

(Conference Draft)

“The Digital Economy, Law and Scarcity of Opportunity”

Olufunmilayo Arewa*

2021 Law and Development Conference

Hamburg, Germany
November 2021

* Professor Arewa is the Shusterman Professor of Business and Transactional Law, Temple University Beasley School of Law. Email : oarewa@temple.edu

The Digital Economy, Law, and Scarcity of Opportunity

Olufunmilayo B. Arewa

Digital economy firms increasingly shape available opportunities. The impact of such firms is also evident in the legal sphere. Prominent digital economy firms have strongly embraced Facebook founder Mark Zuckerberg’s motto of “moving fast and breaking things.” However, this ethos of disruption has posed significant challenges for existing policies, laws, and regulations and has serious implications for a broad range of people, including users of such firms’ products and services and workers. The adoption of new business models and technologies often leads to debates about how laws and regulations should apply in such new contexts. Thus, mobile phones, mobile phone apps, such as Uber, and varied other new technologies and services have required reassessment and varying degrees of reform of existing legal, regulatory and policy approaches. Such laws, regulations and policies relate to a broad range of areas, including network and infrastructure policies, labor laws, competition law, laws governing collection, storage and use of personal data and information, intellectual property laws and tax laws, among others. This paper discusses how policies, laws and regulation can better address issues related to social mobility, opportunity, and inequality in digital economy contexts.

Keywords: Digital Economy, Development, Technology Companies, Geographic Concentration, Regulation, Digital Divide, Covid-19, Regulation, Workers

1. **Introduction**

In November 2019, workers across Europe and the U.S. went on strike against Amazon over wages and working conditions within Amazon warehouses. At the end of 2019, Jeff Bezos, the founder and current CEO of Amazon, was the wealthiest person in the world with an estimated fortune of over \$115 billion. Conditions for many Amazon workers are not so favorable, which led thousands of workers to go on strike. Amazon is currently at the center of a longstanding global debate about the role and responsibilities of corporations. This debate unfolds today in a world of changing societal, economic, and work conditions driven in part by technological innovation and broader digital economy trends.

The global activities of prominent technology companies, many of whom are based in the United States, have led to an era of almost unparalleled plenty, at least for some, in an era that has been likened to a new gilded age. At the same time, the activities of such firms and their geographic locations highlight significant zones of inequality, particularly in the developed world.

Robust economic growth and increased economic opportunity for the vast majority of people in developed countries will require focused policy attention to attenuating potentially detrimental aspects of digital economy firm practices and addressing digital economy trends that contribute to poor economic opportunities, particularly in regions that have benefited to a lesser extent from digital era economic growth.

2. **The Digital Economy and Development**

2.1. Development and the Topography of the Digital Economy

Many call our current era the digital age, largely on account of the importance of technology and technological innovation as guiding forces in economic, business and sociocultural spheres.¹ Technologies today enable widespread dissemination of information and visual images and rapid communication among billions of people across the globe. As of July 2020, an estimated 4.5 billion people were active Internet users.²

The digital economy is a term used to describe fundamental twentieth century economic changes in which digital transformation is a core aspect. This digital transformation has reshaped how we think about, share, and use knowledge and information.³ Webs of networked relationships have become widespread, often mediated by Internet and social media companies such as Google, Facebook, WeChat, Instagram (owned by Facebook), TikTok, Twitter, Whatsapp (owned by Facebook), and Weibo, as well as other companies.

Technology diffusion is an important aspect of digital economy economic transformations. Spillovers from innovative technologies that have been an important feature of expansive economic growth in the digital era. Digital economy growth has often been focused around specific geographic clusters, of which Silicon Valley has to date been the most prominent. Both theoretical and empirical work has been done with respect to these clusters, some of which have attempted to identify the characteristics of successful digital economy geographic clusters. The effective diffusion of technology and creation of spillover effects are often discussed as a core aspect of successful digital economy geographic clusters.⁴ As is evident in Silicon Valley, horizontal linkages and diffusion of technology have been important aspects of technological development and

¹ D.G. Johnson, “Introduction,” in M.F. Fox, D.G. Johnson and S.V. Rosser (eds.), *Women, Gender and Technology* (Champaign: University of Illinois, 2006), p. 1.

² J. Clement, Worldwide Digital Population as of July 2020, Statista.com, July 24, 2020, <https://www.statista.com/statistics/617136/digital-population-worldwide/#:~:text=Almost%204.57%20billion%20people%20were,in%20terms%20of%20internet%20user>

³ World Economic Forum. 2016. *What is the Fourth Industrial Revolution?*, <https://www.weforum.org/agenda/2016/01/what-is-the-fourth-industrial-revolution/>.

