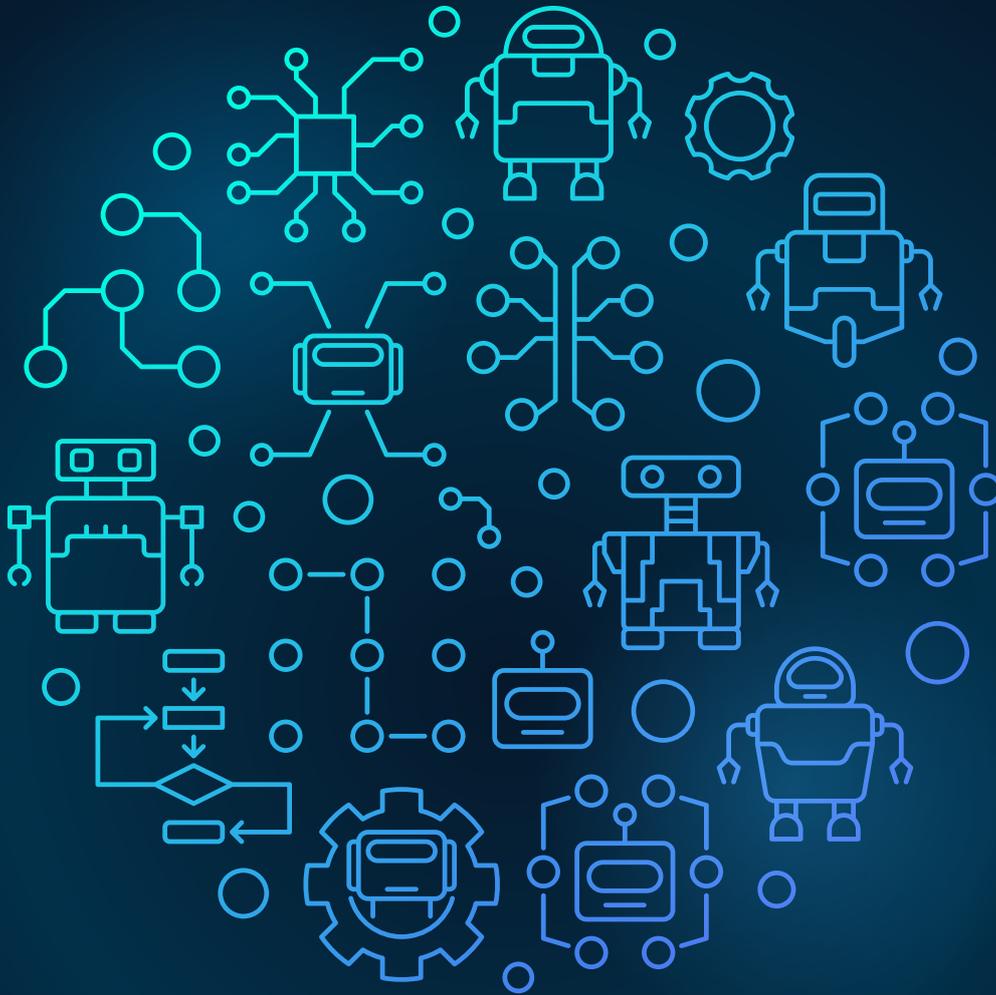




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How Public Sector Revolutionizes Service Value and Growth with **Artificial Intelligence?**

Economic Growth and the Promise of AI

The potential of AI in the context of economy and growth can't be ignored. A study of 1000 organizations revealed that while 83% of companies created new jobs with the implementation of AI, 78% of them improved efficiency by more than 10.2%. These numbers stand testimony to AI's potential in inspiring optimism for the future of economic development.

AI boosts productivity and can be instrumental in rescuing public sector organizations from dire inefficiency straits. The automated capabilities can help public organizations simplify complex tasks, get rid of redundancies, and optimize efficiency for higher throughput. This efficiency can be further leveraged to unlock a range of benefits in terms of supply chain optimization, improved decision-making, and waste reduction, thus delivering a step change in overall productivity and economic growth.

