

# Future of Work Inquiry

2013–2015



For more information visit:  
<https://www.opensocietyfoundations.org/voices/end-jobs-we-know-them>  
<http://www.futureofworkinamerica.org>

## Key Assumptions

- Role of technology is so significant that current conceptions of 'a job' may no longer be relevant
- Most people will not receive a singular income from a single employer
- Vulnerability will increase for OSF's communities of concern including women, immigrants, youth, communities of color and formerly incarcerated populations

## Key Questions

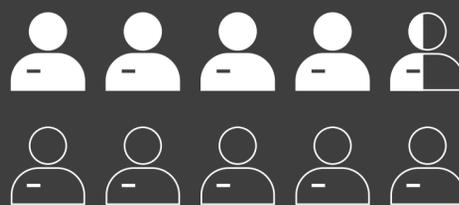
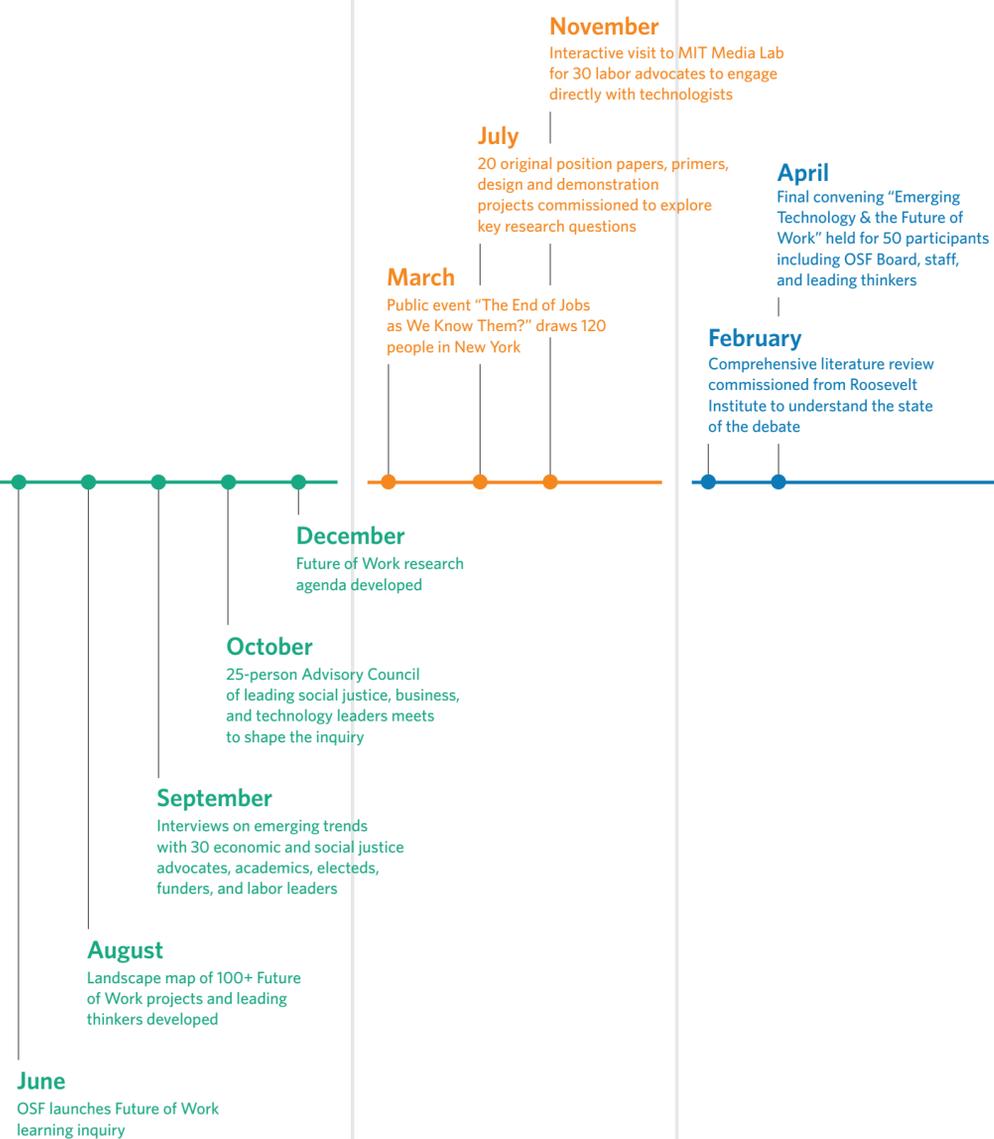
- Which specific emerging technologies could significantly impact the jobs, types of work, and structure of work in the future?
- How might the relationship between employees and employers be transformed?
- What new socio-economic models could increase the benefits of these changes for OSF's communities of concern?

