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#### **HELPDESK RESPONSE 217**

# **Artificial Intelligence in Education Across Bangladesh**

Findings from a rapid scan and key informant interviews

October 2025 **Date** 

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#### About this document

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# **Abbreviations and acronyms**

**a2i** Aspire to Innovate

**ADB** Asian Development Bank

AI Artificial Intelligence

**DSHE** Directorate of Secondary and Higher Education

**DPE** Directorate of Primary Education

**FCDO** Foreign and Commonwealth Development Office

**GoB** Government of Bangladesh

ICT Information and communication technology

IID Institute for Informatics and Development

IRCAI International Research Centre on Artificial Intelligence

**KII** Key informant interview

**LLM** Large Language Model

NAIP National Artificial Intelligence Policy

**NSAI** National Strategy for Artificial Intelligence

**UNDP** United Nations Development Programme

### 1. Introduction

In April 2025, the United Kingdom's Foreign, Commonwealth and Development Office (FCDO) in Bangladesh requested a rapid scan on the use of Artificial Intelligence (AI) in Bangladesh's education system, from EdTech Hub's Helpdesk. As the Government of Bangladesh (GoB) prepares to develop its next Primary Education Sub-Sector Programme, this is a timely opportunity to assess the role of AI in education in the country. Bangladesh is in the early stages of AI integration, presenting the opportunity to document on-the-ground realities, challenges, and emerging innovations and practices. This rapid scan aims to provide FCDO Bangladesh with insights into the current state of AI in the Bangladesh education system, in order to inform strategic guidance to government partners. It draws on a combination of desk research and key informant interviews to provide:

- A review of available or upcoming education-related AI policies and strategies by the Government of Bangladesh.
- Mapping of key stakeholders within the AI in education landscape in Bangladesh. This includes private sector players and startups looking to develop AI-related products to support learners and teachers, as well as organisations that have adopted such tools in some form.
- Highlighting key opportunities, risks, and concerns related to the use of AI in education in Bangladesh. As FCDO's engagement in Bangladesh focuses on the primary sector, the report prioritises products and initiatives designed for this level of education.

# 2. Methodology

In order to map Bangladesh's Al landscape in terms of Al policies, key stakeholders, key opportunities, and risks, this report is informed by a desk review and 11 key informant interviews (KIIs).

**Scope:** As a rapid scan, the report aims to provide education decision-makers with accessible, evidence-based summaries of best practices in specific areas of EdTech, in this case, the AI landscape in Bangladesh. It is designed to offer insights for the FCDO by highlighting key actors, early use cases, opportunities, and challenges, and to support future thinking about AI's role in education, particularly as Bangladesh is preparing for its next development education plan—the Primary Education Sub-Sector Programme.

**Desk review:** To identify EdTech products that leverage AI, the team began by scanning existing lists of products in Bangladesh, primarily developed by AI-in-Education.org<sup>1</sup> and HundrED.<sup>2</sup> AI in Education has conducted a mapping of AI products in education in 25 focus countries, including Bangladesh (†AI for Education, 2024). HundrED has curated a list of impactful and scalable innovations, featuring a spotlight on EdTech innovations from Bangladesh (†Gonchigodorj et al., 2023). The study team validated the products on these lists that included AI components, by visiting the company and organisation's webpages. In addition to secondary validation, a general web search was conducted using search strings that included a combination of "AI", "artificial intelligence", "Bangladesh", "education technology", "EdTech", and "education". Documents and products mentioned by key informants were reviewed, and relevant materials are included in this report.

**Key informant interviews (KIIs):** With input from the FCDO, the team identified 14 key Bangladeshi actors from the government, private sector, development partners, learning institutions, and academia. Participants were identified through the researchers' own networks and are therefore not exhaustive. Out of the 14 key informants, 11 participated in structured and semi-structured interviews, although three were unable to participate at this stage (see the Appendix for a full list of completed KIIs). Interviews

<sup>&</sup>lt;sup>1</sup>Al for Education is a platform which "serves as a dynamic hub for innovation, collaboration, and transformation" to ensure Al tools for education reach those in need, particularly those from low-and-middle income countries. Its website includes an evidence library and a map of Al products (†Al for Education, 2024).

<sup>&</sup>lt;sup>2</sup> HundrED hosts a database of over 700 reviewed innovations and provides tools for implementing them successfully (hundrED, no date).

ranged from 30 minutes to one hour and were conducted both virtually and in-person over a five-day period in May 2025. A list of interview questions has also been included as part of the Appendix.

**Limitations:** The primary limitation of this rapid scan is that the research includes a non-exhaustive list of organisations operating in Bangladesh's landscape. For instance, this research does not include the perspectives of funders like the Asian Development Bank (ADB), who are investing in projects for the digital transformation of education.<sup>3</sup> Similarly, the government's Information and Communication Technology (ICT) Division is not represented in this study, presenting another gap. Furthermore, key informants provided suggestions for other individuals to contact for this research. Due to time constraints, additional interviews could not be conducted.

<sup>&</sup>lt;sup>3</sup> Representatives from the Asian Development Bank (ADB) were contacted, but they did not respond and due to the time constraints of this report, there was limited time to pursue follow-up.

