Bhutan's AI Readiness Assessment

Overview

Evaluating Bhutan's readiness to integrate AI technologies within governmental frameworks through the lens of government as an **Enabler**, **User** and **Ethical AI.**

Primary objectives:
Harnessing the benefits of AI to Transform Public service delivery
Stimulate AI use in broader economy while managing risks

Introducing the Three Pillars
- Government as an **Enabler:** How well the government supports AI development through policies, infrastructure, and skills.
- Government as a **User:** The government's effectiveness in integrating AI into public services and operations.
- **Ethical AI:** Ensuring AI is used responsibly and ethically to protect citizens and prevent misuse.

Key Findings
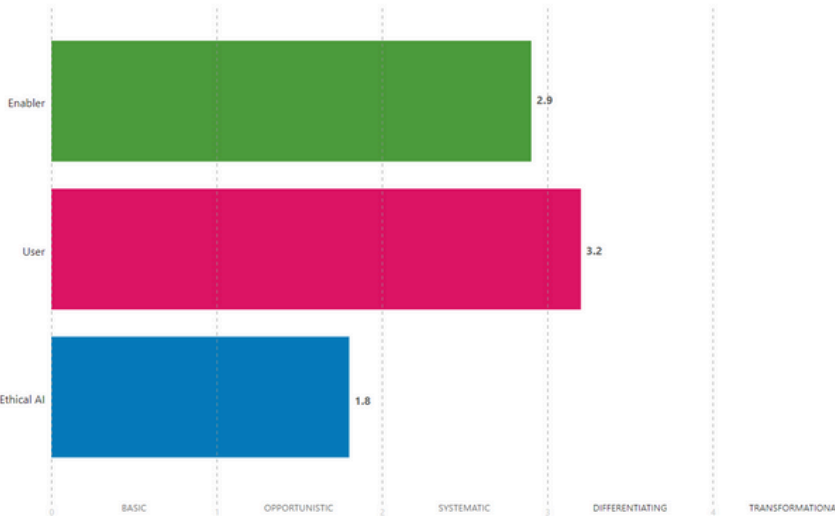
2.6 / 5

Bhutan's current phase:

SYSTEMATIC

The country is systematically advancing in key areas of AI readiness based on identified priority areas.
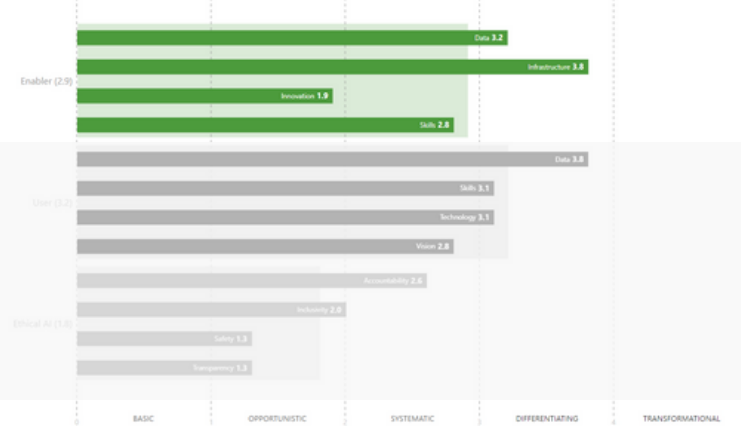
PILLAR 1: GOVERNMENT AS **ENABLER OF AI**

Examines how government institutions, policies, and regulations can guide and influence AI development across the economy, impacting sectors such as the private sector, academia, non-profits, and research institutions.

2.9 / 5
Systematic Phase

Indication:
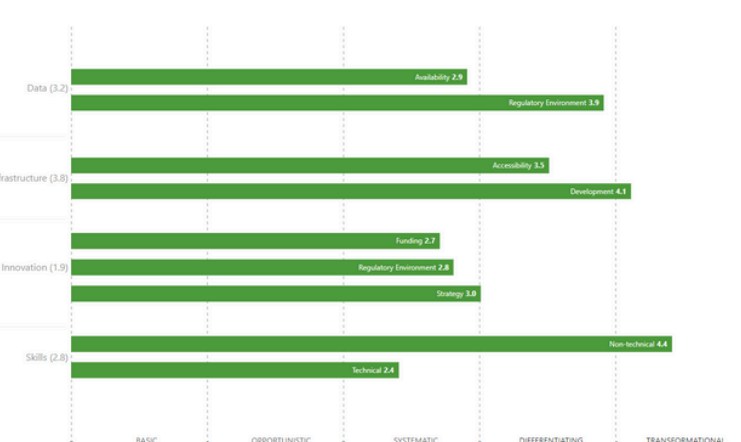Structured policy efforts are in place, though gaps remain

Key Initiatives:
- 2018 Information Communication and Media Act
- Upgrading the communication network, including establishing a third internet gateway
- Developing a Data Governance Framework

Challenges:
Regulations remain unclear, and funding is still insufficient, particularly in supporting AI entrepreneurship and innovation

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66% of the respondents mentioned they were unaware of any government open data portal or the National Digital Identity system as a key example of innovative data sharing in the economy.	**66%** of the respondents reported existing legislation for data protection and privacy.
40% Percentage of the population covered by 5G mobile network technology.	**65%** of the respondents acknowledge existing policies aimed at ensuring equal access to ICT infrastructure.
59% unaware of funding opportunities for AI researchers, and one-third indicated that no such opportunities exist.	**66%** indicated that starting and expanding a technology business in Bhutan is somewhat easy.
62% agreed that policies or initiatives exist to develop basic IT skills among the population.	**24%** mentioned existing policies or initiatives supporting the development of advanced skills, such as AI, machine learning, software development, and data science, within the population.
75% noted policies that encourage entrepreneurial skills, highlighting a focus on innovation and tech-driven growth.	

