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A BRIEF REVIEW ON THE DIFFICULTY OF PUTTING AI INTO PRACTICE

Navneet Kumar Verma*[1], Asheesh Kumar Singh[1], Aditya Singh[1], Uma Srivastava[2]

[1]*Buddha Institute of Pharmacy, Gida, Gorakhpur, Uttar Pradesh, India.
[2]Department of Mathematics and Statistics, DDU Gorakhpur University, Gorakhpur, Uttar Pradesh, India.

ABSTRACT
One industry that incorporates AI-based technology into its daily operations is the government sector. The use of AI in government settings has a lot of promise, but there are also a lot of obstacles that need to be removed. We analyse the degree to which organisational, technological and environmental processes have evolved and identify the ensuing issues in six scenarios using the TOE framework. As a result, by highlighting the obstacles to AI adoption in the public sector, such as concerns about personal data, this study closes a knowledge gap. The TOE framework's findings provide important guidance for streamlining AI integration processes, which will ultimately increase the use of AI more widely. But there are obstacles to overcome, like worries about data security and privacy, as well as concerns about reaching unfair choices. With this study, we have established a foundation for thinking about possible medical uses of machine learning (ML). We have structured our discussion of the challenges associated with adopting machine learning (ML) in comparison to other technologies using the Non-adoption, Abandonment and Challenges to the Scale-Up, Spread and Sustainability of Health and Care Technologies (NASSS) paradigm.

KEYWORDS
AI-based technology, Technological processes, Organisational processes and Environmental Processes.

Author for Correspondence:

Navneet Kumar Verma,
Buddha Institute of Pharmacy,
Gida, Gorakhpur, Uttar Pradesh, India.

Email: navneet_its04@rediffmail.com

INTRODUCTION
AI has emerged as a topic of major importance to how health care may change in the coming decades, with recent editorials addressing projected changes in clinical treatment[1,2], public health[3,4] and health system design[5,6]. As a GPT, artificial intelligence (AI) embodies a basic set of skills that can be applied to a multitude of tasks in a range of contexts[5]. Neural networks, machine learning, and deep learning are a few AI strategies that assist

computers in learning from data and becoming more accurate over time. Devices can gain new insights as new data is added to the system[6]. At that time, McCarthy and his associates dreamed of building machines with human-like intelligence. But a paucity of hardware and software capabilities hindered AI's early advancements[7]. The federal government's nondefense AI budget rose from $0.56 billion to $1.43 billion during that same period. Even though public sector investments make up one-third of all EU investments, there remains a substantial gap between the public and private sectors when it comes to AI research. Out of 1142 papers, only 59[8] explicitly discuss AI's application in government. In a similar spirit, scholars have recently shown a greater interest in the creation and application of AI. Recent years have seen an explosion in the quantity of scholarly publications and SLRs, especially from 2018 onward[9]. Even though public sector investments make up one-third of all EU investments, there remains a substantial gap between the public and private sectors when it comes to AI research. Out of 1142 papers, only 59[8] explicitly discuss AI's application in government. The employment of AI by the government gives rise to grave worries regarding data security and privacy. Because of the volume of data that needs to be gathered, stored, and processed, assurances that the data generated and used in the deployment of artificial intelligence is safeguarded against confidentiality and cyber security threats are required. The government must ensure the confidentiality of the data needed to develop AI in order to avoid cyber attacks on it[10]. Inadequate laws and procedures impede the government's ability to properly implement artificial intelligence. Before artificial intelligence is widely used by government entities, laws and procedures pertaining to its ethical and responsible usage must be established. The government is currently debating how to regulate AI, therefore more effort is needed to create laws and policies that function. For the reasons outlined above, the writers are interested in the possibilities and difficulties of implementing AI in government. It is envisaged that this research would advance the scientific field of public administration and yield recommendations for state administrators and other stakeholders on how to improve and expand public services.

The efficient use of artificial intelligence by the government is crucial to meeting the rising demand for public services in the current disruptive period. However, there are currently obstacles to overcome. The largest issue is a shortage of both people and money. Artificial intelligence deployment requires a substantial budget and professionals with experience in the field of AI development. Government personnel and funds are needed for the deployment of AI in public service[11]. Inadequate data presents another obstacle to the use of AI in government. Research and development in artificial intelligence must rely on extensive and dependable data to achieve best results. Unified, complete, and well-organized data is a major obstacle that must be surmounted[12].

METHODS
For this inquiry, descriptive and qualitative methodologies were employed. By using a qualitative research approach, researchers seek to address the issues raised by the research focus[13]. Depending on the central idea of the research subject, study boundaries must be established in qualitative research. This is done in order to keep the problem's scope from growing too large and to keep the discussion from going off topic and jeopardising the original study[14]. Suggests that a study's scope be limited to a single phenomenon or central idea. The NASSS framework and other work in implementation science for digital health technologies stress the need of paying attention to the unique value proposition that a new technology brings for health care stakeholders[15,16]. The introduction of new technology may have an impact on a variety of people, including managers, policymakers, patients, and healthcare professionals[15,17,18]. Implementation frameworks serve to highlight this reality.