⁴ M. Kenney & U. von Burg, *Technology, Entrepreneurship and Path Dependence: Industrial Clustering in Silicon Valley and Route 128*, 8 *Industrial and Corporate Change*, no. 1 (1999), pp. 67-103, at 67.

innovation in digital economy business practices.⁵ In Silicon Valley, an extensive amount of information and know-how flows between firms through movement of workforce largely unimpeded by legal barriers in the form of noncompetition restrictions.⁶ This horizontal flow of information is thought by some to be a critical element in the relative success of Silicon Valley.

Many of the most valuable companies in the United States today are technology companies. In August 2020, the combined market capitalization of Apple, Amazon, Alphabet, Microsoft, and Facebook, the five largest publicly traded companies in the United States, constituted more than 20 percent of the S&P 500.⁷ Apple reached a market valuation of \$2 trillion alone. The influence of technology companies is so strong that these five companies pushed the S&P 500 to a record high in August 2020, rising 37 percent in the first seven months of 2020. During this same time period all other stocks in the S&P 500 combined fell 6 percent.⁸ In August 2020, the market capitalization of the United States technology sector was said to be worth more than the entire European stock market, which was four times larger than the United States technology sector in 2007.⁹

The dominance of technology companies is a global phenomenon. As Figure 1 demonstrates, in August 2020, the most valuable companies in the world were all technology companies, other than Saudi Aramco. Aside from Saudi Aramco, all of these companies were also based in either China or the United States¹⁰. The August 2020 list is much less diversified than the list in 2005, which

⁵ See AnnaLee Saxenian, *Regional Advantage: Culture and Competition in Silicon Valley and Route 128* (Cambridge: Harvard, 1994).

⁶ R.J. Gilson, *The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete*, 74 *New York Law Review*, no. 3 (1999), 575-629; J.S. Wood, *A Comparison of the Enforceability of Covenants Not to Compete and Recent Economic Histories of Four High Technology Regions*, 5 *Virginia Journal of Law and Technology* (2000), 14-___; J. Owen-Smith & W.W. Powell, *Knowledge Networks as Channels and Conduits: The Effects of Spillovers in the Boston Biotechnology Community*, 15 *Organizational Science*, no. 1 (2004), 5-21; R.W. Gomulkiewicz, *Leaky Covenants-Not-to-Compete as the Legal Infrastructure for Innovation*, 49 *University of California Davis Law Review* (2015), 251-304.

⁷ P. Eavis and S. Lohr. “Big Tech’s Domination of Business Reaches New Heights.” *The New York Times*, August 19, 2020, <https://www.nytimes.com/2020/08/19/technology/big-tech-business-domination.html>.

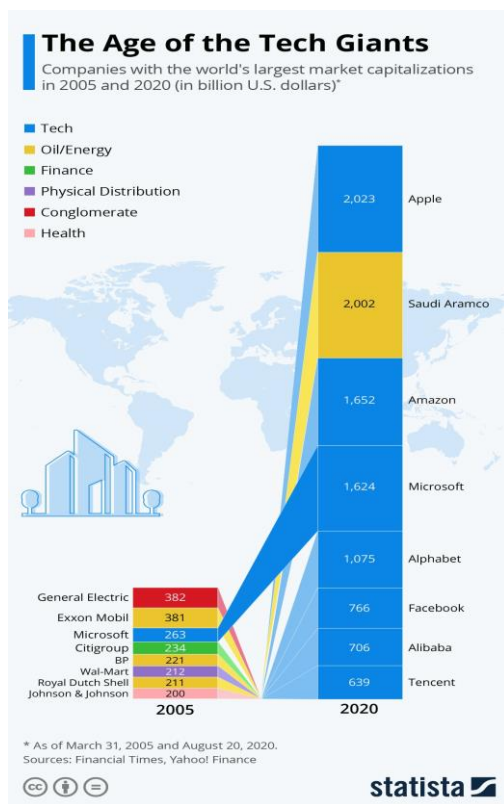
⁸ *Ibid.*

⁹ J. Pound. “U.S. tech stocks are now worth more than the entire European stock market.” *CNBC.com*, August 28, 2020, <https://www.cnbc.com/2020/08/28/us-tech-stocks-are-now-worth-more-than-the-entire-european-stock-market.html>.

¹⁰ In order of market capitalization, these companies were Apple, Saudi Aramco, Amazon, Microsoft, Alphabet (Google), Facebook, Alibaba and Tencent. Source: Statista, <https://pbs.twimg.com/media/EgSuvGZX0AAjJ0K?format=jpg&name=4096x4096>.

included only one technology company (Microsoft, the only company to appear on both lists), two European oil/energy companies (BP and Royal Dutch Shell), one American oil/energy company (Exxon Mobil), one conglomerate (General Electric), one healthcare company (Johnson and Johnson), one finance company (Citigroup), and one retail/physical distribution company (Wal-Mart). Notably, the 2005 list included companies based in Europe and the United States, but no companies based in China.

