



JEREMIAS PRASSL

HUMANS



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**The Promise and Perils
of Work in the Gig Economy**

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WORK IN THE GIG ECONOMY

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OXFORD
UNIVERSITY PRESS

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Great Clarendon Street, Oxford, OX2 6DP,
United Kingdom

Oxford University Press is a department of the University of Oxford.
It furthers the University's objective of excellence in research, scholarship,
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First Edition published in 2018

Impression: 1

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Published in the United States of America by Oxford University Press
198 Madison Avenue, New York, NY 10016, United States of America

British Library Cataloguing in Publication Data
Data available

Library of Congress Control Number: 2017957869

ISBN 978-0-19-879701-2

Printed and bound by
CPI Group (UK) Ltd, Croydon, CRO 4YY

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Introduction

In the spring of 1770, a sensation was presented to the court of Maria Theresa in Vienna: nothing less than the world's first fully automated chess robot—the Mechanical Turk. Automata, or mechanical simulations, were a technical obsession of the time. This machine, however, was in a different league. Once activated, the Turk would recognize its opponents' strategy, pick up chess pieces, and make its own moves—surprisingly good ones, at that. Over the years, the Mechanical Turk mesmerized international audiences. It played Napoleon Bonaparte—and caught him cheating. Despite many attempts to reveal its secrets (even Edgar Allen Poe had a go), however, the technology enabling the Turk's magic prowess remained a mystery until shortly before its destruction in a nineteenth-century blaze.

Given that it would take another century-and-a-half until IBM's Deep Blue took on and defeated world chess champion Garry Kasparov in the 1990s, just how had Austrian engineer Wolfgang von Kempelen managed to create a chess robot in the eighteenth century? Well, as so often in life, if something sounds too good to be true, it probably is: crouching in a hidden compartment inside the Turk's chessboard was a human player, moving pieces around the board above. During pre-game presentations, the operator was quite literally hidden behind modern technology, moving around between whirring wheels, shiny dials, and complicated machinery as each side panel was opened in turn.¹

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Over two centuries later, Amazon CEO Jeff Bezos took to the stage at the Massachusetts Institute of Technology (MIT) to set out his vision for Amazon's future. He hadn't come to talk about selling books, groceries, or even drones; rather, the plan was to rent out 'Amazon's guts' and become the world's leading provider of 'web services'. Software developers requiring processing

power and data storage would no longer need to buy expensive hardware to meet their needs; they could tap into Amazon's servers instead and pay a fractional price for the services required.

Amazon's mighty servers, however, weren't the only new product on offer that morning. Jeff Bezos revealed that the company's algorithms were still struggling with some fairly basic tasks—from working out how to categorize photographs to determining which products on its website had double listings. Amazon's solution? To develop an internal platform that outsourced these tasks to humans. Users around the world would log on, review the images, and help Amazon's algorithms to do their job.

There seemed to be no limit to what could be outsourced in this way, from transcribing podcasts to small programming jobs. The platform would create a new kind of 'microwork', whereby a 'crowd' of individuals could complete discrete tasks in minutes—and be paid pennies for it. The platform's name? Amazon Mechanical Turk (MTurk).

Welcome to the Gig Economy

Over the course of the past decade, Amazon's MTurk has been joined by a large number of competitors, both online and in the real world. An ever-growing number of start-ups are setting up online platforms and mobile 'apps' to connect consumers, businesses, and workers—often for jobs lasting no longer than a few minutes. What started out as a small niche for digital 'crowdwork' has grown into a global phenomenon. Some of the major players have quickly become household names—think 'ride-sharing' companies Uber, Lyft, Didi, and Ola, delivery apps Deliveroo and Foodora, or casual task platforms Helping and TaskRabbit.

New platforms are cropping up in industries from transportation to domestic care, from professional services to manual labour. They are at the vanguard of what is often called the 'gig economy', evoking the artist's life in which each concert, or 'gig', is but a one-off task or transaction, without further commitments on either side.²

The rise of these companies has been meteoric—and is surrounded by intense public debate. Contradictions abound. To some, the 'Uber economy' is merely the latest instantiation of 'runaway capitalism . . . screwing' the workers;³ to others, 'collaborative consumption' is key to a fundamental improvement in our working lives.⁴ Journalists, regulators, and academics have quickly

become interested in the gig economy. Most agree that we are witnessing a revolution—whilst bitterly contesting its nature. On the one hand, there are those who enthusiastically promote the gig economy as nothing less than a fundamental reinvention of labour markets, weaving ‘a fascinating tapestry of innovation, one that provides an early glimpse of what capitalist societies might evolve into over the coming decades’⁵—a story of platforms facilitating ‘the exchange of goods, services, or social currency, thereby enabling value creation for all participants’.⁶

