All Faculty Scholarship

2017

# People Analytics and Invisible Labor

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# PEOPLE ANALYTICS AND INVISIBLE LABOR

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### INTRODUCTION

In recent years, I have been writing about two increasingly salient labor and employment law issues: the presence of *invisible labor* and the rise of *people analytics*.[1] First, *invisible labor* could include emotion work, such as being a colleague's "work wife," or could include "identity work" that is time and effort spent on making others feel comfortable with the worker. Invisible labor might also include uncompensated time spent in "looking good" and "sounding right." It could also include instances where technology obscures work that is being done through a website platform or mobile application. The second trend is the increasing adoption of *people analytics*, which seeks to use data to quantify and analyze traits, experiences, and skills of employees. People analytics aims to promote more accurate measures about quantity and quality of work to hire, promote, and fire employees, rather than the unreliable and often biased "gut instinct" or anecdotal observation.

When contemplated together, however, the two issues of invisible labor and people analytics are an uneasy fit. The ability to quantify and analyze work data depends on that data being readily visible, in a manner that statistical metrics can accurately capture. If the factors that lead to success at work cannot be accurately measured by analytics, then analytics are of limited

1. This essay draws upon two works previously co-written by the author, including the book INVISIBLE LABOR: HIDDEN WORK IN THE CONTEMPORARY WORLD (Miriam A. Cherry et al. eds., 2016) and Matthew T. Bodie et al., *The Law and Policy of People Analytics*, COLO. L. REV. (forthcoming 2017), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2769980.

usefulness.[2] Further, hidden and invisible labor are fundamentally concerning, especially when they serve to hide particular functions that workers take on for little or no pay. In some instances, such work is not even apparent to the workers themselves. Is it even possible to capture these forms of "missing" labor or workers?

This essay begins by exploring invisible labor and then people analytics, discussing the increasing presence of both trends in the modern labor and employment law landscape. From there I will turn to the paradox posed above, i.e. the fundamental conflict between these two trends. How can people analytics appropriately capture "merit" if there are parts of work that are hidden, submerged, and unrecognized? What are the implications for people analytics if only certain parts of "work" are being counted? Could the substance of what counts as part of an analytics program lead to certain forms of implicit bias, which might become a concern of employment discrimination law?

Ultimately, the last part of this essay asks how we might make people analytics metrics more inclusive.[3] While theoretically it might be possible for data analysis to account for the types of invisible labor that we describe, it might be difficult or even insensitive to do so. Aside from raising awareness of this fundamental incongruity, it is also possible that people analytics could lead to some changes in the amount or quantity of hidden labor that is required.

## I. INVISIBLE LABOR

In 2013, a group of legal scholars, sociologists, and media studies scholars gathered to analyze invisible labor at Washington University in St. Louis. Along with the other organizers, Marion Crain and Winifred Poster, I was intrigued with the idea that work and even workers themselves could be "hidden in plain sight." We spent two fruitful workshop days discussing invisible labor from different disciplines and perspectives. Ultimately, we determined that the subject deserved full-length book treatment and, after three years of work and refinement, the University of California Press published our book *Invisible Labor: Hidden Work in the Contemporary World*.[4]

When many people think of invisible labor, they think of unpaid housework, domestic chores, or perhaps childrearing. These tasks, disproportionately undertaken by women,[5] are often underappreciated and undertaken within the family structure for no pay or are underpaid in a market

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2. As the old saying about data goes, "garbage in, garbage out," meaning that poor quality input will always result in poor quality of result.

3. *See infra* Section IV.

4. INVISIBLE LABOR, *supra* note 1.

5. ARLIE RUSSELL HOCHSCHILD, THE SECOND SHIFT: WORKING FAMILIES AND THE REVOLUTION AT HOME (1989).

capacity. While the recognition of housework and child care *as work* was certainly a starting point—for both the issue of invisible labor as well as the first wave of feminism[6]—we wanted to update and propel the subject for 2016. That meant a primary concentration on invisible labor within remunerated employment (as opposed to other forms of uncompensated labor, such as volunteer work). It also meant a focus on both the globalization of work and the increasing role that technology has had on work and workers, as well as the rise of corporate branding strategies for workers.[7]

One of the more difficult tasks within the book was to narrow down what we meant by "invisible labor," and therefore we offered a proposed definition in the introduction:

> We define *invisible labor* as activities that occur within the context of paid employment that workers perform in response to requirements (either implicit or explicit) from employers and that are crucial for workers to generate income, to obtain or retain their jobs, and to further their careers, yet are often overlooked, ignored, and/or devalued by employers, consumers, workers, and ultimately the legal system itself.[8]

This definition shifts the focus away from housework and childcare, which we felt were important topics but ones that had already received analytical treatment.[9] Instead we were concerned with the ways that invisible labor was being performed in the workforce seemingly without customers, co-workers, or sometimes even the workers themselves being aware of it.

