How to create talent to overcome the federal technology skills gap

The Federal government is facing a workforce crisis, especially with skilled technology talent. Retention, recruitment, and retirement issues are hindering hiring managers, who are looking to fill critical open roles in order to meet mission objectives and new Federal mandates. MeriTalk recently sat down with Craig McCullough, senior vice president for public sector at Pluralsight, a technology workforce development company, to discuss how the government can overcome the skills gap by creating talent and building a culture of learning within Federal agencies.

MeriTalk: Federal agencies are facing critical workforce challenges, especially in filling important technology roles. Recent MeriTalk research shows that 87 percent of Federal agencies have only a fraction of the AI knowledge they need, and 40 percent need multi-cloud education, for example. What's your reaction to those data points, based upon Pluralsight's experience helping Federal agencies develop technology talent?

McCullough: Based on our experience, those statements are accurate and, quite frankly, a bit disturbing. As Federal agencies move forward into multi-cloud environments and as they start using AI more to achieve mission outcomes, they are confronting the fact that their personnel are not skilled in those technologies. What makes matters worse is that technical skills have a half-life of two and a half years. Today's IT professionals constantly need to grow their knowledge to keep pace. Without a dedicated effort to not only train people on the technology of today, but also prepare them for the technology of tomorrow, this current talent skills gap will quickly become a crisis.

MeriTalk: How have recent mandates around cybersecurity, cloud, and the customer experience affected the government technology workforce?

McCullough: These issues have always been a priority for agencies. The mandates simply create a greater sense of urgency. Mandates by their very nature give agencies a present state and future state. The challenges lie in having the talent to get an agency to that future state. A good example of this is the Federal Cloud Smart policy, which came out in 2019. The policy is founded on three pillars

of successful cloud adoption: security, procurement, and workforce. But Pluralsight's 2022 State of Cloud report found that while 75 percent of leaders are building new products and features in the cloud, only 8 percent of technologists have extensive experience working with cloud-related tools. That's a huge workforce skills gap. That's like buying 75 planes, but only having eight pilots with the skills to fly them. Pluralsight helps agencies bridge that gap so that IT leaders have the technology skills to get from that present state to the future state outlined by a mandate.

An example of what this looks like can be found in the Department of Defense (DoD). They need to map personnel to the DoD Cybersecurity Workforce Framework and the newly updated DOD Directive 8140, which includes seven broad categories, 33 specialty areas, and 54 work roles. Pluralsight maps our cybersecurity roles to the Directive 8140 work roles to ensure people have the specific path to gain the skills they need through our courses, labs, and sandbox environments.

MeriTalk: Government leaders are responding to the workforce crisis through initiatives such as the U.S Digital Corps and the Department of Homeland Security's Cybersecurity Internship Program. Are current government recruitment initiatives going far enough to address the problem?

McCullough: I think they're a step in the right direction, and I applaud these programs. Another focus of recruiting should be opening the aperture when looking for tech talent. We need to look at the whole person and not just what's on a resume. Hiring managers should consider what the individual can bring into their agency, then train them on the specific pieces of knowledge that they might not have. Look for the person who is resilient enough to push through the difficulties. Do they have the flexibility of thought and adaptability to solve problems? Do they have a love of learning that will allow them to change as their role inevitably changes over the next few years? As an example, if you are hiring for a cybersecurity role, you could identify an individual who might not have cybersecurity experience but has shown the capability to learn it and bring them in and upskill them so they have the specific skill you need.

Agencies also need to consider the talent they already have. Keeping the current workforce and continuing to invest and nurture them lowers the need for recruitment. Pluralsight's research shows that employees are 94 percent more likely to stay with an organization that invests in their skill development. Giving people the opportunity to learn emerging technologies makes them more valuable within your organization. If somebody feels like their organization or agency is investing in them, they're much more likely to stay with that employer.

MeriTalk: Training is often prioritized lower than other initiatives, and it is also one of the first things to be cut when new projects come along. How can government agencies turn this trend around to build training into the organization's culture?

McCullough: We are seeing smart agencies who are prioritizing training and creating a culture of learning where value is placed on time to learn because they understand the critical role it plays in meeting their mission objectives. The rate of technology development, coupled with the need for employees to feel like they are investments, means training should never be at the bottom of the priority list because that's when you lose good resources. If you're not investing in your current talent, then you're not investing in your organization. Creating a culture of learning is critical to stay ahead of cyber threats, to ensure a seamless transition to the cloud, and to be prepared for the next government mandate.

MeriTalk: When many people think about training, they either think in-person, bootcamp-style training or virtual courses where they sit and stare at a computer screen for hours – often referred to as point-in-time training. Pluralsight's workforce development platform offers just-in-time training. What's the difference?

McCullough: Point-in-time learning is training at a fixed date in time, like attending a boot camp or sitting in front of a screen where you might take a quiz at the end. Just-in-time training or learning focuses on providing easily accessible content that is highly relevant for learners at the time they need it. Just-in-time learning is dynamic, active, and targeted to achieve the skills the individual and organization needs.

At Pluralsight, we leverage artificial intelligence to assess current skill levels and determine gaps at both the individual and organizational level. From there, we create a personalized training program to get the learners to where they need to be. We utilize multi-modal training methods, including virtual instructor led training, on-demand courses, labs, and sandboxes where people can safely practice what they've learned before going into a real-world environment. New training content is added as new technologies emerge.

MeriTalk: You've said that the aim of the Pluralsight platform is not to use talent, it's to create talent. What do you mean by that?

McCullough: Technology changes at an incredible pace. There is always a new app or new tool for every scenario. Employees that are just trained on that specific app for that specific job aren't growing their talent – they are learning how to use an app. By taking a holistic approach to training, agencies become creators or talent, not consumers of talent. They can develop the overall technical capabilities of an employee and create talent within them that can be used down the road. For example, if an employee is learning how to develop in the cloud through our platform because that skill is critical to the current mission, that employee will still have that skill when the mission is completed. That talent has been created within the individual to then use on the next project.

MeriTalk: How does Pluralsight help agencies identify the tech skills they need today and project what their needs will be five to 10 years from now?

McCullough: The President's Management Agenda and other mandates highlight using metrics to understand and guide upskilling, so agencies need to understand what employees' skills and capabilities are. This is one of Pluralsight's top values. We partner with agencies to understand not only what their current talent needs and goals are, but also where they want to grow in the future.

From there, we do a skills IQ assessment to determine where their workforce is now, which helps identify skills gaps and strengths. We then develop custom learning paths for individuals and teams so that everyone is technologically ready to achieve the current and future goals. We can also determine how long it will take for an agency to achieve their desired future state. Pluralsight is fastidious about watching the marketplace and making sure we're on the leading edge of technology learning so that agencies are prepared for whatever technology comes next.

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