Figure 1¹¹



The information sector is highly concentrated. Growth in the United States is increasingly concentrated in just 1 percent of counties in the United States; these 31 counties accounted for 32.3 percent of United States gross

¹¹ <https://pbs.twimg.com/media/EgSuvvgZX0AAjJ0K?format=jpg&name=4096x4096>.

domestic product in 2018.¹² While these counties made up over 32 percent of US GDP, they only contained 26.1 percent of employed people and 21.9 percent of the population.¹³ This increased geographic concentration is evident in urban areas and around the coasts, and all 31 counties included or were near major cities.¹⁴ Notably, the information sector is “particularly consolidated, with nearly three-fifths of its output squeezed into just a few dozen counties.”¹⁵ Although other sectors are highly concentrated, including finance and the arts, the combined concentration and dominance of the information sector have implications for development.

Gaps within developed countries may be as large or even larger than gaps between countries. The dominance of Silicon Valley technology companies underscores the highly concentrated nature of the digital economy activity in much of the developed world. The International Monetary Fund notes that regional disparities in the “average advanced economy have risen since the late 1980s, reflecting gains from economic concentration in some regions and relative stagnation in others.”¹⁶ These gaps have significant implications for people living in lagging regions, including poorer health outcomes, lower labor productivity and longer times in adjusting to trade shocks.¹⁷ Even within urban areas that have experienced gains from economic concentration, such gains may not be experienced by all communities within such urban areas, which means that even areas that are not lagging by aggregate statistics may have members of the community that experience circumstances similar to those in lagging regions. In the United States, for example, immigrant households experience a significant digital divide and lack access to tools such as computers and smartphones.¹⁸

Infrastructure gaps are another element of increasing gaps between regions within developed countries. Infrastructure gaps are particularly evident in rural areas of developed countries, which also often fall within the lagging

¹² A. Tartar and R. Pickert, “A Third of America’s Economy Is Concentrated in Just 31 Counties,” Bloomberg.com, December 16, 2019, <https://www.bloomberg.com/graphics/2019-us-gdp-concentration-counties/>.

¹³ *Ibid.*

¹⁴ *Ibid.*

¹⁵ *Ibid.*

¹⁶ International Monetary Fund, *World Economic Outlook*, October 2019, p. 65, <https://www.imf.org/en/Publications/WEO/Issues/2019/10/01/world-economic-outlook-october-2019>.

¹⁷ *Ibid.*

¹⁸ A. Cherewka. “The Digital Divide Hits U.S. Immigrant Households Disproportionately during the COVID-19 Pandemic.” Migration Policy Institute, September 3, 2020, <https://www.migrationpolicy.org/article/digital-divide-hits-us-immigrant-households-during-covid-19>

regions noted in the IMF October 2019 World Economic Outlook. These infrastructure gaps are increasingly problematic in a digital economy where robust networked connectivity is increasingly essential yet often lacking in rural areas in the United States and elsewhere.

These gaps within countries may pose a concern from a development perspective, much like the gaps among countries that lead some countries to be called developing. The capabilities approach of economist Amartya Sen can enhance our understanding of development and underdevelopment in the developed world that is reflected in significant within country gaps that have been widening in recent decades. Sen’s approach emphasis conceptualizing development as freedom. In his conceptualization, development requires “removal of major sources of unfreedom.”¹⁹ Amartya Sen conceptualizes development as requiring “the removal of major sources of unfreedoms: poverty as well as tyranny, poor economic opportunities as well as systematic social deprivation, neglect of public facilities as well as intolerance or overactivity of repressive states.”²⁰ In the digital economy lack of access to broadband and other characteristics of digital divides contribute to poor economic opportunities and may also reflect systematic social deprivation and neglect of public facilities.

2.2.Covid-19 and Digital Divides

The Covid-19 pandemic highlights core features of the differential impact of the digital economy, as well as gaps evident in the digital divide and other important digital economy metrics. In the United States, this is reflected in a two-track Covid-19 recovery in which some workers, companies, and regions are emerging from the Covid-19 driven economic contraction “fine or even stronger,” while others remain “mired in a deep decline with an uncertain path ahead.”²¹ This recovery is said to look like a K, with “well-educated and well-off people, businesses tied to the digital economy or supplying domestic necessities, and regions such as tech-forward Western cities . . . prospering [with] lower-wage workers with fewer credentials, old-line businesses and regions tied to tourism and public gatherings” on the bottom arm of the K.²²

¹⁹ A. Sen. *Development as Freedom* (New York: Anchor, 2000), p. 3.

