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**SYMPOSIUM: CHANGING LANDSCAPE
OF TRANSPORTATION LAW: TECHNOLOGY,
DATA, AND THE LAW**

**ARE UBER AND TRANSPORTATION
NETWORK COMPANIES THE FUTURE OF
TRANSPORTATION (LAW) AND
EMPLOYMENT (LAW)?**

*by Miriam A. Cherry**

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I. INTRODUCTION

Uber, Lyft, and other transportation network companies (“TNCs”),¹ have garnered a great deal of attention in the media and popular press for the efficiencies of their service, their “disruptive” business models, and their labor practices.² Uber has almost 400,000 drivers in California and Massachusetts alone.³ Other TNCs have countless drivers of their own, and TNCs have become especially popular in densely populated cities.⁴ Gone are the days when one needed to hail or flag down a taxi, or call a dispatcher to request one. Now customers can summon TNC drivers using “apps” on their smartphones, and TNC platforms match them with available drivers, who arrive in personal vehicles.⁵ Many customers prefer this system for reasons of promptness and convenience, and the apps also allow them to track drivers via GPS “and thus to have a better sense of scheduling the trip.”⁶ Uber and other TNCs have made obtaining a ride considerably more efficient, cheaper, and more convenient for many customers.

In fact, TNCs have been described as a transportation revolution, changing the way taxi fares are provided and the way ordinary people routinely get from place to place.⁷ Uber as a corporation has been quite successful, attracting billions of dollars in investment from venture capitalists and quickly expanding its ridesharing businesses to

1. This article uses the term “TNC” but also at times uses “Uber” or “uber” in different ways. Uber is indeed the market leader for ridesharing apps, and it may fall into place with terms like “kleenex” and “xerox” where the brand name becomes so ubiquitous that the term is then used to refer to the generic product or process.

2. See, e.g., Benjamin Means & Joseph A. Seiner, Essay, *Navigating the Uber Economy*, 49 U.C. DAVIS L. REV. 1511 (2016) (examining doctrinal tests for employee and independent-contractor status in the context of the Uber litigation).

3. This was the approximate size of the class certified in the *O’Connor v. Uber* lawsuit. Davey Alba, *Judge Rejects Uber’s \$100 Million Settlement with Drivers*, WIRED (Aug. 18, 2016, 8:04 PM), <https://www.wired.com/2016/08/uber-settlement-rejected> [<https://perma.cc/J9SF-STFX?type=image>].

4. David Johnson, *See Where Uber Faces the Biggest Competition*, TIME (Nov. 21, 2014), <http://time.com/3598873/uber-alternatives> [<https://perma.cc/BY6E-G3HT>].

5. Sara Thornton, Comment, *The Transportation Monopoly Game: Why Taxicabs Are Losing and Why Texas Should Let Transportation Network Company Tokens Play*, 47 TEX. TECH L. REV. 893, 895 (2015); see *How to Request a Ride*, LYFT, <https://help.lyft.com/hc/en-us/articles/213584098-How-to-Request-a-Ride> [<https://perma.cc/3VY2-JD2W>]; Ravi Mahesh, Note, *From Jitneys to App-Based Ridesharing: California’s “Third Way” Approach to Ride-for-Hire Regulation*, 88 S. CAL. L. REV. 965 (2015).

6. Miriam A. Cherry, *Beyond Misclassification: The Digital Transformation of Work*, 37 COMP. LAB. L. & POL’Y J. 577, 580 (2016).

7. See Katy Steinmetz, *How Uber and Lyft Are Trying to Solve America’s Carpooling Problem*, TIME (June 23, 2015), <http://www.time.com/3923031/uber-lyft-carpooling> [<https://perma.cc/Z9DY-8PMD>].

many cities.⁸ To “uber” is now a verb, meaning “[t]o arrive at a destination via ridesharing service.”⁹

As a company, Uber has also proven itself litigious, using some of the money it has raised through investment to defend itself in litigation with municipal governments over regulatory issues, litigation with its workers over employee status, and various other legal matters.¹⁰ Uber also now has a meta-meaning that encompasses a number of its distinct business practices, such as lowering labor costs by using “independent contractors,”¹¹ managing workers by algorithm,¹² and cutting inefficiencies and middlemen through technology.¹³ Many have noted that Uber has an aggressive attitude of “asking forgiveness” rather than “asking permission” of local authorities as its business expands.¹⁴ Thus, when people say they will “uber” a problem, they could mean seeking solutions from the crowd, using technology to improve solutions, taking humans out of the equation, or expanding rapidly—perhaps without permission.

8. See Kevin Kelleher, *What Uber's Massive New Investment Really Means*, TIME (June 1, 2016), <http://time.com/4354575/uber-saudi-investment> [<https://perma.cc/WU8D-BWTN>]; Johnson, *supra* note 4.

9. Judy Greenwald, *Uber (oo-ber) Verb: To Arrive at a Destination via Ride-Sharing Service*, BUS. INS. (Apr. 10, 2016, 12:00 AM), <http://businessinsurance.com/article/20160410/NEWS06/304109970/1238> [<https://perma.cc/JJ3A-5FL2>]; see also Bryan Heater, *Uber and Lyft Try to Get Out the Vote*, TECHCRUNCH (Nov. 4, 2016), <https://techcrunch.com/2016/11/04/uber-and-lyft-election> [<https://perma.cc/223B-7AZH>] (demonstrating broader use of the technology).

10. See Lucas E. Buckley et al., *The Intersection of Innovation and the Law*, WYO. LAW., Aug. 2015, at 36 (“Attacking highly regulated industries, acting without permission, and tweaking essential components may be helpful strategies for creating a competitive edge and revolutionizing an industry. However, these same factors are – not surprisingly – magnets for litigation.”).

11. Stephen Gandel, *Uber-nomics: Here's What It Would Cost Uber to Pay Its Drivers as Employees*, FORTUNE (Sept. 17, 2015, 2:12 PM), <http://fortune.com/2015/09/17/ubernomics> [<https://perma.cc/HY5P-AZW6>].

12. Tom Simonite, *When Your Boss Is an Uber Algorithm*, MIT TECH. REV. (Dec. 1, 2015), <https://www.technologyreview.com/s/543946/when-your-boss-is-an-uber-algorithm/> [<https://perma.cc/F23V-27VB>].

13. Jason Abbruzzese, *Uber Isn't a Savior for Drivers Any More than Amazon Is for Authors*, MASHABLE (May 28, 2014), <http://mashable.com/2014/05/28/uber-drivers-salary-not-sustainable/#QWH1QQW0ikq6> [<https://perma.cc/D6KH-AKC8>].

14. E.g., Aarti Shahani, *As Uber Expands, It Asks Cities for Forgiveness Instead of Permission*, NPR (Dec. 26, 2014, 3:31 AM), <http://www.npr.org/sections/alltechconsidered/2014/12/26/373087290/as-uber-expands-it-asks-cities-for-forgiveness-instead-of-permission> [<https://perma.cc/HA3W-FGQK>]. Sometimes this strategy has worked in Uber's favor, like with municipal governments that do not want to disturb a service already in operation and deemed to be worthy. But in other situations, Uber's aggressive stance has backfired. Austin, Texas, for instance, held a referendum on the regulatory terms by which Uber was operating. In response, Uber threatened to pull out of the city altogether rather than abide by the rules that would be set out in the vote. Perhaps offended or angered by these threats, Austin's citizens voted in favor of the regulations and Uber promptly pulled the plug on operations. See Richard Parker, Opinion, *How Austin Beat Uber*, N.Y. TIMES (May 12, 2016), http://www.nytimes.com/2016/05/12/opinion/how-austin-beat-uber.html?_r=0 [<https://perma.cc/2EYR-8ME8>].

Meanwhile, commentators have written numerous in-depth articles about the Uber phenomenon,¹⁵ its financing,¹⁶ its executives,¹⁷ its way of doing business,¹⁸ its treatment of workers,¹⁹ its role in the on-demand economy,²⁰ its technology,²¹ and other Uber-related topics.²² Likewise, as Uber has generated litigation and other controversy, law-review coverage of the company and its business practices has proliferated. Topics have included Uber's clashes with local regulators,²³ litigation with drivers over employee versus independent-contractor status,²⁴ tort-law responsibility for accidents and insurance,²⁵ anti-competition law,²⁶ and the company's business practices more gener-

15. E.g., Rob Lever, *Uber Steers Anti-Taxi Idea to Become Global Phenomenon*, YAHOO! NEWS (Jan. 29, 2015), <https://www.yahoo.com/news/uber-steers-anti-taxi-idea-become-global-phenomenon-065836340.html?ref=GS> [<https://perma.cc/4MEA-KB9B>].