Vociferous critics, on the other hand, castigate gig platforms for extending ‘a harsh and deregulated free market into previously protected areas of our lives’,⁷ thus:

forging an economic system in which those with money will be able to use faceless, anonymous interactions via brokerage websites and mobile apps to hire those without money by forcing an online bidding war to see who will charge the least for their labor.⁸

Humans as a Service

Back in 2006, Jeff Bezos had no such qualms. The CEO of one of the world’s largest tech companies was excited by MTurk’s business promise. In addition to books, groceries, and gadgets, Amazon would henceforth sell *work*:

You’ve heard of software as a service—
—Well, this is basically humans as a service.⁹

Humans have always provided services to their employers and customers, of course. As workers, however, they enjoy significant legal and economic protection in return, from minimum wage and unfair dismissal laws, to social security and pensions. Therein lies the attraction of ‘humans as a service’: like information technology (IT) infrastructure, large workforces are expensive to build and maintain. Servers need to be powered and cooled; workers need to be trained and paid wages—irrespective of peaks and troughs in consumer demand.

Once work itself becomes the service or commodity, however, such responsibilities can be avoided, lowering prices for consumers and increasing

employers' profits. Lukas Biewald, CEO of MTurk's competitor platform CrowdFlower, makes the business case:

Before the Internet, it would be really difficult to find someone, sit them down for ten minutes and get them to work for you, and then fire them after those ten minutes. But with technology, you can actually find them, pay them a tiny amount of money, and then get rid of them when you don't need them anymore.¹⁰

Sounds good—until you put yourselves in the shoes of the worker whose labour has become a service, to be bought and traded like any other commodity. Employers can dip into the crowd to meet their constantly changing staffing needs; workers are left without security or protection.

Rebranding Work

How did we get here? Legal systems across the world have long attempted to protect workers against such extreme forms of commodification. Nearly a century ago, when the United Nations' International Labour Organization (ILO) was founded, the High Contracting Parties agreed upon a series of guiding principles 'of special and urgent importance'. First amongst them? The idea that 'labour should not be regarded merely as a commodity or article of commerce'.¹¹

In return for the economic benefits of control over their workforce, employment regulation imposes upon employers a number of protective obligations. It's a crucial trade-off: workers have to follow their employers' orders, and enjoy a basic level of stability and economic security in return. Genuinely independent service providers enjoy no such legal protection—but they are free to choose their customers, to set their prices, and to negotiate over terms and conditions. Work, in short, is legally protected; entrepreneurship is not.

Why, then, is it no longer 'really difficult' to get someone to work for you and then 'get rid of them when you don't need them anymore'? How can the gig economy sell *humans as a service* and ignore traditional employment law protection? Because, not unlike a modern-day Mechanical Turk, many platforms are ultimately designed to obscure the reality behind their business model. Carefully worded terms and conditions characterize platforms as matchmakers and workers as independent entrepreneurs, beyond the reach of legal regulation. Work is rebranded as entrepreneurship, and labour sold as a technology.

The Platform Paradox

According to most platforms' terms and conditions, their business model is to operate powerful software applications (apps) designed to match consumers who need a task done with entrepreneurs in search of their next 'gig'. The underlying quest is to remove as much 'friction' as possible from each interaction. Beautifully designed apps with clever functionalities offer swift introductions, and make the gig economy fun and easy to use for both parties: drivers and passengers can see each other on their phones before a trip has begun; if you need help assembling new furniture, an algorithm will swiftly find the best—or cheapest—available handyman in the vicinity.

Upon closer inspection, however, it quickly emerges that many platforms offer much more than mere matchmaking services: they are in the business of *digital work intermediation*. To deliver tightly curated products and services to customers, gig-economy operators actively shape the entire transaction by means of close control over their workforce: from setting terms and conditions and checking relevant qualifications, to ensuring proper performance and payment. Gig-economy apps do not only make it quick and easy to find workers and tasks; user ratings also provide quality control and feedback, and digital payment systems render the entire transaction cashless.

This is the 'platform paradox': gig-economy operators present themselves as marketplaces, even though, in reality, they often act like traditional employers. Instead of passive matchmaking, platforms rely on rating systems and algorithmic control to ensure that each aspect of the worker's task is completed in compliance with company policy and customer instructions.

Labour as a Technology

Technology is at the heart of this new and rapidly growing industry. The Internet facilitates communication at lightning speed—regardless of whether users are in the same neighbourhood or at different ends of the globe. Algorithms can crunch vast numbers of transactions in seconds, taking into account a near-unlimited number of relevant variables. Smartphones and tablets have put powerful processors in the palms and pockets of consumers and workers; GPS satellites accurately calculate their location and mobile payment mechanisms have made cash obsolete.

