

AI's Impact on the Public Sector

AI and its impact on both public and private sectors is top of mind for everyone at the moment. This impact has been more prolific than many other technology changes in the past decade, due to the ease of access for end users to the technology (just about everyone has used ChatGPT or similar tools), coupled with the dramatic leap in capabilities brought about by large language models.

Whilst both the private and public sectors have spent the last 12 months looking at how AI can be used to drive operational efficiencies, there are some specific areas and trends that have the potential to have a large impact on the public sector specifically.



'AI for Data Analytics and Policy Making'
DALL-E 3

Data Analytics for Policy Making

What once required high levels of specialization has been opened and made available to more teams. By utilizing AI-powered tools to drive data analytics, it has become easier to extract insights from large datasets and predict potential outcomes. AI models today provide the ability for any team to extract the knowledge and summarize data, in ways that would have taken significant investment in both people and technology just a few years ago. Whether it's helping to generate new policy documents or extracting and summarizing the information in existing ones, AI's ability to help drive new insights and aid in policymaking is something that everyone should be investigating.

Enhanced Service Delivery

More teams are looking at how AI can be deployed to help enable public sector agencies to improve service delivery, through personalized interactions and improved access to information. For example, using AI virtual assistants and chatbots to provide a more personalized service to citizens in answering inquiries and guiding them through various processes, such as applying for permits or accessing government services.



'AI for personalized interactions'
DALL-E 3



'AI for Citizen Engagement and Participation'
DALL-E 3

Citizen Engagement and Participation

By utilizing generative AI capabilities, it's now much easier to build personalized communications and outreach campaigns. By leveraging machine learning to analyze data and behaviour, government agencies can tailor their communication strategies and content to resonate with specific audience segments, thereby increasing the effectiveness and impact of their outreach efforts. Whether it's informing citizens about upcoming events, promoting public initiatives, or raising awareness about important issues, personalized communication can help government agencies engage citizens more effectively and foster a sense of belonging and civic pride.

AI Examples

Higher Education



Adaptive Learning Tools

Exam Integrity

Student Enrollment

Student and Faculty Retention

Learning Management Systems

Lecture Transcription

Student Success Metrics

Academic Research

Digital Literacy

Digital Inclusion

Campus Engagement

University Spokespeople

Government

Fraud Detection

Infrastructure Planning & Analysis

Sentencing Guidelines

Immigration Decisions

Answer Citizen Queries

Back Office Automation

Population Risk Support

Benefits Administration

Draft Judgements

Civil Asset and Infrastructure
Management



Healthcare



Patient monitoring and virtual care

AI-driven diagnostics and imaging

Digital pathology

AI-based healthcare operations and patient engagement

Diagnostic Inferencing

Image Analysis

Clinical Document Processing

Personalized Medicine

Drug Discovery and Development

Key Considerations

However, with all this, there is also a need to think about some of the key considerations before diving into the design and implementation phases. Whilst there is clear demand for AI-powered tools and services, there is also the need to think about the impact it will have, the data it could generate, and current requests coming from end users.

The real power of these AI systems and what allows them to drive real impact comes from the data they have access to. However, removing any bias, and securing these systems and their sources of data from external manipulation can be complex. There have been many examples over the last 12 months of AI systems that have shown signs of bias. Google has admitted that its AI photo tool included bias that offended usersⁱ, and AI tools designed to try and detect AI-generated output often misclassifies non-native English speakersⁱⁱ.

Organizations therefore need to think about AI transparency, both in how and why any AI system generates the responses that it does, but also regarding the general use of AI within the business and across any decision-making processes.

There is a growing need to ensure all organizations focus on the ethical impact of implementing AI. Taking some of the examples from the work at Dell Technologiesⁱⁱⁱ this may include some core areas of focus and code of conduct:

- **Beneficial**
AI applications should benefit society and people now and in the future. AI should be human-centred, and developed with complex personal and social needs in mind. It should enhance our lives and improve our ability to solve complex problems. It should embody the most current practices of scientific and technical excellence. The societal impacts of AI should always be carefully considered, respecting cultural norms, furthering social equality, and ensuring environmental sustainability.
- **Equitable**
AI should be honest, fair, and equitable. It should be designed to avoid unfair biases and guard against prejudice, discrimination, and the marginalization of vulnerable populations.
AI systems may require human oversight or intervention to ensure equitable results. AI should reflect a transparent commitment to equality, diversity, and accessibility for all. AI systems should be safe and reliable, guarding the well-being of users and yielding results consistent with our values.
- **Transparent**
AI should strive to be explainable, traceable, and transparent. Users should be provided appropriate disclosures and control over their interactions with AI and its use of their data.
- **Responsible**
AI should respect users' expectations of privacy and security. Privacy and security principles should be incorporated in the design, development, and use of AI. Users should be permitted to opt in or out of sharing personally identifiable data, and data governance mechanisms should guarantee full compliance with data protection and applicable privacy elections. AI systems, processes, and data should be technically robust and designed to secure against malicious actors and unintended uses. Fail-safe mechanisms and processes for human intervention should be developed to avoid undesirable outcomes, validate decisions, and provide oversight.
- **Accountable**
The implementation and use of AI should comply with the letter and spirit of globally applicable laws, be consistent with corporate codes of conduct and align with an evolving consensus on ethical practices. The development and implementation of AI applications should be periodically reviewed by both internal and external legal, ethics, technical and business professionals to ensure ongoing compliance and transparency.

Whilst the advancements in AI have allowed teams to deploy new capabilities at an incredible rate, it's important that these deployments do not happen before clear frameworks and policies have been defined.



Generative AI brings about unprecedented democratization of the access to information, and the ability to improve productivity. However, achieving this requires listening to end users and employees about how they want to consume generative AI, as well as educating employees on the safe and responsible use of AI.

James Scott, Field CTO, Dell Canada

ⁱ <https://www.theguardian.com/technology/2024/feb/28/google-chief-ai-tools-photo-diversity-offended-users>

ⁱⁱ <https://aimagazine.com/articles/ai-programs-show-bias-against-non-native-english-speakers>

ⁱⁱⁱ <https://www.delltechnologies.com/asset/en-us/solutions/business-solutions/briefs-summaries/principles-for-ethical-ai.pdf>