16. E.g., Jennifer S. Fan, *Regulating Unicorns: Disclosure and the New Private Economy*, 57 B.C. L. REV. 583, 632–36 (2016); Paresh Dave, *Has Uber Maxed Out on Private Financing?*, L.A. TIMES (Aug. 2, 2016, 4:55 PM), <http://www.latimes.com/business/technology/la-fi-tn-uber-funding-ipo-20160801-snap-story.html> [<https://perma.cc/9YD2-2CU2>].

17. E.g., Biz Carson, *You Know Travis Kalanick. Meet the 23 Other Power Players of Uber*, BUS. INSIDER (Jan. 29, 2016, 1:43 PM), <http://www.businessinsider.com/the-power-players-of-uber-2016-1> [<https://perma.cc/734E-6CJS>].

18. E.g., Heesun Wee, *The Uber Business Model Loses Some of Its Sheen*, CNBC (Mar. 29, 2016, 1:43 PM), <http://www.cnbc.com/2016/03/29/on-demand-business-model-looses-some-of-its-sheen.html> [<https://perma.cc/6BTU-AQN8>]; Ajay Deep, *How Uber Works: Insights into Business & Revenue Model*, JUGGERNAUT (Sept. 24, 2015), <http://nextjuggernaut.com/blog/how-uber-works-business-model-revenue-uber-insights> [<https://perma.cc/7BJS-B78C>].

19. E.g., Rebecca Smith, *It Won't Kill Uber to Treat Drivers Like Employees*, FORTUNE (June 19, 2015, 3:16 PM), <http://fortune.com/2015/06/19/it-wont-kill-uber-to-treat-drivers-like-employees> [<https://perma.cc/H5YQ-BXYH>].

20. E.g., Means & Seiner, *supra* note 2; Adam Lashinsky, *Why Uber Personifies the Best of the On-Demand Economy*, FORTUNE (Mar. 16, 2016, 8:37 AM), <http://fortune.com/2016/03/16/uber-on-demand-economy> [<https://perma.cc/C2MC-2CXZ>].

21. E.g., Kate Abrosimova, *Be Like Uber – Build Like Uber. What Is the Uber App Made From?*, YALANTIS: BLOG, <https://yalantis.com/blog/uber-underlying-technologies-and-how-it-actually-works> [<https://perma.cc/X2WT-QXYH>].

22. E.g., *id.*

23. E.g., Boris Bindman, Note, *Keep on Truckin', Uber: Using the Dormant Commerce Clause to Challenge Regulatory Roadblocks to TNCs*, 72 WASH. & LEE L. REV. ONLINE 136 (2015); see also Caleb Holloway, Comment, *Uber Unsettled: How Existing Taxicab Regulations Fail to Address Transportation Network Companies and Why Local Regulators Should Embrace Uber, Lyft, and Comparable Innovators*, 16 WAKE FOREST J. BUS. & INTELL. PROP. L. 20 (2015) (discussing the regulation of TNCs).

24. E.g., Means & Seiner, *supra* note 2; Brishen Rogers, *The Social Costs of Uber*, 82 U. CHI. L. REV. DIALOGUE 85, 98–101 (2015).

25. E.g., Alexi Pfeffer-Gillett, Note, *When "Disruption" Collides with Accountability: Holding Ridesharing Companies Liable for Acts of Their Drivers*, 104 CALIF. L. REV. 233 (2016); Jennie Davis, Note, *Drive at Your Own Risk: Uber Violates Unfair Competition Laws by Misleading UberX Drivers About Their Insurance Coverage*, 56 B.C. L. REV. 1097 (2015).

26. E.g., Orly Lobel, *The Law of the Platform*, 101 MINN. L. REV. 87 (2016); Rebecca Elaine Elliott, Note, *Sharing App or Regulation Hack(ney)?: Defining Uber Technologies, Inc.*, 41 J. CORP. L. 727 (2016).

ally.²⁷ Various commentators have alternatively hailed Uber as an incredibly efficient transportation provider,²⁸ a boon for consumers,²⁹ a terrible result for workers,³⁰ an exploiter or arbitrageur of the legal system,³¹ and an opportunistic bully.³²

This Article largely eschews easy or reflexive judgments about Uber or other TNCs. In this piece, the Author asks two questions about the economic, social, technical, and political aspects of TNCs and their interactions with the law. First, are Uber and TNCs the future of transportation (and transportation law)? And second, are Uber and TNCs the future of employment (and employment law)? In a common-law system, reasoning from precedent is always a form of prediction. As Oliver Wendell Holmes stated, “[t]he prophecies of what the courts will do in fact, and nothing more pretentious, are what I mean by the law.”³³ But answering these questions is more than a legal issue. Such predictions depend on analyzing not just legal precedents but also social and economic trends. Predicting the future, especially of technology, is always a risky and fraught task. Yet drawing on trends we can see developing now, portions of the “uber” business model are here to stay, while other parts are unlikely to remain.

II. TNCs AS THE FUTURE OF TRANSPORTATION (AND TRANSPORTATION LAW)

Using the Texas A&M Changing Landscape of Transportation Symposium as a backdrop, let us first turn to the transportation-law component. In this regard, the presentations at the symposium were revealing, especially to the Author as someone who has not traditionally been focused on researching transportation law.³⁴ Other presenters focused on fascinating new transportation technologies that are either being employed or are under development, such as Amazon’s delivery drones, smart cities and traffic control, electric vehicles, flying vehicles, semi-autonomous vehicles and truck convoys, and ul-

27. *E.g.*, Joshua M. Mastracci, Comment, *A Case for Federal Ride-Sharing Regulations: How Protectionism and Inconsistent Lawmaking Stunt Uber-Led Technological Entrepreneurship*, 18 TUL. J. TECH. & INTELL. PROP. 189 (2015).

28. *See, e.g., id.* at 193.

29. *See, e.g.*, Holloway, *supra* note 23, at 32.

30. *E.g.*, Jack Smith IV, *Uber Drivers Are Scrambling to Make Ends Meet After Latest Fare Cuts*, OBSERVER (Feb. 9, 2015, 3:22 PM), <http://observer.com/2015/02/uber-drivers-are-scrambling-to-make-ends-meet-after-latest-fare-cuts> [<https://perma.cc/GM5D-79XA>]; Rogers, *supra* note 24, at 101–02.

31. Rogers, *supra* note 24, at 87.

32. Holloway, *supra* note 23, at 32–39.

33. Oliver Wendell Holmes, *The Path of the Law*, 10 HARV. L. REV. 457, 460–61 (1897).

34. While the Author has written previously on Uber and the on-demand economy, as in Part III, she has typically approached it from the angle of labor law and adjusting to a new way of working. In contrast, this Part focuses mainly on the impact of Uber on the way we travel and the application of transportation law.

tra-high-speed rail. All of these technologies were presented as transportation “solutions” for the future—solutions to *various and diffuse problems* that current users, providers, and policymakers have identified when grappling with transportation issues.³⁵

Some of the problems discussed included overuse of, and dependence on, traditional fuels that contribute to global warming; unsafe modes of transportation that lead to high incidences of casualty and fatalities; the slowness of various modes of transportation; inconvenience and high costs to consumers; and transportation bottlenecks that slow down the provision of services. All of these are valid and important concerns, yet they are also intractable and complicated. It is important to note that some of the technologies mentioned in the previous paragraph focus on only solving one of the listed problems and do not address the others at all. In fact, some of these proposed solutions might fix one problem, but potentially exacerbate another.

For example, building more roads—a solution mentioned during the symposium—might assist with bottlenecks and result in less time wasted in traffic. But at the same time, it might stimulate or increase the use of private cars and lead to more pollution and greenhouse-gas emissions. Other technologies, like the flying car, might serve consumer convenience—but would likely use far more energy and further increase emissions.

