Executive Summary

Pluralsight's Technology Learning Platform

Pluralsight is an award-winning, enterprise technology learning platform that delivers a unified, personalized, and end-to-end learning experience for organizations across the globe. Through a subscription service, organizations are empowered to move at the speed of technology, increasing proficiency, innovation, and efficiency. Founded in 2004 and trusted by Fortune 500 companies such as Microsoft, J.P. Morgan, and Cerner, along with academic institutions and government agencies, Pluralsight provides organizations with on-demand access to a digital ecosystem of technology learning tools, including adaptive skill tests, directed learning paths, expert-authored courses, and interactive projects. Pluralsight serves as a career catalyst, delivering hands-on, practical learning and performance support for the most in-demand and high growth technology careers. *Pluralsight can enable the GEAR Center to quickly develop tech skills at scale for over 200,000 federal employees in order to support IT Modernization initiatives*.

The Pluralsight Next-Generation Technology Learning Platform includes unlimited access to expert-authored, off-the-shelf video courses on the latest and most relevant technologies for IT specialists/managers, software developers, cybersecurity professionals, data scientists, and creative technologists. Pluralsight also offers Business Professional courses that are tailored for technology professionals. Our technology learning platform can enable Federal Government agencies to confidently lead their organization through the changing digital landscape, accelerate innovation, and keep their staff's skills relevant.

Pluralsight offers:

- A comprehensive library of over 7,000 IT Operations, Software Development, Data Professional, Cybersecurity, Architecture and Construction, Manufacturing and Design, Business Professional, and Creative online courses with new courses added daily. Pluralsight courses teach practical skills for all levels of talent including beginner, intermediate, and advanced levels.

- Up-to-date, original content authored by industry experts and technology practitioners.

- Hands-On Tech Learning:
    - Interactive Courses - Enables learners to try a new technology with instructor-led video tutorials and in-browser coding challenges. They receive expert, guided feedback to help them through the challenge. They won't waste time wondering where to start and they get hands-on practice to build a solid foundation.
    - Projects - Projects are an efficient way to put what you've learned into practice by applying it to real-world scenarios—all on your local developer environment.

- On-demand training so that Federal Government agencies employees can watch and learn wherever they are, when it is convenient, and on mobile devices.
- Adaptive Skill Measurements to gauge proficiency in as quickly as 5 minutes to identify skill gaps.
- Guided learning with Skill and Certifications Paths along with the ability to build custom learning paths with Pluralsight's Channels feature.
- An easy-to-use Management portal with analytics and reporting tools to monitor progress and return on investment.

The Pluralsight learning platform is in the cloud and accessible through any web browser on any device. This design makes deployment *quick, easy, and scalable*. The Pluralsight team is dedicated to ensuring a successful launch for Federal Government agencies.

Pluralsight serves federal, state, and local government agencies including the U.S. Air Force, the Department of Energy, Social Security Administration, FBI, SEC, and NIH, along with the states of North Carolina and Utah.

Contacts: Gail Azaroff at gail-azaroff@pluralsight.com and 301 279-7864 and Carl Wright at carl-wright@pluralsight.com and 843 607-6696.

Anticipated Early Focus Areas:

7. What models, approaches, and opportunities should inform an anticipated early focus on reskilling and upskilling Federal employees? For each questions, please cite any available data or research to support your answer.

o What are leading practices for effective reskilling, upskilling, and training adult workers, including opportunities for new applications of existing models?

Commercial Off the Shelf (COTS) Learning As A Service (LAAS), is highly scalable and easily deployed without the typical restraints of traditional SaaS Implementations that requires extensive planning and internal resources to align/configure a Learning Management System (LMS).

LAAS deploys quickly, mitigates traditional risks of having to integrate with legacy Federal Learning Management Systems (Pluralsight is LMS agnostic), and can easily scale to 200,000+ users through email invitations generated by the system administrator. *This is why Pluralsight's capabilities are in perfect alignment with the GEAR Center's mission and is likely the most cost-effective way to quickly reskill and upskill the entire Federal workforce*. Pluralsight is the ideal platform for the federal government to outsource 'keeping up with the pace of technology' and build consistent technology knowledge along with defining technology roles.

In order to accelerate IT Modernization and Digital Transformation, federal agencies need to transform their workforce and quickly reskill/upskill their technology professionals. Proven practices include the following

1. Mobile Ready 24/7 on-demand access to a robust technology learning platform in order to develop tech and cybersecurity skills at scale and support the mission. A robust technology learning platform can transform the Federal Government agencies' skill gaps into consistent, actionable knowledge in order to enhance individual careers, departmental goals, and overall digital transformation today and into the future.
2. Skill Assessments and Benchmarking of Skills to provide federal technology professionals with their skill level on a specific tech topic or technology.

Skill measurements can guide learners to a learning path and identify what they should learn next to skill up. This makes learning personalized and more efficient.