# 3. Bangladesh Al policy landscape

This section provides an overview of the AI policy landscape in Bangladesh and includes a review of existing policy documents and international frameworks that outline various priorities for the use of AI in education in Bangladesh.

#### 3.1. The policy landscape

Bangladesh has developed a National AI strategy and is in the process of drafting a National AI policy. Table 1 below describes these policies, as well as other relevant cybersecurity and data privacy policies related to AI initiatives. The policies referenced below can be found in the list of references at the end of the report under the author and date which follow the title.

Table 1. Bangladesh policy landscape

National policy/strategy	Ministry/agency involved	Description
National Strategy for Artificial Intelligence (NSAI: Information and Communication Technology Division, 2021	Information and Communication Technology Division (Ministry of Posts, Telecommunications and Information Technology)	Purpose/objective: The strategy presents the focus areas and roadmap for accelerating AI innovation and adoption through 2025.  Key components: The strategy identifies eight priority sectors, including agriculture, health, and manufacturing, where AI technologies can be leveraged to support Bangladesh's economic and social development. The strategy also outlines six pillars, including digital and data infrastructure, which will support its implementation. Each pillar has its own roadmap, with actions that will be taken between 2020

		and 2025. The roadmaps include the relevant stakeholders and the ministry/agency/division that leads on the policy or strategy.
		Relevance to education: Education is identified as a priority sector for Al innovation. The strategy proposes that Al can be used to improve teaching and learning through personalised learning, interactive tutoring, and predictive analytics. The recommendations include: (i) adding Al to the curriculum, (ii) building teacher capacity, and (iii) establishing Al research labs in universities.
		In addition, workforce development is identified as a pillar to respond to the lack of skilled ICT and AI professionals in Bangladesh. It includes a roadmap of actions that the ICT Division and Ministry of Labour and Employment will lead in order to develop the capacity of the labour force.
†National Artificial Intelligence Policy 2024 [Draft]: Ministry of Posts, Telecommunications	Information and Communication Technology Division	<b>Purpose/objective:</b> This draft of the policy builds upon the 2020 NSAI strategy, providing a structured framework for implementation (as of October 2024).
and Information Technology, 2025	(Ministry of Posts, Telecommunications and Information Technology)	Key components: The policy articulates the vision, objectives, and key principles for the implementation of AI. It calls for the establishment of a National AI Centre of Excellence to oversee the implementation of the strategy. It also provides guidelines for various stakeholders, including ministries, academia, and the private sector, to develop and implement AI technologies.

		In addition to the priority sectors identified in the 2020 NSAI strategy, it also includes environment and climate change, as well as science, research, technology, and innovation, for a total of 10 sectors.
		Relevance to education: Education, skills, and employment are highlighted as priority sectors. The policy envisions that AI will be used to enhance "education quality, skills development and employment opportunities" (†Ministry of Posts, Telecommunications and Information Technology, 2025, p. 9) and will encourage the adoption of AI for personalised learning, pedagogical practices, and assessment. It calls for the establishment of AI and data clubs as well as training and skills programmes to enhance AI skills, and the use of AI systems to facilitate job matching and employment opportunities.  The policy also proposes that tax benefits or tax incentives will support funding for AI initiatives for education and training.
†Cyber Security Ordinance: Government of Bangladesh, 2025a⁴ [In Bangla]	Information and Communication Technology Division (Ministry of Posts, Telecommunications and Information Technology)	<ul> <li>Purpose/objective: This ordinance provides a legal framework for cybersecurity in Bangladesh.</li> <li>Key components:         <ul> <li>Introduces provisions for AI and machine learning.</li> <li>Outlines redress and remedy provisions.</li> </ul> </li> </ul>

<sup>&</sup>lt;sup>4</sup> The linked document is a draft that was made available for public consultation in early 2025. The version that was passed into law was not available online as of the time of writing.

		Relevance to education: This ordinance has implications for developers of AI applications and products for educational purposes. Cyberbullying is included under cybercrimes, which may affect the online safety of school-aged children.
†Personal Data Protection Ordinance [Draft]: Government of Bangladesh, 2025b	Information and Communication Technology Division (Ministry of Posts, Telecommunications and Information Technology)	Purpose/objective: This ordinance establishes legal safeguards for the collection, processing, storage, and sharing of personal data. This draft of the document was made available for public consultation in May 2025.  Key components:  Defines how key terms, including 'personal data' and 'sensitive personal data' will be interpreted. Establishes principles for personal data protection. Provides provisions for data collection and processing. Provides provisions for data transfers, data subject rights, appointment of a data protection officer and breach notifications.  Relevance to education: This policy has implications for how the private data of learners, teachers, and education system personnel is stored and protected.

### 3.2. International frameworks

**Table 2.** International AI frameworks for Bangladesh

Framework	Ministry/Agencies involved	Description
†Readiness Assessment Methodology: A Tool of the Recommendation on the Ethics of Artificial Intelligence: UNESCO, 2023	Developed by: UNESCO Government partners: Aspire to Innovate (a2i), ICT Division (Ministry of Posts, Telecommunications and Information Technology) Other stakeholders: United Nations Development Programme (UNDP)	Purpose/objective: The Readiness Assessment Methodology was undertaken in Bangladesh in 2024. It aims to help policymakers "make informed decisions on the ethical development, design, and deployment of AI technologies", and it "will help support Bangladesh in creating an ethical AI ecosystem aligned with the global standards" (†UNESCO, 2024c, para. 2).  Additional information: A draft report was made available in April 2025. It concludes that "AI integration in Bangladesh's education system is nascent," and notes a lack of structured AI curricula and ethical AI guidelines (†UNESCO, 2025a, p. 9).
†Al Competency Framework for Teachers: UNESCO, 2024a	Developed by: UNESCO	Purpose/objective: This framework defines the knowledge, skills, and values that teachers should possess in the context of the increasing use of AI in education. It is a global tool designed to guide the development of national competency frameworks, teacher training programmes, and the design of assessment parameters (*UNESCO, 2024a).

