

CHAPTER 9

Reflective Ethnographic Design of Collaborative Economy Business Models Using Annotated Portfolios

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Abstract

As the collaborative platform economy develops, network effects tend to create one dominant platform within each domain such as transport, reducing the power of workers to find alternatives. The research problem is to find a specific methodology that could enable researchers to draw on the experience of participants as workers and their wish to create ways of working that offer them greater power in the collaborative economy. Ethnographic studies can enable researchers to discover how workers make sense of their involvement in the collaborative platform economy and provide valuable data on how current business models and platforms can affect worker power. However, a wish to promote worker power implies a participatory form of research that aims to break down power relations between researchers and participants. This chapter reflects on the methodological challenges of studying the collaborative

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economy ethnographically in order to develop new business models and platforms. Annotated portfolios, a technique used in human-computer interaction, offers the potential to enable worker experience to inform new business model designs. Researchers can use annotated portfolios to articulate latent designs in ethnographic data gathered from engagement with workers in the collaborative economy. In bringing these designs into existence, researchers can then contribute their perspective to a co-design process with these workers. Annotated portfolio techniques can thus help both researchers and workers to use ethnographic data to design new business models in the collaborative economy.

Introduction

This chapter proposes an ethnographic methodology for designing new business models in the collaborative economy, where the starting point is engagement by researchers with workers through online forums or a similar medium to gather data on not only their current situation but also their future wishes and desires. Annotated portfolio analysis within a narrative framework can then enable researchers to articulate latent business model designs in this ethnographic data. This section briefly introduces the context of worker power in the collaborative platform economy, then the next section considers the potential for new business models. The following sections explore ethnography as a business model design technique, introduce a narrative framework, then present annotated portfolios as a business model design methodology. The chapter concludes by offering an ethnographic methodology that can enable co-design of business models with workers in the collaborative economy using narrative and annotated portfolio techniques.

The collaborative or sharing economy has been defined as ‘using internet technologies to connect distributed groups of people to make better use of goods, skills and other useful things’ (Stokes et al., 2014: 10). Since its inception in the mid-1990s, the collaborative economy has become increasingly monetized, and by the mid-2000s companies such as iStockphoto, InnoCentive and Amazon Mechanical Turk were formed to coordinate the work of amateurs, but this crowdsourcing became a problem for professionals, who found their livelihoods being undermined by these new platforms (Howe, 2006). The term ‘platform’ was originally adopted by industrial economists to describe a system or institution that mediates transactions between agents (Baldwin and Woodard, 2009). Several writers have since used the term ‘platform economy’ to distinguish the growing trend towards monetization of the digital platforms that people use to communicate and increasingly to gain employment (Fuchs, 2014; Kenney & Zysman, 2016; De Groen et al., 2016). This monetization has created a new class of digital labourers, or precariats (Bradley, 2014; Pignot, 2021). Kenney & Zysman (2016: 61) define platforms as ‘multisided digital frameworks that shape the terms on which participants interact with one another’.

In the platform economy, the main actors are the companies that own the platforms, such as Uber, Airbnb or Deliveroo; customers, who receive goods or services via the platform; and freelance workers who provide the goods or services on offer (De Groen et al., 2016). Digital platforms can facilitate social media such as Facebook or Twitter, enable marketplaces such as Ebay or create new forms of business such as Uber.

Uber is an example of where the platform algorithmically manages independent workers according to customer demand (Pignot, 2021). When goods or services are provided on a paid basis, employers hold far greater market power than workers, including unilaterally setting wages for each task (Kingsley et al., 2015). The issue of how platform firms can exert power over workers is an increasing problem for policy, as a platform can potentially replace entire industries or services, such as with Uber and the taxi industry (Pignot, 2021). In the context of software production, the lock-in effect has been noted, whereby if a piece of software can gain enough market share, it gains further customers and complementary applications and eventually dominates the market (Bonaccorsi & Rossi, 2003). In the collaborative platform economy, these network effects have enabled one platform to become dominant in each domain, reducing the power of workers to find alternatives (Kenney & Zysman, 2016).

Although the Organisation for Economic Co-operation and Development reported that the platform economy is less than 1% of the total economy (OECD, 2017), that proportion is growing rapidly. This trend is a concern, as workers don't benefit from regular employment: they take on tasks as and when they are given them, responding to temporary offers of work via an app (De Groen et al., 2016). These platforms benefit customers as they can find the lowest price for products and services worldwide, but workers do not have the job security, opportunities for collective action or benefits that workers in more traditional organizations have (Scholz, 2016). Collective action in the collaborative economy is currently largely expressed by workers creating internet-based forums to share knowledge and experience (Fabo et al., 2017). For example, workers have started to create online forums to share experience and problems (Ride Share Drivers United, 2022), and in some cases researchers have set up forums (Irani and Siberman, 2013) that are now run by their worker community, who 'watch out for each other' (Turkopticon, 2022). These forums can benefit workers who use them, but don't directly change power relations between those workers and platform operators.