AI is also predicted to drive job creation in the coming years. As technology accelerates, more and more skill-based jobs will be spun out without eliminating the existing jobs. The [Global Center for Data Innovation](#) predicted that most professions, such as doctors, civil servants, police officers, taxi drivers among more, will use AI rather than being replaced by it.

So, to put it all together, AI is a strong catalyst for economic change when it comes to GDP and sales figure, and according to a few surveys, it's expected to have an annual global impact pegged at a whopping \$5.61 trillion.

Reimagining Public Sector with AI Technologies

AI is manifesting strong aspirations of public sector growth. It's spearheading a new era of intelligent automation wherein there will be a dramatic decrease in the number of labor hours needed to deliver a unit of output. As for the private sector, technology has replaced a range of tasks that required human intervention for long. It has empowered enterprises to usher in a completely new business model for unparalleled competitive advantage. A similar kind of AI impact will soon be felt across the entire public sector spectrum, and it isn't a matter of 'if,' but a matter of 'when.'



Below are a few AI technologies that are worth embracing by the public sector to compete effectively with the ferocious digital-first world.

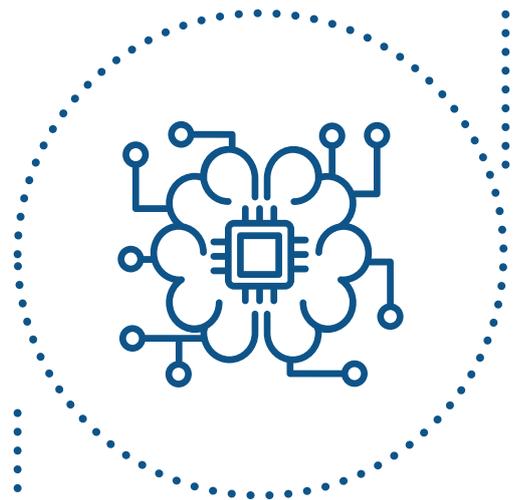
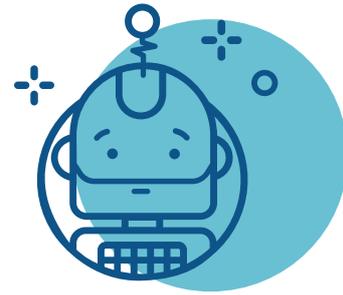
Chatbots

Chatbots need no introduction, at least not in the current hour of the digital revolution. They have truly been transformational in terms of service delivery and customer experience. However, the main reason why chatbots are still not popular in the public sector is the fear of job displacement. As opposed to the entrenched job anxiety, chatbots can reduce human effort by automating business interactions for the most part and bailing out employees from redundant, low-skilled tasks.

Apart from business interactions, public sector organizations can use chatbots for sending out customized text-based messages to citizens. These messages can be sent as replies to frequently asked questions. They can also use chatbots as the immediate query resolution tool for citizen services, which indirectly reduces long queues at the offices.

Big Data Analytics

Data is the driving force behind AI. AI systems need fast-streaming data to extract usable intelligence that can be further leveraged to rewrite rules of business planning and governance. Unfortunately, public sector organizations are still reliant on traditional data record management and processing systems, which make it highly complex to derive relevant information from available data sets. If these organizations succeed at replacing their legacy with new-age data systems, they can concretely improve policymaking and service output using real-time insight while also identifying keys to success and potential inhibitors.



