driver employment of untreated metropolitan areas (areas in which food delivery platforms have not yet entered) with restaurant and delivery driver employment of treated metropolitan areas (areas in which food delivery platforms have already entered) over time. During the application of the DiD framework, I learned that the choice of the treatment and the control group is a crucial decision. I realized that there is a tension between the availability of data and the ideal control group, which should resemble the treatment group as closely as possible. For example, in Müller et al. (2022), the control group was determined by the availability of data during the observation period, even though other cities might have been more similar to the treated city. In Müller and Neumann (2025), we also had to use US metropolitan areas in which food delivery platforms had entered at a later point in time as a control group. Ideally, the timing of platform entry would have been randomly assigned to metropolitan areas to establish an unbiased control group. In Seutter et al. (2024), the treatment and the control group were easier to identify. Here, our main learning was that accurately labeling the groups is an equally important task, particularly in settings where the treatment group reflects a highly sensitive matter, in our case, social injustice related to skin color.

A DiD framework has one key assumption that needs to be fulfilled in order to estimate a causal relationship: The common trends assumption (Angrist and Pischke 2009). This assumes that, in the absence of the treatment, the difference in potential outcomes between treatment and control group would have stayed the same (Angrist and Pischke 2009). This assumption can be tested through a DiD estimation with time leads and lags, where differences in the outcome variable between the treated and the control group are captured in the periods before and after the treatment (Autor 2003). If the coefficients in the pre-treatment period are insignificant, this means that the outcome variable between the treatment and the control group followed a parallel trend before the treatment event and, hence, the parallel trend assumption is fulfilled. We tested this assumption in all three papers that employ a DiD framework and conclude that the common trends assumption is not violated.

Another key assumption that needs to be fulfilled in a DiD framework is the (quasi-) random assignment of the treatment, implying that individuals do not anticipate the treatment or self-select into it (Angrist and Pischke 2009). In Seutter et al. (2024), the death of George Floyd represents an exogeneous event that was completely unpredictable, implying that the (quasi-)

random assignment of the treated campaigns is not violated. Nonetheless, to eliminate biases stemming from self-selection into the treatment (i.e., fundraisers that launch campaigns that are associated to the interests of the black community right after the death of George Floyd to take advantage of the increased media attention), we only include campaigns into our analysis that were launched before Floyd's death. In Müller et al. (2022), we also restricted our sample to those P2P rental listings that were already set up at the time of the policy announcement month. In Müller and Neumann (2025), it is likely that the treatment assignment is not random, as food delivery platforms tend to expand earlier to economically attractive metropolitan areas. Hence, the causal estimation of the relationship between the entry of food delivery platforms and restaurant employment may be confounded by unobservable, time-varying location characteristics.

In Müller (2025), establishing causality between charitable crowdfunding activity and the number of acquisitive crime incidents was not possible based on the observational data used. The variations in crowdfunding activity across counties over time are ultimately the result of the endogenous decisions of fundraisers, meaning that there might be issues of self-selection and reverse causality that my fixed effects regression model cannot fully account for. When reflecting on the endogeneity problem I encountered while writing this paper, I recognized that I spent a considerable amount of time exploring potential exogenous variations that might help to address this issue, only to find out that this is an extremely difficult endeavor. I realized that I need to control for various potential time-varying confounders from several data sources in my OLS regression, such as socioeconomic information, disaster incidents, or the number of law enforcement employees. In addition, I included county and year fixed effects to account for time-invariant county characteristics and seasonal crime trends. Nonetheless, despite the substantial effort I invested in identifying and integrating additional control variables, there might still be unobservable, time-varying heterogeneity that could induce omitted variable bias (OVB). OVB is a central challenge for estimating causal relationships. It occurs when a relevant variable is missing in a regression model, resulting in biased estimates because the omitted variable influences both the dependent and the independent variable (Angrist and Pischke 2009). Hence, future research should consider using alternative approaches, such as instrumental variables or a DiD framework (Angrist and Pischke 2009) to establish a causal relationship between charitable crowdfunding activity and acquisitive crime incidents.