Within the introduction, we discussed a spectrum of invisible labor, with instances in which the "workers" were disappeared and instances in which the work was invisible.[10] At times both of these were present. The example that we used in the chapter was content editors on Facebook and other social media websites.[11] To rid itself of spam and pornography, many sites that rely on user-generated content turn to online content editors.[12] Often located offshore, these content editors must watch beheading videos, pornography, and other content that would violate the websites' terms of use.[13] While very few even know that these poorly paid workers exist, the job is actually wrenching for those

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6.  BETTY FRIEDAN, THE FEMININE MYSTIQUE 295 (1963).

7.  Poster et al., *Introduction: Conceptualizing Invisible Labor*, *in* INVISIBLE LABOR 3, 13 (Miriam A. Cherry et al. eds., 2016).

8.  *Id.* at 6.

9.  *See, e.g.*, Eileen Boris, *Sexual Divisions, Gender Constructions*, *in* HOMEWORKERS IN GLOBAL PERSPECTIVE: INVISIBLE NO MORE 19 (Eileen Boris & Elisabeth Prugl eds., 1996).

10.  Poster et al., *supra* note 7, at 10.

11.  *Id.*

12.  Adrian Chen, *The Laborers Who Keep Dick Pics and Beheadings Out of Your Facebook Feed*, WIRED (Oct. 23, 2014, 6:30 AM), http://www.wired.com/2014/10/content-moderation/ [http://perma.cc/62H6-QMS8].

13.  *Id.*

performing it. They must see the worst parts of human nature constantly, and it wears on them psychologically. In essence, these "invisible workers" provide an invisible service: making the darkest corners of the web, and indeed, some of the darkest portions of human nature, invisible to others.

In my chapter on "Invisible Labor and Virtual Work," I looked at the ways in which both websites and mobile platforms can function to hide those who are actually performing work.[14] As noted in the chapter, Amazon delivers a variety of goods through a series of clicks, so conveniently that it seems almost magic.[15] The ease of ordering items obscures the fact that there are warehouse workers who walk around "picking the items" off the shelf and packing the boxes.[16] In fact, for some years Amazon had trouble with heatstroke, due to the combined effect of poorly ventilated and poorly cooled warehouses and the workers' physical exertion.[17] It was only in response to a series of media accounts about workers being sent to the hospital for heat exhaustion that the company's investors got involved, which then led management to install additional cooling units in Amazon's fulfillment centers.[18]

More recently, mobile apps and online platforms such as Uber, Amazon's Mechanical Turk, TaskRabbit, and others that are part of the on-line or gig economy, have led to the phenomenon of disappearing employees. One way this happens is that the terminology that these platforms use does not recognize the person performing a task as a worker. As Valerio De Stefano has pointed out, these sites call workers "Rabbits," or "Turkers," not "workers."[19] Those who use the website are in effect asked to use terms that essentially devalue the very humanity of those whom they hire.

The other way that apps hide workers is from the law, by classifying the workers as "independent contractors" rather than as "employees." Using this classification implies that workers doing low-level tasks are somehow their

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14. Miriam A. Cherry, *Virtual Work and Invisible Labor*, *in* INVISIBLE LABOR 71, 73–74 (Miriam A. Cherry et al. eds., 2016).

15. ARTHUR C. CLARKE, *Hazards of Prophecy: The Failure of Imagination*, *in* PROFILES OF THE FUTURE 12, 19 (1962) (showing any sufficiently advanced technology is indistinguishable from magic).

16. Spencer Soper, *Inside Amazon's Warehouse*, MORNING CALL (Aug. 17, 2015, 12:13 PM), http://www.mcall.com/news/local/amazon/mc-allentown-amazon-complaints-20110917-story.html [http://perma.cc/46HX-3BQD].

17. Spencer Soper, *Amazon Workers Cool After Company Took Heat for Hot Warehouse*, MORNING CALL (June 3, 2012), http://articles.mcall.com/2012-06-03/business/mc-amazon-ware house-air-conditioning-20120602_1_warehouse-workers-air-conditioning-breinigsville-ware house; Hal Bernton & Susan Kelleher, *Amazon Warehouse Jobs Push Workers to Physical Limit*, SEATTLE TIMES (Aug. 17, 2015, 8:55 AM), http://www.seattletimes.com/business/amazon-ware house-jobs-push-workers-to-physical-limit/ [http://perma.cc/5SHC-2LAD].