†Al competency framework for students: UNESCO, 2024b	Developed by: UNESCO	Purpose/objective: The framework outlines 12 competencies that educators need to provide students with through official school curricula, enabling them to become responsible and creative citizens in an Al-driven world.
		Additional information: Two webinars on the Al competency frameworks for teachers and students were conducted by UNESCO for Asia-Pacific countries, urging governments to develop their own national frameworks.

### 3.3. A review of the policy landscape

As Bangladesh moves to integrate AI technology into education and across society more broadly, policies are needed to guide and structure its use. Bangladesh has initiated this process by developing a National AI Strategy and a draft of the National AI Policy. The Readiness Assessment Methodology notes that both these documents align with UNESCO's 'Recommendation on the Ethics of Artificial Intelligence' (\*UNESCO, 2025a, p. 10). However, it also notes gaps in the legal and regulatory landscape regarding data privacy and data security, as well as gaps in policy to address social and geographic digital divides. It offers several recommendations to strengthen regulations, institutional frameworks and capacity building.

\*Karmakar (2024) provides further analysis of the policy landscape. The National AI strategy presents a comprehensive vision for integrating AI to support the country's socioeconomic development, but it lacks clear steps for implementation. Progress towards the education-related actions and recommendations in the National AI strategy appears limited. While some capacity-building efforts for teachers have taken place, the development of training content is still ongoing. There are some AI research labs at academic institutions, such as the Artificial Intelligence Research & Innovation Lab<sup>5</sup> and the Applied Artificial Intelligence Research Lab<sup>6</sup> at the Bangladesh University of Engineering and Technology. Additionally, the National AI Institute<sup>7</sup> was established in 2023, marking progress on the roadmap for skilling and upskilling the workforce. However, there is limited publicly available information about the activities and outputs of these institutes.

The draft version of the 2024 National AI Policy builds upon the foundation of the 2020 Strategy by including clear steps for implementation and placing greater emphasis on the need for ethical guidelines, data governance, and alignment with international standards about AI (†Karmakar, 2024).

At the time of writing, Bangladesh does not have a policy specifically addressing AI in education, a gap which we discuss later in this report. While both the National AI Strategy and Policy identify education as a

<sup>&</sup>lt;sup>5</sup> See https://theairil.org/. Accessed 30 June 2025.

<sup>&</sup>lt;sup>6</sup> See https://eee.buet.ac.bd/facilities/4ir/AAI.pdf. Accessed 30 June 2025.

<sup>&</sup>lt;sup>7</sup> See https://bangladeshaiinstitute.org. Accessed 30 June 2025.

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priority sector, there are few details about how the government will operationalise its proposal to integrate AI in teaching and learning. Furthermore, there appears to be little consideration of how future skills can be cultivated at the primary and secondary levels of education. The 2020 National AI strategy does not identify the Ministry of Primary and Mass Education as a stakeholder in its roadmap for skilling and upskilling the AI workforce, and there is limited involvement proposed for the Ministry of Education.<sup>8</sup> Key informants pointed to UNESCO's recent frameworks for AI competencies as potential resources which can inform more concrete education-specific planning.

<sup>8</sup> The Ministry of Primary and Mass Education is responsible for primary education, while the Ministry of Education is responsible for secondary education.

### 4. EdTech actors and interventions

The following AI tools and initiatives for education were identified through desk research and key informant interviews. These include products and initiatives developed in collaboration with private companies as well as government-led public initiatives.

#### 4.1. Private products and initiatives

**Table 3.** Private products and initiatives (listed in alphabetical order)

Product/Initiative	Description	
Name: 10 Minute School Origin: Bangladesh	O Minute School <sup>10</sup> (10MS) is an online learning platform that aims to emocratise K–12 education in Bangladesh. The startup offers videos, quizzes,	
Developer/Implementer: 10 Minute School	sample tests, e-books, and lecture notes, all of which are aligned with the national curriculum (†Future Education Magazine, 2023). It also offers content beyond K–12 subjects, including university preparation, coding and IT skills,	
<b>Target Audience:</b> Students, adult learners	language learning, and career readiness.	
<b>Al Integration:</b> Unspecified <sup>9</sup>	10MS has two AI solutions that will be introduced in 2025. The first supports English language learning and the second provides clarifications, corrections, and guidance about learning concepts, enabling learners to receive real-time answers to academic queries (KII, 10MS, May 2025).	
Name: Al chatbots (ChatGPT, Gemini, Microsoft Co-pilot, etc.)	KIIs report that students and teachers are using AI chatbots, including ChatGPT and Gemini, for educational purposes. Teachers at a private school in Rangpur,	

<sup>&</sup>lt;sup>9</sup> The form of AI integration (chatbot, analytics, etc.) was not provided to the research team.