On the bright side, some technologies discussed at the symposium could “kill two birds with one stone.” For example, semi-autonomous cars and truck convoys might increase safety, with far fewer accidents due to driver negligence, inattention, or lack of skill—while at the same time reducing fuel consumption. Ultra-high-speed rail would not only lead to energy-saving and quick transport, but would also help ease transportation bottlenecks. Thus, in terms of the future of transportation, we must think more deeply about which of the proposed technologies seem not only to be the most convenient, but which also appear to focus the most on the values and goals that seem wisest to pursue.

And so, given the various problems identified at the symposium and the fact that some solutions may only target one or two of these problems, it is wise to think about the values and goals embodied and promoted by the use of Uber and other TNCs. Some of these goals and values are extremely positive and community-minded, but others are less so. In the late 2000s, the so-called “sharing economy” began as a way for neighbors to assist each other and to engage in more

35. See, e.g., Juanita Bernal Sanint, *Uber: An Effective Transportation Solution*, SOLKES, <http://www.solkes.com/uber-an-effective-transportation-solution> [https://perma.cc/Y5XF-WZUS] (describing the corrupt and monopolized public transportation system in Bogotá, Colombia, to which Uber offers an attractive alternative—if it can break through the red tape).

sustainable modes of production.³⁶ Rather than ownership, participants in the sharing economy were interested in gaining access to resources that would be held in common as shared resources.³⁷ Based on models of community volunteerism and pooled assets, such as lending libraries and tool collections, the sharing economy sought to reduce consumption and increase access to resources.³⁸

Online ridesharing companies sprang up to do just that by facilitating neighbors sharing rides. For example, early commercials for Lyft showed neighbors assisting their friends and neighbors without cars, making it more feasible to exist without cars in areas that were already jammed with traffic.³⁹ Perhaps with an inexpensive and more convenient alternative to cabs, a resident would not need to add yet another car to the streets in places like San Francisco and would instead be able to rely on public transportation and bikes, with the occasional helping hand from a ridesharing service. The sharing economy was seen as a “green,” more sustainable choice that avoided excess consumption, such as additional cars and the space they take up.⁴⁰ The idea of giving others rides within the community and helping out one’s neighbors was akin to volunteerism; payments were to help out with the cost of owning and garaging cars in the Bay Area, but were not intended to be sufficient to allow full-time employment as a driver.⁴¹

As the years went by, however, the model evolved from one of true “sharing,” where perhaps neighbors took turns swapping rides or saw it as a way to find a ride or carpool in the morning, into one not much different from that of taxicabs or private car services. These days, Uber and Lyft are solidly for-profit businesses and, in fact, are aggressively so.⁴² Rather than encouraging average people to volunteer their

36. See Jenny Kassan & Janelle Orsi, *The LEGAL Landscape of the Sharing Economy*, 27 J. ENVTL. L. & LITIG. 1, 3–4 (2012).

37. See JANELLE ORSI & EMILY DOSKOW, *THE SHARING SOLUTION: HOW TO SAVE MONEY, SIMPLIFY YOUR LIFE & BUILD COMMUNITY* 8–9 (2009).

38. See *The Rise of the Sharing Economy*, *ECONOMIST* (Mar. 9, 2013), <http://www.economist.com/news/leaders/21573104-internet-everything-hire-rise-sharing-economy> [<https://perma.cc/A4NV-9JHB>].

39. E.g., Maureen Morrison, *Lyft’s First Big Ad Campaign: We’re Not Just a Transportation Service, We Create Community*, *ADVERT. AGE* (Jan. 27, 2015), <http://adage.com/article/digital/lyft-launches-national-campaign/296819> [<https://perma.cc/L4VK-4QK3>] (describing Lyft’s attempt to “differentiate itself by offering a combination of ‘humanity and technology’” and providing a video showing a Lyft commercial set in the San Francisco Bay Area); Lyft, *What Is Lyft?*, *YOUTUBE* (Mar. 26, 2014), <https://www.youtube.com/watch?v=X2bQdf408T8> (explaining how Lyft works and noting that you meet new friends and community members in using it); Lyft, *Lyft Community Solutions: The Price We Pay*, *YOUTUBE* (Oct. 16, 2014), <https://www.youtube.com/watch?v=OhOrD-Kkt5E> (noting that the company has increased opportunities for the disabled and those residents who live without a car).

40. Cherry, *supra* note 6, at 579.

41. *Id.* at 579–80.

42. See Brian Solomon, *Lyft: We’re Closing In on Uber with a ‘Path to Profitability’*, *FORBES: TECH* (May 12, 2016, 10:00 AM), <http://www.forbes.com/sites/briansolomon/2016/05/12/lyft-were-closing-in-on-uber-with-path-to-profitability> [<http://web>].

cars on the odd chance they feel like it every few weeks on the way to work, Uber encourages drivers to be available to work for extended periods (the equivalent of “shifts”) and at inconvenient times so that dedicated customers are not stuck without rides.⁴³ Another hallmark of present TNC services is the “on-demand” nature of the rides, and many customers rave about the convenience of services like Uber and Lyft compared to slow or inefficient taxi services.⁴⁴ With a TNC, one can determine from looking at a smartphone where the nearest driver is and how long a commute will take, unlike with traditional telephone dispatch or the random and unsystematic idea of “hailing” a cab in a large city.

Looking at their overall development, we should ask about the values and goals TNCs advance and which particular transportation problems they attempt to solve. In the beginning, when Lyft marketed and promoted itself as a “sharing” service, perhaps one of its most important goals was to promote a green alternative to individual private-car ownership. Car ownership not only generates extra trips that result in fuel consumption, but it also means needing a place to park and store a car in a city with little available space. Thus the goals of TNCs at that early “sharing” point would have been environmentalism, by lessening of emissions and fuel consumption; eliminating transportation bottlenecks by cutting down on the number of cars on the road; and reducing inequality by making car rides more affordable to those who could not afford to own and garage a car in the city. As a byproduct of all of this, the mobile apps came to be seen as much more consumer-friendly and convenient than conventional processes of obtaining a taxi.

In the past few years, the problems that TNCs are tackling have changed along with the shifts in their business models. Rather than emphasizing the environmental perspective, or that neighbors are pitching in to help each other with rides, TNCs like Uber and Lyft have shifted into providing what amounts to a new taxi service that seeks loopholes in existing regulations.⁴⁵ It is not clear if TNCs would be competitive if they had to incorporate regulations and compliance into their business models. TNCs presently capitalize on the conve-

archive.org/web/20161014124429/http://www.forbes.com/sites/briansolomon/2016/05/12/lyft-were-closing-in-on-uber-with-path-to-profitability/#6ceafd3f772a].

43. See, e.g., Annie Lowrey, *Is Uber's Surge-Pricing an Example of High-Tech Gouging?*, N.Y. TIMES MAG.: IT'S THE ECONOMY (Jan. 10, 2014), <http://www.nytimes.com/2014/01/12/magazine/is-ubers-surge-pricing-an-example-of-high-tech-gouging.html> [https://perma.cc/7JS2-6E9N] (discussing Uber's price surging during a snowstorm and on New Year's Eve to increase the supply of drivers to meet rider demand).

44. See, e.g., Melena Ryzik, *How Uber Is Changing Night Life in Los Angeles*, N.Y. TIMES: FASHION & STYLE (Oct. 31, 2014), <http://www.nytimes.com/2014/11/02/fashion/how-uber-is-changing-night-life-in-los-angeles.html> [https://perma.cc/SWY3-4HEL] (“Taxis here were often unreliable . . . but ride shares are always just a swipe away.”).

45. See Cherry, *supra* note 6, at 580–81.

nience of their services and the idea that there is less waiting involved. Fares are also set to be lower than those charged by traditional taxicabs.⁴⁶ Thus, at the present time, reduced customer cost and increased convenience (through the ease of use of the mobile app) seem to be the main aims of TNCs.

