
Governing the Commons of Platform Labor Data Assets

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Abstract

As the platform-mediated digital economy expands, so does the invisible and distributed labor force behind it. But the workers in this economy have few legal or economic protections to advocate for their rights. Part of the difficulty in creating labor protections in the platform-mediated digital economy is that information pertinent to building court cases or reliable employment statistics is inaccessible by design. These data assets should be made available to workers so they have equal power as the platform operators in deciding their working conditions. While tensions between labor and capital are not new, I argue that these data assets are an example of a commons that should be jointly and democratically governed.

Author Keywords

Digital economy; dual value production; data assets; data commons; governance of commons

Introduction

The platform-mediated digital economy facilitate dual value production, resulting in the creation of data assets that are extremely valuable to platforms and workers. The platform-mediated digital economy's value and growth are continually increasing: the World Bank predicts that by 2020 it will be a \$25 billion-a-year industry [3]. While tensions between labor and capital are not new, these data assets have prop-

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erties that lend themselves to being treated as common, rather than private, goods. Commons do not always end in tragedies and can be sustained through governance strategies prioritizing accountability and participation.

Dual Value Production and Data Assets

Companies in the platform-mediated digital economy, like Uber, Lyft, Doordash, and Amazon Mechanical Turk, extract rent from the transactions between customers and workers. However these platforms also extract a far more valuable asset from these transactions: data about the preferences, contexts, and behaviors of both customers and workers. This production of data assets can be characterized as “dual value production: the monetary value produced by the service provided is augmented by the use and speculative value of that data produced before, during, and after service provision” [13].

Data Asset Generation and Use

Workers in the platform-mediated digital economy create “dual value production”, generating an immense volume of data assets about their work patterns. However, this data is not shared by platforms with workers or customers for a variety of reasons like privacy, computational complexity, and competitive advantage [13]. These data assets include rich information about worker behaviors, such as if and when they log on or accept a request, the locations they operate in, the speed with which they complete tasks, and images of their environment [2]. These data assets assist platforms in creating dynamic maps of the workflows of their highly distributed infrastructure, giving platform designers an omniscient view [8] In essence these platforms “enact their programmability to decentralize data production and re-centralize data collection”, echoing the techniques used by industrialists following the Taylorist practices of decentralization, delegation, and centralized oversight [5, 8].

The Value of Data Assets for Firms

For platforms, the value of this data is twofold: they are able to feed worker-generated data into their software infrastructures to improve their AI systems and they are able to reducing the value of workers’ expertise through algorithmic approximation and communication. Data assets generated by laborers are “central to the infrastructure of AI is the labor of dispersed and atomized workers in global supply chains who create, gather, pick, clean, label, and/or otherwise process the data that informs and shapes AI systems.” [2]. This reliance plays into how platform companies portray themselves as technology companies, thereby increasing their valuation as investors expect these companies to be able to leverage their data assets to move towards a full automated infrastructure by making human labor fungible and cutting these costs, essentially by “convert[ing] data into money” [12]. From a managerial perspective, granular data generated by workers through the platform economy is key to creation of a centralized management system that allows for an omniscient view of a widely-distributed labor infrastructure and easily-implemented experimentation with new workflows [7]. In essence, workers produce value both in the form of the tasks completed but also in the form of metadata encapsulating the process of that task completion that is fed back to platforms to improve both their software infrastructure and their algorithmic management systems.

The Value of Data Assets for Workers

Workers are not privy to most of the data assets that they generate, and what assets they can access are typically formatted to make it infeasible to derive meaningful insights [13]. This is an example of a common information asymmetry between corporations and laborers: one of the key assets in negotiations is data regarding worker activity [2, 8, 13]. Given that the management techniques of

platform-mediated digital economy corporations closely mirror those of the Taylorist scientific management techniques employed by manufacturers during the 1940s-1960s, Vera Khovanskaya et. al have argued that union negotiation techniques that were successful in advocating for workers' rights in the past may be useful for the current situation. Through data transparency, wage contestation, and strategic participation unions during that time period were able to successfully negotiate stronger laborer protections to counteract the scientific management techniques at play [8].

Governing the Commons of Labor Data Assets

Defining common-pool resources

Collective action problems are among the most pervasive challenges in social behavior but can be overcome with appropriate incentives for cooperation and coordination [9]. Economists differentiate goods into four classes based on two dimensions: excludability and rivalrousness. Excludability is the ability to prevent consumption of a good or service while rivalrousness is the extent to which the consumption of a good or service reduces the amount of consumption for others [11]. Common-pool resources like forests and fisheries exist within the non-excludable but rivalrous quadrant where it is difficult to prevent people from using resources but overuse can lead to depletion of the resource, what is commonly known as the "tragedy of the commons" [4]. However, commons do not necessarily end in tragedy and Elinor Ostrom's work emphasizes how accountability, participation, and conflict resolution can create sustainable common-pool resources [10].

Data Assets as Enclosed Common-Pool Resources

Conventional wisdom treats many digital goods and services as public goods like radio or air that are both non-excludable and non-rivalrous. However, this framing obscures the very real materialities and complexities for de-

veloping and sustaining information infrastructures: development, maintenance, delivery, and management are examples of marginal costs. Accounting for these rivalrous features shifts many types of digital and information goods away from public and into common-pool goods requiring different kinds of governance and oversight.

But the data assets generated by customers and workers within the platform-mediated digital economy are currently treated by firms as private goods. This is really an example of *enclosure* where common-pool resources are converted into private goods through the erection of exclusionary property rights [1]. As described above, both firms and workers can benefit from the value of the data assets generated in platform-mediated digital economy but the logics of enclosing and excluding workers from accessing and using them enables the accumulation of value for entrepreneurs and investors rather than workers. What precedents from social and economic history exist for converting enclosed goods back to common-pool resources? Or developing common-pool counterpowers that can out-compete enclosed goods?

The Role of Civic Technology

A key difference between labor organizing during the 1940s-1960s and today is that platform-mediated gig economy workers are not protected by the same labor laws and allowed to unionize due to their worker classification. This exclusion of workers from legal protections and privileges in addition to the atomized nature of this work force makes communication, information sharing, and collective action extremely difficult. However, marginal success has been achieved in gathering data from platforms through subject access requests (SARs) which have been used to support legal arguments for fair wages and workers rights in lawsuits both in the EU and in New York City [6, 13].

The emergence of civic technology platforms such as the Worker Information Exchange (WIEx) utilizes a technique similar to the wage surveys used by unions in the 1940s-1960s. By encouraging workers to submit SARs for their data and then giving workers access to this data in an aggregated form. Platforms like WIEx facilitate data transparency by creating a data commons, but there is still work to be done in regards to the type of data gathered, the ownership and management of this data, and the governance of this data. As workers in the platform economy are not legally allowed to unionize, a data commons would provide a digital platform for both restoring agency over data assets to workers and facilitating collective action to address the power asymmetry between workers and platforms.

Conclusion

Civic technology can play a role in addressing the trust and privacy concerns of platforms who are reluctant to disclose data assets, citing privacy concerns and proprietary information. In addition civic technology can provide the infrastructure for a data commons where aggregation, analysis, summarization, and distribution can be implemented to provide information pertinent to addressing power asymmetries in the platform-mediated digital economy. I urge civic technologists to incorporate Ostrom's eight guiding principles of governing the commons into their development and construction of civic technology to create and govern this data commons [10]. Ostrom's framework outlines the requirements for governance of a complex system, incorporating the importance of context dependent infrastructure, nesting of governance structures, institutional variety of stakeholders, amongst others relevant to the successful maintenance of a data commons in a distributed global context [10].

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