The Use of Data Analytics in Employment Decision-Making

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TABLE OF CONTENTS

I.   DATA ANALYTICS AT WORK TODAY

It is no longer surprising that all kinds of entities are gathering all kinds of data about all kinds of things at all kinds of times for all kinds of purposes. It is also no longer surprising that such data is sometimes gathered without consent (although it is likely more frequently gathered with consent freely given).[1]

Cities have begun installing devices such as "smart meters" that monitor consumption and collect data from users in fifteen-minute intervals, despite protest from residents, who cannot opt-out of the program.[2] Adtech companies embed tracking codes in online ads to build a comprehensive profile of each user (where you live, how many devices you have, what content you're consuming) and his or her behavior (what you like or dislike, how you're likely to react to certain content, or what you're more inclined to buy and when).[3] Indeed, SuperAwesome—a child privacy advocacy group—estimates advertising companies will have collected an estimated 72 million data points about a child by the time the child turns 13.[4] This is not to suggest data capture is inherently bad. Many companies use the data collected to refine their services, improve customer experience, and enhance security. For example, John Deere is using "farm tech"–cameras, sensors, and drones–to create "prescriptions" for farmers, showing things like how much fertilizer to apply and looking at plant color to decide when plants should be harvested, all in an effort to increase productivity.[5]

With all of this data capture, it is little surprise that employers are becoming increasingly interested in capturing data about their employees and then making actual use of it. In fact, employers are approaching the point of being able to capture near-continuous, real-time streams of relevant data

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[1] *See, e.g.,* https://www.23andme.com/about/privacy/ ("If you choose not to complete a Consent Document or any additional agreement with 23andMe, your Personal Information will not be used for 23andMe Research. However, your Genetic Information and Self-Reported Information may still be used by us and shared with our third party service providers as outlined in this Privacy Statement.").

[2] *See Naperville Smart Meter Awareness v. City of Naperville*, 900 F.3d 521 (7th Cir. 2018) (finding a city's collection of "smart meter" data was a reasonable search that did not violate the Fourth Amendment, despite citizens' concerns that the smart meters were being used without their consent and revealed "intimate personal details of the City's electric customers such as when people are home and when the home is vacant, sleeping routines, eating routines," and more).

[3] Adam C. Uzialko, "How Businesses Are Collecting Data (And What They're Doing With It)," Business News Daily, Aug. 3, 2018, https://www.businessnewsdaily.com/10625-businesses-collecting-data.html (last visited April 26, 2019); David Nield, "Here's All the Data Collected From You as You Browse the Web," Gizmodo, Dec. 6, 2017, https://gizmodo.com/heres-all-the-data-collected-from-you-as-you-browse-the-1820779304 (last visited April 26, 2019).

[4] Dylan Collins, "How much data do adtech companies collect on children before they turn 13," Superawesome, Dec. 13, 2017, https://appdevelopermagazine.com/72m-data-points-collected-on-children-in-spite-of-coppa/ (last visited April 26, 2019). Although the authors found extensive media coverage repeating this number and referencing a "study" underlying it, they could not locate any copy of any such study.

[5] Josh Bersin, "The Future Of Work: It's Already Here -- And Not As Scary As You Think," Sept. 23, 2016, https://www.linkedin.com/pulse/future-work-its-already-here-scary-you-think-josh-bersin/ (last visited April 26, 2019).

regarding employees from a multitude of sources (email systems, phone systems, RFID badges, wearables, chat tools, social media posts, internet history, computer key strokes, and workplace smart sensors placed in the workplace, and employer-provided devices like wearables) that can then be used to provide a deep understanding of and predictive insight into recruitment, performance, improvement, compensation, advancement, retention, separation, and virtually every other employment-related question faced by an organization. This more specific application of Big Data and Data Analytics[6] to employees and employment-related questions is sometimes referred to as "People Analytics."[7]

In March 2018, Deloitte released its Global Human Capital Trends report based on a global survey of approximately 11,000 businesses and HR leaders which found more than 70% of respondents were in the midst of "major projects" designed to integrate the use of Big Data into their business decision-making; 69% were building integrated systems to analyze worker-related data; and 17% already had "real-time" dashboards to analyze employee data in a variety of ways.[8]

Similarly, a January 2019 Accenture report released at the World Economic Forum showed that a survey of 1,400 C-level business leaders in 13 major economies found 62% of respondent organizations were already using Big Data to a "large or significant extent."[9] At the same time,

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[6] For our purposes, "**Big Data** refers to humongous volumes of data that cannot be processed effectively with the traditional applications that exist. The processing of Big Data begins with the raw data that isn't aggregated and is most often impossible to store in the memory of a single computer. A buzzword that is used to describe immense volumes of data, both unstructured and structured, Big Data inundates a business on a day-to-day basis. Big Data is something that can be used to analyze insights which can lead to better decisions and strategic business moves." Shivam Arora, "Data Science vs. Big Data vs. Data Analytics," Jan. 4, 2019, https://www.simplilearn.com/data-science-vs-big-data-vs-data-analytics-article (emphasis added). "**Data Analytics** is the science of examining raw data with the purpose of drawing conclusions about that information. Data Analytics involves applying an algorithmic or mechanical process to derive insights. For example, running through a number of data sets to look for meaningful correlations between each other. It is used in a number of industries to allow the organizations and companies to make better decisions as well as verify and disprove existing theories or models. The focus of Data Analytics lies in inference, which is the process of deriving conclusions that are solely based on what the researcher already knows." *Id.*

[7] *See, e.g.*, Google re:Work, https://rework.withgoogle.com/subjects/people-analytics/ ("People Analytics is about using a data-driven approach to inform your people practices, programs and processes. Analytical techniques, ranging from reporting and metrics to predictive analytics to experimental research can help you uncover new insights, solve people problems and direct your HR actions. At Google, we use people analytics as a foundational building block that informs everything we do to find, grow and keep Googlers.") (last visited April 26, 2019); *see also* Ben Waber, People Analytics: how Social Sensing Technology Will Transform Business and What It Tells Us about the Future of Work, FT Press (2013).

[8] Deloitte Insights, "The rise of the social enterprise," 2018, https://www2.deloitte.com/content/dam/insights/us/articles/HCTrends2018/2018-HCtrends_Rise-of-the-social-enterprise.pdf (last visited April 26, 2019).

[9] Accenture Strategy, "Putting Trust to Work," 2019, https://www.accenture.com/_acnmedia/Thought-Leadership-Assets/PDF/Accenture-WF-Decoding-Organizational-DNA.pdf#zoom=50 (last visited April 26, 2019).

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