Second, the identification of the theoretical mechanism is also a critical challenge when empirically analyzing observational data (Bromiley and Johnson 2005). When researchers do

empirical work, they often aim to test theories or, more specifically, they aim to test the underlying mechanisms or explanations that a theory provides for the relationship between two variables of interest (Bromiley and Johnson 2005). However, understanding the theoretical mechanism solely on the basis of observational data is not an easy task, as some variables that might explain the theoretical mechanism cannot be properly observed. Nonetheless, the four empirical papers of this dissertation attempt to provide at least some evidence for the suggested theoretical mechanism of the respective theory that is tested in the specific paper. For example, in Müller et al. (2022), we aim to understand economic behavior (i.e., price setting behavior) of commercial and non-commercial P2P rental suppliers in response to a policy shift. One personal insight I gained while working on this paper was that the distinction between commercial and non-commercial P2P rental suppliers was only possible because I could use a publicly available dataset from the US government that indicates which type of license each supplier had purchased. I realized that data-driven research approaches are particularly feasible in regions or states with less restrictive data privacy regulations. Beyond the distinction between commercial and non-commercial suppliers, we additionally control for the market situation a host faces to approach the theoretical mechanism, like the supply side (i.e., the number of other listings within a city) and the demand the respective listing is exposed to. In Müller and Neumann (2025), we would have needed restaurant demand and sales data for both online and offline orders to fully explore the theoretical mechanism between the entry of food delivery platforms and restaurant employment. As such data was not publicly available, we analyzed how different job types (e.g., dine-in service workers or food preparation workers) were affected by the entry of food delivery platforms to shed light on some aspects that might explain the hypothesized theoretical mechanism. In Seutter et al. (2024) and Müller (2025), we utilize methods of textual analysis and draw on psycholinguistics to test behavioral theories (the construal level theory and the macro strain theory). Here, we measure abstractness scores and emotions in charitable crowdfunding campaigns' textual descriptions to better understand the underlying theoretical mechanism. However, I acknowledge that the theoretical mechanism was not fully observable in either of these four studies. Understanding the theoretical mechanism, especially when testing behavioral theories, often requires in-depth, human-centered insights into complex social phenomena, which can be examined through qualitative research methods such as interviews (Lim 2024).

In Althaus et al. (2025), we conduct such interviews with representatives from eight CEPs, which allowed us to gain profound, in-depth insights about the perceived benefits and obstacles

these CEPs as key stakeholders would potentially face when participating in a cultural data ecosystem (Rowley 2012). The interview results also allowed us to derive potential focal value propositions for the cultural data ecosystem, and to assign potential actor roles and activities to the CEPs when participating in the ecosystem. Engaging with qualitative rather than quantitative methods was a completely new experience for me. Throughout the process, particularly when designing the semi-structured interview guide, and when analyzing and interpreting the data, I learned that I can greatly benefit from the expertise of researchers familiar with this methodological approach.

However, a major concern that comes along with interview research is its limited generalizability (Lim 2024). Even though we develop a business model taxonomy for CEPs in an emerging data ecosystem, and perform a cluster analysis to derive CEP archetypes, which were used as a foundation to select interview partners that are representative for these archetypes, our sample only involved eight CEPs. Hence, their opinion might not apply to the perspective of other CEPs that could also participate in the cultural data ecosystem.

Overall, both qualitative and quantitative methods that were employed in this dissertation have their strengths and weaknesses. I learned that the research method should always be chosen in accordance with the specific research question that needs to be answered. While quantitative methods are better suited to predict or explain certain relationships, qualitative methods can be particularly useful for “sense-making” or understanding a phenomenon (Bhattacherjee 2012).

6. Conclusion

The studies of this dissertation advance the current knowledge on the impact of digital platforms for societal challenges. While the first four studies contribute to answering the overarching *Research question 1* of this dissertation, the fifth study addresses *Research question 2*. In this chapter, I elaborate on the contributions and implications of this dissertation, explain its limitations, provide avenues for future research, and make concluding remarks.