18. Soper, *supra* note 17.

19. Valerio De Stefano, *Introduction: Crowdsourcing, the Gig-Economy, and the Law*, 37 COMP. LAB. L. & POL'Y J. 461, 462 (2016).

own business owners or micro-entrepreneurs. But the pay rates on these platforms, which in the case of Amazon Mechanical Turk is often paid by the second or minute, are so low that workers struggle to eke out the federal minimum wage.[20] It is difficult to imagine entrepreneurs working for such low rates of pay. In fact, these are the types of low-skilled tasks that the minimum wage laws were designed to protect. Work can also be hidden through games, and workers themselves can be hidden online by avatars.[21] In another chapter, Winifred Poster describes how receptionist jobs are increasingly being outsourced and partially digitized.[22]

Turning from technology, our study of invisible labor also looked at situations where workers had to perform additional work just to keep their jobs or be recognized in order to make others—coworkers, customers, or managers—more comfortable. For women, this includes the "work wife" phenomenon, where a co-worker takes on the role of a supportive spouse, acting as a helpmeet with various tasks including emotional labor,[23] during the workday.[24] In their chapter, Professors Adia Harvey Wingfield and Renée Skeete note that minority workers often find themselves performing "racial tasks," ranging from laughing at racist jokes to make co-workers feel comfortable, straightening their hair to "fit in," or staying separate from others in their racial or ethnic group so as not to appear threatening.[25] Their writing about "racial tasks" corresponds with Professors Devon Carbado and Mitu Gulati's writing about minority attorneys' "working identity," i.e. the strategies adopted in law firms to fit into the ideal of the "mainstream worker" that ultimately constitute a great deal of time and effort on the worker's part.[26]

The book also discusses the erasure of certain groups of workers altogether. For example, Evan Stewart's chapter makes use of visual sociology to analyze orange juice advertisements.[27] These print ads and television commercials show white "farmers" harvesting fruit (rather than the Latino/a

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20. Miriam A. Cherry, *Working for (Virtually) Minimum Wage: Applying the Fair Labor Standards Act in Cyberspace*, 60 ALA. L. REV. 1077, 1093–94 (2009).

21. Cherry, *supra* note 14, at 78.

22. Winifred R. Poster, *The Virtual Receptionist with a Human Touch*, *in* INVISIBLE LABOR 87, 87–88 (Miriam A. Cherry et al. eds., 2016).

23. Arlie Hochschild, *Foreword* to INVISIBLE LABOR xi, xiv n.1 (Miriam A. Cherry et al. eds., 2016); ARLIE RUSSELL HOCHSCHILD, THE MANAGED HEART 170 (1983).

24. Laura A. Rosenbury, *Work Wives*, 36 HARV. J. L. & GENDER 345, 347 (2013).

25. Adia Harvey Wingfield & Renée Skeete, *Maintaining Hierarchies in Predominantly White Organizations: A Theory of Racial Tasks as Invisible Labor*, *in* INVISIBLE LABOR 47, 56–57 (Miriam A. Cherry et al. eds., 2016).

26. Devon W. Carbado & Mitu Gulati, *Working Identity*, 85 CORNELL L. REV. 1259, 1262 (2000).

27. Evan Stewart, *Simply White: Race, Politics, and Invisibility in Advertising Depictions of Farm Labor*, *in* INVISIBLE LABOR 130, 136–45 (Miriam A. Cherry et al. eds., 2016).

migrant laborers who in reality are picking the oranges).[28] A study of produce workers in China revealed that many of these workers are hidden from shoppers. Even though they worked in a grocery department, many had little time to eat during their long shifts and were underfed.[29]

The last two sections of the book deal with corporate branding strategies, by which the worker becomes an outward extension of the brand. Companies may do this through encouraging or incentivizing emotion work or care work, in which they encourage workers to "take care of" customers. Other times, companies recruit their workers from their customers, by appealing to their desire to "fit in" to a certain type of lifestyle.[30] Employee discounts are offered to customers that seem like they might fit the brand.[31]

Along with this emphasis on corporate branding comes the need for workers to "look good" and "sound right."[32] For example, a recent study showed that women who are "well-groomed" receive on average more money than women who are considered less so.[33] At the same time, men received no such "grooming premium."[34] Grooming could possibly become part of a performance strategy, even though looks have nothing to do with hard work and performance on the job. Other companies take this even further, hiring workers only when they conform to a certain "look" or "image." In extreme situations, this can lead to exploitation. As Professor Dianne Avery recounts, in extreme situations, this may extend to encouraging restaurant servers to engage in plastic surgery or other costly and painful cosmetic procedures.[35]

From the summary of the book that I have set out above, we see a myriad of ways that both work and those who perform it can be rendered invisible. In the book we discuss the rationale for keeping certain work hidden. In some instances the workers themselves do not even recognize what they do as

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28. *Id.* at 140–41.

29. Eileen M. Otis & Zheng Zhao, *Producing Invisibility: Surveillance, Hunger, and Work in the Produce Aisles of Wal-Mart, China*, *in* INVISIBLE LABOR 148, 161–62 (Miriam A. Cherry et al. eds., 2016).

30. Christine L. Williams & Catherine Connell, *The Invisible Consequences of Aesthetic Labor in Upscale Retail Stores*, *in* INVISIBLE LABOR 193, 197 (Miriam A. Cherry et al. eds., 2016).