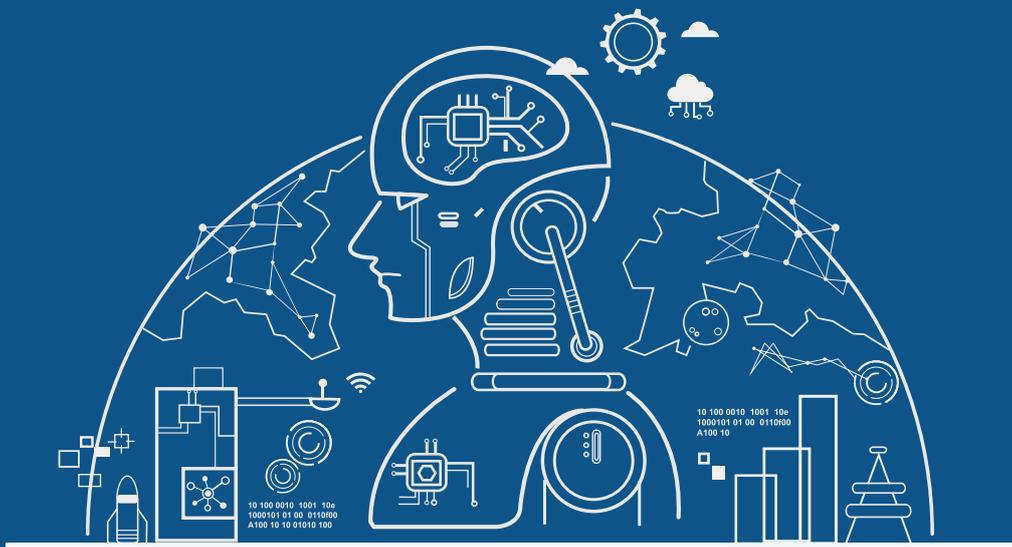
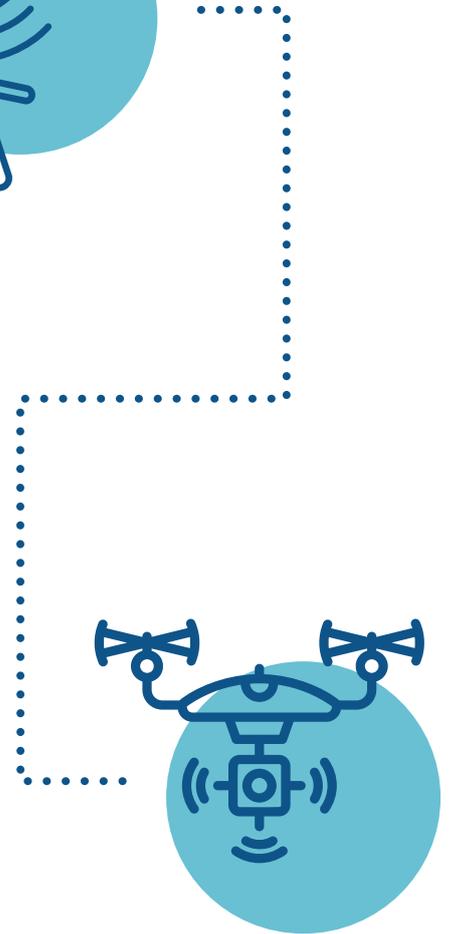
Sensors/IoT

One of the most important elements of AI digital core for implementation of IoT is the sensors that can drive a massive shift in the functioning levels of public sector organizations. Since sensors capture data coming in from various touchpoints, organizations can glean real-time insights from this fast-moving data and use them to make more informed decisions. Sensors can maintain and monitor public resources, which nowadays are dependent on human interventions.