²⁰ *Ibid.*

²¹ E. Morath, T. Francis and J. Baer, “Between Haves and Have-Nots,” *The Wall Street Journal*, October 5, 2020, <https://www.wsj.com/articles/the-covid-economy-carves-deep-divide-between-haves-and-have-nots-11601910595>.

²² *Ibid.*

The Covid-19 pandemic is thus magnifying already existing digital economy trends and gaps between regions, industries, and workers.

Some aspects of digital technologies enhance the lives of many people. Other aspects of the digital economy may be troubling. The benefits of digital era technologies and their spillover effects are not evenly distributed, which has significant implications for development both among and within countries. For example, in the United States, even without the uneven geographic distribution of prominent digital economy activities, the digital era has unfolded in ways that may in some instances magnify existing inequalities.

The gap between the poor and the super-rich are readily apparent in Silicon Valley, where the “homeless are the most visible signs of poverty in the region.”²³ In 2013 when Silicon Valley median income was \$94,000, well above the national median of some \$53,000. At this same time, some 31 percent of jobs in Silicon Valley paid \$16 per hour or less,²⁴ which is well below what would be needed to support a family in Silicon Valley. At that time, the poverty rate in Santa Clara County, in the core of the Silicon Valley, was some 19 percent.²⁵

In the San Francisco Bay Area more generally, technological innovations have created immense wealth for some but have also contributed to greater socioeconomic inequality. Debates surrounding the cost of housing, the placement of bus stops that carry workers from San Francisco to Silicon Valley, dealing with human waste from the large number of homeless people on the streets of San Francisco, and other social concerns highlight points of tension that have emerged in the midst of immense wealth and prosperity, at least for some. With this has come notable new categories of employment, including the San Francisco Poop Patrol,²⁶ people now employed by the City of San Francisco to clean up human waste from the large numbers of homeless people living on the streets of San Francisco.²⁷ The Poop Patrol approach, notably, is not an approach that

²³ D. Rotman, *Technology and Inequality*, MIT Technology Review, October 21, 2014, <https://www.technologyreview.com/2014/10/21/170679/technology-and-inequality/>.

²⁴ *Ibid.*

²⁵ *Ibid.*

²⁶ B. Gilbert, “People are Pooping More than Ever on the Streets of San Francisco,” SFgate.com, April 18, 2019, <https://www.sfgate.com/technology/businessinsider/article/People-are-pooping-more-than-ever-on-the-streets-13778680.php>

²⁷ Members of the Poop Patrol were said to earn more than \$184,000 a year in salary and benefits in 2018. A. Bendix, “San Francisco has a ‘Poop Patrol’ to Deal with its Feces Problem, and Workers Make More than \$184,000 a year in Salary and Benefits.” BusinessInsider.com, August 24, 2018, <https://www.businessinsider.com/san-francisco-poop-patrol-employees-make-184000-a-year-2018-8>.

will necessarily provide homeless people with access to public toilets or affordable housing, both of which are likely necessary to truly address problems of human feces in the streets.

Although levels of inequality in the developed world are highest in the United States, the wealth gap is also increasing in Europe. In Britain and France, for example, accumulated wealth is “returning to relative levels not seen since the First World War.”²⁸ Covid-19 magnifies these existing trends because the digital divide has become a matter of life and death, according to the UN Secretary-General António Guterres in remarks to the virtual high-level meeting on the “Impact of Rapid Technological Change on the Achievement of the Sustainable Development Goals.”²⁹ Containment of Covid-19 has required that people separate themselves from others to control contagion. Many common places where people once met have been closed, subject to closure, or experiencing significant reductions in use during the pandemic. These places include common meeting places for business and leisure activities, including restaurants, shops, hotels, airplanes, and bars, as well as many work spaces. Access to many resources and services, including education, healthcare, and shopping have become virtual in whole or in part, depending on circumstances. Many now work and study from home, clustered in groups of people familiar to them. Responses to Covid-19 have been facilitated by digital economy technologies that enable remote work, remote education, and a range of online activities, from shopping to various forms of communication.

Covid-19 has had significant consequences for health, work, education, and other areas of life. Covid-19 is potentially devastating for people who do not have jobs that permit remote work. People who work in hospitals, grocery stores, and other locations deemed essential are exposed to risk of becoming infected by Covid-19 by virtue of their jobs. Students who do not have robust Internet access or access to devices to enable them to access the Internet may lose out on access to education. Others may not live in a setting that enables them to work from home.

²⁸ Rotman, *supra* note 23.

²⁹ United Nations, “Digital Divide ‘a Matter of Life and Death’ amid COVID-19 Crisis, Secretary-General Warns Virtual Meeting, Stressing Universal Connectivity Key for Health, Development,” June 11, 2020, <https://www.un.org/press/en/2020/sgsm20118.doc.htm>.