6.1 Contribution and Implications

Contribution to Research and Theory

This dissertation extends the digital platform literature in several ways. First, it enriches the current knowledge on the economic impact of the platform economy. Specifically, the impact of *complementor platforms* (i.e., food delivery platforms) on local restaurant and delivery driver employment was investigated. With our results, we confirm prior empirical findings regarding the reduction of traditional job positions after the entry of digital platforms (Guo et al. 2024; Li et al. 2021), as we find an overall decrease in the number of restaurant workers after the introduction of food delivery platforms, which is only partially compensated for by an increase in delivery drivers. However, our findings contradict the results found by prior empirical research that focus on an individual restaurant and city area level and finds a positive impact of food delivery platforms on restaurant sales and restaurant job openings (Azzoni et al. 2025; Li and Wang 2024).

Further, this dissertation expands the literature stream on the social impact of the platform economy. In two of the submitted research papers, I follow the research call by Agrawal et al. (2014) to investigate the effects of crowdfunding on society (Müller 2025; Seutter et al. 2024). Specifically, in Müller (2025), I analyze the relationship between charitable crowdfunding activity and acquisitive crime in the US and thus extend the literature stream on the impact of digital platforms on offline crime (e.g., Park et al. 2021). Additionally, in Seutter et al. (2024), we studied how a social protest cycle in a social movement affects related charitable campaigns on a crowdfunding platform. Thus, we demonstrate how digital technologies like charitable crowdfunding help to raise funds for social injustice tackled by social movements. Hence, this research contributes to the literature stream on digital activism activities in social movements by providing one of the first empirical works on the topic (Tarafdar and Kajal Ray 2021).

Moreover, several studies of this dissertation extend the literature on the *demand and supply side heterogeneity* of digital platforms. We demonstrate that the *heterogeneous supply side* on

the sharing economy platform Airbnb responds differently to a policy shift, with commercial suppliers adjusting their prices according to economic principles, while non-commercial hosts completely pass on the additional policy-related costs to their guest, neglecting changes in demand and supply (Müller et al. 2022). Moreover, the *supply side heterogeneity* is also investigated in Seutter et al. (2024), highlighting that charitable crowdfunding campaigns, which thematically align with a social movement and pursue a societal goal experience, an increase in donations for a longer period of time after the social movement attracted media attention, compared to campaigns that align with the movement's interests and pursue a personal goal. The *demand side heterogeneity* is further investigated in one research paper (Müller 2025). By analyzing the *digital divide* in a crowdfunding setting, I demonstrate that charitable crowdfunding is still more beneficial for the digitally advantaged, thus confirming the results of prior literature (Burtch and Chan 2019; Snyder et al. 2017). Overall, these results suggest that heterogeneity stemming from either the demand or the supply-side from digital platforms is often worth investigating in digital platform research, as different users in these groups are likely to behave fundamentally differently from each other.

Additionally, we extend the literature on digital platform regulation by analyzing the effects of an already implemented policy shift on the P2P short-term rental market (Müller et al. 2022), thus answering prior calls for research on this topic (e.g., Fu et al. 2021; Gleiss et al. 2023). Lastly, we extend the data ecosystem literature by demonstrating how emerging data ecosystems should be understood as the interplay of actors, activities, and focal value propositions in a specific industry (i.e., the cultural event industry). Hence, we also answer calls for further research to investigate the emerging phase of data ecosystems in more detail (e.g., Heinz et al. 2022).

This dissertation also contributes to theory in several ways. The majority of the papers that are included in this dissertation follow a deductive or theory-testing approach by examining the presence of theoretical constructs and relationships through empirical data (Bhattacherjee 2012). In so doing, this dissertation tests theories from diverse domains, ranging from behavioral theories, such as the construal level theory (Trope and Liberman 2010) or the macro strain theory (Agnew 1999), to economic theories like the channel capability theory (Avery et al. 2012) or the analytical model on the economic effects of introducing BTM costs to a sharing market (Filippas et al. 2020). While the construal level theory is used to explain differences in the donation behavior for different types of crowdfunding campaigns that can be attributed to the abstractness of these campaigns (Seutter et al. 2024), the macro strain theory is empirically

confirmed in the context of charitable crowdfunding (Müller 2025). Further, we also find empirical support for the channel capability theory in the context of food delivery platforms (Müller and Neumann 2025) in the form of socioeconomic evidence for a cannibalization effect in the relationship between food delivery platforms and restaurants. Only in Müller et al. (2022), the empirical results do not confirm the suggested relationship made by the theoretical model (Filippas et al. 2020). Here, the model suggests that, when BTM costs are introduced to a sharing market, a partial cost pass-through should be observed. However, our results reveal that the expected partial cost pass-through is only observable for commercial hosts located in an area experiencing a substantial decrease in supply. We thus inform theoretical models for sharing markets in two major ways: (1) Theory should account for different types of suppliers with differentiated economic behavior, and (2) geographical aspects need more thorough consideration, as shifts in demand and supply from one area to another fundamentally affect pricing behavior.