Another way for workers to deal with these economic changes is through organized strikes, such as when Deliveroo workers went on strike in 2016. The strike started with workers meeting and self-organizing at points that had been algorithmically determined by the platform (Woodcock and Graham, 2020). Collective action has now broadened to platform economy workers aligning with unions, creating guild-like organizations and worker-led platform cooperatives (Vandaele, 2018), which have had some success in niche markets (Scholz, 2016).

These initiatives highlight wider issues in the collaborative economy, which is shaped by political, economic, social and technological factors, including worker power (Woodcock & Graham, 2020). One means of exerting power is through ownership: Kenney & Zysman (2016: 66) ask the questions, ‘Who owns or controls the platform?’, ‘How is value created?’ and ‘Who captures the value?’. Business models are framed in terms of creating and capturing value (Zott et al., 2011), hence they are a useful concept to frame power relations in the collaborative economy. It is thus important to find business models that can offer more of a balance of power between workers and firms, where the issue of worker power is the context for designing new collaborative economy business models.

Worker-led forums have been a source of online ethnographic data for researchers, contrasting the perspectives of workers and the platform firm (Pignot, 2021; Irani & Siberman, 2013). The experience of these workers, in particular their reflection on working in a particular domain (Lee et al., 2015), could inform the development of new business models in the collaborative economy. Ethnography can enable gaining a deep understanding of the experience of workers in the collaborative economy, but further steps will be needed for ethnographic data to inform new business models. A narrative framework enables analysis of ethnographic data from engagement with collaborative economy workers not only on their current situation, but on their wishes and desires for the future. Considering how wishes and desires for the future could be fulfilled through new business models implies a design process, of ‘creating something that does not yet exist’ (Nelson & Stolterman, 2012: 28). Annotated portfolios are a design technique introduced in the context of human–computer interaction by Gaver & Bowers (2012) that can bring together a number of artefacts and identify the aspects that are common to them. These artefacts could include textual as well as material objects.

This chapter explains how narratives of engagement with collaborative economy workers can be annotated as a portfolio of business models that can potentially be used to create new ways of working in the collaborative economy. The next section introduces the potential for worker-led business models in the collaborative platform economy.

The Potential for Worker-Led Business Models in the Collaborative Economy

Although the concept of business models was first mentioned in the 1950s (Bellman et al., 1957), the use of the term was not widespread until the early 2000s, in the context of the internet and e-business (DaSilva & Trkman, 2014). Thus the business model as a concept and the digital platform economy have co-evolved. Business models are generally defined in terms of value creation and capture, for example that a business model ‘describes the rationale of how an organization creates, delivers, and captures value’ (Osterwalder & Pigneur, 2010: 14), and that a ‘business model articulates the logic, the data and other

evidence that support a value proposition for the customer, and a viable structure of revenues and costs for the enterprise delivering that value' (Teece, 2010: 179). Business models have also been defined in terms of boundary spanning: Zott et al. (2011: 1020) highlight that 'the business model is a new unit of analysis that is distinct from the product, firm, industry, or network; it is centered on a focal firm, but its boundaries are wider than those of the firm'.

In the collaborative platform economy, innovation can extend from products and services to business models (George & Bock, 2011). In particular, firms have adopted two-sided business models that deliver a value proposition to customers, who benefit from services such as transport at a reduced cost (Kenney & Zysman, 2016). These firms use the resources afforded by the Internet to create software platforms that link customers with freelance workers who provide these services. These workers are a vital resource to the platform firm, but are viewed as independent contractors, with an uncertain income as a result. The UK Good Work report (Taylor, 2017) challenges the notion of independent contractors in relation to platform firms, proposing that the term 'dependent contractor' is more appropriate. The Frankfurt Paper on Platform-Based Work notes, from a European perspective, that workers as independent contractors in the digital platform economy are 'typically excluded from the legal and social protections established for employees over the last hundred years' (Frankfurt Paper, 2016: 2), and that 'worker organizing has for decades been correlated with the economic well-being of working people' (p. 6), calling for a 'co-operative turn', 'in which workers, clients, platform operators, investors, policy makers, and worker organizations work together to improve outcomes for all stakeholders' (p. 3).

Considering how research can contribute to creating new worker-owned business models in the collaborative economy implies adopting participatory methods that aim to change the situation of workers. The problem that this chapter explores is to find a specific methodology that can draw directly on the experience of participants as workers, and their wish to create ways of working that can offer them greater power in the collaborative platform economy. Ethnography is a technique that can enable researchers to gain valuable data on how workers both participate in and make sense of the collaborative economy, but the challenge is then how to bridge the gap between data and action. The next section introduces how ethnography and action research can be combined to enable business model design in the collaborative economy.

Ethnography as a Business Model Design Technique

Ethnography is generally described as a research methodology that aims to gain a deep understanding of the experience of individuals and groups in their context through techniques such as participant observation (e.g. Silverman, 2007). Gaining a deep understanding of the experience of workers in the collaborative economy can then be a starting point for making change with those workers.

