Making a U.S. Digital Service Academy Work

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MAKING A U.S. DIGITAL SERVICE ACADEMY WORK

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COMMENTARY

West Point, America's oldest service academy, was <u>founded</u> in 1802. Over the next two centuries, the United States established academies for the Navy, Coast Guard, Merchant Marines, and Air Force. Each offers a rigorous undergraduate education, commissions officers, and requires graduates to serve a minimum tour of duty.

Recently, the <u>National Security Commission on Artificial Intelligence</u> — chaired by former Google chief Eric Schmidt and former Deputy Secretary of Defense Robert O. Work — published 33 specific <u>recommendations</u> to build the country's capability and maintain its advantage in AI. One of those recommendations was to establish a U.S. Digital Service Academy modeled on the military service academies. The Digital Service Academy would produce trained government civilians to work across the federal government on high-technology issues.

BECOME A MEMBER

Creating a U.S. States Digital Service Academy is an excellent idea. Although digital service is fundamentally different than military service, it too deserves a specialized institution for education and training. For it to be successful, it should be relevant to the needs of the government sponsor, practitioner-focused, and engaged with its graduates throughout their

careers. Just as importantly, it will need to avoid the tendency towards academic insularity and the temptation to measure success against its own metrics of performance.

This Is a Good Idea

Fundamentally, gathering the talent in the United States that has both the ability and interest in engaging in advanced computing — to include AI — is a fantastic idea. A Digital Service Academy would focus scarce human resources on establishing the levels of competency that will form the basis for both the education and evaluation of the broader workforce. By providing a common baseline, a digital service will drive the adoption of AI across the Department of Defense and the broader federal government more effectively than current efforts, which are uneven at best. Like the service academies, graduates of the Digital Service Academy would not constitute the majority of the government efforts in AI. Rather, it would serve as a common experiential basis for rapidly disseminating ideas and techniques.

Digital "service" is fundamentally different from most military service opportunities. Military service is insular in the sense that if one is to be a professional at flying military aircraft aboard an aircraft carrier or firing artillery in support of infantry, there are few relevant opportunities to do this outside the government. In contrast, a digital service is and should be porous in the sense that professionals can flow freely between government and industry. This is explicitly stated in the U.S. digital service mission. We suggest that this should be the defining trait of a successful digital service.

This paradigm shift will require governmental leaders to recognize that the value of the digital service increases at each iteration as personnel move in and out of government. The notion that a career in government service that lasts less than 20 years represents some kind of failure is itself a failing idea. Allowing a freer flow between government and industry is a large step and requires cultural change and legislative action in equal measure. The cultural piece is actually more important and will take longer to implement. It will require the people who make hiring decisions — and are generally long-term government employees — to consider those with less traditional career trajectories. Doing so demands balancing familiarity with the workings of government with the breadth of experience that comes from exposure to industry. Legislation can incentivize cultural change, but it cannot make it happen by fiat.

Congress should pass legislation to establish different pay scales that encourages truly exceptional talent to enter government service, reduce barriers to working with industry for education and research, and provide for a "reserve commission" that supports keeping an active clearance even as the person transitions from government service into industry. Many in Silicon Valley expect to move between an academic stint at a university and the development of their next startup. Similarly, the government should make it easy for someone that just sold their startup to invest their time in sharpening the skills of the federal workforce. This free flow of talent, knowledge, and dissatisfaction with the status quo would dramatically transform the expectations of both faculty and students.

Additionally, the digital service and the academy that supports it would be

a first step towards the "whole of government" approaches that are used by the America's competitors — specifically China. Free societies, such as the United States, are typically not responsive to the broad whole of government solutions in the absence of an existential or imminent threat. The digital service is an idea that can achieve the desired outcome and still be in line with the character and values of the United States and the community of democratic nations more broadly.

Balancing Practitioners and Theorists

The fundamental question addressing the development of the Digital Service Academy is not the students. Qualified, energetic students will come, provided the incentive structure for service and the quality of education are evident. However, the "If we build it, they will come" philosophy is not sufficient on its own. The federal government needs to recognize that it is but one player in a truly global competition for AI talent. Financial incentives, such as free or dramatically reduced-cost education, on their own are also probably not sufficient for this select cohort. A focus on service to the nation — and the advantages that such service can provide an early-career professional — is the key.

The fundamental question that will determine the success of the Digital Service Academy is how it will recruit and retain faculty. The Pentagon and the broader federal government are focused on using AI to solve relevant problems for practical purposes and is therefore a practitioner-*focused* vice *theoretical* activity. Practitioners are needed to balance the promises and risks inherent in AI. This focus on AI-practitioners is equally true for

government organizations from the Social Security Administration and the Veteran's Administration to the Department of Commerce and the Department of Homeland Security. The key measure of effectiveness of the Digital Service Academy will not be measured in the number of peer-reviewed articles in discipline-specific journals, but in the number of areas where AI transforms currently intractable problems into transparent and repeatable processes that empower leaders and service members to make better decisions. Building AI models in code is messy and involves a high failure rate. Fundamentally, the application of any bespoke technology like AI does not constitute a goal in itself, but it is a useful tool for accomplishing a necessary task. AI is not useful without competent professionals to supervise its use. This realization has direct implications for the way in which faculty are recruited and retained.