<sup>&</sup>lt;sup>10</sup> See https://10minuteschool.com/. Accessed 10 May 2025.

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Origin: International

**Developer/Implementer:** Various

companies

**Target Audience:** General **Al Integration:** Chatbot

which serves students from pre-primary to Grade 9, are using these tools to support lesson planning and content creation. University professors are also using AI tools for teaching and research. A recent study<sup>11</sup> conducted by the Institute for Informatics and Development (IID) echoes these findings about AI use; roughly four out of five teacher respondents reported using AI for lesson preparation, checking grammar, simplifying complex topics, and saving time (†IID, 2025).

ChatGPT was frequently mentioned during the KIIs as the chatbot that teachers and students used (KII, UNDP Bangladesh, May 2025). According to a rapid study conducted by the United Nations Development Programme (UNDP) Accelerator Lab Bangladesh<sup>12</sup> used to inform \*UNDP's (2025) *Human Development Report*, young people in Bangladesh are using generative AI tools, primarily ChatGPT, to find relevant information and literature for their classwork as well as to improve their English language skills. Additionally, ChatGPT supports the use of Bangla, which could contribute to its high level of adoption in Bangladesh.

Name: Curiosity
Origin: Bangladesh

**Developer/Implementer:** ACS Future

ACS Future School<sup>13</sup> is an online learning platform. It offers live and pre-recorded classes, learning materials, assessment tools, and an online learning community. Classes are taught by experienced educators from The Bangladesh University of

<sup>&</sup>lt;sup>11</sup> The sample size of this study was small; therefore, the findings may not be representative of all teachers in the country. The research gathered data through 10 in-depth interviews with educators and survey results from 205 students and teachers from different geographical areas across Bangladesh (†IID, 2025). A full copy of the study findings is not publicly available.

<sup>&</sup>lt;sup>12</sup> According to the key informant, the rapid study involved focus group discussions, consultations, and key informant interviews in five locations across the country, with representation from different sociodemographic groups. The results from the rapid study have not been published.

<sup>&</sup>lt;sup>13</sup> See https://acsfutureschool.com/. Accessed 10 May 2025.

School

**Target Audience:** Grade 6–10 students

**Al Integration:** Chatbot

Engineering and Technology and The University of Dhaka, and have supported students with high-stakes exam preparation (†Dhaka Tribune, 2025)).

ACS Future School has developed Curiosity, an AI chatbot, to support learners on its platform. Curiosity has several features such as: (i) an on-demand problem-solving mechanism, enabling learners to ask questions through text or images and receive answers; (ii) Study management which is a feature that provides reminders based on individuals' study habits; and (iii) deploying self-assessments, that allow learners to reinforce their understanding with short quizzes (†ACS Future School, no date).

Name: Ostad Al

Origin: Bangladesh

**Developer/Implementer:** Ostad **Target Audience:** Adult learners

Al Integration: Assessment

Ostad<sup>14</sup> is an e-learning platform that offers live-streaming classes for skills development in high-demand fields, including web development, business and management, and data engineering. It offers paid and free courses.

Ostad has an AI assessment tool that can generate questions based on course materials, grade students' answers, and provide feedback. The company's CEO<sup>15</sup> reported that in a test with 704 students, 95% were satisfied and did not notice a difference between the AI tool and their instructor.

Name: Shikho Al Origin: Bangladesh

**Developer/Implementer:** Shikho **Target Audience:** Grades 6–10, adult

learners

Shikho<sup>16</sup> is an online learning platform that offers personalised tutoring. It produces learning content to prepare students for the Bangladeshi National Curriculum's Secondary School Certificate (SSC) and Higher Secondary School Certificate (HSC) exams, as well as competitive university entrance exams. Its

<sup>&</sup>lt;sup>14</sup> See https://ostad.app/en/about-us. Accessed 14 May 2025.

<sup>&</sup>lt;sup>15</sup> See https://www.linkedin.com/posts/almusabbir\_ostad-livelearning-onlinelearning-activity-7113099441397497858-6c2m. Accessed 14 May 2025.

<sup>&</sup>lt;sup>16</sup> See https://shikho.com/. Accessed 10 May 2025.

#### **Al Integration:** Chatbot

target market spans urban, suburban, and rural areas across Bangladesh, with a focus on learners from underserved communities who are digitally curious.

Shikho has introduced an AI feature that aims to support problem-solving and is envisioned to have multiple use cases, such as:

- **Students** can receive answers to their queries, which can be asked through text and image inputs.
- **Teachers** can receive support in lesson planning, question/worksheet generation, and marking.
- **Parents** can receive Al-driven explanations, enabling them to provide guided homework support.

This feature utilises a feedback loop in which learners can rate responses, and behind-the-scenes experts also review the Al outputs (Monamee, 2025). At present, this feature is in beta testing mode; however, it has already logged 87,000 Al-generated responses from 2,000 paid users.

In addition to Shikho AI, the company is in discussion with the Department of Secondary and Higher Education for a pilot for teacher training (KII, Shikho, May 2025).