A. Regulation and Run-Ins with Local Government

In addition to more recent litigation by drivers, it is important to note that some of the original opposition to, and litigation involving, TNCs came from existing cab drivers and local governments that argued TNCs required regulation. With drivers largely unlicensed to operate taxis or for-profit car services, there have been safety concerns.⁴⁷ However, Uber has largely brushed these concerns aside, adopting an aggressive litigation stance.⁴⁸ As an example, the Metropolitan Taxi Commission in St. Louis originally refused to let Uber operate in the city limits because of a lack of background checks for drivers; Uber then sued the Taxi Commission in federal court, alleging antitrust violations.⁴⁹ The Taxi Commission has in return brought a lawsuit seeking to enjoin Uber's operations, and Uber was also sued by individual taxi drivers in St. Louis.⁵⁰ Undaunted by the ongoing litigation, Uber defiantly continues operations in the city.⁵¹

In some cases, TNCs will even lobby state and local governments or propose "model codes" to allow operations without being subject to the regulations applicable to taxi services. For instance, Uber has hired more than twenty lobbyists to ensure "favorable treatment" in the Texas Legislature.⁵² And in Eugene, Oregon, Uber has argued that city regulations do not apply to TNCs because they "are funda-

46. Laura J. Nelson, *Uber and Lyft Have Devastated L.A.'s Taxi Industry*, *City Records Show*, L.A. TIMES (Apr. 14, 2016, 5:26 PM), <http://www.latimes.com/local/lanow/la-me-ln-uber-lyft-taxis-la-20160413-story.html> [https://perma.cc/L2UU-4E5S] ("Uber's per-mile rate is lower than that of taxis, which have their rates set by city officials.").

47. See Daniel E. Rauch & David Schleicher, *Like Uber, but for Local Government Law: The Future of Local Regulation of the Sharing Economy*, 76 OHIO ST. L.J. 901, 922–23 (2015).

48. See Bindman, *supra* note 23.

49. For a summary of the tortured story of Uber in St. Louis, see Leah Thorsen, *St. Louis Area Taxi Drivers File Suit Against Uber*, ST. LOUIS POST-DISPATCH (Nov. 16, 2015), http://www.stltoday.com/news/local/metro/st-louis-area-taxi-drivers-file-suit-against-uber/article_f2c2a69f-90cb-58a6-b513-d122cb6189cd.html [https://perma.cc/4552-4JTC].

50. *Id.*

51. See Linda Chiem, *Uber Beats St. Louis Taxi Drivers' Suit over Fingerprint Regs*, LAW360 (Oct. 11, 2016, 5:51 PM), <http://www.law360.com/articles/849717/uber-beats-st-louis-taxi-drivers-suit-over-fingerprint-regs> [https://perma.cc/25Z6-MYYC].

52. Bill Lambrecht, *Uber Fights Pushback on Ride Service with Politics*, HOUS. CHRON. (Mar. 1, 2015), <http://www.houstonchronicle.com/news/houston-texas/houston/article/Uber-fights-pushback-on-ride-service-with-politics-6109354.php> [https://perma.cc/U9G9-BU2S].

mentally different from existing taxi companies” and has proposed a “model code” allowing it to operate in the city without adhering to the regulations.⁵³

One set of commentators has predicted that these so-called “sharing wars,” in which local governments litigate or bar TNCs and other on-line platforms and TNCs must lobby for laws allowing their operations, are just a phase until acceptance and even eventual encouragement of these services by municipalities occurs.⁵⁴ Noting that the presence of a service like Uber or AirBnB helps a city become more attractive to tourists and visitors, Daniel Rauch and David Schleicher note that on-demand providers will become crucial to marketing and promotion efforts.⁵⁵ It may be that TNCs and other platform providers become indispensable in the future because of their ubiquity. And perhaps local and municipal governments will not only embrace these services, but even request them to take over services that are not presently particularly efficient or consumer-friendly. However, to suggest that TNCs in their present form could somehow substitute for public transportation seems problematic, if only because of the sheer volume of rides offered. If a major goal is to reduce the environmental footprint of transportation, then TNCs cannot be seen as a substitute for public transportation.

B. *Taxicabs with Better Communications? Or Something More?*

How the legal system views TNCs is also an open question. Courts that have considered the issue have declined to view TNCs as “software companies,” instead noting that labor in the provision of transportation is an important part of all TNC business models.⁵⁶ In other words, without drivers using their cars and providing rides, the software that runs on mobile apps is not particularly valuable. If TNCs are strictly taxicabs with better communications, then perhaps they should not be considered “the future” of transportation or transportation law.

But there is some indication that Uber is playing the “long game” apart from its first-mover advantage in new markets by becoming a player in the autonomous-vehicle space.⁵⁷ Given that fleets of auto-

53. E.g., Gordon Friedman, *There's an Uber Problem in Eugene*, DAILY EMERALD (Feb. 26, 2015, 8:00 AM), <http://www.dailyemerald.com/2015/02/26/theres-an-uber-problem-in-eugene/> [<https://perma.cc/QJ3Q-WNQM>].

54. See, e.g., Rauch & Schleicher, *supra* note 47.

55. See *id.* at 945–47.

56. AJ Dellinger, *California Court Cracks Down on Uber's Claim That Its Drivers Aren't Employees*, DAILY DOT (June 17, 2015, 12:26 PM), <http://www.dailydot.com/debug/uber-drivers-employees-contractors-california/> [<https://perma.cc/FS8M-ZW83>]; see Veena Dubal, *Wage Slave or Entrepreneur?: Contesting the Dualism of Legal Worker Identities*, 105 CALIF. L. REV. 65, 102 (2017).

57. Mike Ramsey & Douglas Macmillan, *Carnegie Mellon Reels After Uber Lures Away Researchers*, WALL ST. J. (May 31, 2015, 11:03 AM), <http://www.wsj.com/arti>

mous vehicles that respond to the summons of a smartphone are under development, why even bother with independent contractors? Why not dispense with drivers altogether? Perhaps, then, TNCs are a type of “weigh station” towards autonomous vehicles, rather than an end in and of itself. Uber as both a TNC *and* a provider of autonomous vehicles would be an incredibly ambitious undertaking.

The other way TNCs may become part of the future of transportation would be if they could reconnect with their roots (routes?) in the sharing economy. If TNCs are viewed as providing solutions that go beyond customer convenience and speed, they stand a more likely chance to endure. This is already happening through the rollout of services like UberPool.⁵⁸ With UberPool, algorithms help set out a path in which the driver navigates in such a way as to be able to pick up and drop off multiple, overlapping passengers in a single trip.⁵⁹ And in Europe, the company BlaBlaCar facilitates carpooling with passengers paying towards car upkeep but no more.⁶⁰

Uber is additionally working on functions in the area of package delivery.⁶¹ If along a delivery route a driver can also pick up paying passengers, that not only increases profitability, but also means that fewer trips are being taken and more fuel is being conserved. Doubling taxicabs as delivery vehicles could also lead to more cars being taken off the road. And if the vehicles used for these delivery and shuttle services become autonomous, it is possible that traffic safety will be increased further. Imagine—self-driving vehicles summoned by cell-phone apps with routes planned for maximum efficiency to accommodate multiple passengers and delivery of goods—helping usher in a world where few people own their own cars and no one drives. Of course, certain laws, even beyond those regulating taxi services, would need to change to accommodate this future and all of this is very uncertain. At the present moment, TNCs do not do much to solve the

cles/is-uber-a-friend-or-foe-of-carnegie-mellon-in-robotics-1433084582; see Clive Thompson, *Uber Would Like to Buy Your Robotics Department*, N.Y. TIMES MAG. (Sept. 11, 2015), <http://www.nytimes.com/2015/09/13/magazine/uber-would-like-to-buy-your-robotics-department.html> [https://perma.cc/9YUV-SWBK].

58. uberPOOL: Share Your Ride and Save, UBER, <https://www.uber.com/ride/uberpool> [https://perma.cc/LN7N-JNZZ]; Farhad Manjoo, *Car-Pooling Helps Uber Go the Extra Mile*, N.Y. TIMES (Mar. 30, 2016), <http://www.nytimes.com/2016/03/31/technology/car-pooling-helps-uber-go-the-extra-mile.html> [https://perma.cc/X9DK-PD6H]; see also K. Casey Strong, Comment, *When Apps Pollute: Regulating Transportation Network Companies to Maximize Environmental Benefits*, 86 U. COLO. L. REV. 1049, 1071 (2015) (discussing potential environmental benefits of TNC carpooling).

59. See Manjoo, *supra* note 58.

60. *How Do I Set My Price?*, BLA BLA CAR, <https://www.blablacar.in/faq/question/how-do-i-set-my-price> [https://perma.cc/83NF-K247].

