

AI Assistant for Enduring Advantage

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To: The NIST RFI: Developing a Federal AI Standards Engagement Plan

Submitted by: James Schoening, Solid Community

Overview:

This proposal calls for technical standards to support an ecosystem for a user-controlled, highly-private, AI Assistant. This is distinctly different than a centralized AI Assistant that collects user data and sells it.

Solid as AI Assistant:

'Solid' is an open source crowdsourced initiative, led by Tim Berners-Lee, to restore the rightful ownership and control of data back to individuals and to unleash a new wave of innovation. See <https://solid.inrupt.com/> While Solid is starting with basic personal data, it will be a platform for AI Assistant capabilities for the individual. Privacy is paramount, since nobody will dare let their Solid 'Pod' collect huge amounts of data on them unless it is trusted as being private.

Enduring Advantage:

Most new AI technologies will be quickly copied and fielded, providing little advantage, but an AI Assistant, if truly user-controlled, is uniquely different. The US and most of its allies have individualistic cultures, while our primary adversaries have collectivist cultures. Our individual citizens will be empowered while theirs will be controlled, providing us with an enduring advantage in innovation and economic growth.

National Security:

One must ask if the broad practice of individuals exchanging personal data for free services is a threat to national security. Plus, the erosion of privacy can also threaten civil liberties.

Solid as Ecosystem (in need of standards)

The Solid Community believes the required solution calls for an ecosystem, that no system (regardless of funding) could develop and evolve all the required parts of this capability. Rather, many organizations and people should pursue their best ideas to develop components that, via standards, can be plugged together by individuals. This approach needs many standards in many fields such as security, data storage, common ontologies, self-sovereign identity, blockchain, learning technology, knowledge graphs, machine learning, user interfaces, etc.

Roles (and Non-roles) of Government:

No government should seek any level of control of a crowdsource initiative, though they can be key contributors of components. For example, the author of this submission is from US Army Futures Command and has a team of researchers actively contributing to the Solid Community.

Governments can also add momentum by sponsoring operational pilots within employee niches.

In standards development, governments can play any desired role, since the voting rules are so strict that no entity can gain undue influence. Government representatives can also chair standards groups, since they must either remain unbiased in their actions or recuse themselves in order to take a position.

Recommended Standards Actions and Next Steps:

1. Release an RFI on the specific topic of 'User-Controlled AI/Digital Assistant,' explain its difference from centralized services, and seek collaborators, stakeholders, ideas, capabilities, and candidate pilots. Follow this RFI with a workshop (already being planned for Aug 2019 in DC area) to bring together contributors and collaborators. Encourage the formation of teams to pursue these ideas.
2. Establish a Working Group on 'User-Controlled AI Assistants' under ISO/IEC-SC42 Artificial Intelligence to develop standards for this capability. Towards this end, develop a thorough listing of needed standards, plus a listing of standards being developed by other standards developing organizations. Establish liaisons with these other groups. The current Solid specification is likely a starting point for a variety of standards to enable interoperability of system components.
3. Work with US DoD Joint Artificial Intelligence Center (JAIC) to explore making 'AI Assistant' a form of a designated 'Initiative,' to help it gain contributors, resources, and adoption, towards the same goal of achieving enduring advantage.