## Timeline of Key Activities

2013

2014

2015



From 31% to  
**40%**  
 of workforce = free agents

Source: U.S. Government Accountability Office, Kelly Services

## Unemployment

Black Americans = 2x that of White Americans  
 Latinos = 1.5x that of White Americans

Source: Pew Research Center



Source: EARN Network

From 1979 to 2013  
 productivity rose 64%  
 while wages increased only 8%

3 in 5 American workers are paid by the hour



Source: Bureau of Labor Statistics, U.S. Department of Labor



## Key Technology Terms

### Algorithmic hiring practices

using software to sift through large amounts of data on potential employees to find the best match with open positions

### Artificial intelligence

the creation of computers and software that are capable of intelligent behavior

### Crowdwork

using platforms to distribute small tasks among very large groups of contingent workers that get paid per task i.e. Amazon.com's Mechanical Turk; also known as microtasking; related to crowdsourcing, crowdfunding

### Data mining

using algorithms to discover patterns in large data sets in order to create information that can be exploited for profit (often used by companies to understand people's behaviors)

### Digital divide

the lack of access to the Internet and other communication technologies based on socio-economic factors such as race, class, gender and geography

### Just-in-time scheduling

using software to dynamically and flexibly schedule (and cancel) workers' shifts based on actual needs on the day of work

### Peer production

a new mode of production in which the Internet enables the ability to coordinate the contributions of large numbers of people; also known as mass collaboration

### Sharing economy

using platforms to coordinate the sharing or renting of goods and services i.e. bike sharing, car sharing, apartment sharing; also known as collaborative consumption

### Socio-technical systems

the idea that social and technological systems are interrelated, not easily separated and mutually shape one another in an iterative and evolutionary manner

### Techno-determinism

the idea that technology above all else determines and shapes the course of society in a linear, causal and revolutionary manner



## Key Labor Terms

### Communities of concern

OSF's focus on improving the socio-economic prospects among immigrants, communities of color, youth, women and formerly incarcerated people

### Invisible labor

the emotional work that is done behind the scenes but often not recognized as work i.e. service and care work, "women's work," domestic workers; increasingly, the paid or unpaid work that is done by Internet users and/or by distributed international workforces; also known as digital labor, affective labor, immaterial labor, emotional labor, unpaid labor

### Structural inequality

a bias against a particular group based on race, class, gender, sexuality, national origin or ability that is built into institutional and organizational structures

### Contingent work

the growing portion of the economy made up of part-time, short-term labor, often without legal protections or benefits; also known as 1099 economy, gig economy, precarious labor, freelancers, free agents, on-call workers, flex workers

### Living wage

a wage that allows for a basic standard of living; in contrast to "minimum wage," which is often the lowest legal wage without consideration of whether it affords a basic standard of living

### Universal basic income

a form of social security system in which all people receive an unconditional sum of money to support basic living expenses

### Implicit bias

unconscious or subjective biases in judgment or behavior based on stereotypes or attitudes (often with respect to race, class, gender, sexuality or ability)

### Social justice

the view that systemic change is essential to insuring that everyone is treated equally and justly with respect to access to social, economic and political benefits

### Virtual redlining

the persistence and exacerbation of discrimination and bias on sharing economy platforms based on racial and socio-economic bias



# Future of Work Inquiry Key Themes

## OSF's Communities of concern

"Over 26 million hourly workers are part-time - and they earn lower wages and are more likely to be **women, Black or Latino**, and working poor than their full-time co-workers. Working hourly has become an especially precarious proposition as low-wage sectors like retail, restaurants and healthcare, which employ over one-quarter of all workers, use sophisticated workforce technologies to micro-adjust workers' schedules to match the ebb and flow of commerce."  
—Carrie Gleason, Center for Popular Democracy and Susan J. Lambert, University of Chicago