Technology, however, doesn't just enable gig-economy transactions; it also shapes our perceptions of what's going on behind the scenes. When we tap along through a well-designed app to pick a meal or watch a small car symbol inch closer on a map, it's easy for the lines between algorithms and

humans to become blurred: both appear inextricably involved in getting the job done. Professor Lilly Irani of University of California San Diego was amongst the first to highlight how the gig economy's emphasis on technology leads us to perceive 'people as computational infrastructure . . . In this world . . . some become creators while others become computers.'¹²

Gig-economy platforms, in other words, make labour less visible, even where an element of physical interaction remains. In a world of *humans as a service*, Irani argues, workers are 'kept at a distance and organized for innovators' pleasures'.¹³ As a result, 'stories of uneven rights, compensation and safety are not aberrations, but rather constitutive of the roles and ideologies of high-technology work'.¹⁴

Invisible though it might be, labour is central to the gig economy: without access to large pools of on-demand workers, it would be impossible for platforms and apps to deliver any of the gigs, tasks, and rides they offer. Jeff Bezos admitted as much when he spoke of using crowdworkers to deliver 'artificial artificial intelligence'—and brazenly named Amazon's new platform after the infamous eighteenth-century chess hoax.

Making the Gig Economy Work

Whilst its fraud has long been discovered, the Turk can still teach us an important lesson today: in thinking about the gig economy, it's crucial that we look beyond platforms' contractual terms and powerful technology. We will discover fascinating digital innovations and genuine entrepreneurship opportunities—but we must not let that mislead us into a world of technological exceptionalism. The gig economy's product, first and foremost, is work. Always remember the little chess player hidden away in his box. Beneath the shiny surface of our phones, tablets, and computers, behind the frictionless apps that allow us to order all kinds of products and services, someone, somewhere, is doing work.

The gig economy's hidden workers are the central focus of this book. If we are to understand the industry's implications for the world of work, however, we need to look further, and discover its promise for workers, consumers, and society at large—as well as the perils of insecure, low-paid work. The ultimate goal? Making the gig economy work for everyone: a sustainable business model in which we all get to enjoy the benefits of platform innovation—without reducing humans to a service.

It is crucial to note that nothing in this analysis suggests that we should shut platforms down. The gig economy has great potential: improved matching efficiency and its associated algorithms can add value to our economy, create job opportunities, and allow all of us to enjoy access to better products and services. For the industry to operate to everyone's benefit, however, we need to ensure that platforms can no longer arbitrage around existing rules and have to bear the full cost of their business model: employment law is the key to equal and equitable conditions for all.

As Jeff Howe, the journalist who coined the very language of 'crowdsourcing', notes in the introduction to his enthusiastic book on 'the power of the crowd [to drive] the future of business', companies who 'view the crowd as a cheap labor force are doomed to fail'.¹⁵ The promise of the gig economy is great—but we need to make sure it lives up to its full potential, for everyone. Humans must never become a service; platforms should.

Platforms as a Service

To this end, the book is loosely structured into three parts. We will, first, explore the reality of life and work in the gig economy, before attempting to chart solutions to the problems identified. Finally, we will take a step back to think about the broader implications of the gig economy for consumers, taxpayers, and markets at large.

Exploring the Gig Economy

The thorniest of these tasks comes first—and will take up most of the first four chapters. Chapter 1 sets the scene, looking at 'Work on Demand' in the gig economy and illustrating platform's role in digital work intermediation through several archetypical examples. The phenomenon might still form no more than a small part of labour markets—but it's no flash in the pan, given its rapid expansion into new tasks and industries. Looking at the economics of the gig economy, we discover competing drivers of value creation—only some of which (notably, increased efficiency in matching labour supply and demand) should be encouraged.

We then turn to linguistic matters, exploring how, despite their focus on commercial labour intermediation, platforms were originally cast in a different light, operating under the mantle of a 'sharing economy'. Superficial

as this may seem, language matters. This is the central theme of Chapter 2, ‘Doublespeak’.

Discussions of the gig economy to date have been characterized by a clash of narratives—‘simple stories [that] distort multifaceted realities’, in the words of Frank Pasquale:¹⁶ platforms either promise to revolutionize the future of work to the benefit of all or represent a return to medieval feudalism. Each of these narratives is important in its own right—but, as we quickly discover, much more is at stake. With regulators around the world trying to work out how the gig economy should fit into existing legal structures, narratives play a powerful role in shaping regulation. At its crudest, this means that proponents portray the gig economy as a radically new and ‘disruptive’ industry, which governments would do well to leave alone. Opponents suggest that platforms’ inherently exploitative practices should be banned altogether. Neither suggestion will detain us for long.

Matters become more interesting once we turn to the gig economy’s two central claims in refuting traditional employment laws: entrepreneurship and innovation. There is plenty of evidence for elements of both when platforms’ innovative use of technology and matching algorithms enable workers to embark on entrepreneurial careers. But the narrative does not hold true for *all* gig workers: given the vast heterogeneity of work, the reality is inevitably more complex.