Action research has been described as a ‘broadly interventionist approach to change and improvement that enables individuals, groups and organizations to use reflection on action in a problematic situation as a basis for the creation of new actions and knowledge’ (Ellis & Kiely, 2000: 83). Through enabling researchers and participants to reflect on their current situation, ethnography can contribute to reflection that leads to action (Cassell & Johnson, 2006).

Bringing about change implies that the researcher takes an epistemological position of critical theory, where they engage in a dialogue with research participants in order to understand both how structures in society have gained their own reality independent of their creators and how these structures could be changed (Guba & Lincoln, 1994). In the context of workers who wish to gain power in the collaborative economy, changing the situation of these workers from an existing to a desired state implies a design process. Action research has been linked with participatory design, as both methodologies encourage participation by stakeholders to make real-world change (Foth & Axup, 2006). Design is about an ‘inquiry into the ideal’ focusing on what is desirable but ‘not-yet-real’ (Nelson & Stolterman, 2012: 35), and is ‘concerned with how things ought to be, with devising artefacts to attain goals’ (Simon, 1969: 59).

Taking an epistemological position of critical theory in the context of design leads to critical design, introduced by Dunne & Raby (2001) and developed further by Bowen (2007: 1) as ‘critical design practices’ that can enable ‘stakeholders to engage with novel situations and consequently engage in creative thinking about future possibilities’. In this case, the stakeholders are workers in the collaborative economy, and the future possibilities are new business models. Critical design practices include speculative design (Dunne & Raby, 2013), co-design and participatory design. The last of these links with participatory action research, which in turn can be informed by ethnography (Cassell & Johnson, 2006). In the situation of seeking to design new business models in the collaborative economy, a critical design approach can be helpful, which can offer insight into existing social structures by creating new ones that promote ‘social change, from the present to a hoped-for future that is attainable but not immediately within reach’ (Bardzell & Bardzell, 2013: 3304).

Building on critical design, critical design ethnography was introduced by Barab et al. (2004: 254) as ‘a process that sits at the intersection of participatory action research, critical ethnography, and socially responsive instructional design’. Implementing critical design ethnography starts with understanding cultural context through rich description, as with other forms of ethnography, then making commitments to social change that are expressed in a design for potential action, which can be generalized beyond the original ethnographic context (Barab et al., 2004). In the context of the collaborative economy, ethnographic data from engagement with workers can offer a rich description not only of their current situation but also of their hoped-for future, including a future where they as workers gain greater power. Taking a critical design perspective, the research process is thus about articulating these wishes and hopes

as designs for new worker-led business models. In this respect, the design process functions in the way suggested by Zimmerman & Forlizzi (2008: 44), where designers can create an artefact that ‘functions as a specific instantiation of a model – a theory – linking the current state to the proposed, preferred state’, in this case modelling desires for their future that are expressed by workers in the collaborative economy in online forums or similar media. These desires for the future can be expressed as narratives, where a narrative framework can enable ethnographic data to become part of a design process.

The methodology described in this chapter builds on critical design ethnography to elicit business model designs from ethnographic study of workers in the collaborative platform economy through the use of annotated portfolio techniques within a narrative framework. The next section presents a narrative framework for analysis of ethnographic data in a business model context.

A Narrative Framework for Ethnographic Data Analysis as a Design Process

Narratives are a form of discourse that can be a ‘form not only of representing but of constituting reality’ (Bruner, 1991: 5), more specifically in constituting social reality (Ricoeur, 1979). Building on the perspective that narratives can create a potential reality, Rosner (2018) highlights the potential of ‘fabulations’ as a form of narrative that blends the real and the imaginary, where the latter can be an imagined future. Narratives as a form of discourse can exist not only as text, but also as actions, images, mime or material objects (Hawkins & Saleem, 2012). Narratives can be ‘viewed as the cognitive framework that guides an individual in making sense of experiences’ (Hawkins & Saleem, 2012: 208), and can go beyond individual sense-making to ‘also frame policies for subsequent action and interpretation’ (Flory & Iglesias, 2010: 116–117). Narratives can thus both communicate and help create potential futures, which makes them a helpful tool in design. Narratives could thus be helpful in the design of business models in the collaborative economy through making sense of ethnographic data.

A narrative has the elements of plot (events in a chronological order) and theme (an overarching meaning), and takes place in a setting or context (Solouki, 2017). Narratives can exist not only on the individual level, but also on group and societal levels (Gabriel, 2004), including organizational narratives (Hawkins & Saleem, 2012), potentially including business models. Business models have been viewed as narratives by several authors; for example, Margetta (2002: 4) saw business models as ‘stories that explain how enterprises work. A good business model answers Peter Drucker’s age-old questions: Who is the customer? And what does the customer value?’, while Doganova & Eyquem-Renault (2009) framed the business model in terms of narrative devices that are co-created with stakeholders to enable a shared understanding. Going beyond

understanding, Araujo & Easton (2012: 316) claimed that a narrative 'begins to perform the world it narrates with every successful iteration'. Organisations can thus be viewed as narratives in a 'constant state of becoming' (Ropo & Höykinpuro, 2017: 358), and this perspective extends to business models, as 'a text that re-describes and re-constructs reality' (Perkmann & Spicer, 2010: 5). The performative, constructive aspect of business models expressed as narratives links with a design perspective, where the business model can be seen as an artefact embodying the wishes and desires of those who create it. Building on the work of Solouki and other authors, Larner (2019: 63) offers a useful definition of narratives that was developed in the context of business model design:

A narrative expresses and enacts the purposeful intent of human or other actors who have an agency and inner life. Narratives have a plot, that depicts particular incidents or events occurring in a causal sequence. A narrative expresses an initial point of view within a specific context or frame of reference, but then offers a new point of view. Narratives express a consistent meaning that can both reflect reality and create it. They can become institutionalized through enactment of narrative structures.

Ethnographic data can be analysed in a narrative frame (Burke, 1945), where the definition offered above can become a framework:

1. The narrative expresses and enacts the purposeful intent of human or other actors.
2. The narrative is enacted by human or other actors who have an agency and inner life.
3. The narrative depicts particular incidents or events.
4. The depicted incidents or events occur in a causal sequence.
5. The depicted incidents or events are set within an accepted context or frame of reference.
6. The depicted incidents or events express a specific point of view on the context or frame of reference.
7. The depicted incidents or events then offer a new point of view on this context or frame of reference.
8. The narrative expresses a consistent meaning that can both reflect reality and create it.
9. The narrative can become institutionalized as structures.

Metaphors, analogies and narratives 'often seem to play a similar role in qualitative research as quantitative models', and these

artefacts, re-presentations of, on the one hand empirical 'reality', and, on the other hand, theory, should then be considered as entities in their

own right, irreducible to and potentially more important to the research process than either of these two, yet playing a mediating role between them. (Alvesson & Skölderberg, 2009: 23)

This perspective implies that, in mediating between ethnographic data and developing theory, narratives can act as a model. In the research context of business models in the collaborative economy, a narrative derived from ethnographic data on workers can potentially act as one or more business models. However, a further stage of analysis will be needed to focus specifically on potential business models by eliciting latent designs from the data. Annotated portfolios, a technique used in human–computer interaction, offer the potential to enable ethnographic data on the experience of workers in the collaborative economy to inform new business model designs within a narrative framework. The next section introduces annotated portfolios as a design technique, then offers a narrative framework for designing business models.

Annotated Portfolios within a Narrative Framework as a Business Model Design Methodology

Annotated portfolios were originally developed in the context of classroom assessment (Yancey, 1992) as a narrative frame (Burke, 1945) that enabled students and teachers to collaborate more effectively and gain transformative insights. Beyond the classroom, annotated portfolios were first used in the context of mental health to evaluate the design of clinical treatment strategies (Lavori & Dawson, 1998). Annotated portfolios were then reintroduced in the context of human–computer interaction as a method that could bring together a number of artefacts and identify the aspects that were common among them through text annotations (Gaver, 2012; Bowers, 2012; Gaver & Bowers, 2012). Annotated portfolios can be seen as an example of intermediate-level knowledge (Löwgren, 2013), a level of abstraction between the ‘ultimate particular’ (Nelson & Stolterman, 2012) of each artefact and a more generalizable level of theory. The technique thus offers a way to build on the narrative framework offered in the previous section to focus more specifically on potential business models.

Annotated portfolios can contribute to producing knowledge of ‘what ought to be’ (Gaver & Bowers, 2012: 42), or a desired change in the future, rather than documenting what already exists. In this respect, annotated portfolios can contribute to design, by bridging the gap between research and design, where the ‘essence of research is to produce knowledge, and the essence of design is to produce artifacts’ (Löwgren, 2013: 30). Annotated portfolios are not limited to material artefacts: Bowers (2012: 71) highlights that any ‘material form can be considered for an annotated portfolio including an illustrated monograph, a scientific paper, a curated exhibition and so forth’, implying that ethnographic data can be annotated as a portfolio. The technique could thus be applicable to

the design of business models in the collaborative economy, where the artefacts are ethnographic data from online engagement with workers, annotated as a portfolio that can then reveal potential business model designs.

A starting point for annotation is the categories of choices that influence the design of an artefact offered by Gaver & Bowers (2012: 43):

- functionality
- aesthetics
- practicalities
- motivation for designing
- identities and capabilities of the people for whom it is intended
- culture.

In identifying business model design elements of an annotated portfolio, a helpful perspective is that a business model can be considered ‘as a material object, as a scale model of the new venture’ (Doganova & Eyquem-Renault, 2009: 1568). Taking this perspective, a business model design will need to contain all the components that would be found in the business itself. A business model is essentially about for whom the business creates value, what the business is competent at, the scope of the business, its position in the market, where it will find resources and how it gains revenue (Morris et al., 2005) in a particular context (Downing, 2005). In drawing up a business model, the entrepreneur needs to consider the activities the business will undertake, and how those activities will create additional value for customers that the business can capture as profit (Al-debei & Avison, 2010; Chesbrough, 2006; Amit & Zott, 2001).

