Additionally, there appears to be a renewed effort aimed at regulation, which could have serious implications for Uber’s business model. Based on Rosenblat’s analysis of past efforts to regulate or rein in Uber (for example, Mayor Bill de Blasio’s attempt to limit the number of cars in New York City in 2015, or the #DeleteUber campaign that occurred in conjunction with the airport protests), we might interpret this as the most recent hiccup in a turbulent history and should expect Uber to withstand the storm and maintain its cultural prowess. Recent developments, however, suggest that Rosenblat may have too quickly dismissed the tenacity of drivers and regulators in their pursuit of more decent work. Municipal regulation in New York City and legal rulings out of California, for example, suggest that regulation is now finding traction. Whether Uber will remain a central feature in the platform economy remains to be seen, but, in Uberland, Rosenblat has aptly made her point: Uber has made its mark on how we work—and more important, on how we think about work.

Hannah Johnston
Technical Officer, International Labour Organization
PhD Candidate, Queen’s University
8hesj@queensu.ca


DOI: 10.1177/0019793919864564

It is hard to escape the headlines warning that rapid advances in artificial intelligence (AI) and robotics are poised to replace human labor across our economy. These predictions of widespread technological unemployment obscure two important facts. First, for the foreseeable future, many tasks will remain difficult, if not impossible, for programmers to automate. Second, automation is itself contingent on a great deal of human intervention. Even when AI can be taught to perform a particular function, programmers still need to hire humans to label the “big data” from which AI learns, to make sure that the software continues to do what it is supposed to do as conditions change, and to step in to handle edge cases that can flummox algorithmic systems.

Mary Gray and Siddharth Suri’s Ghost Work provides the most in-depth look to date at this growing and vitally important—yet frequently overlooked—new world of work. Gray and Suri define ghost work as the “human labor powering many mobile phone apps, websites, and artificial intelligence systems” (p. ix). This low-wage work is mediated by on-demand labor platforms whose software interfaces connect buyers and sellers of digital knowledge work and structure their transactions and interactions. Companies use platforms such as Amazon Mechanical Turk to summon large numbers of workers connected to the internet from homes and public spaces around the world to perform tasks on digital assembly lines at a moment’s notice.

What exactly do ghost workers do? The applications are as endless and dynamic as the demands of businesses and consumers. Ghost workers screen flagged content on social media platforms to keep your screen free of pornography, hate speech, and violent videos; they rate search engine results to train AI to recognize the best matches between a user’s search terms and relevant websites; they recognize and remove duplicate hotel listings on TripAdvisor; they transcribe and translate TED Talks posted online to provide captions in dozens of different languages. The platforms that connect ghost workers with projects are often intentionally designed to atomize and anonymize workers, hiding their labor from the view of both the companies that hire them and the customers who ultimately use the products to which ghost workers contribute. Ghost work exists in a regulatory gray zone; workers log in as independent contractors who lack the legal protections that come with full-time employment and are subject to the arbitrary decisions of platform designers. Although ghost work may sound like a thoroughly novel phenomenon, the authors argue that it is a contemporary instantiation of an age-old tendency. Seemingly automated production systems—from textile factories to
NASA rocket launches—have long relied upon contingent workers whose efforts have been concealed and devalued.

How, then, does one study labor that is often globally distributed and intentionally hidden? While *Ghost Work* is written to appeal to a broad audience, Gray (an anthropologist) and Suri (a computer scientist) ground their arguments in analyses of data gathered through rigorous and innovative research. The authors’ data set includes nearly 200 in-depth interviews (most with ghost workers located in the United States and India), ethnographic observation of workers in their homes, as well as a series of cleverly conceived surveys and experiments that illuminate ghost workers’ demographic profiles, social networks, motivations, and preferences.

The book’s empirical chapters describe the experiences of ghost workers on four different platforms. Those who use the most broadly accessible platforms to make ghost work a regular source of income must contend with a variety of challenges and indignities. It can be difficult to find tasks that offer acceptable pay on global labor markets lacking a minimum wage, leading those most dependent on ghost work to be ever vigilant as they search out the best tasks as soon as they are made available. Participants often lack guidance from employers who treat them as interchangeable and expendable. And the platforms that ghost workers rely on may grant or deny individuals access according to unpredictable criteria. However, by examining workers’ experiences on two platforms that serve particular market niches, the authors find that these issues are not inevitable features of ghost work. Platforms can instead be consciously designed to advance business goals while simultaneously providing workers with consistent schedules, career ladders, and tools for collaborating with colleagues.