### 4.2. Public products and initiatives

**Table 4.** Public products and initiatives (listed in alphabetical order)

Product/Initiative	Description
Name: Al in education teacher training Developer/Implementer: a2i Target Audience: Teachers Al Integration: N/A	Aspire to Innovate (a2i), a government-led initiative, is developing a teacher training course for AI in education. The course on ethical and responsible AI use will be developed in Bangla and local dialects to make it more accessible to teachers across the country.
	The course will include guidelines for the ethical and responsible use of AI. It will cover specific topics, including: (i) how to use AI for assessments, and (ii) the use of AI for teacher facilitation. UNESCO Dhaka has been approached by a2i and the Directorate of Secondary and Higher Education (DHSE) to provide technical support, but is not very heavily involved at the time of writing this report.
Name: Ministry-supported AI workshops  Developer/Implementer: Directorate of Primary Education, Directorate of Secondary and Higher Education (DSHE), ADB, Intel  Target Audience: Teachers  AI Integration: N/A	The Ministry of Primary and Mass Education, in collaboration with the Ministry of Education, has delivered two AI training workshops for teachers, in partnership with external organisations. Information about future training or expansion of workshops to a broader audience was not available. <sup>17</sup>
	The first was organised by the Asian Development Bank (ADB) and the Directorate of Primary Education (DPE) which took place in September 2023. It was attended by 42 primary school teachers, government officials, and curriculum experts. The training aimed to enhance participants' understanding

<sup>&</sup>lt;sup>17</sup> The KII from DSHE suggested a contact who would have more information about plans for future teacher training, but we were unavailable to conduct additional interviews within this study's timeframe.

of Al. During the workshop, participants discussed potential Al solutions and challenges (†Kong et al., 2024).

A report by ADB discusses key insights from the workshop (†Kong et al., 2024). They included: (i) Strong interest and optimism from teachers about adopting AI tools; (ii) Desire for more training and concerns about online safety, data privacy and ethical issues; and (iii) Potential of AI solutions for personalised learning, content development, and chatbots to support teachers and learners.

The second workshop was hosted by the DSHE and Intel. This five-day workshop was designed for 50 ICT teachers, and the training focused on the general use of Al.

Name: MuktoPaath

Developer/Implementer: a2i

Target Audience: General

Al Integration: Chatbot, personalised

learning

MuktoPaath<sup>18</sup> is an e-learning platform developed by a2i. It was launched in 2016 and offers professional development and academic courses, available to all citizens. It offers over 200 courses, both free and paid for, and has reached over two million learners (\*Chowdhury, 2024). MuktoPaath currently utilises AI to make recommendations for courses to users (\*Chowdhury, 2024), based on their interests, education, or skill level. Furthermore, an AI chatbot has also been introduced on MuktoPaath, with plans to integrate with other systems. Designed to replicate a customer support system, the chatbot feature has received positive feedback on its helpfulness and user satisfaction from users in internal testing; however, further improvements could be made (KII, a2i, May 2025).

Name: Noipunno

Developer/Implementer: a2i

a2i was developing Noipunno, an AI tool for assessment, as part of the Government of Bangladesh's curriculum reform efforts. The tool was designed to support teachers by providing them with a synthesis of student assessment

<sup>&</sup>lt;sup>18</sup> See https://muktopaath.gov.bd/. Accessed 10 May 2025.

**Target Audience:** Teachers

Al Integration: Al-driven analytics

data accompanied by targeted suggestions on how to improve student learning. ChatGPT and Large Language Models (LLMs) were used to design predictive guidelines and suggestions for teachers.

While the initial tool has reported reaching 10 million students, the initiative has stalled due to political changes (KII, a2i, May 2025).

# 5. Opportunities and challenges

Based on the perspectives of key informants, this section presents the opportunities and challenges facing Bangladesh as it considers integrating Al into education.

#### 5.1. Opportunities

Key informants identified the factors listed in the subsections below as favourable conditions or opportunities that could facilitate the development of AI in education tools or initiatives.

#### 5.1.1. Readiness to embrace Al

Findings from the Asian Development Bank's report on AI for primary education in Bangladesh indicate a strong interest among teachers in adopting AI in their teaching practice, and that they believe AI tools can improve teaching efficiency, personalise learning, and save time (\*Kong et al., 2024). This evidence aligns with the experiences shared by KIIs from the basic and higher education sector. The head teacher from the private school and professor from BRAC University, who were interviewed, described using generative AI and other AI-powered tools to support lesson creation, capacity building, and problem-solving. Both informants described learning how to use these tools independently and without specific guidance from their respective institutions. These examples of informal use highlight the practical value educators see in AI and their initiative in exploring its applications for teaching and learning. Key informants expressed positivity about the helpfulness of AI tools; for instance, the head teacher shared an example of using Canva's AI feature to make presentation slides, which was much quicker and easier than the previous method using Adobe Photoshop.

Although the present study did not explore students' use or perceptions of Al in-depth, the key informant from UNDP Accelerator Labs cited results from a rapid study conducted for \*UNDP's (2025) Human Development Report. This background research reveals that students are utilising Al tools such as ChatGPT for academic inquiries and English language learning. EdTech companies like 10 MS and Shikho have developed Al features for these purposes, suggesting there is demand or interest from users for these functions. However, findings from the literature and key informants raise concerns about students' misuse (see Section 5.2).