31. Marion Crain, *Consuming Work*, *in* INVISIBLE LABOR 257, 258 (Miriam A. Cherry et al. eds., 2016).

32. Williams & Connell, *supra* note 30, at 193.

33. Ana Swanson, *The Real Reason That So Many Women Have to Spend So Much Time Getting Ready*, WASH. POST (May 19, 2016), https://www.washingtonpost.com/news/wonk/wp/ 2016/05/19/the-real-reason-that-so-many-women-have-to-spend-so-much-time-getting-ready/ [http://perma.cc/L9LU-TT9N]; Jaclyn S. Wong & Andrew M. Penner, *Gender and the Returns to Attractiveness*, 44 RES. SOC. STRAT. & MOB. 113, 116 (2016).

34. Swanson, *supra* note 33.

35. Dianne Avery, *The Female Breast as Brand: The Aesthetic Labor of Brestaurant Servers*, *in* INVISIBLE LABOR 171, 184 (Miriam A. Cherry et al. eds., 2016).

"actual work." As we now turn to people analytics, we need to keep in mind how one would count some of these aspects of work and elements of work in a rubric designed to measure job performance.

## II. PEOPLE ANALYTICS

During the Spring of 2016, the *Saint Louis University Law Journal*, the William C. Wefel Center for Employment Law, and the John Cook School of Business sponsored a symposium on the "Law and Business of People Analytics."[36] Along with the symposium the author also taught a class on "People Analytics," and wrote an article with her co-authors on the "*Law and Policy of People Analytics*,"[37] which were supported by a grant from Saint Louis University's Presidential Research Fund. People analytics is a new data-driven approach to human resource management that has been adopted by cutting-edge companies like Google and IBM.[38] People analytics is just one example of the phenomena of "big data," in which analyses of huge sets of quantitative information are used to guide a variety of decisions. Although people analytics is a nascent field, its implementation promises to help employers make more informed HR decisions.

Although the term "people analytics" can cover a variety of approaches to HR management, these approaches share two general characteristics: (1) the search for new pools of quantitative data that are correlated with business and employment success, and (2) the use of such data to make workplace decisions and to replace subjective decision-making by managers. As of now, these techniques and devices are still nascent. Our article was a beginning at cataloging the procedures and processes of people analytics, as well as initial ethical and legal responses to it.

Why are companies such as Google and IBM experimenting with people analytics? Data that can help predict worker skills and performance may be useful to companies in terms of helping with hiring decisions, improved job

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36. Saint Louis University School of Law Symposium: The Law and Business of People Analytics (Feb. 19, 2016) (video available at http://law.slu.edu/event/law-and-business-people-analytics).

37. Bodie et al., *supra* note 1.

38. Don Peck, *They're Watching You at Work,* ATLANTIC (Dec. 2013), http://www.theatlantic.com/magazine/archive/2013/12/theyre-watching-you-at-work/354681/ [http://perma.cc/DJ6C-4RX5]; *see* LEEROM SEGAL ET AL., THE DECODED COMPANY (2014). *See also* ERIC SIEGEL, PREDICTIVE ANALYTICS (2013); NATE SILVER, THE SIGNAL AND THE NOISE: WHY SO MANY PREDICTIONS FAIL—BUT SOME DON'T (2012); Thomas H. Davenport, *Analytics 3.0*, HARV. BUS. REV., Dec. 2013, at 3; Susan McLean et al., *Big Data and Human Resources—Letting the Computer Decide?*, MORRISON & FOERSTER (Apr. 3, 2015), http://www.sociallyawareblog.com/2015/04/03/big-data-and-human-resources-letting-the-computer-decide/ [http://perma.cc/49YM-974L]; Thomas H. Davenport et al., *Competing on Talent Analytics*, HARV. BUS. REV., Oct. 2010, at 8–9.

performance, and even predictions about who might be getting ready to quit or who should be fired. People analytics could also assist with more mundane issues such as whether employees should have cubicles or offices, or how a company might make its break times more productive.[39] For example, Ben Waber performed a study in which it was shown that when the workers in a team are split between two floors, the flow of ideas is impeded.[40] Although that may seem rather obvious, the data that Waber collected helped that team increase productivity simply by shifting office design.[41]

   Personnel decisions would no longer be based on the "gut instinct" of managers, but rather would be determined through data. Such data might come from innovative sources, including the use of computer games,[42] monitoring employee electronic communications and activities, and new devices, such as ID badges that record worker locations and the tone of conversations.[43] Data may also be collected from sources outside the employer, which have been gathered for different purposes, like real estate records, or for undefined purposes, such as Google searches. As noted in our article:

> The core idea is that unstructured subjective judgment is not rigorous or trustworthy as a way to assess talent or create human resources policies. Instead, data—large pools of objective, generally quantitative data—should form the foundation for decisionmaking in the HR space. Technological advancements in our abilities to collect and analyze this data have unlocked the potential for its use.
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> People analytics focuses on both culling new sources of data on worker performance and subjecting that data to high-level statistical analysis. In so doing, it hopes to find the true sources of productivity in workers, catalog how employees are doing on those metrics, and then properly incentivize those behaviors for future performance. It shares the same broad goals as scientific management, but rather than creating a set method and applying it to workers, it seeks to find the proper methods from amongst the workers and then highlight those methods as best practices.[44]

Our goal in examining people analytics was to look at its ethical and legal implications, and to set out some initial ideas for "best practices" in the field. Our concerns began with worker privacy, especially when using data that would be revealed through surveillance, particularly if that surveillance

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39. Benjamin N. Waber et al., Sociometric Badges: A New Tool for IS Research 13, 15 (Mar. 17, 2011) (unpublished manuscript) (on file with *Saint Louis University Law Journal*).

