July 1, 2019

Comment Template for Draft Plan for Federal Engagement in Developing Technical Standards and Related Tools for AI Technologies

COMMENT #	NAME OF COMMENTER	TYPE i.e., Editorial Minor Major	LINE # PAGE etc.	RATIONALE for CHANGE	PROPOSED CHANGE (specific replacement text, figure, etc. is required)
1	Carlos E. Jimenez-Gomez	minor	General	General	I am proposing to take into account along the document the role that data scientists will play and, therefore, I suggest to highlight along the document the importance of data science internal capabilities in organizations, specially taking into account the more and more autonomous use of these tools by organization. Data Science as new field of knowledge and the role of data scientists, will be key for the subject of the Plan, because in addition to AI development from industries, data scientist internal staff would allow organizations internally (including the public ones) a right standards-based development, methodology use or improvement of AI-based tools internally, and the alignment with the specific domain and organizations (public and private) needs and mission. The inclusion of right knowledge within organizations will be key. Data scientists take into account the domain and organizational context, among other, in order to solve problems using, among other, machine learning, with capabilities to build its own specific models. The steps in the data science process take in consideration these elements, and should be aligned with the organizational strategic goals and mission as well as the specific framework within the organization and field (i.e. justice), because its specificities, but also following a right methodology following the standards. In the case of public sphere, it can impact from public policies until the specific machine learning process. For instance, a minimal variation in characteristics such as the type of a variable could also have further consequences in algorithms' training and test phases, as well as in the model's prediction capabilities and results. The importance of decisions taken in the data preparation phase for machine learning can even become strategic, given its potential impact on the machine learning models' prediction capability. This should be translated into including the data science knowledge and methodology within the organizational ecosystem, given its relevance in different processes. In the public sphere (branches of government) the special characteristics, needs and balancing of rights related to citizen-oriented services, effectiveness, efficiency (only when possible -not always- i.e. justice) transparency or accountability, it will be also key.

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					This will be also especially important taking in consideration the issues that are raising at legal, ethics and societal levels, and the potential autonomous developments of organizations based on this knowledge. Next I include two specific sections in the document, that it could be expanded along the explanation of this proposed change (adding). If it this proposal is added, it should be also evaluated to include potential item within the sections "(B) PRIORITIZING LEVELS OF U.S. GOVERNMENT ENGAGEMENT IN AI STANDARDS" (page 14), "(C) PRACTICAL STEPS FOR AGENCY ENGAGEMENT IN AI STANDARDS" (page 14 and 15) and "3 RECOMMENDED FEDERAL GOVERNMENT STANDARDS ACTIONS TO ADVANCE U.S. AI LEADERSHIP" (page 16)
2	Carlos E. Jimenez-Gomez	minor	Line 215-216	Descriptions of data that define authorized use are important elements of data standards.	Adding: Also data preparation processes (works such as transformation, aggregation and optimization of data) are key in machine learning, because of the fact that these processes could impact in final results such as prediction of forecasting.
3	Carlos E. Jimenez-Gomez	minor	Line 248-251	While these efforts provide a strong foundation for driving AI evaluations forward, they are limited by being domain-specific. Additional metrics, testing requirements, testbeds, and benchmarks are needed across a broader range of domains to ensure that AI solutions are broadly applicable and widely adopted.	Adding: In addition, new fields of knowledge and skills can play an important role here within organizations, including the public ones and government. This is the case of the role of Data Scientists, that can be key in order to follow the adoption of standards, but also the right methodology and use in processes, specially taking into account the importance of the impact of the different elements along the full data science process including machine learning algorithms models.

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