"Today, taxi drivers continue to work 10-14 hours each day and drive six days each week...Drivers increase their income by increasing the length of their work day or adding a day to their work week. This is why most drivers work 50-80 hours each week...Drivers today - for the most part **immigrants** from East Africa and South Asia - are ignored stakeholders. This is the quiet working of structural racism."  
—Jon Liss, Virginia New Majority and Tenants and Workers United

"For those **young adults** fortunate enough to be employed, their jobs are disproportionately more likely to be part-time. One out of every four employed 18 to 34-year-olds is working only a part-time position, as opposed to one in six adults over 34 years old."  
—Tom Allison and Konrad Mugglestone, Young Invincibles

"Bleak as the future of work may seem for the general population, it is far worse for the approximately 650,000 people currently returning from prison each year."  
—Malcolm Young, Founder, The Sentencing Project

## Center the experiences of those at the margins of the economy

"By mobilizing workers regionally, and across industries, labor markets, and supply chains to win campaigns that redefine the nature of work and how workers bargain with employers, we can challenge the limitations of our country's existing labor laws and create the conditions for a **new social contract** in America."  
—Saket Soni, National Guestworker Alliance

"No amount of improvement in approaches to preparing prison inmates for the world of work will overcome the **shortage of higher-wage jobs** predicted by labor experts. Only major investments in infrastructure and in new industries will create new jobs."  
—Malcolm Young, Founder, The Sentencing Project

"We can see all too clearly that the sharing economy may offer an opportunity for society to redefine - for better or worse - the field of work. What does work look like? **Who benefits? And who gets left behind?**"  
—Rashad Robinson, ColorofChange



## Technological change has pros and cons



"While a lot of the questions that **networked employment discrimination** provokes are speculative at this stage, they invite us to consider the ways in which such discrimination can be obscured or re-invigorated using **algorithmic hiring practices**... While **workplace analytics** and scoring represent opportunities for **inclusion and exclusion** in the workplace, the scoring and ranking systems they use to discriminate between job candidates requires careful consideration. Data analytics can be used to improve equality of outcome, but they can also mask hiring processes that contain prejudicial elements."  
—Alex Rosenblat, Tamara Kneese, and danah boyd, Data & Society Research Institute

"There is no obvious basis for thinking that future technologies will be more harmful to ordinary workers than the technological developments of the prior seventy years. If technology does end up being harmful to workers it will be due to the **rules put in place by the government**."  
—Dean Baker, Center for Economic and Policy Research

"With **basic protections** in place to ensure **stability, adequacy and predictability** of workers' schedules, employers can use the technology to identify steady patterns of demand, and allow for worker input, contingent and insecure work could be transformed into family-sustaining flexible employment, where workers have a base of stable hours and unprecedented input into how much and when they work."  
—Carrie Gleason, Center for Popular Democracy and Susan J. Lambert, University of Chicago

"3D printing is associated with futurist dreams of automation and obviating the need for human manufacturing, along with much of consumer capitalism: eventually, we will outsource the labor to self-reproducing machines in the comfort of our own homes and have more time for ourselves... While 3D printing has the ability to make some forms of manufacturing more democratic, it may **exacerbate global structural inequalities** in other ways."  
—Tamara Kneese, Alex Rosenblat, and danah boyd, Data & Society Research Institute

"In reality, the sharing economy often relies on and replicates old **patterns of privileged access** for some and denial for others."  
—Rashad Robinson, ColorofChange

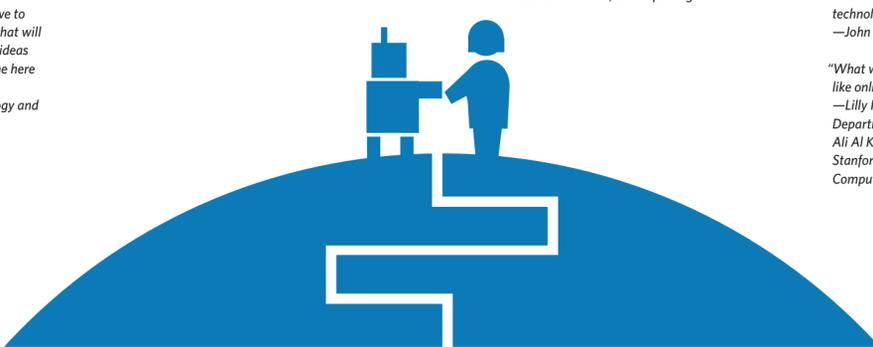
"What youth of color need is not new technologies (they have them), but **equal opportunity** to build on these technologies, to deploy their own creativity, and to amplify their entrepreneurial spirit and hustle."  
—Lori Lobenstein and Kenneth Bailey, Design Studio for Social Intervention

