Breakthrough Technology and Ethical Considerations for the Workforce

ACT-IAC Emerging Technology Community of Interest
ACT-IAC Evolving the Workforce Community of Interest

June 17, 2021
Agenda

• Introduction – COIs

• ACT-IAC Update

• COI/Working Group Updates

• Panelist Introductions and Presentations

• Q&A Session

• Closing Notes
Emerging Technology COI

Mission Statement:
• Provide an energetic, collaborative consortium comprised of practitioners in data science, technology, and research, engaged with industry, academia, and public officials and executives focused on emerging and leading technologies which transform public sector capabilities.

Current Objectives:
• Develop awareness of Blockchain in government through our Blockchain Working Group, expanding the Blockchain Playbook in preparation for two Blockchain Forums this Fall.
• Expand Cognitive Computing, Artificial Intelligence, and Machine Learning awareness to develop broadened understanding and usage in government.
• Continue driving Analytics and Big Data use through improved and continuous technical alignment with government missions to support citizens, improve program delivery, integrate with cybersecurity, migrate to digital transparency, and combat fraud, waste and abuse.
• Align awareness and training regarding sensors and interactive technologies that transform the IoT into meaningful usage and application in government.
• Increase DevOps Culture Adoption Across Federal Agencies by providing best practices of “How” agencies can tackle adoption across the agency through focus on Delivering Highest Value Faster.
ET COI Leadership Team

- Jeremy Wood – Government Chair
- Rayvn Manuel – Government Vice Chair
- Todd Hager – Industry Chair
- Frederic de Vaulx – Industry Vice Chair
- Jackie French – Communications Chair
- Celestine Pressley – Program Chair
- Cindy Good – Special Events Chair
- Karin O’Leary – Shared Services COI Liaison
- Nancy Delanoche – ACT-IAC COI Lead
- Rob Wuhrman – Government Advisor
- Nevin Taylor – AI Government Chair
- Michael Bruce – AI Industry Chair
- Fred de Vaulx – Blockchain Industry Chair

- Sandy Barsky – Blockchain Government Chair
- George Chenkeli – DevOps Government Chair
- David Hernandez – DevOps Industry Chair
- SJ Gaublomme – Intelligent Automation Government Chair
- Brian Jacobs – Intelligent Automation Industry Chair
- Danielle Graham – IoT Government Co-Chair
- Don Lovett – IoT Government Co-Chair
- Justin Herman – IoT Industry Co-Chair
- Pete Tseronis – IoT Industry Co-Chair
- Open – Quantum CoP Government Chair
- Open – Quantum CoP Industry Chair
Evolving the Workforce (EWF) COI

LEADERSHIP

Government Chair: Terri Shaffer, GSA
Government Vice-Chair: Tina Vay, OCC
Industry Chair: Briana Coleman
Industry Vice-Chair: Ronna Garrett

Communications Chair: Bob Clarke
Knowledge Capture Chair: Dr. Craig Petrun
Programs Chair: Austin Crittendon

Government Advisors
- Traci DiMartini, Chief Human Capital Officer, GSA
- Matisha Montgomery, Chief Learning Officer, HUD
- Robyn Rees, Senior Advisor, Department of the Interior
Evolving the Workforce (EWF) COI

New Business

• Briana Coleman elected to succeed Andrew McCoy as Industry Vice-Chair
ACT-IAC Update

• **ACT-IAC Voyagers Program – Application is open for Class of 2022**
  o Program for mid-level professionals with 7-14 years of experience in progressively responsible positions across a multitude of business activities, government candidates should be Grade 11-13, and newly promoted GS 14's
  o Deadline to apply August 6, 2021

• **IAC Elections** – last day to vote is Friday, June 18
  o Work with your company POC to cast the vote

• **ACT-IAC Forum on Homeland Security and Law Enforcement** – June 30
  o Theme: “Adapting to changes in cybersecurity and law enforcement post pandemic”

ACT-IAC Launched a new podcast series. Subscribe to follow us on your favorite podcast platform:
Spotify - [https://spoti.fi/3dhj5L8](https://spoti.fi/3dhj5L8)
Committee Team Updates

- AI Working Group
- Blockchain Working Group
- DevOps Working Group
- Intelligent Automation Working Group
- IoT/Smart Tech Working Group
Breakthrough Technology and Ethical Considerations for the Workforce

Speakers
- Kelvin Luu, Engineer, U.S. Digital Service, U.S. Office of Management and Budget
- Mike Maloney, Senior Vice President, Talent Management, IBM Corporation

Moderators
- Austin Lee Crittendon, Management Analyst, Federal Financing Bank (FFB), U.S. Department of Treasury; Programs Chair, ACT-IAC EWF COI
- Mike Rice, CEO, Cornerstone IT
Dr. Jordan Robbins
Supervisory Personnel Research Psychologist
Customs and Border Protection, U.S.
Department of Homeland Security
Evolving the Workforce and Emerging Technology COI Roundtable

Office of Human Resources Management
Personnel Research and Assessment Division

June 17, 2021
CBP’s Personnel Research and Assessment Division (PRAD) uses best practices in assessment, evaluation, and organizational development to support a mission-ready workforce.

The rapidly changing environment has posed unique challenges for our work, highlighting the need for greater efficiency, flexibility, and access.