A Pew Research Center poll from April 2020 indicated that 53 percent of Americans found the Internet to be essential during the Covid-19 outbreak.³⁰ Twenty percent of parents with homebound school children indicated that it was very or somewhat likely that their children would not be able to complete school work because of lack of access to a computer at home or must use public Wi-Fi to finish schoolwork because of lack of a reliable internet connection at home.³¹ Covid-19 has rekindled existing debates about how to address the digital divide, which reflects a gap between those who have access to technology and those who do not. Covid-19 has made the costs of lack of access potentially quite high.

Discussion of the digital divide in the United States is not new but continues to highlight ways in which access to and uses of technology may be unevenly distributed.³² The digital divide relates to the “growing gap between those with access to telephones, modems, computers, and the Internet, and those without such access: the information rich versus the information-poor.”³³ Information wealth and information poverty likely track wealth and poverty more generally, at least to some extent. As a result, the digital divide has consequences that extend far beyond the digital world. As Julie Cohen has noted:

A ‘digital divide’ is never only digital; its consequences play out wherever political and economic decisions are made and wherever their results are felt . . . In addition, it is equally important to consider how a digital divide might alter other resource distributions that inhere in social space. If the haves increasingly shop online while the have-nots shop in ‘real space,’ the real-space distribution of goods, services, and employment patterns likely will change, and with it the real-space distribution of all of the activities that make up the commerce of daily life.”³⁴

2.3. The Digital Economy and Regulation

³⁰ E.A. Vogels, A. Perrin, L. Rainie and M. Anderson, 53% of Americans Say the Internet Has Been Essential During the COVID-19 Outbreak, Pew Research Center, April 30, 2020, <https://www.pewresearch.org/internet/2020/04/30/53-of-americans-say-the-internet-has-been-essential-during-the-covid-19-outbreak/>.

³¹ *Ibid.*

³² A.G. Wilhelm, *Digital Nation: Towards an Inclusive Information Society* (Cambridge: MIT Press, 2004); S. Wyatt, F. Henwood, N. Miller and P. Senker, eds., *Technology and Inequality: Questioning the Information Society* (New York: Routledge, 2000).

³³ C.B. Leggon, “Gender, Race/Ethnicity, and the Digital Divide,” in M.F. Fox, D.G. Johnson and S.V. Rosser (eds.), *Women, Gender and Technology* (Champaign: University of Illinois, 2006), p. 98.

³⁴ J. Cohen, *Cyberspace As/And Space*, 107 Columbia Law Review (2007), 210-256, at 242.

The digital economy poses particular challenges for existing regulation. A significant discussion exists today concerning technologies thought to be disruptive. A disruptive technology is one that creates new markets and new value networks that disrupt existing markets and networks.³⁵ Disruptive and other digital era technologies have profoundly influenced economic growth and have had a significant human impact.

Whether technology disruption is positive or negative may depend to a large extent on one’s perspective. For new entrants, disruption may be beneficial. Although such disruption may significantly benefit society overall, disruption may be detrimental to existing incumbents, who may not at first recognize the threat of disruption.³⁶ An ethos of disruption has been prominent for some time in Silicon Valley, a global center of technology disruption. Mark Zuckerberg reflected this ethos in the Facebook motto that instructs companies to: “[m]ove fast and break things. Unless you are breaking stuff, you aren’t moving fast enough.”³⁷

Some things that might be broken by actions reflecting a move fast and break things ethos may not be able to be repaired. New technologies may offer unparalleled opportunities for varied types of destruction. Disruptive technologies may have distributional consequences that may impact their reception. Further, areas where disruptive technologies emerge may experience magnification of existing societal problems and inequalities. In the Silicon Valley, a global center of technology disruption, the advent of digital era technologies has exacerbated existing societal schisms, leading to greater income inequality and a decrease in available affordable housing.

Legal and regulatory frameworks both affect and reflect changing technology contexts. How such frameworks interact with new technologies is thus of critical importance. The impact of digital economy firms is particularly evident in the legal and regulatory sphere. Many digital economy firms have strongly embraced Facebook founder Mark Zuckerberg’s motto of “moving fast and breaking things.” However, this ethos has posed significant challenges for existing legal and regulatory frameworks and in turn has serious implications for

³⁵ C. Christensen, *The Innovator’s Dilemma: When New Technologies Cause Great Firms to Fail* (Boston: Harvard Business Review Press, 1997).

³⁶ C.M. Christensen, D. Skok and J. Allworth. *Breaking News*, 66 *NiemanReports*, no. 3 (2012), 6-20, at 6-8.