The business model can be viewed as being created ‘through the performative practices (i.e. actions, constructions) of actors’ (Wieland et al., 2017: 926), where personal and investor factors are key (Morris et al., 2005). As the business develops, its business model defines its boundaries as a ‘focal actor’ (Zott & Amit, 2010), enabling the business to explore opportunities across organizational boundaries (Jensen, 2013). Shafer et al. (2005: 202) point out that a business model ‘helps articulate and make explicit key assumptions about cause-and-effect relationships and the internal consistency of strategic choices’, while the business model can also play ‘an important sense-making and sense-creating role for various stakeholders, despite their individual approaches and understandings of the term’ (Jensen, 2013: 62). As this sense-making process progresses, the business model can then create institutional norms and beliefs (Vargo & Lusch, 2016), which then become formalized into ‘the design of organizational structures to enact a commercial opportunity’ (George & Bock 2011: 99).

The components of a business model can thus be identified as:

- personal factors
- resources

- opportunities
- stakeholders
- value creation and capture
- strategy
- boundaries
- structure
- activities
- customers
- revenue and costs
- profit.

Business model design can also contribute to organizational design, where Stanford (2007: 5) offers the relevant parameters of:

- culture
- systems
- structure
- people
- performance measures and processes
- products and services
- operating context.

The elements of design choices, business model components and organizational design parameters can then be combined as business model design elements:

- activities
- aesthetics
- boundaries
- culture
- customers
- functionality
- identities and capabilities of the people for whom it is intended
- motivation for designing
- operating context
- opportunities
- performance measures and processes
- personal factors
- practicalities
- products and services
- profit
- resources
- revenue and costs
- stakeholders

- strategy
- structure
- systems
- value creation and capture.

The elements can then be set within the narrative framework to create a business model narrative framework as shown in Table 9.1.

The next section explores how the business model narrative framework can be used to create an annotated portfolio of potential business model designs from the ethnographic data. The ethnographic data can be gathered through engagement with existing online forums that workers use to share experience and knowledge, or new forums created by researchers.

Table 9.1: Business model narrative framework

Narrative framework element	Business model design elements
The narrative expresses and enacts the purposeful intent of human or other actors	Culture Motivation for designing
The narrative is enacted by human or other actors who have an agency and inner life	Aesthetics Identities and capabilities of the people for whom it is intended Personal factors
The narrative depicts particular incidents or events	Functionality Customers
The depicted incidents or events occur in a causal sequence	Revenues and costs Value creation and capture Profit
The depicted incidents or events are set within an accepted context or frame of reference	Resources Opportunities Operating context
The depicted incidents or events express a specific point of view on the context or frame of reference	Practicalities Stakeholders
The depicted incidents or events then offer a new point of view on this context or frame of reference	Activities Products and services
The narrative expresses a consistent meaning that can both reflect reality and create it	Strategy Performance measures and processes
The narrative can become institutionalized as structures	Systems Boundaries Structure

Using Annotated Portfolios within a Narrative Framework to Co-design Business Models in the Collaborative Economy

As well as sharing experience and knowledge through online forums, workers have created their own platforms in the collaborative economy. For example, ZicXoc Rides (2022) is an ‘app-based booking system, designed to connect drivers with riders directly, enabling drivers to run a truly independent business, while offering passengers a better service for better value’. This alternative platform offers rideshare drivers greater power in the platform economy to create their identity as an individual driver-led business rather than take on the identity of an existing platform. Such alternative platforms could thus help to overcome the network effects that enable existing platform firms such as Uber to become dominant in a specific domain, in this case transport. This and other alternative platforms suggest that there is potential to create niche worker-led business models in the collaborative platform economy.

Business models are in themselves a representation of how an organization strategically manages value creation and capture, and particularly in the collaborative economy are implemented as computing systems. The design process developed in this chapter can thus be a starting point for implementing new business models in the collaborative platform economy. The design process can take place in these steps:

1. Identify a domain in the collaborative economy where a dominant platform reduces worker power (such as in transport).
2. Identify existing forums or other mechanisms that workers use to exchange knowledge and experience about working for that platform.
3. If there is not an existing forum to share experience, researchers can create one and encourage workers to join.
4. With the consent of participants, both their experiences as collaborative economy workers and their hopes for the future can be collected as ethnographic data.
5. This data is then annotated as a portfolio of potential business model designs using the business model narrative framework in Table 9.1.
6. These business model designs can then be offered to workers through the forum for discussion and further development.
7. Researchers could also offer in-person workshops to enable other participatory design methods to be used.
8. When a feasible new business model has emerged from this co-design process, researchers can then collaborate with workers and with software designers to code a new platform to implement the model.

The design process outlined above can contribute to ethnographic fieldwork research practice through offering a data gathering and analysis framework

that focuses on how the experiences and hopes for the future of collaborative economy participants can be articulated as business models.

