

## AI RFI Responses, October 26, 2018

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### Update to the 2016 National Artificial Intelligence Research and Development Strategic Plan RFI Responses

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October 26, 2018

Mr. Faisal D'Souza  
National Coordination Office  
National Science Foundation  
Alexandria, Virginia 22314

Dear Mr. Faisal D'Souza,

Workday appreciates the opportunity to provide input on whether the National Science Foundation's National Artificial Intelligence Research and Development Strategic Plan ("the Plan") should be revised. Workday is a leading provider of enterprise cloud applications for finance and human resources. Founded in 2005, Workday delivers financial management, human capital management, and analytics applications designed for the world's largest companies, educational institutions, and government agencies. As one of the leading providers of data analytic technologies for enterprises, we are pleased to provide the following general comments and specific recommendations.

## **General Comments**

### *Need for Revision*

Finalized in October of 2016, the Plan was intended to define "a high-level framework that can be used to identify scientific and technological needs in [Artificial Intelligence ("AI")], and to track the progress and maximize the impact of [research and development ("R&D")] investments to fill those needs."<sup>i</sup> Given the rapid pace of innovation, development, and deployment in the technology sector and the growing footprint occupied by AI and related technologies in today's economy, two years is a significant duration. We suggest that, to be effective, the Plan would benefit from a fresh look.

### *Definitional Specificity*

Workday believes that the development and use of AI and related technologies has the potential to increase the efficiency and productivity of companies economy-wide will also increasing opportunities for innovation. Supporting such efforts is a fundamental part of our public policy agenda.<sup>ii</sup> These technologies should inherently respect privacy and avoid unintended bias while at the same time not be constrained by inappropriate regulation. Unfortunately, too often there is a lack of clarity with respect to the term AI and a lack of distinction between such technologies in the business-to-business versus business-to-consumer context. With different aspects of AI have differing risks as well as differing benefits, this has the potential to cause unintended consequences in the policy arena. Given the emphasis within the Plan on ethical, legal, and societal implications of AI and related technologies as well as the safety and security of such systems, definitional ambiguity seems particularly poignant.

Towards providing some clarity, earlier this year Workday released a white paper (attached) entitled Enterprise Intelligence: A New Frontier for Innovation. In that paper, working definitions for the following terms were provided: Big Data, Big Data Analytics, AI, Algorithms, Machine Learning, Deep Learning/Neural Networks, and Robotics. In updating the Plan, an overarching theme should be a focus on disaggregating the broader AI term into discrete technologies with meaningful definitional specificity.

Among other topics, the white paper also included specific recommendations on areas in which government should take a lead for the responsible development and deployment of AI and related technologies. Several applicable recommendations are detailed below.

## **Specific Recommendations**

### *Investments in AI Research*

The first strategy of the Plan calls for the government to “[p]rioritize investments in the next generation of AI.” In updating this strategy, the Plan should continue to encourage a significant role of government-funded basic scientific research with results being made available for commercialization. In addition, incentives for private-sector R&D such as tax policies that spur innovation and increasing financing opportunities for start-ups and entrepreneurs should be encouraged.

### *Safety and Security of AI Systems*

Strategy 4 of the Plan calls for ensuring the safety and security of AI systems and focuses on the need to build trust. A key component of building such trust is ensuring that any related personal or sensitive data is handled in a manner that protects its privacy. At Workday, privacy has been a fundamental component of our services from the beginning and we recently published our *Privacy Principles in the Era of Intelligent Technologies*.<sup>iii</sup> These principles include: Put Privacy First, Innovate Responsibly, and Safeguard Fairness and Trust. Simply put, we believe “strong privacy protections can live in harmony with the data needs of advanced analytics and increased data-driven decision making” and have called for strong and comprehensive federal privacy legislation.<sup>iv</sup>

In addition to congressional attention on digital privacy, the National Institute for Standards and Technology (NIST) has launched an ambitious effort to create a voluntary privacy framework akin to their efforts on cybersecurity. At the same time, the National Telecommunications and Information Agency (NTIA) has issued their recent Request for Comment on a new approach to consumer data. We echo calls for the Plan to include an approach to privacy that supports privacy by design for AI and related technologies and is consistent with both the NIST and NTIA efforts.

### *Education and Workforce Retraining*

The final strategy in the Plan calls for a focus on the needs of the national AI R&D workforce. Little has changed in the last two years to alter the importance of such efforts. In updating the

Plan, effort should be made to prioritize skill building in the disciplines essential in an economy replete with AI and related technologies starting in primary school and continuing on. In addition, workforce retraining should be considered. While AI and related technologies will lead to job growth for individuals with highly valuable skills, there inevitably could be some displacement in the short-term. The Plan could contemplate steps that are necessary for worker retraining in order to avoid disruptions in the workforce.

Again, Workday appreciates the opportunity to provide input on the potential revision of the National Science Foundation's National Artificial Intelligence Research and Development Strategic Plan. As a proponent of artificial intelligence and related technologies, we are pleased to offer suggestions for the public sector that can promote their thoughtful and responsible adoption.

Sincerely,

Mr. Chandler C. Morse  
Director of Public Policy

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<sup>i</sup> [https://www.nitrd.gov/pubs/national\\_ai\\_rd\\_strategic\\_plan.pdf](https://www.nitrd.gov/pubs/national_ai_rd_strategic_plan.pdf)

<sup>ii</sup> <https://blogs.workday.com/workdays-policy-priorities-for-2018/>

<sup>iii</sup> <https://blogs.workday.com/workdays-privacy-principles-era-intelligent-technologies/>

<sup>iv</sup> <https://blogs.workday.com/workday-supports-comprehensive-privacy-legislation-in-the-us-and-globally/>