³⁷ J. Taplin, *Move Fast and Break Things: How Facebook, Google, and Amazon Cornered Culture and Undermined Democracy* (New York: Little, Brown, 2017).

a broad range of people, including users of such firms’ products and services and workers. The adoption of new technologies often leads to debates about how laws and regulations should apply to such technologies. These are essentially questions about the legal and regulatory mismatch that might be one consequence of the introduction of new technologies. Thus, mobile phones, mobile phone apps, Uber, and varied other new technologies and services have required reassessment and varying degrees of reform of legal and regulatory approaches that might have been put in place well before the advent of such technologies, including laws and regulations relating to working conditions, privacy and security of personal information, intellectual property, and taxes, among others.

2.4. The Digital Economy and Wealth

The digital economy has generated unimaginable wealth, at least for some. The vast wealth generated since the credit crisis has occurred in an environment of tremendous insecurity for many. Larry Fink is the Founder, Chief Executive Officer, and Chairman of the Board of BlackRock the world’s largest asset manager with assets under management of \$7.32 trillion as of the end of June 2020.³⁸ Since 2012, Larry Fink has sent out an annual letter to CEOs that is widely read and commented upon. In 2018, Larry Fink spoke to rising inequality and insecurity:

Since the financial crisis, those with capital have reaped enormous benefits. At the same time, many individuals across the world are facing a combination of low rates, low wage growth, and inadequate retirement systems. Many don’t have the financial capacity, the resources, or the tools to save effectively; those who are invested are too often over-allocated to cash. For millions, the prospect of a secure retirement is slipping further and further away – especially among workers with less education, whose job security is increasingly tenuous. I believe these trends are a major source of the anxiety and polarization that we see across the world today.³⁹

The 2018 letter acknowledged the struggles that many face in the United States and elsewhere. Although some may struggle, others prosper. In late August

³⁸ Who We Are, <https://www.blackrock.com/sg/en/about-us>.

³⁹ L. Fink, *Larry Fink’s 2018 Letter to CEOs: A Sense of Purpose*, <https://www.blackrock.com/corporate/investor-relations/2018-larry-fink-ceo-letter> [https://perma.cc/5RMQ-XMJW].

2020, Jeff Bezos, the wealthiest man in the world, because the first person to have a personal wealth exceeding \$200 billion.⁴⁰ Even after adjusting for inflation, *Forbes* believes that the Bezos fortune is the largest ever tracked. Even in an age of vast wealth, Bezos’s wealth is notable: “[a]s of 1:50 pm EDT on Wednesday [August 26], the Amazon founder and CEO is worth \$204.6 billion—nearly \$90 billion more than the world’s second richest person, Bill Gates, who’s currently worth \$116.1 billion.”⁴¹ In August 2018, when he had a fortune of \$150 billion, Bezos needed to spend approximately \$28 million a day to not grow wealthier.⁴² Bezos’s vast fortune must be considered in light of conditions for workers at Amazon, many of whom in 2019 engaged in protests and strikes against the company.

2.5. The “Gig” Economy and Inequality

Amazon exemplifies some of the transformations that have come with the digital economy. These transformations create opportunities for entrepreneurs to build powerful monopolies and generate large fortunes. However, significant dislocations may come with such transformations, including dislocations that impact legal and regulatory frameworks, and disruptions that impact the lives of employees.⁴³

Jeff Bezos’s wealth was accumulated in a world of significant insecurity for many average workers who work at Amazon. In addition, in a world of increasing wealth inequality and changing societal, economic, and work conditions driven in part by technological innovation and broader digital economy trends,⁴⁴ the potential uncertainties of employment in the “gig” economy is increasingly an issue for a broad range of workers. The term “gig” comes out of musical performance contexts in which musicians performed short engagements or “gigs.”⁴⁵ The employment circumstances of these musicians was

⁴⁰ J. Ponciano, “Jeff Bezos Becomes the First Person Ever Worth \$200 Billion,” *Forbes*, August 26, 2020, <https://www.forbes.com/sites/jonathanponciano/2020/08/26/worlds-richest-billionaire-jeff-bezos-first-200-billion/#2cc01334db7b>.

⁴¹ *Ibid.*

⁴² A. Lowrey, “Jeff Bezos’s \$150 Billion Fortune is a Policy Failure,” *The Atlantic*, August 1, 2018, <https://www.theatlantic.com/business/archive/2018/08/the-problem-with-bezos-billions/566552/>.

⁴³ Fred Wilson, *Capitalism and Inequality*, AVC Blog, January 23, 2019, <https://avc.com/2019/01/capitalism-and-inequality/> [<https://perma.cc/43CW-R5JX>].

