

Insight



What's Missing From the White House's Reports on AI? A Balanced Take on Entrepreneurism

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Artificial Intelligence (AI) has long been the subject of books, movies, and games. But in recent years, AI technologies have become more widely available and used. If the two new reports from the White House are any indication, Washington is taking notice of this development. Typically, this kind of attention means new regulatory requirements, but thankfully, the administration is moving in step with the larger community and isn't calling for broad regulation right now. While these reports provide a good overview of AI technologies, they lack a rigorous explanation of the current entrepreneurial landscape and thus seem to miss how these technologies will be deployed in the coming years.

For those that aren't especially knowledgeable in AI, the reports are broken down by subject matter. In "[Preparing for the Future of Artificial Intelligence](#)," the administration provides a broad overview of AI, including a short history, an exploration of the current technologies, and a series of recommendations. In "[The National Artificial Intelligence Research and Development Strategic Plan](#)," the White House establishes a set of objectives for federally funded AI research, both within the government as well as in academia. Importantly, the administration agrees with [AAF's submission](#) in this matter, noting that "broad regulation of AI research or practice would be inadvisable at this time." In a [Wired interview](#) that accompanied the reports, President Obama said that "early in a technology, a thousand flowers should bloom."

What is noticeably absent from both the reports is an understanding of how those flowers will bloom, since very little attention is paid to the contemporary entrepreneurial context. While the White House does mention in passing that "the private sector will be the main engine of progress on AI," it follows up immediately saying that "as it stands, there is an underinvestment in basic research."

This has been a claim stretching back decades. [Back in 1983](#), the head of the Association for the Advancement of Artificial Intelligence, John McCarthy lamented the state of basic research:

"Too few people are doing basic research in AI relative to the number working on applications. The ratio of basic/applied is less in AI than in the older sciences and than in computer science generally. This is unfortunate, because reaching human level artificial intelligence will require fundamental conceptual advances."

As is mentioned throughout both reports, the United States has been at the forefront of foundational research in AI. However, there have been few applications that have taken off commercially, so the industry has been dependent on these federal dollars to continue. In the lean years when optimism for AI technology waned, the industry underwent [AI winters](#).

So why are we talking about AI now?

AI is moving out of the academy and into the marketplace, much like semiconductors did in the 1950s. Google, Facebook, Microsoft, IBM, and other high tech firms have invested serious capital into applications, investing in talent to make real products. And that labor has seen fruit. Just last year, Google [released](#) a suite of technologies known as TensorFlow, allowing for cheap and easy experimentation by hobbyists. Microsoft quickly followed with [their own](#). Moreover, the cost of computation has also dropped dramatically. All combined, the effort is now on applications and this will mean commercially viable projects.

[As AAF has explained before](#), the relationship between research and development spending, innovation, and economic growth is changing. While it might have been the case that science-based product innovations were a source of growth in previous decades, firms are becoming flexible assemblies, connecting skills, capacities, and funding from sources around the world. US firms continue to dominate in business model and process innovation, bringing the research to the public with a marketable good. AI is currently undergoing this kind of development.

The administration could be a leader in that space by recognizing how important entrepreneurs are in this stage of AI development. In the near term, AAF's innovation agenda could help [clean up the regulatory state](#), allowing AI applications to come to market. Thankfully, there is hesitancy to add onerous regulations to AI. But what should also be recognized is that a lot could be done to ensure all new technologies, not just AI, would benefit from a more complete understanding of entrepreneurship.