# 5.1.2. Upcoming engagements with development funders

Key informants from development partners and the government identified upcoming grants and programmes with key funders in the Al landscape in Bangladesh, including the Asian Development Bank and the Global Partnership for Education (GPE). Such engagements indicate growing interest in Al in Bangladesh and present opportunities to align with existing programmes and coordinate support for the government.

GPE is reported to be issuing a system transformation grant focused on teacher training and professional development. Although AI integration does not appear to be a core element of this grant, representatives from UNESCO Dhaka viewed it as an opportunity to explore how AI can be leveraged to reduce administrative burdens, enhance lesson planning, and improve teaching practices. Teachers themselves have expressed a need for comprehensive training (\*Kong et al., 2024).

The Asian Development Bank was also mentioned as being engaged with the Department of Secondary and Higher Education and the Directorate of Primary Education about AI in education. The NextGen programme,<sup>19</sup> which is focused on secondary and higher education, is expected to launch in 2026. The project, which is still in the proposal stage at the time of writing, is reported to have several components related to AI strategy.

#### 5.1.3. Public-private partnerships

There are opportunities for structured public–private partnerships to develop Al-driven innovations. Key informants from development partners, the government, and the private sector identified engagement with the private sector as a strategic opportunity, particularly for knowledge and capacity building with the public sector. The key informant from the Directorate of Primary Education noted that a legal framework for cooperation between the government and the private sector, or other organisations, is already in place, which provides a solid foundation for future collaborations.

Some collaborations are already underway or in the exploratory stage. For instance, Google has provided a customised curriculum for a BRAC programme targeting students nearing graduation (KII, BRAC Education Program, May 2025). The Directorate of Secondary and Higher Education (DSHE) is in early discussions with Shikho about teacher training, although

<sup>&</sup>lt;sup>19</sup> See https://www.adb.org/projects/57182-001/main. Accessed 10 May 2025.

this has not been formalised. UNESCO Dhaka and UNICEF key informants noted that start-ups and the private sector are critical stakeholders and should be included in conversations about AI in education.

Government and policy key informants expressed openness to deeper collaborations and noted that increased engagement with the private sector could help surface opportunities that support government initiatives. One key informant from the government observed that existing AI solutions are not created by educators and believed that working together could lead to better solutions. This was echoed by the informant from the private sector, who emphasised that creating effective and engaging EdTech requires domain expertise, continuous iteration, and long-term product development, areas where the private sector is well positioned to contribute.

#### 5.2. Challenges

Key informants described several challenges to integrating AI in education in Bangladesh.

#### 5.2.1. Infrastructure

Five of the key informants identified infrastructure, relating to both general ICT and AI specifically, as a barrier to AI integration. One informant noted that many schools in Bangladesh still lack basic digital infrastructure, including access to devices and reliable internet connectivity. Beyond these foundational needs, another informant emphasised the importance of AI-specific infrastructure, including graphical computing units (GPUs) and physical buildings to house and maintain this equipment, as well as specialised technical human resources to manage it. The high financial costs of acquiring and building this infrastructure were raised as a specific challenge, with the government identified as the primary actor capable of leading and funding these efforts.

In addition, concerns were raised about the environmental impact of AI technologies. Two informants specifically pointed to AI's high energy use, highlighting a need to consider sustainability and environmental costs.

#### 5.2.2. Digital divide and digital skills

Closely linked to the infrastructure challenges were issues related to the digital divide and varying digital skills, and key informants expressed concerns about the risks of widening inequality gaps. There is a strong basis for their concern; a national survey conducted in 2021 found that

during the Covid-19 pandemic, fewer children from rural areas participated in remote learning compared to those in urban areas, and significant geographical disparities were observed (†UNICEF, 2024). Three key informants specifically mentioned differences between rural and urban areas. For instance, a representative from BRAC noted that in underserved areas where they operate, some teachers share smartphones or rely on devices owned by family members because they do not have one of their own. It was also noted that some students, such as those who attend English-medium schools in large cities, have greater exposure to advanced technologies and AI tools, which could give them an advantage over peers who do not have access to the same resources.

Building teacher capacity was also identified as essential, as one development partner shared internal data indicating that 70% of teachers in Bangladesh lacked basic digital skills, which could limit their ability to effectively engage with AI tools for teaching and learning. Nationwide studies on digital literacy in Bangladesh find that the ability to use digital devices and tools, including mobile phones and the internet, is low, and on a readiness spectrum<sup>20</sup> (\*Jahangir et al., 2021), digital literacy in society is identified as being "least ready". These foundational gaps suggest that significant focus is needed on building digital skills, both broadly in the public and specifically for teachers.

