

Automation and AI in the Public Sector: Revolution or Train Wreck

Highlights from a Roundtable hosted by the Advanced Technology Academic Research Center (ATARC) in partnership with NetDocuments, March 2024

The public sector has the potential to undergo a significant transformation as it embraces the power of automation and AI. A [recent study conducted by the Turing Institute](#) found that AI could help automate over 80% of repetitive tasks in government services.

From streamlining processes to improving service delivery, automation technology is revolutionizing the way the public sector operates. In this roundtable discussion, Federal IT experts explore the current state of automation and AI in the public sector, highlighting successful implementations and discussing the challenges and opportunities that lie ahead.

The State of Automation

Agencies at the roundtable are working to automate manual and repetitive tasks to allow employees to focus on higher-impact projects. So far, automation of one agency's financial system has saved approximately 75,000 man-hours, which is a testament to the impact of automation in undermanned agencies.

“We're not trying to automate anyone out of their jobs. What we're trying to do is make them more productive.”

Using windfall funds from underspent programs at the end of the year, panelists have successfully implemented automation solutions without dedicated funds. To measure return on investment, agencies are quantifying the impact of automation on the workforce shortage in terms of man-hours saved. This approach seems to be resonating with senior leaders.

Other agencies are moving from outcome-based performance towards performance-based performance by ensuring automation meaningfully improves everyday operations and processes. They're doing this by digitizing unstructured data into machine-readable formats, so data is accessible to remote users. They are also working to implement Business Intelligence (BI) tools to extract data from legacy systems. These efforts have made it easier for users to perform everyday tasks.

Agencies on the panel are actively exploring the potential of AI and are aligning their efforts with the Executive Order on AI and the newly released [AI implementation guidance issued by OMB](#). Through thoughtful and measured adoption of AI, they hope to leverage AI for data sharing initiatives. Agencies anticipate the number of data sets available to train AI models will unlock data's potential and make data more accessible and usable.

Panelists also recognize cybersecurity as a complex data problem that can be solved with the help of automation. Agencies are flooded with telemetry from every device on the network, but are challenged by using the data in a productive way. By lowering the barriers to data analysis, more people can begin to understand the network beyond IT experts.

Ultimately, the first step to successfully adopting automation is ensuring data is digitized and accessible. Modern no-code tools allow agencies to automate existing processes, which reduces the amount of disruptions to operations while streamlining workflows.

The Foundations of Successful Automation and AI

- **Cultural Shifts**

The first thing agencies did to successfully implement automation and AI was to address organizational culture. One agency conducted a broad communication campaign to raise awareness of available technologies and potential benefits. Agencies also made the technology available in a “sandbox” environment for employees to experiment with new technology without expectation of adoption.

- **Centralized Support**

Because the learning curve associated with AI and automation is steep, some agencies provide a dedicated support team to handle upfront development, which helps users see the value of the new technology more readily. Similarly, agencies that have experienced successful adoption provide white glove service to end users, ensuring hands-on support to significantly reduce the learning curve.

- **Thorough As-Is Analysis**

Other agencies have successfully transitioned to automated solutions by understanding existing systems and processes. Analyzing data sources, including untapped datasets within legacy systems, is a critical step in determining the direction of future technology. Similarly, agencies need to evaluate the interplay of people, processes, and technology to understand what resources are needed for successful adoption.

- **Business-Centric Approach**

Due to the overwhelming amount of data to manage, one agency established a Data Strategy Group with representatives from each business unit. The group discusses problems in their day-to-day work and develops a comprehensive list of areas needing automation. The group then determines what technology solution would be most effective for not just the business unit, but for the entire enterprise.

This collaborative effort has been tremendously successful. In one year, the Data Strategy Group has grown from ten members to thirty-five, all of whom are deeply interested in addressing agency-wide challenges. The agency is seeing an increase in data-sharing and collaboration like never before.

“We look at data as not just a commodity, but a priceless thing that can be used for data-driven decisions.”

- **Data Literacy and Standardization**

Educating employees on the benefits of automation has been helpful for several agencies. Often, employees are unaware of what can be automated. Data literacy programs help expose data quality issues and inconsistencies in data nomenclature.

Agencies must also consider the ever-evolving regulatory landscape when implementing automation or AI solutions. Some agencies must not only follow higher-level directives to appoint a Chief AI Officer and establish an AI governance board, but they must also develop a comprehensive AI strategy aligned with their unique mission.

Workforce Culture

Panelists shared their successes with changing workforce culture to accept new technology. One agency leverages free training resources, such as articles, videos, and vendor-hosted training academies.

Others prioritize recruiting individuals already possessing strong IT skills, while also investing heavily in additional training. The agency offers agile training for the entire organization from executives to acquisition. Because it's increasingly difficult to recruit talent skilled in AI, agencies must train existing employees in new technology. This is also proving to be a successful retention strategy for some agencies.

“Our goal is to work very closely with employees to understand where they would like to go. We have a vision of where we want the agency to go, but it doesn't really work if employees are reluctant to take that training.”

One agency on the panel even offers the unique opportunity to support employees' graduate education in areas of data analytics, AI, and post-graduate engineering. Others offer a formal mentoring program and collaborative AI and data working groups to facilitate knowledge sharing and skill development.

Looking Ahead

When asked their goals for the future, panelists point to low- or no-code solutions with OCR and RPA to help process large volumes of unstructured data, like PDFs, from disparate systems. In the short term, agencies will continue to build practical automation solutions to help the workforce focus on higher impact priorities.

Another agency aims to address their large product backlog for automation and AI by building solutions whenever feasible, and configuring bought solutions so as to maintain a flexible and adaptable technology stack.

Some agencies are taking a more strategic approach by ensuring new technology meets the strategic goals of the entire agency, rather than the narrow needs of a singular business unit. And as the projects grow in scope, agencies plan to augment their teams with temporary support.

One panelist hopes to utilize AI to streamline security operations by analyzing logs and telemetry data to better identify potential risks. They hope the same process can be applied to analyzing complex policies and requirements.

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