40. *See id.* at 15; *see* Ben Waber et al., *Workspaces that Move People*, HARV. BUS. REV., Oct. 2014, at 10.

41. Waber et al., *supra* note 39, at 15.

42. *See* Bodie et al., *supra* note 1, at 2.

43. *See* Waber et al., *supra* note 39, at 29.

44. Bodie et al., *supra* note 1, at 3, 7–8 (internal citations omitted).

involved using technologies that would be intrusive.[45] We were also concerned with accuracy of the data, especially when using games to determine whether a job applicant possessed the requisite skills or talent to perform a certain job.[46] Last, but certainly not least, we were also concerned with the interplay between people analytics and employment discrimination. This is a central area when we consider the intersection of invisible labor and people analytics. Accordingly, I will spend some additional time here focusing upon employment discrimination.

The goal of employment discrimination law is to remove invidious discrimination from the workplace, allowing all workers the same opportunities for hiring and advancement. While in theory that seems easy to state, the reality of that goal has been extremely difficult to achieve despite the passage of Title VII,[47] the Americans with Disabilities Act (ADA),[48] and the Age Discrimination in Employment Act (ADEA).[49] In fact, the number of employment discrimination claims filed with the Equal Employment Opportunity Commission (EEOC), which is charged with enforcement of the laws, has increased to approximately 90,000 per year.[50]

While the reasons for the persistence of bias are complicated and likely beyond the scope of this essay, theorists have attributed some of that sticking power to "unconscious bias" or "implicit bias."[51] A well-known empirical study from 2004 revealed a surprising amount of discrimination present in U.S. labor markets.[52] The study revealed resumes with Caucasian-sounding names (Emily, Greg) fared more favorably than those with African-American sounding names (Lakisha, Jamal).[53] Other research has shown that people are less likely to buy an iPod when the hand holding it is a brown hand, rather than

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45.  *Id.* at 24, 26.

46.  *Id.* at 36, 38–40.

47.  42 U.S.C. § 2000e–2(a)(1) (2012).

48.  42 U.S.C. §§ 12101–12117 (2012).

49.  29 U.S.C. §§ 621–634 (2012) (prohibiting discrimination against those forty or older).

50.  U.S. EQUAL EMPLOYMENT OPPORTUNITY COMMISSION, *Charge Statistics FY 1997 Through FY 2015*, https://www.eeoc.gov/eeoc/statistics/enforcement/charges.cfm [http://perma.cc/V2SL-A6RG] (last visited Sept. 8, 2016).

51.  *See* MAHZARIN R. BANAJI & ANTHONY G. GREENWALD, BLINDSPOT: HIDDEN BIASES OF GOOD PEOPLE (2013); *see also* CLAUDE M. STEELE, WHISTLING VIVALDI (2010).

52.  Marianne Bertrand & Sendhil Mullainathan, *Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination*, 94 AM. ECON. REV. 991, 1011 (2004); *see* Angela Onwuachi-Willig & Mario L. Barnes, *By Any Other Name?: On Being "Regarded As" Black, and Why Title VII Should Apply Even if Lakisha and Jamal Are White*, 2005 WIS. L. REV. 1283, 1298–99 (2005); STEVEN D. LEVITT & STEPHEN J. DUBNER, FREAKONOMICS 189 (2005).

53.  Bertrand & Mullainathan, *supra* note 52, at 992.

a Caucasian hand.[54] And so discrimination—especially the hidden, subtle, unconscious bias type of discrimination—continues to be a current, relevant, and disturbing part of the landscape of employment discrimination law.

Could people analytics be a part of the solution to eliminate unconscious bias? If there were ways to measure a person's skills accurately without revealing aspects of a person's identity that could trigger bias, whether explicit or implicit, that would in fact be valuable. Another study showed that the hiring of female musicians in orchestras increased dramatically upon the adoption of a "blind audition" process.[55] In such processes the identity of the performer is hidden by a screen, and the judges can only make observations of the relevant factors, i.e. the quality of the music that is being performed.[56]

Use of a technological intermediary to gather information about those attributes could hide sensitive attributes that may trigger bias from the ultimate decision maker.[57] Using data analytics could help employers discover the traits and behaviors that lead to better products and services, develop better job descriptions, and measure merit in applicants and employees; and avoid relying on stereotypes or other problematic criteria for hiring or distributing rewards. However, our analysis of people analytics and employment discrimination revealed some concerns as well.[58] We were struck by the odd fact that some data held a great deal of predictive power, but also could be used in ways that, perhaps while not explicitly discriminatory, might lead to discriminatory effects.