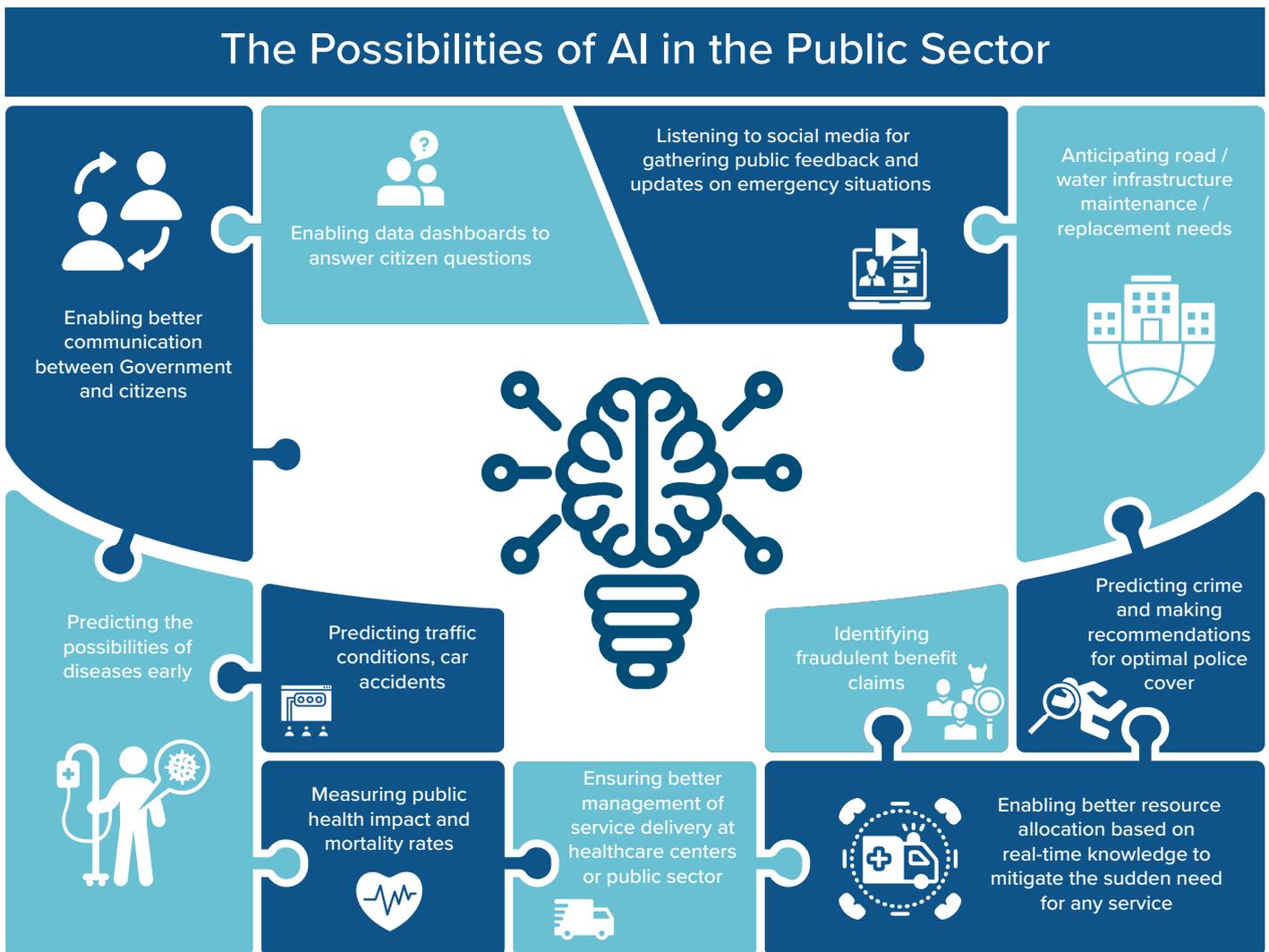


Drones

Most government agencies in the world have been mulling over the idea of using drones for public security. While AI systems can process data from surveillance cameras, drones can be helpful in detecting anomalies and suspicious activities through real-time analytics, thereby preventing crimes before they could happen. Besides predictive policing, AI can help investigative agencies manage crime scenes with a variety of smart tools to ensure mission success.



Use Cases



Social Upkeep: Enhancing the Social Paradigms of Society with AI

AI is moving the needle for public service quality, much to the satisfaction of the citizens. The first footprints of change can be felt across the public service landscape in terms of rapid personalization.

Public sector bodies can use the efficiency of AI to understand the needs of the population and figure out the most practical solutions to issues such as poor traffic management, low-quality healthcare, ineffective maintenance of public areas, and inadequate access to education. [Japanese automakers](#), for instance, have back-burnered the investments on self-driving cars and are now innovating solutions based on robots to help its rapidly graying population. Medical researchers are already applying AI to enable better patient diagnosis and improve the efficiency of treatments. Further advances suggest a brighter future for medical technology and healthcare.

In the context of education, AI intelligence is leading the world to a new normal called virtual teaching that's proving to be a strong value addition to the quality of academia and pedagogy. Other than the education industry, the [McKinsey report](#) has recently revealed that AI can also be used to address multiple environmental challenges, such as the depletion of natural resources and poaching. Machine Learning tools, such as Google TensorFlow can strengthen conservancy efforts, and drone technology can help detect poachers by analyzing audio-sensor data.