In Althaus et al. (2025), we develop a "theory for analyzing" (Gregor 2006), as we synthesize existing knowledge, and enable a shared understanding of CEP business models in data ecosystems through the development of a taxonomy. Hence, to allow us to derive theoretical concepts from empirical data (Bhattacherjee 2012), we follow an inductive research approach in this paper. The developed taxonomy then serves a foundation to derive CEP business model archetypes used for further investigation. Afterwards, we deductively apply the ecosystem-as-structure view as a theoretical lens (Adner 2017; Hou and Shi 2021) to derive potential actor roles and activities of these archetypes within the emerging ecosystem. Hence, this paper applies both an inductive and deductive research approach to inform the literature on data ecosystems about the development of focal value propositions in the emerging phase in a specific industry (i.e., the cultural event industry).

Implications for Practice

The results of this dissertation also come along with important implications for practice. Specifically, policymakers, stakeholders from adjacent industries, digital platform providers, digital platform users, and society in general, can profit from the research results in multiple ways.

For policymakers, the results of this dissertation suggest that, as some digital platforms have developed a (quasi-) monopolistic position in the market, the associated economic and social challenges that come along with this market position need explicit and thorough investigation

by both researchers and practitioners. Both the advantages and disadvantages associated with specific digital platforms need to be carefully examined in order to create a robust foundation for meaningful public policy. If it turns out that several digital platforms are associated with a meaningful social and/or economic value for our society, policymakers should foster the growth of these digital platforms and encourage participation, especially for those that, according to the *digital divide*, typically use digital resources less frequently and effectively (the digitally disadvantaged) (Müller 2025; Vassilakopoulou and Hustad 2023). However, the inclusion of such platforms, and especially crowdfunding platforms, in governmental strategies should be viewed with caution, as "a crowdfunding platform cannot and should not be a solution to complex, systemic problems that must be solved with meaningful public policy" (Cerullo 2019, p. 1). On the contrary, if digital platforms turn out to be associated with considerable social and economic challenges, policymakers should consider appropriate regulatory measures to counteract these developments (Fu et al. 2021; Gleiss et al. 2023). Research on the effectiveness of already implemented regulations in digital platform markets in other cities or countries are an effective way to inform public authorities about which measures would be most suitable. However, the results of this dissertation also suggest that it is equally crucial to ensure proper enforcement of these measures, and to carefully monitor how suppliers on such platforms respond to such policies, in order to mitigate potential negative externalities, such as shifting the problem from one area to another (Müller et al. 2022). Alternatively, and especially in heterogeneous and fragmented platform markets where digital platform providers do not only pursue economic but also social interests, policymakers may consider to proactively invest in alternative market designs such as data ecosystems, which could foster data-sharing among (lesser-known) digital platforms, thereby increasing the competition for (quasi-) monopolistic digital platforms (Schurig et al. 2024). In this context, the results of this dissertation suggest that data ecosystem designers in the emerging phase should place a great emphasis on establishing focal value propositions for the potential actors of the ecosystem (Althaus et al. 2025).

Regarding the implications for stakeholders of adjacent industries, the results of this dissertation suggest that the distinction between *complementor platforms* and *substitutive platforms* is crucial to make an informed decision. If the relationship between the digital platform and the respective adjacent industry is intended to be complementary, like between food delivery platforms and restaurants, restaurant owners should be aware that cooperating with food delivery platforms may not always be beneficial for restaurants, even though such

platforms claim that they generate additional demand (Müller and Neumann 2025). Conversely, if the relationship between digital platforms and adjacent industries is substitutive, like between Airbnb and the hotel industry, stakeholders could proactively advocate for proper regulation, and additionally focus on diversification strategies such as highlighting that, compared to Airbnb providers, hotels have to comply with higher safety and hygiene regulations (Mody et al. 2023).