PILLAR 2: GOVERNMENT AS **USER OF AI**

Examines the strategies, capacities, and processes required in government to support AI adoption by ministries and agencies, as well as in the delivery of public services.

3.2 / 5
Differentiating Phase
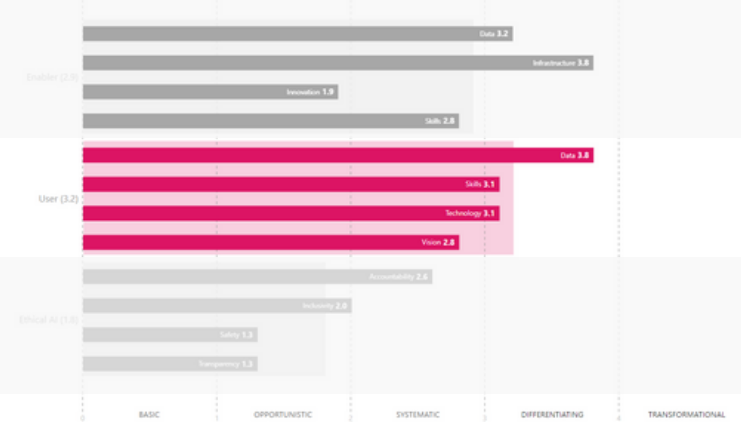
Indication:
Significant progress has been made in preparing for AI deployment, with established systems and skills.

Key Initiatives:
- G2C services
- E-payment gateways
- National Digital Strategy 2024 for 'Intelligent Bhutan'

Challenges:
A strategic AI vision aligned with national plans is needed, along with further strengthening of digital infrastructure and addressing skills gaps and data quality issues to fully leverage AI.

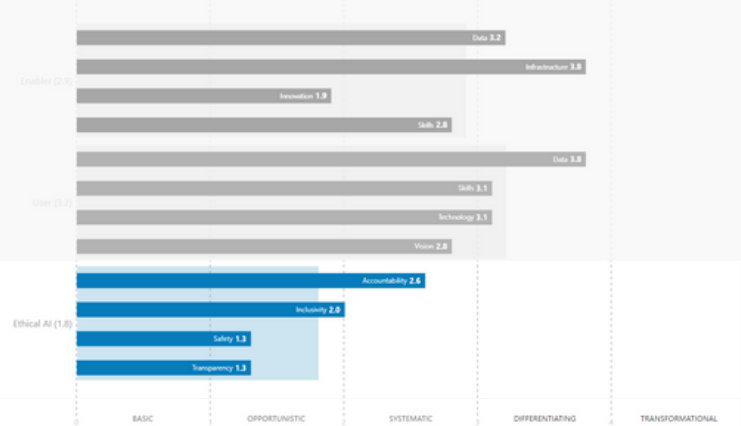|	
47% of the respondents mentioned efforts to facilitate data sharing between government bodies.	**64%** stated that they were unaware of any data quality frameworks or standards that the public sector is required to follow.
73% states that there is guidance on where government data should be stored.	**27%** says that it is easy to find where a particular dataset exists.
57% mentioned that there are not enough people in government with the advanced technical skills required to build effective AI tools for public sector use.	**30%** says there is a mechanism for public servants to trial the use of technology or data in new ways within their department.
	60% classify the standard of IT skills among civil servants in your country as good.
40% mentioned that the government currently uses AI in any of its services or operations.	**93%** of the respondents mentioned that the government has an online public service delivery platform.
47% mentioned that a shared cloud platform is available for all government bodies.	
74% mentioned that there is a government team responsible for AI use in the public sector.	**20%** believed government is reportedly making significant efforts to hire people with technical skills in data science, software development, and machine learning.

PILLAR 3: **ETHICAL AI**

Examines policies and legal mechanisms to ensure AI benefits are shared inclusively and to protect individual rights from risks across all stages of AI development and deployment.

1.8/ 5
Opportunistic Phase

Indication:
Initial policy work is underway, though significant gaps remain.

50% believe uncertainty exists about government bodies for AI ethics, with many respondents unaware of any such entities.	**86%** think there is lack of clear ethical AI principles and regulations hinders accountability. Transparency is also limited regarding international AI initiatives and the right to challenge algorithmic decisions.	**57%** were unaware of policies for representative datasets.
60% of respondents were unaware of initiatives to subsidize resources, such as cloud computing clusters, for academic and non-profit innovation.	**57%** were unaware of any efforts due to the lack of gender equity advocacy.	
57% were unaware of a framework for categorizing AI systems based on the level of risk they pose to human life and health.	**57%** were unaware of Algorithmic Impact Assessments due to their scarcity.	**40%** indicated that this assessments were not conducted.
67% mentioned a significant gap in monitoring AI systems and making related records publicly available. Transparency in AI procurement is also a concern.	**70%** of the respondents were unaware of any legal right to explainability for government algorithms due to the lack of legal frameworks for AI transparency.	**30%** stated that no such right exists.