Chapter 3, ‘Lost in the Crowd’, explores the entrepreneurship narrative, juxtaposing platforms’ promises of autonomy, freedom, and self-determination with the sobering reality of algorithmic control. Gig work suggests flexibility, yet the business model often requires a tightly curated service. Life as a ‘micro-entrepreneur’, it turns out, is heavily conditioned by ever-watchful rating algorithms, which aggregate customer feedback and compliance with platform guidelines to exercise close (albeit often indirect) control. Failure to comply can have drastic results—up to, and including, sudden, unexplained ‘deactivation’.

In many instances, algorithms will also assign work—and determine rates of pay. Depending on consumer demand, this means that the promised flexibility of on-demand work can quickly turn into economic insecurity, as gig income is highly unpredictable from week to week. The promise of freedom similarly rings hollow for many—not least because of carefully constructed contractual agreements, which ban some gig workers from taking platforms to court. Instead of enjoying the spoils of successful entrepreneurship, a significant

proportion of on-demand workers find themselves trapped in precarious, low-paid work.

The innovation narrative is similarly multifaceted, as we discover in Chapter 4. There is much that is innovative about the gig economy's reliance on modern technology—but in so far as work is concerned, the business model is ancient. This is the 'Innovation Paradox'. Many platforms' business models are built around large workforces competing over relatively low-skilled tasks, controlled by powerful intermediaries. The future of work, it turns out, is a blast from the past. From eighteenth-century outwork to nineteenth-century dock labour, there is ample historical precedent for this organization of work—and the resulting working conditions.

And it is not only in history that we can find similar models: technology apart, gig work fits neatly into a broader trend of fissurization, from temporary agency work to supply-chain outsourcing, which has been growing in our labour markets for several decades. On closer inspection, an even more fundamental problem with the innovation narrative emerges: supposedly innovative elements of platforms' strategies might, in fact, simply be aimed at entrenching existing operators against future competitors.

Charting Solutions

Against this backdrop, Chapter 5 turns to how we should regulate work in the on-demand economy. To the extent that 'disruption' has become techspeak for breaking the law, the time has come to 'Disrupt the Disruptors'. Most on-demand gigs, tasks, and rides are work, rather than entrepreneurship—and should be recognized as such. In a first step, this means that the industry needs to be brought within the scope of employment law. Legal systems across the world have learned to respond to employers' attempts at mischaracterizing work as independent entrepreneurship by focusing on the reality of the underlying relationship instead. In more complex, multilateral scenarios where customers and platforms share control, a further question crops up as to who the responsible employer should be.

Once within the scope of employment law, workers will enjoy access to a basic floor of rights—from minimum wage entitlements to discrimination protection. Given the intermittent nature of gig-economy work, however, this will not always be enough to rebalance the scales and to counteract gig workers' inequality of bargaining power vis-à-vis their platforms. We need

to develop existing standards in response to the specific challenges of precarious work—from portable ratings and higher wage levels for flexible hours, to rethinking social partner involvement. In concluding, one of gig work’s most pervasive—yet fundamentally misleading—myths is tackled head-on: there is no inherent incompatibility between flexible work and employment protection.

A Broader Perspective

Having tackled the narrow questions of employment law, the final chapter takes a step back and looks beyond the implications of on-demand work: what does the rise of a gig economy mean for consumers and for markets at large? A growing body of evidence suggests that, both as consumers and as taxpayers, all of us are potentially liable to pay for the real cost of platforms’ services. Consumers increasingly find that the promised bargain of better services for lower prices unravels when things go wrong and platforms refuse responsibility. On the tax front, the fragmentation of payments and tax collection leads to serious underpayment and enforcement problems. The proliferation of low-cost labour might even end up disincentivizing investment in research, development, and working conditions that foster genuine innovation.

In all of these scenarios, employment law can play a crucial role in ‘Levelling the Playing Field’. Chapter 6 returns to questions of consumer protection and tax enforcement to show how characterizing gig-economy ‘micro-entrepreneurs’ as workers and platforms as their employers closes down avenues for exploiting regulatory arbitrage, corrects negative externalities, and avoids asset misallocation.

At a fundamental level, the gig economy’s problems—for workers, consumers, taxpayers, and markets—are all driven by a single issue: by presenting themselves as mere intermediaries rather than powerful service providers, platforms can shift nearly all of their business risk and cost onto others. Regulatory arbitrage, externalities, and asset misallocation all skew the playing field in favour of platforms and impose cost on everyone else. Despite much doublespeak to the contrary, the application of employment law in the gig economy is not a question of enforcing burdensome rules to thwart innovation. Businesses can compete on a level playing field only if existing employment laws are equally applied and consistently enforced. Ensuring the full application of employment law is crucial if we want to realize the promise of the gig economy—without being exposed to its perils.