For digital platform providers, the results of this dissertation imply that platform providers should be aware of the *heterogeneous supply side* that often comes along with the growth of digital platforms. This could be, for example, a supply side ranging from rather private, inexperienced suppliers to commercial and more experienced suppliers, as in the case of Airbnb (Ikkala and Lampinen 2015). The results of this dissertation suggest that it is important to make an informed decision about which suppliers should receive additional support, for example by prominently featuring selected suppliers on the digital platform's website (Seutter et al. 2024). Additionally, the results of this dissertation suggest that (lesser-known) digital platforms could consider participating in emerging data ecosystems to increase their visibility and reach (Althaus et al. 2025).

Lastly, for digital platform users and society in general, it is important to understand that the growth of digital platforms usually entails both advantages and disadvantages (Cusumano et al. 2019; Fu et al. 2021). Hence, digital platform users should make an informed decision about how often and for what purposes they decide to use digital platforms, given that these platforms can have far-reaching economic and social impacts.

6.2 Limitations and Avenues for Future Research

As with any research, the papers that form part of this dissertation also have some limitations, which, at the same time, offer great potential for future research. While some of these limitations stem from the choice of the research methods, others depend on external factors, or are the result of decisions made in the research process.

First, limitations of the submitted studies arise from limited data availability, as most of the papers relied on publicly available observational data. For example, in Müller and Neumann (2025), we could only include those food delivery platform entry dates into our analysis that were publicly available based on press releases or news reports. Furthermore, as the market shares of the four different platforms investigated in this study (Grubhub, UberEats, DoorDash, Postmates) in each metropolitan area and quarter was not observable to us, we were restricted

to analyze only the impact of the entry of food delivery platforms into a metropolitan area on a more general level. In Müller (2025), I could only include those charitable crowdfunding campaigns into my analysis that were accessible by the web-crawler during the time of scraping. Hence, the campaigns of fundraisers who may have deleted their campaign after some time could, therefore, not have been accounted for in my analysis. Moreover, in Seutter et al. (2024), we had no information about the manner in which social media reported on social movements, an issue that might also have influenced donation behavior for crowdfunding campaigns related to the movement. Additionally, in Müller et al. (2022), the exact demand for each Airbnb listing in a month was ultimately unobservable for us. Hence, we only used proxies for our demand variable in the form of online reviews that were published in a specific month, but which may not reflect the actual demand of a listing in all cases. Finally, in Althaus et al. (2025), our examination of CEPs was restricted to the publicly accessible information on the respective CEP websites when building the taxonomy. Any information that was exclusively available to cultural artists, for example, could therefore not be analyzed. These issues could partially be resolved either through (data) cooperation with the respective digital platforms under investigation, or by gathering additional data through third-party companies.

Second, when working with observational data, the limited data availability often goes hand in hand with issues in properly identifying the theoretical mechanism, which is also a limitation of this dissertation. This is especially the case when testing economic rather than behavioral theories. For example, in Müller and Neumann (2025), the theoretical mechanism in the relationship between the entry of food delivery platforms and local restaurant employment was not fully observable due to missing data on restaurants' demand and profitability, and on the total number of restaurants listed on a specific food delivery platform at a given time. Further, in Müller et al. (2022), a precise measurement of the demand and supply side elasticity to understand the theoretical mechanism in hosts' price setting behaviors, as suggested by the underlying theoretical model (Filippas et al. 2020), was not possible because of missing data. Future research needs to acquire this data in order to properly identify the underlying theoretical mechanism of the abovementioned studies. In Seutter et al. (2024) and Müller (2025), we tested behavioral theories and relied on a combination of text analysis and psycholinguistics to approach the theoretical mechanism. However, in Seutter et al. (2024) the underlying motives of donors will ultimately remain unobservable, while in Müller (2025) it remains unclear whether crowdfunding initiators would have considered committing an acquisitive crime, or whether they are fundamentally different from individuals engaging in criminal behavior. For

these two papers, I encourage future research to conduct additional qualitative studies like interviews to gain further insights into the underlying theoretical mechanism.