For example, one factor that seemed to be relatively accurate in predicting job success was the distance the worker lived from the job site.[59] There might be a certain logic to this correlation. Perhaps living closer to work signaled greater organizational commitment, or perhaps it meant that the time that others spent on commute could instead be focused on work itself rather than travel. At least at first, distance traveled between home and work might not seem problematic; why not use that factor to help with screening for potential

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54. Jennifer L. Doleac & Luke C.D. Stein, *The Visible Hand: Race and Online Market Outcomes* 28 (Stan. Inst. for Econ. Pol'y Res., Discussion Paper No. 09-015, 2010), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1615149 [http://perma.cc/KF8A-ECVW].

55. *Id.*

56. Claudia Goldin & Cecilia Rouse, *Orchestrating Impartiality: The Impact of "Blind" Auditions on Female Musicians*, 90 AM. ECON. REV. 715, 716 (2000).

57. Bart Custers et al., *The Way Forward*, *in* DISCRIMINATION AND PRIVACY IN THE INFORMATION SOCIETY 341, 351 (Bart Custers et al. eds., 2013) ("[T]he physical interaction between the decider and the subject are usually non-existent. Thus, the sensory cues which usually trigger discrimination—a different skin color, accent or demeanor—are removed from the process, thus limiting additional opportunities for discriminatory conduct.").

58. Solon Barocas & Andrew D. Selbst, *Big Data's Disparate Impact*, 104 CALIF. L. REV. 671, 680 (2016).

59. Peck, *supra* note 38, at 13.

hires? According to longstanding patterns, employers have moved further from the core cities and out into suburbs and exurbs that in many instances are extremely non-diverse.[60] So even if the measure is not intended to cause discrimination, choosing workers from a certain zip code is bound to have a disparate impact, which would still violate Title VII.

Other concerns about discrimination and people analytics include the fact that not everyone has equal access to the computer games or skills that might be needed in order to practice or train for some types of data analytics. Further, there is the risk that programmers will use the traits of "good quality" workers based on those who already have jobs. Known as "homosocial reproduction," the idea is that the workers of the past hire workers that "look like" themselves, on into the future. The concern is that people analytics runs the risk of this happening as well. As our article puts it:

> Human discretion and policy choices continue to play an important role in the use of people analytics, constructing the data set, defining the parameters of the analysis, setting the acceptable level of false negatives, and interpreting the results. And analytics fail to consider ways that historical data about employee behavior might be skewed by the employer's own policies which may have shaped the behavior that resulted in that data.[61]

All of these concerns are present when we discuss the law and policy of people analytics. The next question is how people analytics intersects with invisible labor.

## III.  THE CLASH OF INVISIBLE LABOR AND PEOPLE ANALYTICS

When working on two areas of research, I often think about how that research might fit together; both the similarities and differences in the two lines of inquiry. Invisible work and people analytics are increasingly salient labor trends. People analytics is being hailed as a solution to diverse workplace problems such as identifying talent, promoting those who deserve it, and increasing employee loyalty and productivity. Meanwhile, we have identified invisible labor as a hallmark of work in recent decades. Corporate branding strategies operate to make workers conform to an image; social norms oblige workers (especially women workers) to engage in emotional labor; and technology is increasingly hiding workers from those who use their services behind a website platform or mobile application.[62]

How do these trends fit together? My concern is that they are somewhat in tension, and their fit is incongruous. The entire endeavor of people analytics depends on procuring accurate data about workers and workplace performance

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60.  *See, e.g.*, WILLIAM JULIUS WILSON, WHEN WORK DISAPPEARS (1996).

61.  Bodie et al., *supra* note 1, at 51 (internal citations omitted).

62.  *See supra* Section I.

that then is susceptible to analysis. Data analysis will then yield meaningful predictions about work and workers' future performance, skills, and talents, as well as ways to improve work more generally. The desire to quantify and analyze data about work, workers, or workplaces all depends on complete and accurate data being susceptible to capture. People analytics, at its core, relies on capturing data—whether that is in the form of statistics from computer games, information from sociometric badges, or information gleaned from Google searches.