3. Identification of Technology Roles and the technical skills required for the roles so that employees have a clear onboarding and development path. Agencies need to define, assess, and develop a collection of tech skills required for success in an employee's specific role. This will enable technology leaders to have confidence that their employees are proficient.
4. Alignment of learning to agency specific objectives in order to upskill technology professionals on the technology topics that are critical to success of the agency's mission such as Cloud Services, Data Analytics, Cybersecurity, etc.
5. Skills Reports and Transparency to provide technology leaders with insights into the skill proficiencies of their organization and their team members. This enables leaders to identify areas of expertise, close skill gaps quickly, and align talent to new programs.
6. Keeping pace with the rapidly changing technology landscape. Today's technology professionals need on-demand access to training on current and emerging technologies such as Artificial Intelligence and Blockchain for both skill development and performance support.
7. Content from expert authors who are subject matter experts and experienced technology practitioners. Authors must drive the depth of courses and the pace to deliver new content to enable agencies to evolve at the pace of technological change. Content needs to be available at the beginner, intermediate, and advanced levels.
8. Hands-On Learning experiences through interactive courses and projects give employees the ability to apply skills to their mission. Interactive courses are the way to learn a new tech skill. Projects are the method to deepen skills and apply knowledge to real-world applications. Projects fill the gap between theory and practice by adding a guided tour to a real-world project. Hands-On learning makes learning tech approachable.
9. In-depth Data Analytics that cater to technology executives and provide insights into the learning across an organization and help develop a culture of learning. Executives need total visibility into organizational readiness.

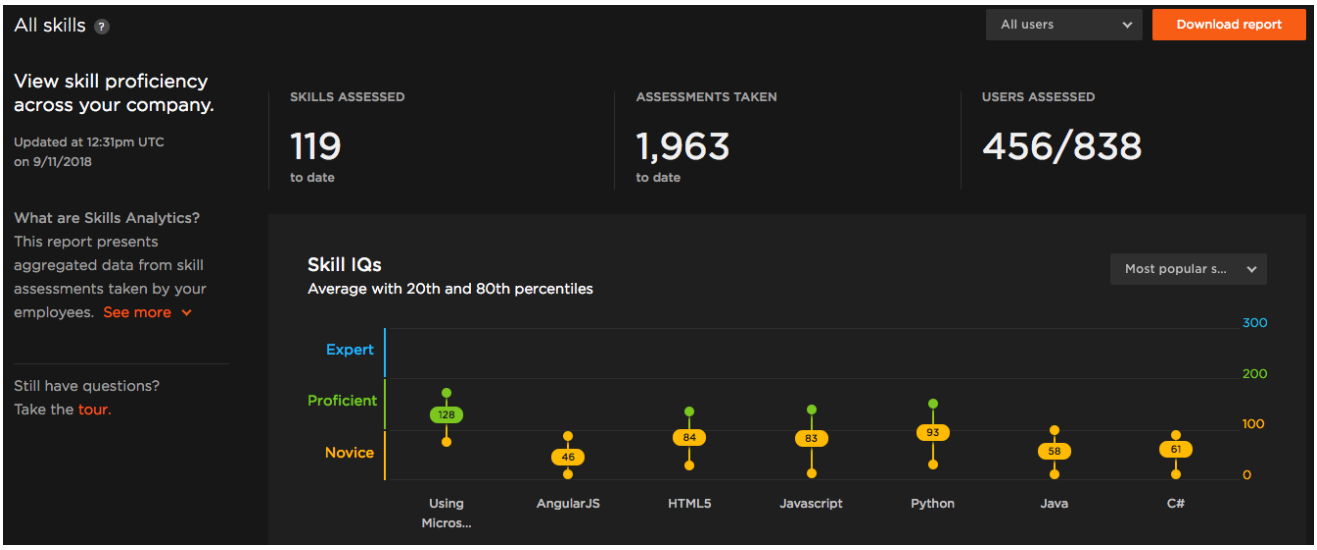
o What approaches could be piloted for possible application and scalability across the Federal sector in various learning domains (e.g., cognitive, affective, behavioral) - such as gamification, use of massively open on-line courses (MOOCs), apprenticeship models, and other new approaches?

The GEAR Center can retrain and reskill the federal workforce for IT, Data Analytics, and Cybersecurity jobs *now* using Pluralsight's on-demand technology learning platform. Pluralsight can scale to support over 200,000 employees and provide a successful and quick win for the GEAR Center. Leading companies such as Microsoft and J.P. Morgan rely on Pluralsight to train their IT workforces.

o What are examples of metrics currently used to assess the effectiveness of reskilling and upskilling efforts?

In terms of technology skills, traditional methods for gauging the effectiveness/impact of learning has been insulated and often leverages the Likert scale. The standard process of ASSESS - TRAIN - ASSESS is relevant for determining impact of a learning module, however it lacks the external factor of comparing the impact of training based on a sample size of a classroom vs. industry.