The authors’ nuanced analysis reveals that, contrary to the expectations of some outside observers, ghost work is far from “mindless.” By centering workers’ accounts, *Ghost Work* reveals how people use care and creativity to create connections around digital platforms that are often designed to isolate them. For example, workers build community in online forums where they help each other navigate opaque systems and instructions. As they reconstitute the social dimensions of production, ghost workers endow their contributions with meanings as diverse as the worker population itself. In general, workers value the control that they exercise over their time, the projects they take on, and who they collaborate with. Ghost work also appeals to different types of people for different reasons: Some work while simultaneously fulfilling care obligations at home; others choose ghost work to avoid unpredictable schedules and arduous commutes to in-person service-sector jobs; workers with disabilities or stigmatized identities use the anonymity of ghost work to gain access to paid work that was previously unavailable; and still others use ghost work to build and practice new skills, to enjoy some degree of financial independence, or to receive recognition from family members as a contributor to their household’s income.

*Ghost Work* sets an agenda for researchers, activists, and lawmakers. We still know little about how many people are working in the shadows of AI because governments have yet to engage in comprehensive efforts to measure such work. Additionally, given the book’s focus on workers’ experiences, future studies might fruitfully focus on the other side of the employment equation. How do businesses decide which tasks will be sent to ghost work platforms and which will be handled in-house? How do they decide which platforms to use? And under what conditions can they be persuaded to consider the welfare of the ghost workers in their labor supply chains? In their concluding chapter, the authors elaborate how legislators and regulators could ameliorate the more destructive consequences of ghost work. However, Gray and Suri do not consider legislation aimed at directly regulating ghost work platforms themselves by setting rules around what they can and cannot do. Given that some companies’ entire business models may be predicated on sourcing low-cost and far-flung workers who have difficulty organizing around collective demands, such measures may be necessary to bring about fundamental change. Some may also disagree with the authors’ conclusion that societies should accommodate themselves to an ever-increasing share of on-demand employment rather than fighting to preserve and extend the hard-won protections of traditional, full-time employment arrangements. Regardless of one’s positions on these particular issues, the book succeeds in equipping readers to enter into these important conversations.

Indeed, *Ghost Work* represents a landmark contribution to debates about the future of work. The book will change the way that readers unfamiliar with the subject matter view the websites, apps, and software systems that increasingly dominate our everyday lives. Scholars of work and technology will find that the authors’ accessible prose only serves to enhance their nuanced and theoretically sophisticated treatment of the digital economy. Their
explanations of the mechanisms through which AI produces new demand for human labor, coupled with their detailed analyses of platform design, patterns of participation, and workers’ voices, will inform academic debates for years to come.

Gray and Suri argue that we all have an obligation to advocate for transparency and fair conditions in the labor supply chains behind the websites and apps that we use every day. As employers and consumers increasingly turn to technology to summon knowledge workers and in-person service workers on demand, there is much that we can learn from the experiences of ghost workers. Societies must recognize and value the contributions made by those providing on-demand services and take collective responsibility for ensuring that everyone has access to income, social services, and the resources that they need to work. In bringing ghost work out from behind the shadows, Gray and Suri offer an important lesson for us all: Nothing is inevitable about the future of work, and we all have a stake in debating and defining this future together.

Benjamin Shestakofsky
Assistant Professor
Department of Sociology
University of Pennsylvania
bshesta@sas.upenn.edu


DOI: 10.1177/0019793919864566

For any scholar interested in understanding why the rate of innovation in the United States is declining, this book will prove valuable. It delivers a methodical explanation of four forces that have reduced America’s ability to innovate: 1) too much capital built up on the balance sheets of large companies, causing them to consolidate their product markets and avoid risky, disruptive innovation; 2) what the authors call “corporate managerialism,” which to anyone familiar with the heritage of Cornell’s ILR School will sound much like a (slightly) updated version of William Foote Whyte’s thesis set out in The Organization Man; 3) globalization, which the authors argue has focused companies on refreshing products rather than inventing new ones; and, 4) an overblown regulatory state that makes innovation disproportionately more difficult for young and small companies than for giant incumbents that enjoy government favoritism.

While these four forces are already widely appreciated, Erixon and Weigel develop each in great detail (the footnotes are an old-fashioned tour de force), and make the case for a negative synergy wherein each force effects the others in ways that instead of counterbalancing unwanted dampening of system-wide innovation, in fact, make matters worse. Thus, the reader is given a well-developed interactive perspective on why our nation’s innovation machine, as William Baumol once referred to the American economy, is becoming less productive. Much of the book’s argument in this regard was developed decades ago by Herbert Simon who described the managerial decision-making of secure incumbents as “satisficing.” Innovation seems to interest managers only insofar as they search for the upper bound on the corporation’s return on investment. Many large corporations seem to hunt down managers intent on optimizing resources by searching for disruptive innovations.

The book repeatedly engages a metaphor of graying capitalism, describing an economic system that is aging and becoming “dull and hidebound” (p. 16), where innovation is not sought and is actively resisted because of its potential to disturb the predictable, slow-growth path that is characteristic of “late-stage” market economies. In the United States, crony capitalism reigns—a variant on European industrial policy that the authors argue snuffed out innovation on the continent more than ten years before America felt the effects of its federal government trying mightily to replace market signals with its attempt to pick innovative