It is certainly desirable, and likely necessary, that much of the faculty at the Digital Service Academy have a defined tenure limit, in stark contrast to comparable educational institutions. This would be similar to the model at the U.S. Naval Academy, where the permanent civilian faculty are balanced by rotational, military faculty. In the case of the Digital Service Academy, most of the faculty would likely be civilians. A model for this might be the program managers at the Defense Advanced Research Projects Agency or similar activities in both government and industry. These agencies recognize that when their program managers step away from "the top of their fields … pushing the limits of their disciplines" to join the agency, their skills begin to atrophy. Likewise, a significant portion of the faculty at the Digital Service Academy should continually be refreshed by a deliberate

rotation plan that brings in faculty with the latest techniques and sends out faculty immersed in the Defense Department's most challenging problem sets. This would also address the challenge of some academic institutions that prioritize publishing theoretical journal articles over the education mission or the focus on exploiting AI to solve the emerging challenges facing the United States.

One approach is to recruit an initial cadre of instructors from government, academia, and industry with a defined term of four years, synchronizing them with a graduation cohort. Having a group of faculty members sourced from different backgrounds, experiences, and specialties work with a class of students would create unique opportunities for developing prototypes and leading the adoption of new practices across the silos of agency, problem set, and academic discipline. A defined period of service would encourage the faculty to maintain a broad network of relationships with other academic institutions, Defense Department sponsors, and industry. In this way, the Digital Service Academy would support the broader ecosystem and not just the institution itself.

Ultimately, both the students and faculty will join the same workforce. We know from our own experience that working relationships with former faculty are very rich and fruitful. The students would form cross-disciplinary networks that intersect with the faculty networks in ways that could provide exponential returns.

Some might argue that limiting the tenure of faculty will impede the development of institutional memory and undermine the ability of faculty to develop long-term projects. There is definitely merit in developing the character of the institution and ensuring that the courses are well-developed. Indeed, there should be a place for long-term research and tenure in academia more broadly. However, we believe that the Digital Service Academy should draw on the best talent from the government, industry, and academia to provide a faculty that is the best in the world. Again, like the Defense Advanced Research Projects Agency model, when a person leaves the Digital Service Academy, that experience becomes a calling card denoting professionalism, knowledge, and experience. Similarly, a member of the Digital Service Academy could return at a later date in a more senior leadership position. To be truly innovative, the academy could build its roster of top talent in the faculty by offering dual appointments to faculty at institutions like Stanford University, Carnegie Mellon University, and the Georgia Institute of Technology. Alternately, imagine having the best minds in AI at Microsoft, Google, Apple, and Facebook spend 10 percent of their time teaching the fundamentals of their latest technology to the next generation of public servants while they are still working on the technology. The best way to have actionable term limits is to place the academy near an existing AI hub, such as Silicon Valley, Washington, D.C., or Austin, Texas. By collocating with existing ecosystems, the faculty can change jobs without having to uproot their families.

How to Fail at Building a Program

We don't know precisely how to be successful at creating this new type of institution, but we do have some clear ideas about how it might fail. Leading the adoption of AI to solve real-world problems is an inherently interdisciplinary activity. This highlights the challenge of getting faculty to solve problems with others outside their discipline at the speed of relevance. In order to ensure that faculty and their students remain relevant, the academy should not create impediments for faculty to participate in a broad set of conversations — including non-governmental conferences — and publishing in a variety of professional outlets.

Another way to fail at creating a successful Digital Service Academy would be to seal it off from partnerships with industry, academia, and foreign partners with excessive bureaucratic rules. To be successful, the academy would need to be able to create and foster nimble partnerships with non-government research organizations and non-traditional funding sources. The most important thing the academy can do for its students is create an enduring and dynamic ecosystem that spans government, industry, and academia. That support includes identifying meaningful employment opportunities within the government consistent with their education initially, as well as creating a robust alumni network to leverage for the remainder of their careers.

Finally, we caution against creating a so-called "ivory tower," in which the Digital Service Academy is a standalone organization with permanent faculty measured only against its own metrics. Discomfort and relevant challenges are key to growth and continued forward movement. This point extends to the enterprise of AI as a whole — it is not an end unto itself.

Rather, it is a means to distill knowledge out of data with an ultimate goal of making and implementing better decisions. The best way to avoid an ivory tower is to keep the academy close to practitioners, who are incentivized to deliver results. Keeping this final point in mind is perhaps the most important thing the academy can do.

Conclusion

The United States should adopt the recommendation of the National Security Commission on Artificial Intelligence and establish a Digital Service Academy. It would provide an on-ramp for technically oriented students who might be interested in government service but are not much interested in pursuing a military career. Moreover, it would allow the best talent from government, industry, and academia to develop the workforce and create solutions to many of the most pressing challenges facing the United States. It is also an opportunity to rethink what government service means, in both duration and the ability to work inside and outside the government at the same time.

Many U.S. government agencies have not automated their data collection, developed common analytical tools, or leveraged AI to provide improved services. AI is not an end in itself — the reason to adopt AI is because it is a mature set of technologies that provide a competitive advantage in providing the services our country needs and wants. The Digital Service Academy is one way to get the U.S. government to move faster on a critical issue. When it comes to improving the country's AI capacity, time is of the essence. China is making massive gains in the development and adoption

of <u>artificial intelligence</u> across the broad range of governmental activities by integrating those activities in a way that is not seen in the United States. Private industry is outstripping the ability of the government to regulate the adoption of the AI-enabled technologies or deal with the implications of its successes or failures. The need for the Digital Service Academy is incredibly clear.

BECOME A MEMBER

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Image: <u>U.S. Navy (Photo by Stacy Godfrey)</u>

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