Moreover, AI can also ensure the precision and reliability of decisions. As AI systems process data and drill down into results faster than humans, they can help public sector bodies predict what's likely to happen and take action in real-time. Other than these, the role of AI in promoting equality is undeniable. Since AI is built to respond based on demographics and data, it leaves no room for biases and discrimination.

Job Chaos: Taking a Dim View of AI in the Public Sector

Despite its disruptive potential, some are apprehensive about job displacements in the public sector in the wake of AI. Since the technology is believed to drive the age of robotic workforce sooner, people fear that their jobs are under threat.

A Eurobarometer survey brought the looming concerns to the fore when 74% of citizens believed that the rise of robots and AI will wipe out more jobs than creating new ones. Another survey revealed that four in every 10 citizens believe that the AI will force them into retirement.

Such misgivings need to be set right. Historically, technology has never triggered an employment slump. No patterns suggest a net decrease in jobs because of technological influx. As a matter of fact, technologies, like AI, have been helpful in replacing low-skill jobs and eliminating redundancies, thereby freeing time for employees to focus on growth-driven activities.

Michaels and Graetz, authors from the London School of Economics, studied the [impact of industrial robots on manufacturing](#) in 17 developed countries and concluded that AI will add value to overall labor productivity. Further, a new [report from the World Economic Forum \(WEF\)](#) titled 'The Future of Jobs 2018' predicted that the AI revolution will create over 58 million new jobs in the future.

On the other side, naysayers often argue that the positive impact of technology isn't much the same across multiple citizen groups. The inequality concerns and distributional implications were laid bare by a [White House research report](#) released in 2016. It estimated that while 83% of the low-income jobs and 31% of the middle-income jobs would be impacted with the rise of robots and automation technologies, only 4% of the high-income jobs would come under the pressure.

Challenges: Where Do the Things Go Dire?

AI is a strong force of change in the paper-pushing public sector enterprises. However, there are multiple barriers to its adoption.



- The most common challenge is to gather real-time data to supplement AI systems. Most public sector enterprises rely on manual data management processes that aren't equipped to generate exhaustive data volumes in real-time.



- Another deterrent, and perhaps the most significant one, is the non-scalability issues with the current AI systems. Most AI solutions are designed to carry out a specific range of tasks. To update them is to stir up the hornet's nest. Making any substantial changes to these systems can throw the status quo out of gears and might force organizations to build entirely new systems altogether. This can result in massive time, effort, and cost.



- The list of challenges also includes the skills gap—the gap between the employee skills available and the skills organizations need. AI is the new kid on the block and necessitates hands-on employee training for long-term success. Since upskilling employees is often confrontational and marks a shift to core business models, it certainly is an intimidating job.



- Lack of transparency is another roadblock to AI adoption. AI systems can draw and act on conclusions without the interference of humans, and this is exactly where the definition of accountability stands challenged. Machine Learning and Deep learning models can't describe how they reached decisions, and since humans are already out of the equation, there's no one to be held responsible for any unforeseen and untoward outcomes that might occur.

Looking into the Future

For the public sector, AI is a golden opportunity waiting to be grabbed and can't be postponed until tomorrow. The technology has all the bells and whistles of a strong game-changer that can build a new era of growth and innovation for public sector organizations. No doubt that the challenges are many, but none of them is too great to overcome. The key to success is a rational, well-thought-out strategy that ensures transparency and a strong sense of control, achieved through human intervention.

The times are ahead when AI complexities will be more humungous than ever. Without making the first move, public sector organizations wouldn't be able to climb the whole ladder up there. So, it's high time that they come forward and prepare a roadmap for transformation powered by AI.



About the Author

Srinivas is a result-oriented professional with more than six years of experience in Government and private sectors. He is responsible for implementing various major initiatives in Health, Education, Public Works, Finance, Vigilance, Civil Supplies, Panchayat & Rural Development, and Chief Minister Office. Srinivas has knowledge of business process analysis and design, re-engineering, process rationalization, project management, capacity planning, performance measurement, and quality. He is also skilled in project planning encompassing project scheduling and analysis, scope planning, timelines, resource mapping, project set-up, effort & cost estimation, project stabilization, and process improvement.



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