Third, I acknowledge that there might be endogeneity issues in some of the submitted papers, which could not be fully resolved. This is especially the case in Müller (2025), as the timing of activity on crowdfunding platforms is not random across counties and, therefore, cannot be viewed as causal. As a consequence, issues of self-selection, unobserved heterogeneity and reverse causality might confound the observed results. Future research could leverage regulatory measures on charitable crowdfunding platforms to investigate the causal relationship between charitable crowdfunding activity and acquisitive crime. For example, in January 2023, the US-state California passed a regulation on charitable crowdfunding platforms that imposes compliance requirements on fundraisers (Ward et al. 2023). As such, a policy is likely to affect charitable crowdfunding activity in California but not in other states in the US, which is why I suggest that future research investigates the relationship between charitable crowdfunding activity and crimes with a DiD specification.

Fourth, the papers of this dissertation often focus on a specific geographic area, platform, or setting, which raises issues of generalizability that can be addressed by future research. For example, in Müller and Neumann (2025) and Müller (2025), the conducted analysis is restricted to the US. Future research could study the respective relationships that are analyzed in these papers in other countries to investigate whether cultural differences might lead to different outcomes. Moreover, in Müller et al. (2022), we analyzed a policy in New Orleans that consisted of two different parts (i.e., the ban in one specific area of the city, and the introduction of a licensing system). This choice is associated with two major problems, namely (1) we could not precisely separate the effect of the two parts of the policy, and (2) P2P rental suppliers living in cities other than New Orleans might have reacted differently to the policy. To overcome these issues, future research could conduct replication studies in other cities with similar policy measures, or analyze cities in which only one regulatory measure was introduced, to gain further insights. Moreover, in Müller et al. (2022) and Müller (2025), we only analyzed one specific digital platform (Airbnb and GoFundMe, respectively), neglecting spillover effects from other digital platforms or from adjacent industries (e.g., the hotel industry) which might affect the results. Taking these spillover effects into consideration provides an interesting avenue for future research. Additionally, in Seutter et al. (2024), we only examined the effect of the BLM movement on the donation behavior for charitable crowdfunding campaigns. An analysis of other social movements (e.g., the #MeToo

movement) in future research could reveal additional insights on the effect of a social protest cycle on donation behavior on charitable crowdfunding platforms. Furthermore, given that the sample collection of CEPs is limited to the German-speaking market and that we only conducted interviews with eight participants in Althaus et al. (2025), future research could extend this study by expanding the CEP database to a global level, and by recruiting a more diverse set of interview participants.

Lastly, future research could conduct additional analysis to address issues stemming from decisions made in the research design. For example, in Müller and Neumann (2025), future research could extend the analysis beyond the effect of the entry of food delivery platforms on restaurant and delivery driver employment as the dependent variables, to the effect on employment other adjacent industries, such as grocery stores. In Müller (2025), I focus on the relationship between charitable crowdfunding activity and offline crimes, while future research could extend this analysis to online crime. In Seutter et al. (2024), we analyzed only one campaign characteristic (i.e., campaigns with a personal or a societal goal) to understand the *heterogeneous supply side*. Exploring further campaign characteristics provides an interesting avenue for future research. Finally, in Müller et al. (2022), future research could investigate the long term effects of the introduction of regulatory policies in the P2P rental market, as we only investigated the policy's effect over a period of ten months.

6.3 Concluding Remarks

This dissertation advances our understanding of the digital platform economy by shedding light on its impact on specific societal challenges. The results of the studies that form part of this dissertation demonstrate yet again that digital platforms offer both advantages and disadvantages to the economy and to society in general. The numerous advantages of these platforms for all areas of life—such as a convenient way to find a transaction partner, or the efficient resource allocation—have to be seen against the risk of too much market power acquired by a minority of dominant digital platforms, partly unclear regulatory frameworks, and the potential marginalization of several market participants. These aspects need to be carefully considered by researchers, policymakers, and end-users alike to foster sustainable engagement with these digital platforms in the future. I hope that this dissertation inspires future research to further investigate the wide-ranging impacts these digital platforms have for the global economy and society in general.

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