Although key informants interviewed for this report did not discuss the gender digital divide, existing literature suggests that gender will have implications for AI accessibility and use. †UNESCO's (2025a) report on the Readiness Assessment Methodology for Bangladesh highlights significant disparities in internet access in the country, with men accessing the internet more frequently than women. A study by BRAC among 6,500 rural households in Bangladesh found that a man is almost twice as likely as a woman to be the most digitally able person in a household, and women's digital literacy was lower than that of their male counterparts (†Zahan, 2021). These disparities must be considered when designing and implementing AI tools to avoid widening the digital divide (see Section 6)

#### 5.2.3. Academic misuse and disinformation

A common concern expressed by key informants from most stakeholder groups was the potential for academic misuse, particularly at the

<sup>&</sup>lt;sup>20</sup> Dahangir et al.'s (2021, p. 1) report for the BRAC Institute of Governance and Development developed a spectrum of classifications, including "well on-track", "needs improvement", and "least ready" for various readiness conditions. It classifies conditions that are "least ready" as those which have a significant gap and low or no effort to improve.

secondary and higher education levels. These concerns were expressed both as hypothetical observations and anecdotal evidence. For instance, the key informant from the DSHE worried about "brain drain" if students are allowed to copy answers directly from AI responses. The private school teacher expressed concerns that some students were using AI-generated answers to complete their mathematics homework, but they did not understand the underlying concepts. Another key informant had heard that ChatGPT was being used to cheat during high-stakes exams. Although secondary sources could not be found to support these claims, they align with findings from \*Tasnim's (2025) Institute for Informatics and Development study, where teachers voiced concerns about students' overreliance on AI, risks to critical thinking and of plagiarism, and harm to long-term learning.

Development partners highlighted the risks of misinformation and disinformation, with the UNDP Bangladesh KII sharing findings from its forthcoming report on the lack of trust some Bangladeshis have in AI-generated information. Key informants emphasised the importance of ensuring that AI provides objective answers and the need for users to be able to assess the reliability of its outputs, particularly when AI-generated information is used for educational purposes.

#### 5.2.4. Funding/financing for AI in education

Several key informants highlighted the need for increased investment within the AI and education landscape. One development partner noted that funding is required for areas such as teacher and staff training, capacity building in the use of AI, increasing internet/data availability support and contextualising content in Bangladesh. Government stakeholders also reported that they are seeking assistance from the private sector and development partners to invest in the development of AI products.

In the budget proposed for fiscal year 2025, education remains below 2% of the Gross Domestic Product (GDP), and it is not on track to hit its target for 3.5% of GDP by 2031, which was proposed in the \*General Economics Division's (2021) Prospective Plan of Bangladesh (2021–2041). The budget allocated to education is 11.88% of the total budget, an increase from the 2024 fiscal year, but over two percentage points lower than the proportion of the budget allocated in 2016 (14.02%) (\*Khatun et al., 2024). No information was found about financing specifically for AI in general or for educational purposes.

A related challenge to financing AI initiatives is a lack of understanding of the costs—including financial and human resource development—of implementing an AI solution. A representative from UNESCO noted a need for a tool that could be used to estimate these costs, which would cover the expenses of hardware and infrastructure, as well as the environmental costs of using significant levels of energy and the social costs that may be exacerbated by uneven AI access and use, leading to increased inequality.

#### 5.2.5. Language and bias

Key informants from nearly all stakeholder groups identified language as a barrier to Al integration, noting that most Al tools and related content are currently available in English. Furthermore, there is a significant gap in contextualised and language-specific teacher training content and tools for Bangladesh. While some Al chatbots are capable of understanding and responding in Bangla, four informants raised concerns about the accuracy and contextual relevance of these responses. Interestingly, a private sector key informant offered a different perspective, asserting that international LLMs can already handle Bangla reasonably well and could be further fine-tuned to improve performance for local use.

Beyond language, five informants raised concerns about cultural and contextual bias embedded in widely used AI tools. They were wary of the fact that commonly used LLMs have been predominantly trained on data from high-resource settings, which reflects Western cultural beliefs. They viewed this as a limitation in responding appropriately to the Bangladeshi context. Although mentioned by just one development partner, gender bias could be a concern, given global research that has shown LLMs can perpetuate stereotypes (†UNESCO & IRCAI, 2024).

## 6. Recommendations

As part of the key informant interviews, we summarised a list of recommendations provided by various stakeholders.

#### 1. Focus on training teachers to use AI tools

Eight out of the eleven key informants emphasised the opportunity for AI tools to reduce teacher burden, assist with assessments, lesson planning, and other teaching tasks. Key informants stressed the importance of providing teachers with adequate and timely training, particularly in the areas of AI safety and ethics. However, strategies to encourage and facilitate the use of AI should also be implemented; a study among primary school teachers in five districts found that, despite national policies that commit to ICT use in teaching and learning, in practice, few teachers use ICT regularly, due to work-related stress, lack of motivation, and lack of equipment (\*Zaman et al., 2023). Therefore, two suggestions from key informants are particularly salient: (i) AI needs to be framed as a tool that can potentially reduce their workload and support them in their teaching, and (ii) utilising a hands-on approach, as a means to build motivation and encourage its use, is desirable.

When developing training materials, considerations of language, teachers' digital literacy, and the appropriate level of technicality are needed. Teachers expressed a desire for content that is relevant to the Bangladesh context and in the local language (†Kong et al., 2024). Additionally, a representative from BRAC highlighted the importance of avoiding overly technical language in the training materials, particularly since AI is more complex than other ICT topics, such as online safety. Lessons learnt from previous work implementing technology-enabled teacher professional development, such as focusing on hard-to-reach areas and fostering peer networks, could be used to inform teacher training in AI topics (†Ahmed et al., 2023).

As growing evidence of interest in the use of AI tools among teachers emerges, along with forthcoming engagements with development partners, there are opportunities to build on this momentum and provide targeted training and professional development that equips teachers to integrate AI tools effectively and ethically into their practice.