At first, technology that hides workers might not seem to be incompatible with people analytics. In fact, technological platforms are increasingly seeking ratings of a wide range of interpersonal interactions with the intent of then using those results for evaluating workers.[63] However, those ratings are very vulnerable to bias, both explicit and implicit, and are completely diffused and disarticulated from the people making decisions based on them.[64]

Consider the on-demand ridesharing company Uber. Uber's platform operates in part on a rating system where customers rate drivers on a five-point scale.[65] Uber makes decisions about drivers based on these ratings: drivers will be deactivated—unable to drive for Uber—when their ratings fall below 4.6.[66] If customer ratings are as vulnerable to bias as research suggests, it is likely that minority drivers will be deactivated more than white drivers, but the deactivation itself looks like an automatic event, divorced from a person with bias. Similar trends in the effects of customer biases have been shown for other customer-driven processes like Airbnb,[67] eBay,[68] and even tipping in the traditional economy.[69]

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63. Danielle Keats Citron & Frank Pasquale, *The Scored Society: Due Process for Automated Predictions*, 89 WASH. L. REV. 1, 29 (2014); *see also* Josh Dzieza, *The Rating Game: How Uber and Its Peers Turned Us Into Horrible Bosses*, THE VERGE (Oct. 28, 2015, 11:00 AM), http://www.theverge.com/2015/10/28/9625968/rating-system-on-demand-economy-uber-olive-garden [http://perma.cc/A6PQ-BBDQ] (noting that Uber allows its customers to rate drivers based on the routes they take, for slow traffic, for refusing to speed).

64. *See* Citron & Pasquale, *supra* note 63, at 5; Sam Levin, *Racial Profiling via Nextdoor.com*, EAST BAY EXPRESS (Oct. 7, 2015), http://www.eastbayexpress.com/oakland/racial-profiling-via-nextdoorcom/Content?oid=4526919 [http://perma.cc/7AVX-BXY7]. The problems of customer-based discrimination are well documented; *see, e.g.*, Michael Lynn et al., *Consumer Racial Discrimination in Tipping: A Replication and Extension*, 38 J. APPLIED SOC. PSYCHOL. 1045, 1048 (2008).

65. Dzieza, *supra* note 63.

66. *Id.*

67. Benjamin Edelman et al., *Racial Discrimination in the Sharing Economy: Evidence from a Field Experiment* 4 (Jan. 6, 2016) (Harvard Bus. Sch., Working Paper), http://www.benedelman.org/publications/airbnb-guest-discrimination-2016-01-06.pdf [http://perma.cc/E2RP-LZZ9].

68. Ian Ayres et al., *Race Effects on eBay*, 46 RAND J. ECON. 891, 910 (2015).

69. Ian Ayres et al., *To Insure Prejudice: Racial Disparities in Taxicab Tipping*, 114 YALE L.J. 1613, 1616 (2005).

The paradox is that, based on the research around invisible labor, we are now aware that there are forms of work that are already not being officially "counted" in terms of remuneration or even in terms of recognition. Sometimes this work is symbolically invisible to customers or perhaps even the government by being called something else entirely (e.g. an "independent contractor" relationship rather than an employment relationship). Other times this is "emotional labor" that is not counted as productive, even if it is necessary in order to retain customers or to manage a brand. And sometimes it is aesthetic labor, which may or may not even be recognized by the worker as actual "labor," but which may absorb the worker's time and effort even in times when that worker is off-the-clock.

In any event, it does beg the question: How can people analytics appropriately capture "merit" in terms of quantity or quality of work, if research has revealed that there are parts of work that are hidden, submerged, and unrecognized? What are the implications for people analytics if only certain parts of "work" are being counted? Will that mean that people analytics will just not be as successful in particular fields, based on this awkward fit of the two trends? Finally, could the content of what is counted versus not counted as part of an analytics program be a form of implicit bias?

There are many questions here, but perhaps we could start by trying to determine if all forms of labor have been rendered equally invisible to analytics. Interestingly, the areas that largely seem to have been the most hidden portions of work are those that are largely staffed by female workers. Emotion management work has been seen as largely the domain of women workers, although certainly the push to engage in it is widespread throughout the customer service and retail sectors. Likewise, the emphasis on aesthetic labor and corporate branding policies in retail and in restaurant serving positions seems to fall, if not exclusively,[70] then disproportionately, upon female workers.

So far, however, the law has been slow to recognize such issues, at least in the area of corporate branding and "look" policies. One prominent case in this area, *Jespersen v. Harrah's*,[71] led to a disappointing result for the employee, and has provoked a great deal of critical commentary from legal academics.[72] In that case, Darlene Jespersen, a bartender at a casino for over twenty years, was terminated from employment for failure to follow a corporate look policy.[73] The policy, termed "Personal Best," mandated the use of makeup and

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70. Avery, *supra* note 35, at 171.

71. 444 F.3d 1104 (9th Cir. 2006).

72. *See, e.g.*, Michael Selmi, *The Many Faces of Darlene Jespersen*, 14 DUKE J. GENDER L. & POL'Y 467, 467 (2007); Ann C. McGinley, *Babes and Beefcake: Exclusive Hiring Arrangements and Sexy Dress Codes*, 14 DUKE J. GENDER L. & POL'Y 257, 260 (2007).