This chapter has developed an ethnographic design methodology that builds on critical design ethnography (Barab et al., 2004) to enable ethnographic data on workers in the collaborative platform economy to be a starting point for the design of new business models as an action research process. Action research aims to promote and document a change process (Checkland & Howell, 1998; Ellis & Kiely, 2000), linking with design research in its aim of bringing about a changed future (Foth & Axup, 2006; Dunne & Raby, 2013). In the collaborative platform economy, the potential changed future is one where worker-led business models can compete with existing dominant platforms through enabling collective action. An example of how this can happen is Ride Share Drivers United (2022), which started as a forum for ride share drivers on platforms such as Uber or Lyft to share experience and problems. Ride Share Drivers United then built on the experience of their members to establish its own ZicXoc Rides platform (2022) to provide a driver-led alternative business model. Another example is how drivers for Indonesia's Gojek ride sharing platform are using existing motorcycle base camps share experience and to take collective action, both in hacking the platform and influencing its development (Hao & Freischlad, 2022).

The ethnographic design methodology proposed in this chapter can enable ethnographic researchers to facilitate an action research / design process with collaborative economy workers. By eliciting new business models from analysis of ethnographic data on their experiences and wishes, researchers can then review potential new business model designs with workers in a process of performative practice (Wieland et al., 2017) to establish new platform business models.

As presented here, the methodology has the limitation of trying to derive new business models from ethnographic data on the problems workers have with existing collaborative platforms. Researchers will need to find ways of encouraging participants not only to focus on their present problems, but to consider creatively what their future in the collaborative platform economy could look like. Building on the methodology presented in this chapter to design potential futures through ethnography in the collaborative economy could be an area for future study.

Conclusion

This chapter first introduced the issue of worker power in the collaborative platform economy, where network effects have resulted in a tendency towards one dominant platform in each domain. These network effects reduce worker power in relation to platform firms, as they then cannot bargain with the firm by withdrawing their labour. Platform workers in the collaborative economy are using online forums to share issues that they experience, a form of collaboration that enables them to gain some collective power. A further development in

gaining collective power is where workers have created alternative worker-led business models such as platform cooperatives that enable them to gain greater power in niche markets. However, most workers in the collaborative economy continue to gain their employment through dominant platform firms.

There is thus potential for researchers to create new business models through engagement with workers on existing platforms in the collaborative economy. An ethnographic methodology can enable researchers to use online forums or a collaborative platform to engage with these workers to not only find out about their existing situation but also discover their wishes and desires for the future. Design is about bringing about a desired future, implying a design methodology. This chapter proposes a design methodology for designing new business models in the collaborative economy, where annotated portfolio techniques and a business model narrative framework can enable researchers to articulate latent business model designs in ethnographic data. This articulation can then be a starting point for a business model co-design process with workers that builds on their particular expertise or geographical knowledge in challenging dominant platforms in niche areas of the collaborative economy.

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References

- Al-Debei, M.M. and Avison, D.** 2010. 'Developing a unified framework of the business model concept.' *European Journal of Information Systems* 19(3): 359–376.
- Alvesson, M. and Sköldbberg, K.** 2009 *Reflexive Methodology (Second Edition)*. London: SAGE.
- Amit, R. and Zott, C.** 2001. 'Value creation in e-business.' *Strategic Management Journal* 22(6–7): 493–520.
- Araujo, L. and Easton, G.** 2012 'Temporality in business networks: The role of narratives and management technologies.' *Industrial Marketing Management* 41(2): 312–318.
- Baldwin, C.Y. and Woodard, C.J.** 2009 'The architecture of platforms: A unified view.' *Platforms, Markets and Innovation*: 19–44. Cheltenham: Edward Elgar.

- Barab, S.A., Thomas, M.K., Dodge, T., Squire, K. and Newell, M.** 2004 'Critical design ethnography: Designing for change.' *Anthropology & Education Quarterly* 35(2): 254–268.
- Bardzell, J. and Bardzell, S.** 2013. 'What is 'critical' about critical design?.' In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, pp. 3297–3306.
- Bellman, R., Clark, C.E. Malcolm, D.G., Craft, C.J. and Ricciardi, F.M.** 1957 'On the construction of a multi-stage, multi-person business game.' *Operations Research* 5(4): 469–503.
- Bonaccorsi, A. and Rossi, C.** 2003 'Why open source software can succeed.' *Research Policy* 32(7): 1243–1258.
- Bowen, S.J.** 2007 'Crazy ideas or creative probes?: Presenting critical artefacts to stakeholders to develop innovative product ideas.' In *Proceedings of EAD07: Dancing with Disorder: Design, Discourse and Disaster*.
- Bowers, J.** 2012 'The logic of annotated portfolios: communicating the value of research through design.' In *Proceedings of the Designing Interactive Systems Conference*, pp. 68–77.
- Bradley, G.** 2014 'Social informatics and ethics: towards the good information and communication society.' *Critique, Social Media and the Information Society*, pp. 91–107.
- Bruner, J.** 1991 'The narrative construction of reality.' *Critical Inquiry* 18(1): 1–21.
- Burke, K.** 1945 *A Grammar of Motives*. (1945). New York: Prentice-Hall.
- Cassell, C. and Johnson, P.** 2006 'Action research: Explaining the diversity.' *Human Relations* 59(6): 783–814.
- Checkland, P. and Howell, S.** 1998 'Action Research: Its Nature and Validity.' *Systemic Practice and Action Research* 11(1): 9–21.
- Chesbrough, H.W.** 2006 *Open innovation: The new imperative for creating and profiting from technology*. Boston: Harvard Business Press.
- DaSilva, C.M. and Trkman, P.** 2014 'Business model: What it is and what it is not.' *Long Range Planning* 47(6): 379–389.
- Doganova, L. and Eyquem-Renault, M.** 2009 'What do business models do?: Innovation devices in technology entrepreneurship.' *Research Policy* 38(10): 1559–1570.
- Downing, S.** 2005 'The social construction of entrepreneurship: Narrative and dramatic processes in the coproduction of organizations and identities.' *Entrepreneurship Theory and Practice* 29(2): 185–204.
- Dunne, A. and Raby, F.** 2001 *Design Noir: The Secret Life of Electronic Objects*. (2001). Princeton Architectural Press.
- Dunne, A. and Raby, F.** 2013 *Speculative Everything: Design, Fiction, and Social Dreaming*. London: MIT Press.
- Ellis, J.H.M. and Kiely, J.A.** 2000 'Action inquiry strategies: taking stock and moving forward.' *Journal of Applied Management Studies* 9(1): 83–94.