61. See *How It Works*, UBER RUSH, <https://rush.uber.com/how-it-works> [https://perma.cc/A4LM-SCRU]; Biz Carson, *Uber Finally Unleashes Its FedEx Killer, Uber Rush*, BUS. INSIDER (Oct. 14, 2015, 8:00 AM), <http://www.businessinsider.com/uber-rush-fedex-killer-released-2015-10> [https://perma.cc/EY6C-RDSG].

transportation problems of the twenty-first century. Instead, TNCs seem like nothing more than ultra-efficient taxi services that provide cheaper rides and increased customer convenience.

III. TNCs AS THE FUTURE OF EMPLOYMENT (AND EMPLOYMENT LAW)

The second question for discussion is whether Uber is the future of employment and employment law. In *Beyond Misclassification: The Digital Transformation of Work*, the Author argued “that we are currently experiencing a far-reaching *digital transformation of work*,” including changes such as growth in automatic management, globalization, and more precarious work.⁶² The fact that these changes have been engendered largely through changes in the transportation industry is somewhat ironic, as the factory assembly line also had its origins in transportation—specifically in the automotive industry.

[In the early 1900s,] Frederick Taylor further refined the deconstruction of work through so-called scientific management. So-called “Taylorism” sought to calibrate each worker’s actions to achieve the highest level of efficiency. . . . [Henry] Ford wanted a stable and loyal workforce, and in order to get that, he had to pay higher wages to those performing repetitious and occasionally hazardous tasks.

The shift to a knowledge-based, information-rich economy at the end of the millennium also engendered a shift to a new model of work. Some of the characteristics of the new digital work described by [Katherine] Stone are an increased emphasis on worker knowledge, training and skills. The digital era, as Stone defines, refers to mid to late twentieth century, when computers and the internet became “the central nervous system of global production networks.” Based on a shift towards fluid workplaces and permeable borders between firms, the digital model places a high value on the intellectual capital of employees. Gone was the idea of a “life cycle” model of employment. Instead, workers had shorter job tenure, and were expected to advance by moving horizontally across different firms. Worker loyalty, having been eroded by mass layoffs and movement of manufacturing jobs overseas in the 1980s, was instead replaced by the notion of “employability.” . . .

Other characteristics of this new digital model included the flattening of organizations and subtracting middle management. As workers are hired for their knowledge and expertise, their employment often was centered around a certain project or projects. While employment might not last beyond a particular project, workers were often promised opportunities to enhance their skills to provide motivation. . . . Job changes and moves are common in this new digital model of work. . . . [Because of this, Stone] especially calls for legal reform around the issue of noncompetition clauses, which

62. Cherry, *supra* note 6, at 579.

prevent workers from using their skills and their network for rival firms.⁶³

Subsequently, the new “gig” or “sharing” economy has arisen, including the TNCs that are the focus of this Article. Work in the gig economy and the common problem of employee misclassification will be discussed in the next Section.

A. Work in the “Gig” Economy and Worker Classification

Millions of people work in the “on-demand,” “gig,” or “sharing” economy.⁶⁴ These “crowdworkers” work via websites and apps, including those for Handy,⁶⁵ Amazon Mechanical Turk,⁶⁶ Instacart,⁶⁷ and the TNCs that are the focus of this Article.

[However, t]hese new companies’ labor practices have sparked intense litigation in the United States. Currently, these [disputes] are focusing on a common doctrinal issue – whether the workers in the platform, on-demand economy have the status of employees or independent contractors. The question of employee status is particularly important because many of the rights and benefits provided for in U.S. employment law (minimum wage, protection from discrimination, unemployment insurance, worker’s compensation) are only triggered for those who are deemed to be “employees.”⁶⁸

[W]hether a worker is an employee or independent contractor is determined through various multifactor tests dependent on the facts of the relationship. The “control” test derives from the caselaw and decisions on agency law, and focuses on a principal’s right to control the worker. . . . [S]ome of the factors for finding employee status are whether the employer may direct the way in which the work is performed, determine the hours involved, and provide the employee with direction. On the other hand, elements that lean toward independent contractor classification include high-skilled work, workers providing their own equipment, workers setting their

63. *Id.* at 595–96 (footnotes omitted) (quoting KATHERINE V. W. STONE, FROM WIDGETS TO DIGITS: EMPLOYMENT REGULATION FOR THE CHANGING WORKPLACE 5 (2004)) (first citing FREDERICK WINSLOW TAYLOR, THE PRINCIPLES OF SCIENTIFIC MANAGEMENT 31 (1911); then citing STONE, *supra*, at 34–36; then citing Dodge v. Ford Motor Co., 170 N.W. 668 (Mich. 1919); and then citing STONE, *supra*, at 44–45, 92, 96, 74, 111, and 127–56).

64. Katy Steinmetz, *Exclusive: See How Big the Gig Economy Really Is*, TIME (Jan. 6, 2016), <http://time.com/4169532/sharing-economy-poll> [<https://perma.cc/6R5X-PZTC>]; see also Cole Stangler, *December Jobs Report: How Many Gig Economy Workers Are There, Really?*, INT’L BUS. TIMES (Jan. 8, 2016, 7:33 AM), <http://www.ibtimes.com/december-jobs-report-how-many-gig-economy-workers-are-there-really-2255765> [<https://perma.cc/LB2J-MRWM>].

65. *Popular Services*, HANDY, <http://www.handy.com/services> [<https://perma.cc/PA5C-M8GF>].

66. *Welcome*, AMAZON MECHANICAL TURK, <https://www.mturk.com/mturk/welcome> [<https://perma.cc/T3WY-L7BH>].

67. *Groceries Delivered in 1 Hour*, INSTACART, <https://www.instacart.com> [<https://perma.cc/MT2S-FTZ8>].

68. Cherry, *supra* note 6, at 578.

own schedules, and getting paid per project, not per hour. In an alternate test, courts examine the economic realities of the relationship to determine whether the worker is exhibiting entrepreneurial activity, or whether the worker is financially dependent upon the employer. The label affixed to the relationship is a factor in the outcome, but it is certainly not dispositive. In any event, the tests are notoriously malleable, even when dealing with what should be a fairly straightforward analysis.⁶⁹

Under the control test, with TNCs some factors lean more towards drivers being “employees,” while others lean more towards drivers being “independent contractors.”⁷⁰ For instance, drivers have flexibility in setting their own schedules—they may sign on and off apps more easily than workers in traditional environments who work set shifts or are otherwise tethered to desks or factory floors may clock in and clock out. Similarly, drivers may choose to work part time, full time, or anywhere in between. They use their own vehicles, cell phones, computers, and Internet connections. Moreover, drivers are labeled as “independent contractors” in the companies’ end-user license agreements (“EULAs”) that are sent over mobile apps and the Internet.⁷¹

Conversely, many factors support a finding that TNC drivers are really employees. Control may be quite high, with Uber using a “star” customer-rating system to almost constantly monitor drivers—creating an interesting situation where customers, rather than actual man-

69. *Id.* at 581–82 (footnotes omitted) (first citing Katherine V.W. Stone, *Legal Protections for Atypical Employees: Employment Law for Workers Without Workplaces and Employees Without Employers*, 27 BERKELEY J. EMP. & LAB. L. 251, 257–58 (2006); then citing *Herman v. Express Sixty-Minutes Delivery Serv., Inc.*, 161 F.3d 299 (5th Cir. 1998); then citing Richard R. Carlson, *Variations on a Theme of Employment: Labor Law Regulation of Alternative Worker Relations*, 37 S. TEX. L. REV. 661, 663 (1996); then citing Stone, *supra*, at 257–58; and then citing Richard R. Carlson, *Why the Law Still Can't Tell an Employee When It Sees One and How It Ought to Stop Trying*, 22 BERKELEY J. EMP. & LAB. L. 295, 298 (2001) (“Indeed, in the case of employee status, the law encourages ambiguity. On the one hand, employers often crave the control they enjoy in a normal employment relationship. On the other, the advantages (to employers) of employing workers who are plausibly not employees motivate a good deal of arbitrary and questionable “non-employee” classification. It is not uncommon to find employees and putative contractors sitting side by side, performing the same work without any immediately visible distinguishing characteristics. And the trend of the working world is toward greater complexity and variation, driven partly by the temptation to capitalize on the fog that obscures the essence of many working relationships.”) (internal citations omitted)).