Skill assessments can measure the skill level of learners with confidence in as little as 20 questions and five minutes. Advanced Skill Analytics enable technology leaders to see individual skill levels and topic level skill insights to understand the current proficiency of their organization. This is an example of aggregated skill scores from across the workforce:



o Do any of the suggested approaches have a particular nexus to the Federal workforce and/or to the automation of existing workflows, and transformation of existing skills to in-demand skills expected to comprise the “future of work”? If there are occupations or skill sets that would provide an opportunity-rich environment, please include specifics.

A proven Next-generation Technology Learning Platform to develop tech skills at scale is currently deployed across federal agencies such as SSA, SEC, FBI, NIH along with DoD/Intelligence Community organizations and several states. It is unique in terms of on-demand skill automation. The Platform allows for leadership to focus on the technologies that align with their agency’s strategic objectives and mission. Technology leaders can easily build custom learning paths that cultivate the skills needed to deploy those new technologies.

Technology skill assessments (self-assessments) leveraged not just by the Federal workforce, but industry as well, will be instrumental in uncovering existing skills across the workforce. Many federal workers get their foot-in-the-door where they can and have a wealth of technology skills that largely go unseen, especially with millennials.

Recommended Approach: Talent Mobility = Talent Retention

Step 1: To focus on standardizing technical roles across the government, (i.e. Software Engineer Level 2, Junior SOC analyst, Data Scientist Level 3). Existing roles can be realigned to new standard roles with clearly defined learning paths to guide the employee toward Subject Matter Expertise in that role.

Step 2: Create unprecedented transparency regarding Skills and Skills Proficiency that are aligned to the standardized roles in Step 1. This means anyone across the federal workforce can see what skills they need to move into Role 'X', and all open roles (or in-demand skills) are clearly displayed in a centralized system with a single user experience that is highly tailored to the individual based on their interests, current skills, and in-demand skills of the government.

Step 3: Skills must be able to be measured within 5-10 mins and preferably benchmarked against Industry Standards and Skills to ensure employees are keeping up with the pace of innovation.

Step 4: Once a Role or Skill 'Path' has been completed, A Request for Personnel Action (SF-52) should be populated with the transcript completion data and relevant skill/role assessment scores (Novice, Proficient, and Expert). If job vacancy remains open, internal candidates should take priority over new candidates. The reason being is that it takes Industry 40-60% of the exiting employee's salary to find, onboard, and replace turnover in a single role; given the complexing and barriers of entry to the government, the associated costs under the same circumstances would be considerably more compared to 'industry' attrition.

Creating greater transparency regarding the skills needed to apply for any role, increasingly removes subjectivity, bias, favoritism, while engaging and motivating a higher caliber of employee. The workforce as it exists today is less motivated by money and more by flexibility in work-life balance. The key to a productive and thriving workforce is Mobility, or the ability to navigate one's career with the greatest of ease. The ultimate reward for the government is reinventing itself into a workplace where an individual can acquire the latest technical skills and move freely across agencies to have new career experiences. This is how companies are winning the Talent War today through transparency and modernized training to

cultivate skills needed to carry the mission into the 'future of work'...Learning at the speed of the mission.

Recommended Approach: Role IQ

Role IQ, an efficient and clear way to determine a technology professional's expertise level. Role IQ allows CIOs and CTOs to replace manual benchmarking and outdated staffing strategies with science-driven assessments and real-time analytics that help ensure technology professionals are well-positioned to deliver on business objectives.

Role IQ, powered by Pluralsight's machine learning algorithms Iris, builds upon the success of Skill IQ, which has benchmarked more than 1 million technology skills worldwide. While Skill IQ measures an individual's proficiency in a specific software technology (e.g. Angular) in less than five minutes and 20 questions, Role IQ measures a collection of skills an individual needs to be successful in their role. An Angular web developer, for example, can now quantify their expertise—with Role IQ—by measuring their knowledge of Angular, JavaScript, CSS, Typescript, Git, NPM, ES6, RxJS and HTML5. Based on the results of their skill assessments, they will receive a Role IQ that rates her proficiency level (Beginner, Level 1, Level 2 or Level 3) in this role relative to other Angular web developers and a customized learning path to help close their skill gaps.

The following Roles IQs are available:

- Security Analyst
- Server Administrator (Microsoft Windows Server)
- BI / Data Analyst (Tableau)
- Unity Game Developer
- Angular Web Developer

- React Web Developer
- Vue Web Developer
- ASP.NET Web Developer
- Node Web Developer

Pluralsight also announced three Role IQs created with help from Microsoft specifically tailored for Microsoft Azure including:

- Microsoft Azure Administrator
- Microsoft Azure Solution Architect
- Microsoft Azure Developer