- Fabo, B., Karanovic, J. and Dukova, K.** 2017 'In search of an adequate European policy response to the platform economy.' *Transfer: European Review of Labour and Research* 23(2): 163–175.
- Flory, M. and Iglesias, O.** 2010 'Once upon a time: The role of rhetoric and narratives in management research and practice.' *Journal of Organizational Change Management* 23(2): 113–119.
- Foth, M. and Axup, J.** 2006 'Participatory design and action research: Identical twins or synergetic pair?.' In *Expanding Boundaries in Design: Proceedings Ninth Participatory Design Conference (Vol 2)*, pp. 93–96.
- Frankfurt Paper.** 2016 *Frankfurt Paper on Platform-Based Work*. Retrieved 28 April 2022, from https://www.igmetall.de/download/docs_20161214_Frankfurt_Paper_on_Platform_Based_Work_EN_b939ef89f7e5f3a639cd6a1a930feffd8f55cecb.pdf
- Fuchs, C.** 2014 'Critique of the Political Economy of Informational Capitalism and Social Media.' *Critique, Social Media and the Information Society*, pp. 51–65.
- Gabriel, Y.** 2004 'The narrative veil: Truth and untruths in storytelling.' *Myths, Stories and Organizations: Premodern narratives for our times*, pp. 17–31.
- Gaver, W.** 2012 'What should we expect from research through design?.' In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, pp. 937–946.
- Gaver, B. and Bowers, J.** 2012 'Annotated Portfolios.' *Interactions* 19(4): 40–49.
- George, G. and Bock, A.J.** 2011 'The Business Model in Practice and its Implications for Entrepreneurship Research.' *Entrepreneurship Theory and Practice* 35(1): 83–111.
- De Groen, W., Maselli, I. and Fabo, B.** 2016 'The Digital Market for Local Services: A one-night stand for workers? An example from the on-demand economy.' *CEPS Special Report 133*. Retrieved 28 April 2022, from <https://www.ceps.eu/publications/digital-market-local-services-one-night-stand-workers-example-demand-economy>
- Guba, E.G. and Lincoln, Y.S.** 1994 'Competing Paradigms in Qualitative Research.' *Handbook of Qualitative Research*, pp. 105–111. Thousand Oaks: Sage.
- Hao, K. and Freischlad, N.** 2022 'The gig workers fighting back against the algorithms' MIT Technology Review. Retrieved 24 April 2022 from <https://www.technologyreview.com/2022/04/21/1050381/the-gig-workers-fighting-back-against-the-algorithms/>
- Hawkins, M.A. and Saleem, F.Z.** 2012 'The omnipresent personal narrative: story formulation and the interplay among narratives.' *Journal of Organizational Change Management* 25(2): 204–219.
- Howe, J.** 2006 'The rise of crowdsourcing.' *Wired Magazine* 14, no. 6.
- Irani, L.C. and Six Silberman, M.** 2013 'Turkopticon: Interrupting Worker Invisibility in Amazon Mechanical Turk.' In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, pp. 611–620.