70. See Rogers, *supra* note 24, at 98–99.

71. Miriam A. Cherry & Antonio Aloisi, “*Dependent Contractors in the Gig Economy: A Comparative Approach*” 7 (St. Louis Univ. Legal Studies Research Paper No. 2016-15, 2015), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2847869.

agers, are essentially deputized to supervise workers.⁷² Also, these companies often implement intricate quality-control policies.⁷³

Looking at the broader economic-realities test, which is typically used to analyze employee status under the Fair Labor Standards Act (“FLSA”),⁷⁴ drivers’ opportunities for entrepreneurship—and with them risk and reward—are barely present, if at all. Additionally, drivers are often low-skilled workers who can be easily exploited and are, thus, among “those that are most in need of FLSA protection.”⁷⁵ Finally, even if the EULAs used by TNCs label drivers as independent contractors, they are standard-form adhesion contracts that are often construed against drafters.⁷⁶

B. *Specific Cases*

The debate over misclassification has sparked litigation, especially in the Northern District of California, where TNC drivers have filed multiple suits claiming to be “employees” and seeking minimum-wage and overtime protections under the FLSA.⁷⁷

Perhaps Judge Vince Chhabria said it best when he noted in ruling on a motion that “the jury . . . will be handed a square peg and asked to choose between two round holes. The test . . . courts have developed over the 20th Century for classifying workers isn’t very helpful in addressing this 21st Century problem[.]”

72. See *O’Connor v. Uber Techs.*, No. C-13-3826 EMC, 2015 U.S. Dist. LEXIS 116482, at *70–72 (N.D. Cal. Sept. 1, 2015) (amended order granting in part and denying in part plaintiffs’ motion for class certification); Jeff Bercovici, *Uber’s Ratings Terrorize Drivers and Trick Riders. Why Not Fix Them?*, FORBES: TECH (Aug. 14, 2014, 12:31 PM), <http://www.forbes.com/sites/jeffbercovici/2014/08/14/what-are-we-actually-rating-when-we-rate-other-people> [http://web.archive.org/web/20160514014908/http://www.forbes.com/sites/jeffbercovici/2014/08/14/what-are-we-actually-rating-when-we-rate-other-people/#652e75d469e4].

73. Miriam A. Cherry, *Gig Economy: Settlements Leave Labor Issues Unsettled*, LAW360 (May 5, 2016, 10:26 AM), <http://www.law360.com/articles/791341/gig-economy-settlements-leave-labor-issues-unsettled> [https://perma.cc/WQ98-EGUT].

74. Nan S. Ellis, *Work Is Its Own Reward: Are Workfare Participants Employees Entitled to Protection Under the Fair Labor Standards Act?*, 13 CORNELL J.L. & PUB. POL’Y 1, 12 (2003).

75. Cherry, *supra* note 6, at 583.

76. See Anthony C. Eichler, “*Owning*” *What You Buy: How iTunes Uses Federal Copyright Law to Limit Inheritability of Content, and the Need to Expand the First Sale Doctrine to Include General Assets*, 16 HOUS. BUS. & TAX L.J. 208, 217 (2016) (explaining that a similar EULA used by iTunes is an adhesion contract because consumers “must accept the terms as they are, or they cannot use iTunes,” just as TNC drivers can either accept terms as they are or not drive).

77. See Fair Labor Standards Act, 29 U.S.C. § 203(e)(1) (2012); see, e.g., Mike Isaac, *Judge Overturns Uber’s Settlement with Drivers*, N.Y. TIMES (Aug. 18, 2016), <http://www.nytimes.com/2016/08/19/technology/uber-settlement-california-drivers.html> [https://perma.cc/8UL7-VXMP]; Joanna Szabo, *Uber FLSA Lawsuit Added by California Judge*, TOP CLASS ACTIONS (Oct. 7, 2015), <https://topclassactions.com/lawsuit-settlements/lawsuit-news/177809-uber-flsa-lawsuit-added-by-california-judge> [https://perma.cc/4AZJ-24BC].

... *Cotter v. Lyft* ... settled on January 27, 2016, with Lyft pledging to pay a settlement of \$12 million to its drivers. In addition, the company agreed to provide drivers with additional due process rights before termination. As is the case with many settlements, it was a compromise for both sides. While workers did not receive the employee status they had been seeking, the settlement at least provided some compensation; the drivers can no longer be “deactivated” from their accounts without going through a grievance process heard by an arbitrator.⁷⁸

However, Judge Chhabria rejected this settlement as inadequate and instead ordered additional negotiations.⁷⁹ Another settlement of \$27 million was reached, and we are currently awaiting a final ruling from the court about the adequacy of this second agreement.⁸⁰

A similar story seems to be playing out in another case—*O’Connor v. Uber*.⁸¹ The most high-profile TNC case, it has received significant media attention.⁸² A class had been certified and the case was set for trial in summer of 2016.⁸³ However, on April 21, 2016, a settlement of up to \$100 million was reached.⁸⁴ Although that seems like a large amount, after payments to attorneys and “the division over the sheer number of workers, some drivers [would] only recover small or nominal payments.”⁸⁵ As with “the Lyft settlement, the question of whether the workers are misclassified” was left for future resolution.⁸⁶ However, also like the Lyft settlement, the Uber settlement was rejected by Judge Edward Chen as being inadequate, and as of the writing of this Article, the parties are continuing negotiations.⁸⁷

78. Cherry, *supra* note 6, at 583 (alteration in original) (quoting *Cotter v. Lyft, Inc. (Cotter I)*, 60 F. Supp. 3d 1067, 1081 (N.D. Cal. 2015) (order denying summary judgment)); *see also* *Cotter v. Lyft, Inc. (Cotter II)*, 176 F. Supp. 3d 930, 937–38 (N.D. Cal. 2016) (order denying preliminary approval of class action settlement) (discussing the agreed-upon arbitration requirement).

79. *Cotter II*, 176 F. Supp. 3d at 931–32.

80. *See* *Cotter v. Lyft, Inc. (Cotter III)*, No. 13-cv-04065-VC, 2016 WL 3561742, at *7 (N.D. Cal. June 23, 2016) (order granting preliminary approval of class-action settlement) (concluding that the revised settlement agreement was “fair, reasonable, and adequate”); Elizabeth Weise, *Lyft Settles with California Drivers for \$27M*, USA TODAY (May 12, 2016, 6:55 PM), <http://www.usatoday.com/story/tech/2016/05/11/lyft-agrees-27-million-settlement/84257158> [<https://perma.cc/6SVW-YNZ9>].

81. *O’Connor v. Uber Techs., Inc.*, 82 F. Supp. 3d 1133 (N.D. Cal. 2015) (order denying defendant Uber’s motion for summary judgment).

82. *E.g.*, Cyrus Farivar, *Uber Settles Class-Action Labor Lawsuits in Massachusetts, California*, ARSTECHNICA (Apr. 21, 2016, 9:57 PM), <http://arstechnica.com/tech-policy/2016/04/uber-settles-class-action-labor-lawsuits-in-massachusetts-california/> [<https://perma.cc/G9ZM-974R>].

83. *See* *O’Connor v. Uber Techs., Inc.*, No. 13-cv-03826-EMC, 2016 WL 4398271, at *2, *4 (N.D. Cal. Aug. 18, 2016) (order denying plaintiffs’ motion for preliminary approval).

84. *Id.* at *4.

85. Cherry, *supra* note 6, at 583–84.

86. *Id.* at 584.

87. *See* *O’Connor*, 2016 WL 4398271, at *1; Alba, *supra* note 3; Isaac, *supra* note 77.

Regardless of the monetary outcome, the result of the negotiations will likely be disappointing for those who hoped for a resolution or precedent-setting decision regarding employee status.

Meanwhile, a Florida state appeals court has upheld an agency decision labeling Uber drivers as independent contractors for the purpose of determining eligibility for reemployment assistance.⁸⁸ However, this decision only concerns Florida unemployment law. Moreover, regulators in other states have classified at least some TNC drivers as employees for the purpose of determining eligibility for unemployment benefits.⁸⁹

Regardless, since many cases that might have provided rulings on this issue have settled, or likely will, and the tests for determining worker status are so malleable, even before adding platform work into the equation, there is no way to be certain how courts will decide these issues in the future. Also, returning to the regulatory context, federal agencies like the Internal Revenue Service (“IRS”) or the National Labor Relations Board (“NLRB”) could determine on their own initiative that TNC drivers are employees.⁹⁰ This could have a wide range of impacts on TNCs—from tax consequences from the IRS to the NLRB giving drivers the right to unionize.