PRAD is leveraging cutting edge technologies to improve user and candidate experience for major services impacting the workforce including:

- Interactive dashboards;
- Automated bots; and
- Remote proctoring
Technological Solutions

- **Interactive Dashboards**
  - Provides hiring managers and employees high-touch, user-friendly tools that give easy access to promotion assessment information.
  - Supports employee career development and hiring managers ability to make objective, competency-based selection decisions.

- **Automated Bots**
  - Automates routine data management and communication tasks.
  - Ensure tasks are completed more efficiently with less error, freeing up critical resources allowing products to be delivered in a more timely manner.

- **Remote Proctoring**
  - Developing remote proctoring process to accommodate difficult to test candidates/locations.
  - Provides candidates with greater flexibility, reduces costs to candidates and the agency, and prevents disruptions due to unforeseen events.
Challenges and Considerations

- Interactive Dashboards
  - Thorough training needed
  - Potential for misuse

- Automated Bots
  - Considerable time to develop
  - Needs a system of checks and balances to ensure proper functioning

- Remote Proctoring
  - Not widely used in the federal sector
  - Privacy concerns
  - Different candidate experience
  - Candidate accountability
Briefing prepared by:
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Personnel Research and Assessment Division
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Kelvin Luu

Engineer, U.S. Digital Service, U.S. Office of Management and Budget
Using AI to Assess Skills at Scale

June 17, 2021

Mike Maloney
Partner
Talent Transformation
U.S. Federal
Skills Inference is an AI accelerator of talent transformation, leveraging machine learning to infer data-driven proficiency in targeted skills.

**THE LANDSCAPE**

Skills are the new competitive currency, informing every stage of the employee lifecycle.

**THE OPPORTUNITY**

Unlocking skills with AI and machine learning puts transformative insights in the hands of employees, managers, and executives.

**Employees and managers**

- Data-driven career conversations
- Upskilling recommendations
- Better opportunity matching
- Smart compensation

**Executives and people leaders**

- AI-powered talent strategy
- Organizational clarity
- Talent gap analysis
- Competitive insights
Skills Inference machine learning analyzes employee data inputs against skills descriptions to infer competencies.

1. Understand current skills
   - What are the skills of our current workforce? How can we understand this efficiently and without bias?

2. Map current skills to future skills
   - What skills are growing / declining in market demand? When do we build? When do we buy?

3. Close the gaps – and coach for the future
   - How do we proactively engage our workforce in building skills? How can we most effectively coach our employees to navigate the changing market?

Foundation:
Skill Framework / Taxonomy
(e.g. IBM Talent Frameworks)

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Skills Application
e.g. IBM CrowdSift

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Skills descriptions

Employee data inputs

Skills Application
e.g. IBM CrowdSift

Expertise Inference Engine
Skills Inference uses an employee’s digital footprint to extract evidence of expertise from a wide range of data sources.

<table>
<thead>
<tr>
<th>Example Sources</th>
<th>Example Data Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experience</strong></td>
<td>What has Jamie done?</td>
</tr>
<tr>
<td><strong>Performance &amp; feedback</strong></td>
<td>How is Jamie performing in her role?</td>
</tr>
<tr>
<td><strong>Talent development</strong></td>
<td>What are Jamie’s goals, and how is she tracking?</td>
</tr>
<tr>
<td><strong>Engagement &amp; activity</strong></td>
<td>What tasks are Jamie accomplishing daily?</td>
</tr>
<tr>
<td><strong>Position data</strong></td>
<td>What are the expectations for Jamie in her role?</td>
</tr>
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Introducing Jamie

Junior Infrastructure Engineer
1.5 years tenure

Jamie’s digital footprint

Jamie’s skills and skill proficiency
Global Healthcare & Life Sciences Company leveraged Skills Inference to realize enterprise applications of AI

Our Approach to Skills Inference

- Partnered with IBM to access experience with skills-based transformation and enterprise applications of AI at scale
- Defined framework of technical capabilities key to business unit strategy: 41 skills across 11 capability areas
- Curated data across 7 sources, including Workday, Taleo, and Jira
- Defined and deployed technical infrastructure for immediate and future deployments
- Designed and deployed feedback mechanism for employees and managers

Summary of Results to Date

- MySkills went live to global workforce of over 3,400 employees
- 78% of employees agreed with the skills initially inferred
- 98% of employees viewed and engaged with their results
- Executive insight into the capabilities within BU’s 7 segments and regions

1. All BU employees, excluding those in countries subject to GDPR regulation
2. +/-1 skill level
Executive insights from Skills Inference highlights skills gaps

Room to grow in Decision Science & Intelligent Automation.

Discover key findings like opportunity to broaden exposure to AI/ML across the organization and demystify AI for employees across job functions.
Harness the power of your own employee data with Expertise Inference

Plan
- Understand the skill position of your organization
- Identify “hidden” skills within the organization
- Drive data-driven workforce planning actions (eg- build vs buy)

Target
- Increase transparency and focus of skills with the workforce
- Identify employees for specific assignments

Grow
- Personalize learning and job assignment opportunities
- Support meaningful career conversations

Reward & Retain
- Proactively retain employees with critical skills
- Target compensation and awards to those with skills most in demand

↑Accuracy
↑Speed
↓Bias
↑Business Value
Thank You

For More Information
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