⁴⁴ *Ibid.*

⁴⁵ J.B. Graves, “The Original Gig Economy, Many Futures of Work,” Possibilities and Perils 2018 Conference, <https://www.futuresofwork.org/s/Graves-Orig-Gig-Econ-II.pdf>.

often precarious. This means that well before the digital economy many performing musicians experienced employment circumstances that reflect core issues that have arising in the digital era “gig” economy.⁴⁶ These issues include questions about employment status, which is a significant issue for ride-hailing services such as Uber and Lyft, the former of which has fought regulatory battles all over the world, including in London, where a court in late September permitted Uber to renew its ride-hailing license for an 18 month period.⁴⁷ Six days after Uber received its license renewal, its competitor Ola was not permitted to renew its ride-hailing license based on public safety concerns.⁴⁸ One of the key points at issue in the Uber London license case was Uber’s past regulatory breaches.⁴⁹ Uber has in the past had a toxic internal culture.⁵⁰ Uber has also had a culture of rule breaking that is not uncommon today from companies that have an ethos of wanting to disrupt and break things. Matthew Yglesias notes that Uber “gained initial traction in the marketplace thanks to a pirate-ship mentality that viewed willingness to break rules as a core competitive advantage.”⁵¹ This kind of approach to legal and regulatory compliance in contexts of new technologies may present profound challenges for lawmakers and regulators.

Both Uber and Lyft are currently united in opposition to a 2019 California law that may require them to hire workers as employees, not independent contractors. Assembly Bill No. 5 (AB-5) expands the California Supreme Court decision in *Dynamex Operations West, Inc. v. Superior Court of Los Angeles*,⁵² which adds Section 2750.3 to the California Labor code, creating a “presumption that a worker who performs services for a hirer is an employee for purposes of

⁴⁶ E. Torpey and A. Hogan, Working in a Gig Economy, U.S. Bureau of Labor Statistics, May 2016, <https://www.bls.gov/careeroutlook/2016/article/pdf/what-is-the-gig-economy.pdf>.

⁴⁷ In the Matter of an Appeal under the Private Hire Vehicles (London) Act 1998 between Uber London Limited (Appellant) and Transport for London (Respondent) and London Taxi Drivers’ Association (Interested Party), In the Westminster Magistrate’s Court, September 28, 2020, <https://www.judiciary.uk/wp-content/uploads/2020/09/Uber-v-TFL.pdf>.

⁴⁸ S. Shead, Ride-hailing app Ola stripped of London license over safety concerns, shortly after Uber wins reprieve, CNBC.com, October 5, 2020, <https://www.cnbc.com/2020/10/05/ola-ride-hailing-app-banned-in-london-by-tfl-over-safety-concerns.html>.

⁴⁹ In the Matter of an Appeal, *supra* note 47; Can Uber Overcome Its Regulatory Obstacles? Wharton Podcast, December 3, 2019, <https://knowledge.wharton.upenn.edu/article/can-uber-overcome-regulatory-obstacles/>.

⁵⁰ Covington and Burling Recommendations, <https://drive.google.com/file/d/0B1s08BdVqCgrUVM4UHBpTGROLXM/view>.

⁵¹ M. Yglesias, “Uber’s Toxic Culture of Rule Breaking, Explained,” Vox.com, March 21, 2017, <https://www.vox.com/new-money/2017/3/21/14980502/uber-toxic-culture-rule-breaking-explained>.

⁵² *Dynamex Operations West, Inc. v. Superior Court*, S222732, April 30, 2018, <https://cases.justia.com/california/supreme-court/2018-s222732.pdf?ts=1525107724>.

claims for wages and benefits arising under wage orders issued by the Industrial Welfare Commission.”⁵³

The employment status of average workers at Uber, Lyft and other digital economy firms reflects uncertainties about employment status in relation to issues of control and other determinants of employment status that are not unique to ride hailing companies,⁵⁴ but which present challenges due to scale and other factors. In a world of rising inequality, the work status of “gig” economy workers may be precarious. Although some workers may enjoy the flexibility of the gig economy, others may be forced to work for gig economy firms because other opportunities may not be readily available to them.

3. **The Digital Economy and Scarcity of Opportunity**

3.1. Scarcity of Opportunity

For many people, even prior to the advent of Covid-19, real and robust economic and other opportunities appeared increasingly scarce, contributing to a scarcity of opportunity that has been particularly evident in lagging regions, industries, and communities.⁵⁵ The perception and reality of scarce opportunities reflects policy failures to address diminishing opportunities for social mobility and advancement in much of the developed world.⁵⁶

Opportunities for social and economic mobility and the regulation of new technologies and services have become critical policy issues in the developed world in the digital era and touch upon the removal of sources of unfreedoms identified by Amartya Sen.⁵⁷ Scarcity of opportunity may be apparent in a range of areas, including those described in Fink’s 2018 letter. In the United States,

⁵³ AB-5 Legislative Counsel’s Digest,

https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB5

⁵⁴ V.B. Dubal, *Wage Slave or Entrepreneur?: Contesting the Dualism of Legal Worker Identities*, 105 California Law Review, 65-123, at 72-80.