CONTEXTUAL THEORY
The Difficulties of Using AI in Government and Related Fields
Despite the growing interest in the field and industry, there is currently no universally accepted definition of "artificial intelligence"[19]. Stanford professor John McCarthy actually first used the term "artificial intelligence" in 1956 at a seminar at Dartmouth (Schaefer *et al*, 2021). Some research mainly concentrate on the most recent advancements in this field as well as the growth of the AI definition.

Progress towards Widespread Use of AI
With the advent of significant frameworks like the Innovation Diffusion Theory (IDT), the Theory of Planned Behaviour (TPB) and the Diffusion of Innovations (DOI), technology adoption studies have advanced significantly over the past 30 years. Technology adoption is defined as the "decision to obtain and employ a new invention or innovation," while diffusion is defined as "the process by which something new spreads throughout a population"[20,21]. Alternative frameworks exist for implementing artificial intelligence.

"Artificial intelligence" (AI) is shorthand for "scientific entity intelligence."
It is equivalent to the term "artificial intelligence," which refers to computer systems that have been preprogrammed or trained. Artificial intelligence is defined as "the ability of a system to correctly read external input, to learn from that data, and to use that learning to fulfil particular goals and tasks through flexible adaptations," as stated by Kaplan and Haenlein (2019)[22].

Since humans can only play a game once, a computer has an edge over a human player. But AI can simulate multiple matches at once, which improves learning tremendously and gives people access to an experience that is not possible. AI is capable of performing four main tasks. These characteristics include the capacity to think and behave like humans. You are using a system that is capable of rational thought when you behave logically.

Introduction of AI in public administration
Medical field
Artificial intelligence (AI) in the healthcare industry has the potential to significantly raise the standard of care and decision-making. AI can help the government understand a variety of complex medical data sources, including lab test results, patient prescription histories, and medical records[23]. The application of AI to public health could have profound effects on society as a whole.

The Field of Education
AI used by the government in education has the potential to improve a number of aspects of the learning process and increase student performance[24]. One of AI's most significant contributions to education is adaptive learning systems. This method allows students of various ability levels to maximise productivity by tailoring their study habits. AI can also be used to simplify institutional administration. To free up more time for teachers to concentrate on their students, administrative tasks like data processing and reporting might be automated. Data that is better organised and easier to access can help the government make more informed decisions. AI technology has a lot to offer the public school system in terms of benefits. Governments can benefit from AI in a number of ways that improve the quality and efficiency of education, including the creation of adaptive learning systems and the formulation of more efficient education policy.

The Transport Industry
Artificial intelligence in transport has an impact on vehicles as well as the infrastructure and services provided by public transport as a whole[25]. AI has made it possible to install CCTV cameras on roads, which is crucial for reducing traffic. We'll be using artificial intelligence and data analysis on the security camera footage that's been stored in the cloud. Thus, the development of safe and effective public transportation for people depends heavily on the application of AI in the transportation industry.

Industry of Safety
The government's attempts to deter crime and address security concerns to the nation could be substantially aided by artificial intelligence (AI)[26]. Therefore, integrating AI into government security is

essential to improving national security and thwarting cyber attacks and cybercriminals.

CONCLUSION

Artificial intelligence is becoming more and more important in governance in this disruptive era of rising technology. The use of AI has the ability to enhance lives and produce more egalitarian and sophisticated decisions. We contend that machine learning (ML) will initially find widespread use in the healthcare sector in decision support, with applications ranging across clinical, operational, and epidemiological domains. According to our research, using AI technologies that can enhance internal efficiencies and service delivery shouldn't be impeded by the requirement to address data protection concerns. Furthermore, our study contributes to the expanding corpus of research on the topic of AI adoption in the public sector, specifically with regard to Switzerland. These findings can help practitioners and policymakers plan how to deploy AI and can also guide future research on the subject. We draw the conclusion that machine learning (ML) has a bright but uncertain future in the health care industry since the effective implementation of ML requires the support of patients, the general public and a wide range of stakeholders. In order to resolve these problems, the government needs to make sure that any artificial intelligence technology it uses is grounded in fair and balanced facts and that the decisions made as a result are visible and responsible. Additionally, governments want to guarantee that AI is governed by competent persons functioning autonomously. In order to encourage the use of ML in ways that will benefit all, the implementation science community will need to give the issues raised in this work a lot of attention in the years to come. This report closes a knowledge gap and offers specific recommendations for using artificial intelligence, which could impact how the Swiss government handles the technology.

CONFLICT OF INTEREST
We declare that we have no conflict of interest.

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