73. *Jespersen*, 444 F.3d at 1105.

a way of hairstyling for female employees; it also mandated that male employees have a particular look.[74] The majority opinion seems to say that Jespersen did not prove the fact that wearing makeup would create an unequal burden on female workers.[75] However, as Jespersen claimed, and the dissent noted, the requirement that women employees wear makeup resulted in a disproportionate amount of work and effort for the female employees.[76] The criticism of this opinion noted the serious difference in time, effort, cost, and skill between even neutral looking grooming standards for men and women.[77] That is to say that while a cause of action might be available for the types of invisible labor that we discuss in the book, it would not necessarily be an easy or clear-cut case.

## IV. RECONCILIATION OF INVISIBLE LABOR AND PEOPLE ANALYTICS

Throughout the course of the last year, I have struggled to reconcile the areas of invisible labor with people analytics. Is there no way to take into account the kind of emotional labor that is often crucial to workplace functioning (customer service, emotion management, work wives), but often invisible?[78] As discussed in the last section, if certain functions do not count as "work" in the people analytics calculus, then that may result in a disparate impact upon those (mostly women) workers that perform this type of invisible labor.[79]

There might be two ways to address the concerns that this essay has raised. The first way would be for people analytics to broaden its measures of "what counts" as quantity or quality of work. In other words, if people analytics metrics became more inclusive, and were able to encompass some forms of invisible labor, perhaps then there would not be so many concerns. The second option would be to eliminate these forms of invisible labor from consideration, both in the operation of the analytics and the human resource decisions of the company.

While in theory the first option, expanding what is counted, might sound like a plausible solution, unfortunately it seems much less attractive when described in reality. Spinning out this line of thought, perhaps there could be a metric that would measure how "on brand" a retail associate's work attire was. Perhaps there might be a metric or ranking of how much a particular worker's grooming led to an increase in how a particular customer thought about a

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74. *Id.* at 1107.

75. *Id.* at 1108–09.

76. *Id.* at 1117–18 (Kozinski, J., dissenting).

77. *Id.*

78. *See* Hochschild, *supra* note 23, at 7, 20 (defining emotional labor and noting the sex disparity in holders of jobs that require substantial emotional labor).

79. Whether that is a legally cognizable claim is a matter for consideration.

brand. When listed in such a manner, and trying to reduce those elements to a spreadsheet, they seem almost nonsensical. Perhaps these are simply elements that seem to be too subjective and would not be susceptible to being ranked or measured. Quantifying such measures might be close to impossible. The reason we termed these forms of work "invisible" is that in some instances there is no recognition that certain aspects are actually a part of work.

Perhaps the problem is not, in fact, lack of measurement, but that if these requirements were actually listed explicitly, a backlash might ensue. One imagines the outcry that would ensue if workers were *expressly* paid more because they looked "better," wore items that were more "on brand," or engaged in an increased amount of time spent to make themselves look more attractive. For example, there has been an incredible outcry when "corporate look" policies come to light that exclude overweight applicants from being hired.[80] Yet that is the expectation currently; it just goes unstated, as part of *sub rosa* job expectations, and is not treated explicitly as "work" by anyone. When it is spelled out this way, it becomes apparent that just including these forms of labor in the metrics used to predict performance would not amount to a feasible solution. That leads me to a second way to address the conflict between people analytics and invisible labor.

The second solution involves recognizing invisible labor for what it is, whether that is emotion management, aesthetic labor, or brand management. However, if it is embarrassing to attempt to put these intangible elements onto a spreadsheet or metric, or would lead to widespread outcry if these factors were to be taken into account, then rather than including them, perhaps they need to be categorically excluded. These factors would not just be excluded from the spreadsheet, but they would be excluded completely from consideration for promotion, retention, and any other performance measures.

That way, contemporary workplace problems such as basing performance metrics on appearance, would be minimized. If the metric ignores these elements, then perhaps corporate management will have to ignore them too. In other circumstances, such as customer service, where "emotion management," such as empathy and calming irate callers, is prized, then perhaps these skills can be made an explicit part of the calculus. Ultimately, then, perhaps a mix of these solutions (i.e. recognizing the aspects of the job that actually need to be quantified and recognizing those elements that do not belong) provides the answer.

Perhaps, then, this paper is less a call for legal action, and more a call for additional thought about the presence of what we call invisible labor. An acknowledgement of invisible labor would be a good first step, enabling a

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80. *See, e.g.*, Hamilton Nolan, *American Apparel Has a 'Full Body Head to Toe' Employment Policy*, GAWKER (June 9, 2010, 1:56 PM), http://gawker.com/5559165/american-apparel-has-a-full-body-head-to-toe-hiring-policy [http://perma.cc/2SMU-ECVG].

more systematic and inclusive approach when designing a people analytics system. Perhaps some of the unstated social norms that go into securing and keeping a job should be more explicitly stated; one would assume that they would either not withstand scrutiny or critical inquiry; or, if they were indeed required, that there would be some way to make them reducible to some kind of objective performance measure. Either way, one presumes that the workers will benefit from increased transparency and understanding of what the job truly entails.