## Labor advocates have little space to imagine the future, technologists are unfamiliar with structural inequality issues

"Some of these founders are eager to be part of the sharing economy, not just for marketing purposes but because they are infatuated with the **possibility of societal revolution**. Seed-stage startups are particularly malleable, eager for credibility and support. Advocates who engage with the startup process can encourage **good labor practices** from the very beginning of a new business."  
—Denise Cheng, independent researcher and strategist

"Few disciplines are equipped to engage with future conditions and concerns in order to raise important questions about **alternative possibilities** and 'what if' scenarios... Speculation can give voice to fears and concerns, or it can be a tool for change. Speculative design can create ways of harnessing the drive to think about 'what might be' to help shape 'what will be.' Speculative design allows for issues and ideas to **transcend the temporal constraints** of the here and now."  
—Laura Forlano, Illinois Institute of Technology and Megan Halpern, Arizona State University

## Build technology "with" communities to pave the way for participation



"No industry has ever evolved to make worthy contributions to society all on its own. We need the positive force of **social movements** to shape industries and businesses."  
—Rashad Robinson, ColorofChange

"While more people than ever are accessing the broadband Internet they need to work for themselves, that **access is unevenly distributed** and many Americans are being underserved. Additionally, many lack education about how to use these emerging technologies, reducing their ability to participate."  
—John Arensmeyer, Small Business Majority

"The challenge of telecommunications policy for the future of work is fundamentally about **parity between workers and employers** in the information age... Who can use these technologies and networks and to what ends is determined by threshold questions of telecommunications policy... **Greater participation** in these debates will give workers more control over the development of new technologies that are shaping the future of work."  
—Joshua Breitbart, Open Technology Institute, New America Foundation

"What would the equivalent of a **labor union** look like online?"  
—Lilly Irani, University of California, San Diego's Department of Communication; Niloufar Salehi, Ali Al Khatib, Eva Ogebe, and Michael Bernstein from Stanford University's Department of Computer Science

## Technology may reconfigure work but it will not displace workers completely

"The same set of technologies that empower employees to be more effective or bear less physical risk can displace a workforce in other sectors, or undermine economic systems. Unrepentant fear and hope often obscure the **complex socio-technical dynamics** of intelligent systems in the workplace, yet moving beyond this is critical to developing the right framework for navigating the development of such systems."  
—Alex Rosenblat, Tamara Kneese, and danah boyd, Data & Society Research Institute

"...neither 'technology' nor the economy are driven by natural, unchangeable forces. Both are **created, shaped, and negotiated** by people who are situated in a policy and institutional context and have significant influence on technological development and socio-economic processes... Policy choices made in the context of technological change and economic restructuring will drive the results - equitable or not, liberating or not - 30 years forward."  
—Economic Analysis and Research Network (EARN)

"A third of the American workforce is made up of independent contractors... variously labeled **freelancers, self-employed, micro-entrepreneurs, small businesses, leased workers, permalancers, provisional or on-call staff, precariats, and contingent workers**. There are terms for every level of **optimism and cynicism** around independent contractors."  
—Denise Cheng, independent researcher and strategist

## Innovation outpaces government and regulation



"...future wage growth - and employment levels for different groups - depend on the **policy setting** more than the adoption of specific technologies."  
—Economic Analysis and Research Network (EARN)

"Although most companies do not intentionally engage in **discriminatory hiring practices** (particularly on the basis of protected classes), their reliance on automated systems, algorithms, and existing networks systematically benefits some at the expense of others..."  
—Alex Rosenblat, Tamara Kneese, and danah boyd, Data & Society Research Institute

"What remains to be seen is whether the digital revolution we now experience will create more opportunities and future jobs than those it may obviate, and whether it will continue to drive **disparities** or create the possibility of **shared prosperity** and growth - and what role policy can play."  
—Andrew Gillum, Young Elected Officials

"Companies like Uber and Lyft have taken advantage of these outdated systems to the detriment of all taxi drivers. However, while these companies have used cutting edge applications to give consumers convenient access to rides, its **barely regulated** operation has downsides for consumers and drivers alike."  
—Jon Liss, Virginia New Majority and Tenants and Workers United