C. Lobbying and Model Codes

Although this matter has not received nearly as much attention as the previously discussed litigation, Uber also has been engaged in widespread lobbying to change the terms of various state and local codes, as discussed previously in Section II.A. While such codes make sense from the perspective of wanting drivers to have insurance and meet minimum licensing requirements, the company has also included provisions dealing with labor laws, including language that defines its workers as independent contractors.⁹¹ However, such legislation may not have much meaning for worker status since each statute (such as the FLSA and those creating unemployment and worker’s compensation) has its own individual definition of “employee”⁹² and state-law

88. *McGillis v. Dep’t of Econ. Opportunity*, No. 3D15–2758, 2017 WL 438423 (Fla. Dist. Ct. App. Feb. 1, 2017).

89. *E.g.*, Sonja Sharp, *Uber Drivers Secure Unemployment Benefits*, WALL ST. J., <https://www.wsj.com/articles/uber-drivers-secure-unemployment-benefits-1476405341> (last updated Oct. 14, 2016, 9:27 AM).

90. For an example of a tax case where liability was also imposed by the IRS for employee misclassification, see *Vizcaino v. Microsoft Corp.*, 120 F.3d 1006, 1008–09 (9th Cir. 1997).

91. See Jon Weinberg, *Gig News: Uber Successfully Pursuing State Legislation on Independent Contractor Status*, ONLABOR (Dec. 11, 2015), <https://onlabor.org/2015/12/11/gig-news-uber-successfully-pursuing-state-legislation-on-independent-contractor-status> [<https://perma.cc/Q64V-G8DA>].

92. *Contingent Workers*, U.S. DEP’T LAB., <https://www.dol.gov/sec/media/reports/dunlop/section5.htm> [<https://perma.cc/A8EY-FATH>]; see, e.g., Fair Labor Standards Act, 29 U.S.C. § 203(g) (2012); U.S. DEP’T OF LAB. WAGE & HOUR DIV., FACT

definitions of these terms do not directly impact federal law. Therefore, having another definition randomly inserted in state transportation codes will likely not be dispositive of the issue, despite Uber's efforts.

D. *Fit Within Industrial or Digital Model*

How do TNCs fit within the industrial or digital model? Many would classify the development of TNCs (and crowdwork generally) as simply an outgrowth of the digital-knowledge-work model, as TNCs are intermediated by technology in the form of cell-phone applications. TNC drivers work by the "project," with each ride typically lasting only a fraction of an hour. And "breaking down tasks to their lowest common denominator is" not at all new—"it is paradigmatic Taylorism."⁹³ The following analysis focuses on two features of the crowdwork model utilized by TNCs: automatic management of workers and "precarity."

1. Automatic Management

A salient feature of crowdwork infrastructure is the predominance of code in mediating work relations. The literature refers to this process as automatic management or "algorocracy." Indeed, a new trend is that algorithms are absorbing many organizational functions that managers traditionally would perform. Computer code may perform a variety of supervisory tasks from the mundane to the sophisticated: assigning tasks to workers, speeding up work processes, determining the timing and length of breaks, monitoring quality, ranking [workers], and more. Code makes crucial on-the-spot decisions about individualized employees and what they need to be doing in real time. Labor practices that used to be run through bureaucracy (and other organizational control regimes) are becoming embedded within computer programs. Workers are directed by imperatives programmed into the algorithms, which replace the traditional external schemes carried out by managers.⁹⁴

Uber also embraces the idea of automatic management. Rather than conduct background checks, having a dispatch system, or spot checks by supervisors, Uber has essentially outsourced its quality control to its passengers. Upon the completion of a ride, passengers

SHEET #13: AM I AN EMPLOYEE?: EMPLOYMENT RELATIONSHIP UNDER THE FAIR LABOR STANDARDS ACT (FLSA) (2014), <https://www.dol.gov/whd/regs/compliance/whdfs13.pdf> [<https://perma.cc/F3ZC-ZRMA>].

93. Cherry, *supra* note 6, at 596; see STONE, *supra* note 63, at 34–36 (describing Taylorism).

94. Cherry, *supra* note 6, at 596–97 (footnote omitted) (citing A. Aneesh, *Global Labor: Algorocratic Modes of Organization*, 27 SOC. THEORY 347 (2009) (explaining "algorocracy" and differentiating it from traditional bureaucracy)); see also Aneesh, *supra*, at 354–55, 367 ("While code may not always succeed in organizing work as intended . . . its usefulness in explaining . . . the decline of bureaucratic hierarchies is significant.").

are asked to rate their driver on a scale of one to five, with five stars as the best score. The ratings are then averaged in order to provide a composite score.⁹⁵

If a TNC driver's customer-satisfaction rating drops below a specified average, he or she is essentially terminated from the platform and can no longer access the app.⁹⁶ The current threshold an Uber driver must achieve so as not to be "cut off" is very high—over four out of five stars, but this is not made clear.⁹⁷ Some have alleged these ratings could at times reflect conscious or subconscious racial or religious bias and thus be problematic—possibly even under anti-discrimination laws (not just those pertaining to employment, but also those pertaining to public accommodations, since drivers also rate passengers).⁹⁸ Automatic deactivation or, in starker terminology, "firing by algorithm" has unsurprisingly been so poorly received by drivers that the Lyft and Uber settlements discussed previously in this Article both addressed it, granting drivers the right to arbitration hearings.⁹⁹ Under these proposed settlement provisions, Uber and Lyft were no longer free to fire workers with a simple deactivation of their accounts.¹⁰⁰

95. Cherry, *supra* note 6, at 597 (footnotes omitted) (first citing Elizabeth Dwoskin, *At Uber, the Algorithm Is More Controlling than the Real Boss*, WALL ST. J.: DIGITS (Nov. 4, 2015, 6:00 AM), <http://blogs.wsj.com/digits/2015/11/04/uber-as-employer-the-boss-is-an-algorithm> [<http://web.archive.org/web/20160724005140/http://blogs.wsj.com/digits/2015/11/04/uber-as-employer-the-boss-is-an-algorithm>]; then citing Alex Rosenblat & Luke Stark, *Algorithmic Labor and Information Asymmetries: A Case Study of Uber's Drivers*, 10 INT'L J. COMM. 3758, 3772–76 (2016)); *see also Driving with Uber: A Closer Look at Ratings*, UBER, <https://www.uber.com/info/driver-ratings> [<https://perma.cc/RL9S-ZKAF>]; *Driver and Passenger Ratings*, LYFT, <https://help.lyft.com/hc/en-us/articles/213586008-Driver-and-Passenger-Ratings> [<https://perma.cc/A7YH-T23D>].

96. *Driving with Uber: A Closer Look at Ratings*, *supra* note 95; *Driver and Passenger Ratings*, *supra* note 95.

97. *See* Samantha Allen, *The Mysterious Way Uber Bans Drivers*, DAILY BEAST (Jan. 27, 2015, 4:55 AM), <http://www.thedailybeast.com/articles/2015/01/27/the-mysterious-way-uber-bans-drivers.html> [<https://perma.cc/MJ47-GCH7>] (describing the uncertainty surrounding exactly when Uber may "deactivate" a driver).

98. *E.g.*, Noah Zatz, *Beyond Misclassification: Gig Economy Discrimination Outside Employment Law*, ONLABOR, (Jan. 19 2016), <https://onlabor.org/2016/01/19/beyond-misclassification-gig-economy-discrimination-outside-employment-law> [<https://perma.cc/V5EB-ULRG>]; Nancy Leong, *Uber, Privacy, and Discrimination*, NANCY LEONG (April 20, 2014), <http://www.nancyleong.com/race-2/uber-privacy-discrimination> [<https://perma.cc/E8T7-RS9J>]. Perhaps unsurprisingly, some passengers are shocked to learn that they have low ratings and some have wondered if this is due to racial or ethnic bias by drivers. *See id.*

99. *See Cotter II*, 176 F. Supp. 3d 930, 937–38 (N.D. Cal. 2016) (order denying preliminary approval of class action settlement); *O'Connor v. Uber Techs., Inc.*, Nos. 13-cv-03826-EMC, 15-cv-00262-EMC, 2016 WL 3548370, at *3 (N.D. Cal. June 30, 2016).

