



FTC Topic #9:

The consumer welfare implications associated with the use of algorithmic decision tools, artificial intelligence, and predictive analytics

Of particular interest to the Commission: (a) the welfare effects and privacy implications associated with the application of these technologies to consumer advertising and marketing campaigns; (b) the welfare implications associated with use of these technologies in the determination of a firm's pricing and output decisions; and (c) whether restrictions on the use of computer and machine learning and data analytics affect innovation or consumer rights and opportunities in existing or future markets, or in the development of new business models.

Workday, a leading provider of enterprise cloud applications for finance and human resources, is pleased to submit comments in advance of the Federal Trade Commission's hearings on competition and consumer protection in the 21st century. Founded in 2005, Workday delivers financial management, human capital management, and analytics applications designed for the private sector, educational institutions, and government agencies and we work with organizations representing more than 31 million workers. Workday is headquartered in Pleasanton, California, with offices and customers across the U.S. We empower enterprises to process a wide variety of HR and finance-related transactions, gain new insights into their workforces and financial performance, and manage employees and financial outcomes consistently on a company-wide basis through our cloud-based applications. Workday's applications give customers real-time insights into their organizations, allowing them to make decisions based on data rather than guesswork. Being in the cloud also means that customers have access to their financial and workforce data whenever and wherever they need it, on any device. For employers, this translates to an ability to better manage the business, and for employees, it simplifies many daily transactions and democratizes access to critical data.

Big data analytics (BDA)—the use of data sets to gain actionable insights—and artificial intelligence (AI)—where computers simulate human behavior, including decision-making—are quickly changing our world. While coverage often focuses on futuristic applications of AI like robotic surgery and driverless taxis, AI and BDA in fact already power products and services we use every day, including a vast array of mobile apps, web services, and business solutions. They cut across virtually all sectors of the economy, transforming healthcare, transportation, logistics, entertainment, education, agriculture, and finance.

While there is no shortage of coverage on the impact that BDA and AI will have on consumers, these technologies are likely to have a more immediate and profound impact on enterprises. Companies of all sizes are beginning to use BDA and AI throughout the enterprise to streamline manufacturing, upgrade customer service, tighten supply chains, improve employee hiring and retention, and increase efficiency and productivity. BDA and AI are enabling companies across virtually all sectors of the economy to become more efficient, productive, and innovative. Enterprises are already using solutions powered by both technologies to help streamline logistics, improve inventory management, better manage customer relations, and hire, retain, and serve employees more effectively. For instance, by enabling enterprises to



continuously track and analyze customer data, BDA can help businesses acquire insights they can use to improve the customer experience and customer satisfaction. As Workday Benchmarking illustrates, BDA can also provide broader insights into how a company's performance, growth, and retention rates compare with other similar organizations.

Enterprises are similarly using AI to improve business performance. Companies can use AI to accelerate their production capabilities through more reliable demand forecasting and increased flexibility in operations and supply chains. In doing so, they can create smarter, faster, cheaper, and more environmentally friendly production processes that increase worker productivity, refine product quality, lower costs, and improve worker health and safety.

Relatedly, BDA and AI offer tremendous promise in the context of employment. BDA can be used to uncover and possibly reduce employment discrimination by better enabling companies to objectively consider experiences and skill sets that have a proven correlation with success. By examining the skills that have made previous employees successful, BDA can help human resources officers more effectively "pattern match" in order to recognize the characteristics the next generation of hires should have. For prospective employees, AI is being used to power tools that gather information about a particular candidate and the sort of position they seek, then using that information to develop a tailored list of recommended job listings. Some of these tools, for instance, can scan job postings from a network of Fortune 1000 companies and alert a user if they are a potential top-10 candidate for an opportunity. AI tools can even help prospective employees craft more effective resumes. They can assist in determining what traits companies are looking for and what keywords to include in the resume, assess the resume's strengths and weaknesses, and edit it accordingly. These sorts of tools have, for instance, helped veterans find civilian jobs that correlate to skills they obtained in the military.

Because of their broad and potentially profound impact, BDA, AI, and related technologies are forcing thought leaders in both the public and private sector to grapple with the question of how to maximize the benefits of these technologies while minimizing their potential risks. As BDA tools (as explained above) are primarily designed to enable humans to make better-informed decisions, and AI applications to some extent supplant human decision-making, the appropriate policy response might be different for each. Likewise, certain concerns—for instance, in relation to consumer safety and privacy—are likely to be less pressing for inventory management or other enterprise solutions than for devices or services that interact directly with consumers. All of this suggests that a "one-size-fits-all" approach to policymaking in this area is unlikely to achieve the right balance. Instead, policy prescriptions—whether voluntary or mandatory—need to take account of material differences in technologies, applications, and use scenarios. Also, given that we are in the early stages of innovation in this area and much remains unknown as to how these technologies will develop, it is worth considering the valuable role that the private sector can play in creating flexible, context-specific best practices and "rules of the road" with regard to both the development and deployment of these technologies.



Workday supports a differentiated and contextual approach to regulation in this area. Although Workday believes that certain general principles should apply across-the board (for instance, that AI and related technologies should be deployed in ways that respect human dignity and rights), regulatory requirements should focus on specific applications and use scenarios and should be adopted only where there is concrete evidence of actual harm. Determining the appropriate contours of regulation likewise should take account of differences in the technologies involved (*e.g.*, BDA vs. AI) and the contexts in which they are deployed (*e.g.*, in the consumer vs. enterprise context). Even as governments support private-sector solutions to the policy challenges raised by AI, it is inevitable that they will at times need to regulate. In doing so, they should ensure that such regulation is flexible and technology-neutral, so that companies are not forced into technical or other mandates that could freeze innovation and instead offer users multiple competing solutions that achieve the regulation's goals. So that regulation does not paint with too broad a brush, regulators should also take care to ensure that rules are risk-based, proportionate to the concrete harms at issue, and grounded on solid evidence.

* * *

Thank you for the opportunity to submit comments in advance of the hearings. We stand ready to provide further information and to answer any questions you may have. Please do not hesitate to reach out to Jason Albert ejason.albert@workday.com if we can be of further assistance.