⁵⁵ O. Arewa, *Investment Funds, Inequality, and Scarcity of Opportunity*, 99 Boston University Law Review (2018), 1023-1055.

⁵⁶ L. Alderman, “The Middle Class Shrinks in Europe,” *The New York Times*, February. 16, 2019, at B1; M. Kimmelman, “France’s Yellow Vests Reveal a Crisis of Mobility in All Its Forms,” *The New York Times*, December 21, 2018, at A4; A. Semuels, “The Decline of Social Mobility in the United States,” *Atlantic Magazine*, July 14, 2016, <https://www.theatlantic.com/business/archive/2016/07/social-mobility-america/491240/>.

⁵⁷ Sen, *supra* note 19.

scarcity of opportunity contributes to increasing economic and financial instability for a significant portion of the population.³⁷

3.2. Digital Economy Infrastructures

Covid-19 has drawn attention to inadequacies in essential digital economy infrastructures. The digital divide in rural areas is particularly deep. In the United States, a February 2020 study suggests that the Federal Communications Commission (FCC) underestimated the number of Americans that lack access to broadband.⁵⁸ The FCC suggests that at the end of 2017, 21.3 million Americans lacked access to high-speed broad band (defined using the current FCC benchmark of at least 25 Mbps/3 Mbps).⁵⁹ BroadbandNow checked the FCC’s data and estimates that 42 million Americans do not have access to wired or fixed wireless broadband.⁶⁰ The FCC undercounting of broadband access tends to be greater in states with higher rural populations. The lack of access to broadband exacerbates gaps, particularly in rural areas and among other communities and industries where many may already be left behind.⁶¹ Questions about variations in economic outcomes and rural digital economy infrastructures are not limited to the United States. In Germany, for example, Internet speeds in rural areas are slower: “[a]t the moment, Germany’s rural areas are still leagues away from their urban counterparts when it comes to internet access. Only 75.1 percent of rural areas achieve 30 Mbit/s internet speed whereas cities are at 97.4 percent according to official government numbers.”⁶²

⁵⁸ J. Busby and J. Tanberk, FCC Reports Broadband Unavailable to 21.3 Million Americans, BroadbandNow Study Indicates that 42 Million Do Not Have Access, February 3, 2020, <https://broadbandnow.com/research/fcc-underestimates-unserved-by-50-percent>.

⁵⁹ Federal Communications Commission, 2019 Broadband Deployment Report, Released May 29 2019, at 2, <https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf>.

⁶⁰ Busby and Tanberk, *supra* note 58.

⁶¹ C. Hendrickson, M. Muro & W.A. Galston, Countering The Geography Of Discontent: Strategies For Left-Behind Places, Brookings Institution, November 2018, at 12, <https://www.brookings.edu/wp-content/uploads/2018/11/2018.11>; R. Wuthnow, *The Left Behind: Decline And Rage In Rural America* (Princeton: Princeton University Press, 2018), at 1-4; K.A. Tramontano, “America Is Failing Workers Left Behind by the New Economy,” Washington Monthly, March 7 2017, <https://washingtonmonthly.com/2017/03/07/america-is-failing-workers-left-behind-by-the-new-economy/> [<https://perma.cc/2NAT-CF44>]

⁶² Felix Franz, Home office could be here to stay in Germany – if the internet in rural areas holds up, Heinrich Böll Stiftung, Brussels, June 2, 2020, <https://eu.boell.org/en/2020/06/02/home-office-could-be-here-stay-germany-if-internet-rural-areas-holds-up#:~:text=At%20the%20moment%2C%20Germany's%20rural,according%20to%20official%20government%20numbers>.

4. **Conclusion**

Although we may see reorganization of aspects of work, education and other areas in the aftermath of Covid-19, the digital divide may prevent many from participating in these new options. This may further intensify the impact of the pre-Covid-19 digital divides and further diminish opportunities for those lack access to devices and broadband connections to enable fully digital economy participation.

Selected Bibliography

Christensen, C., *The Innovator’s Dilemma: When New Technologies Cause Great Firms to Fail* (Boston: Harvard Business Review Press, 1997).

Lessig, L., *Code:Version 2.0* (New York: Basic Books).

Piketty, T., *Capital in the Twenty-First Century* (Cambridge: Harvard, 2017).

Taplin, J., *Move Fast and Break Things: How Facebook, Google, and Amazon Cornered Culture and Undermined Democracy* (New York: Little, Brown, 2017)