100. *See Cotter III*, No. 13-cv-04065-VC, 2016 WL 3561742, at *1 (N.D. Cal. June 23, 2016) (order granting preliminary approval of class action settlement); *O'Connor*, 2016 WL 3548370, at *3. "Of course, establishing industrial due process does undercut the idea that Lyft drivers are independent contractors, and regardless of what the settlement says, another governmental or regulatory agency could decide that these

However, even if such firings were not permitted without some semblance of due process, what does this mean for the “control” test discussed previously? Is the future of employment law one in which “control” includes effective “control” by customers?

2. Precarious Labor

Understanding the growth of crowdwork also requires attention to a second trend: the expansion of precarious labor. By “precarious,” scholars are referring to labor that is more than just part-time and temporary. The notion encompasses a deeper undercutting of reliability and security in labor systems. Arne Kalleberg discusses precarious work as work that is uncertain, unpredictable, and risky. Stone also refers to work that has no explicit promise of continuity. This notion of precarious work spans the range of occupations . . . from fast food service, to retail worker, to engineering consultants.

Kalleberg charts dramatic trends. Through precarious labor systems, we are seeing an increasing likelihood of unemployment, a growth of general job insecurity, expanding contingent and nonstandard work, and risk-shifting (that is, the transfer of labor expenses like health insurance and pensions from the employer to the employee). Impacts on the daily lives of workers can be problematic. For working parents, the rise of “just in time” scheduling means difficulty in arranging childcare.¹⁰¹

TNC drivers also face temporal chaos and pressure. Rides can be canceled with little to no notice—even by a customer simply not being present when a driver arrives to pick him or her up. When customers cancel rides, both Uber and Lyft drivers may be able to receive cancellation fees, but the drivers may still lose significant fee income and be forced to eat the costs.¹⁰² Moreover, drivers who arrive even five minutes late, perhaps due to no fault of their own, may forfeit the right to this income.¹⁰³ This is in addition to the competitiveness present and methods of worker surveillance used in the crowdwork model. Drivers must not only earn high customer-satisfaction ratings, but must also worry about the scores other drivers are earning, since they are constantly expected to out-achieve and out-score each other.¹⁰⁴

workers are employees, notwithstanding the settlement.” Cherry, *supra* note 6, at 598 n.110.

101. Cherry, *supra* note 6, at 598 (footnote omitted) (citing Arne L. Kalleberg, *Precarious Work, Insecure Workers: Employment Relations in Transition*, 74 AM. SOC. REV. 1 (2009)).

102. Brian, *Updated Cancellation Policy*, UBER: NEWSROOM (May 1, 2012), <https://newsroom.uber.com/updated-cancellation-policy/> [<https://perma.cc/NM8K-5FLL>]; *Cancellation Policy for Passengers*, LYFT, <https://help.lyft.com/hc/en-us/articles/214217177-Cancellation-Policy-for-Passengers> [<https://perma.cc/FF8S-XHYH>].

103. Brian, *supra* note 102; *Cancellation Policy for Passengers*, *supra* note 102.

104. See Thornton, *supra* note 5, at 920, 930–32 (2015) (noting that the TNC feedback system makes for a form of self-regulation).

With TNCs, work only lasts as long as each ride that arrives through the app. Compounding the issues of instability, TNC drivers do not receive traditional employee benefits along the lines of sick days, benefits, or reimbursements. Drivers may also spend significant time traveling from passenger to passenger, and, since there is competition for every job, they must be quick to beat competitor-drivers.¹⁰⁵ Essentially, the Uber model “is a return to industrial (or even pre-industrial in terms of its pay by the piece and work at home) systems.”¹⁰⁶

E. *A New Model?*

There are fundamental differences between these models in the construction of the labor and its conditions. While the industrial model had a modicum of stability and secure remuneration, and arguably the digital model had some of these features as well, the crowdwork model is marked by rapid job fluctuation of tasks, decreasing authority of worker, a decrease in skill required and along with it decreasing remuneration. The impact of precarity, especially within the context of information technology, is striking in crowdwork. If the digital era broke schedules down into part-time or project-based shifts, crowdwork breaks those schedules down even further into the micro-level. It moves from “project” based work (with coherent aims and stages) occurring over a duration of weeks, months, or years, into “task” based work (the purpose of which may not ever be explained to workers) occurring in just hours, minutes, or seconds. . . .¹⁰⁷

Additionally, many digital-era advantages are weaker or even completely nonexistent in the crowdwork model. Gone are investments in training. Gone is the security of stable or predictable work, along with living, or perhaps even minimum, wages. With automatic management, employees have little in the way of discretion over tasks, and there is almost no communication between employees and supervisors who can train or coach them to improve. There are also few to no requirements for, or systems of, due process, and there are few to no opportunities for advancement—these are what sociologists have termed “bad jobs.”¹⁰⁸

Some might point out that, however bad these “jobs” are, at least they still exist. But if autonomous vehicles catch on, as seems increas-

105. See LINDA TIRADO, *HAND TO MOUTH: LIVING IN BOOTSTRAP AMERICA* (2014) (also describing, among other challenges, that of working multiple jobs with precarious hours and schedules).

106. Cherry, *supra* note 6, at 601.

107. *Id.* at 600; see also Randall Stross, *When the Assembly Line Moves Online*, N.Y. TIMES (Oct. 30, 2010), <http://www.nytimes.com/2010/10/31/business/31digi.html> [<https://perma.cc/A2CM-EMBV>] (describing task-based work).

108. Françoise Carré et al., *Job Quality: Scenarios, Analysis and Interventions, in ARE BAD JOBS INEVITABLE? TRENDS, DETERMINANTS AND RESPONSES TO JOB QUALITY IN THE TWENTY-FIRST CENTURY* 1, 2 (Chris Warhurst et al. eds., 2012).

ingly likely,¹⁰⁹ making a living by driving a vehicle may not be an option several decades from now. And it is true that some of these transportation services could perhaps be provided more efficiently and safely by machine—compare driving with the system for piloting flights, which is extremely safe and is less subject to human error thanks to technologies like autopilot.¹¹⁰ However, the idea that a job may become outdated or outmoded in the future does not excuse poor treatment of the worker who is doing that job now.

TNCs like Uber and Lyft may ultimately be “weigh stations,” partial pieces on the road towards establishing autonomous vehicles. However, the employment model that TNCs and other crowdwork platforms rely upon may be more long-lasting. The shared characteristics of deskilled tasks, that are arranged gig to gig and are facilitated and intermediated through algorithms, are all hallmarks of not just the TNC model, but of some forms of crowdwork. Regardless of whether 100 years from now there are still human drivers, the Author predicts that work will still be coming to individuals via their smartphones (or, possibly more likely, smartphones’ successors) and that many of us will work by a process that does not seem like work; but rather like other everyday pursuits or even leisure activities. Will the resulting changes in the structure of work result in maximum flexibility and more time for family, civil society, and leisure pursuits? Or will the gains from the technology flow unevenly to those who own the platforms? Difficult choices in terms of extending old regulations to these new forms of work will need to be made. Regardless, in the meantime decent work must be made a priority for TNC drivers and all precarious workers.

IV. CONCLUSION

TNCs could be doing more to innovate and solve transportation problems other than convenience and ease of customer service, including genuinely facilitating carpools and green initiatives to reduce fuel usage and emissions. If TNCs were to pursue such goals, they might better reflect the original green and community-oriented vision for the “sharing economy.”

Regardless of the development of autonomous vehicles, the crowdwork model pioneered by TNCs will have staying power. The Author predicts that the on-demand model is a more permanent development than perhaps even the existence of TNCs themselves. Situated in the cross-current of precarious work, automatic management, and deskilling, crowdwork as currently formulated presents a bleak

109. See Bryant Walker Smith, *Automated Vehicles Are Probably Legal in the United States*, 1 TEX. A&M L. REV. 411 (2014).

110. See NICHOLAS CARR, *THE GLASS CAGE: HOW OUR COMPUTERS ARE CHANGING US* 43–50 (2014) (discussing the evolution of autopilot and suggesting that relying on automation may, at times, be safer than relying on human pilots).

and disturbing picture for the future of work. But by recognizing the factors that lead us to consider crowdwork as problematic, perhaps we can then begin the work that needs to be done to extend basic protections and regulate for decent work.