- Jensen, A.B. 2013 'Do we need one business model definition?' *Journal of Business Models* 1(1): 61–84.
- Kenney, M. and Zysman, J. 2016 'The Rise of the Platform Economy.' *Issues in Science and Technology* 32(3): 61–69.
- Kingsley, S.C., Gray, M.L. and Suri, S. 2019 'Accounting for Market Frictions and Power Asymmetries in Online Labor Markets.' *Policy & Internet* 7(4): 383–400.
- Larner, J. 2019 *The Entrepreneur as System Architect: Designing narrative forms of open source business model*. PhD thesis, Lancaster University.
- Lavori, P.W. and Dawson, D. 1998 'Developing and Comparing Treatment Strategies: An Annotated Portfolio of Designs.' *Psychopharmacology Bulletin* 34(1): 13–18.
- Lee, M.K., Kusbit, D., Metsky, E. and Dabbish, L. 2015 'Working with machines: The impact of algorithmic and data-driven management on human workers.' In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, pp. 1603–1612.
- Löwgren, J. 2013 'Annotated portfolios and other forms of intermediate-level knowledge.' *Interactions* 20(1): 30–34.
- Magretta, J. 2002 'Why Business Models Matter.' *Harvard Business Review* May 2002: 86–92.
- Morris, M.H., Schindehutte, M., Walton, J. and Allen, J. 2002 'The Ethical Context of Entrepreneurship: Proposing and Testing a Developmental Framework.' *Journal of Business Ethics* 40(4): 331–361.
- Nelson, H.G. and Stolterman, E. 2014 *The Design Way*. London: MIT Press.
- OECD. *OECD Employment Outlook 2017*. 2017 Paris: Organisation for Economic Co-operation and Development.
- Osterwalder, A. and Pigneur, Y. 2010 *Business Model Generation*. Hoboken: John Wiley & Sons.
- Perkmann, M. and Spicer, A. 2010 What are business models? Developing a theory of performative representations. *Research in the Sociology of Organization* 29: 265–275.
- Pignot, E. 2021 'Who is pulling the strings in the platform economy? Accounting for the dark and unexpected sides of algorithmic control.' *Organization* 28(1): 208–235.
- Ricoeur, P. 1979 'The function of fiction in shaping reality.' *Man and World* 12(2): 123–141.
- Ride Share Drivers United. 2022 *Mission Statement*. Retrieved 28 April 2022 from <https://ridesharedriversunited.com/mission-statement>.
- Ropo, A. and Höykinpuro, R. 2017 'Narrating organizational spaces.' *Journal of Organizational Change Management* 30(3): 357–366.
- Rosner, D.K. 2018 *Critical Fabulations: Reworking the Methods and Margins of Design*. London: MIT Press.
- Scholz, T. 2016 *Platform cooperativism: Challenging the corporate sharing economy*. New York: Rosa Luxemburg Foundation.

- Shafer, S.M., Smith, J.H. and Linder, J.C.** 2005 'The power of business models.' *Business Horizons* 48(3): 199–207.
- Silverman, D.** 2007 *A Very Short, Fairly Interesting and Reasonably Cheap Book about Qualitative Research*. London: Sage.
- Simon, H.A.** 1969 *The Sciences of the Artificial*. Cambridge, MA: MIT Press.
- Solouki, Z.** 2017 'The road not taken: narratives of action and organizational change.' *Journal of Organizational Change Management* 30(3): 334–343.
- Stanford, N.** 2007 *Guide to Organisation Design: Creating High-performing and Adaptable Enterprises*. London: Profile Books.
- Stokes, K., Clarence, E Anderson, L., and Rinne, A.** 2014 *Making Sense of the UK Collaborative Economy*. London: Nesta.
- Taylor, M., Marsh, G., Nicol, D. and Broadbent, P.** 2017 *Good work: The Taylor review of modern working practices*. London: Department for Business, Energy & Industrial Strategy.
- Teece, D.J.** 2010 'Business Models, Business Strategy and Innovation.' *Long Range Planning* 43(2–3): 172–194.
- Turkopticon.** 2022 *About*. Retrieved 28 April 2022 from <https://turkopticon.net/>
- Vandaele, K.** 2018 *Will trade unions survive in the platform economy*. Emerging patterns of platform workers' collective voice and representation in Europe Working Paper 2018.05. Brussels: European Trade Union Institute.
- Vargo, S.L. and Lusch, R.F.** 2016 'Institutions and axioms: an extension and update of service-dominant logic.' *Journal of the Academy of Marketing Science* 44(1): 15–23.
- Wieland, H., Hartmann, N.N. and Vargo, S.L.** 2017 'Business models as service strategy.' *Journal of the Academy of Marketing Science* 45(6): 925–943.
- Woodcock, J. and Graham, M.** 2020 *The Gig Economy: A Critical Introduction*. London: Polity Press.
- Yancey, K.B.** 1992 *Portfolios in the Writing Classroom: An Introduction*. Urbana, IL: National Council of Teachers of English.
- ZicXoc Rides.** 2022 *Welcome driver!* Retrieved 28 April 2022 from <https://zicxoc.com/portal>
- Zimmerman, J. and Forlizzi, J.** 2008 'The role of design artifacts in design theory construction.' *Artifact: Journal of Design Practice* 2(1): 41–45.
- Zott, C. and Amit, R.** 2010 'Business model design: An activity system perspective.' *Long Range Planning* 43(2–3): 216–226.
- Zott, C., Amit, R. and Massa, L.** 2011 'The Business Model: Recent Developments and Future Research.' *Journal of Management* 37(4): 1019–1042.