#### 2. Explore broader applications of AI in education

†UNESCO's (2021 p. 13) guidance for policymakers on AI and education proposes four categories for AI application: (i) education management and delivery; (ii) learning and assessment; (iii) empowering teachers and enhancing teaching; and (iv) lifelong learning. This review finds that at least four Bangladeshi companies have developed tools that fall under just one application of AI: learning and assessment. This indicates opportunities to explore other uses.

Although this review did not find examples in Bangladesh of Al applications in the other categories proposed by \*UNESCO (2021), both teachers in the ADB study and development stakeholders interviewed in this report recognised the potential, highlighting that Al can be used to reduce the administrative burdens of teaching. The key informant from the Directorate of Primary Education reported that the directorate is considering various ways to integrate Al into data and monitoring systems, including incorporating Al into a learning management system and utilising Al to track student assessments and provide personalised feedback. Projects like Noipunno, which used Al to generate insights about student learning, could be revitalised to pilot this application of Al in an educational setting.

#### 3. Develop policies specifically for AI in education

There was consensus across stakeholder groups that policies and guidelines are essential to ensure the ethical and structured adoption of Al. In addition to national policies, several development partners and government stakeholders noted a lack of internal Al policies at their own institutions. Stakeholders emphasised the importance of policies and guidelines that clearly define what Al should and should not be used for in educational settings, as well as the need for privacy and safeguarding measures. In addition to developing policies for education, the National Al Strategy and National Al Policy, once finalised and accepted, should be widely disseminated within the education sector so that stakeholders at all levels are aware of national priorities, guidelines, and their potential roles in Al integration.

At the same time, representatives from UNESCO cautioned against waiting for policies to be in place before taking action; indeed, several key informants shared ways that AI is being used in their own organisations, indicating that AI is already part of daily life and widely used in practice.

This highlights the importance of developing and disseminating nationaland institutional-level policies to guide Al adoption.

# 4. Engage with all stakeholders, including the private sector, non-governmental actors, and citizens

As noted earlier, representatives from all stakeholder groups saw benefits of collaboration between the public and private sectors (see Section 5.1). However, more dialogue is needed to ensure a complementary and coordinated approach in these partnerships. The view of one private sector actor differed substantially from those of other stakeholders, particularly regarding the perceived challenges of language and LLMs, and the approach to developing an EdTech solution. Although this view was limited to one informant, these differences suggest a need for discussions between sectors to ensure efforts are aligned in order to achieve shared educational goals.

In addition, development partners emphasised the need for greater coordination among the numerous actors involved in Bangladesh's education sector. For example, representatives from UNESCO Dhaka recommended aligning Al-related initiatives with the GPE system transformation grant to ensure synergy and avoid duplication of efforts.

Finally, several key informants from the government and development partners emphasised the need to engage with the public broadly, and teachers specifically, to build buy-in for the use of AI to improve teaching and learning, pointing to lessons learnt from recent curriculum reforms. A key finding from the development of this report was that teachers and implementers were often able to describe in detail the AI tools they were using and how these tools supported their work. In contrast, informants from higher-level leadership positions tended to have more limited visibility of AI use. This highlights an opportunity to engage practitioners more directly to understand their needs before designing initiatives for capacity-building.

# 5. Equity must be considered with the adoption of Al in education

Al use must be ethical, inclusive, and equitable and guiding principles are recommended to ensure these qualities are maintained (\*UNESCO, 2021). Five key informants, particularly those from development partners, expressed concerns that Al will exacerbate the digital divide and that steps must be taken to ensure equity. Whether developing and implementing

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teacher training or integrating AI tools for teaching and learning, considerations for location, gender, and socio-economic status are necessary to avoid reinforcing existing inequalities and leaving the most disadvantaged even further behind. For example, a representative from BRAC cautioned that students who know how to use AI will have an advantage over those who do not, which could impact their access to learning. Similarly, teachers who are proficient with AI may be able to develop higher-quality lesson plans or assessments, which could widen the performance gap between students. A government stakeholder added that infrastructure gaps could further deepen inequality, particularly between rural and urban areas, and for learners with disabilities.

# 7. Closing reflections

The findings from the initial draft were presented at a meeting of the Education Development Partners in June 2025. In the presentation, we concluded with the following questions, which asked those in attendance to reflect on the direction and purpose of AI, and how its use will shape the future of education. While this rapid review has focused on the practical realities and systemic changes needed to incorporate AI in education, future dialogue warrants consideration of many questions, including:

# 1. Will AI be the great digital divider or the great digital bridge?

The data collected for this report cautions that AI may exacerbate the digital divide; however, there is potential for this technology to improve access to education, particularly for the most marginalised (\*UNESCO, 2021).

# 2. Will AI in education contribute to genuine learning or merely mimic understanding?

In the keynote speech for the 3rd UNESCO Global Forum on Ethics in AI (†Lanier, 2025), computer scientist and philosopher Jaron Lanier argued that there are two categories of AI applications—ones that provide value to humans and society, and ones that fool humans into thinking that AI is human. As a tool for education, it is essential that AI applications genuinely enhance teaching and learning, rather than merely create the illusion of knowledge and understanding.

# 3. Is capacity building sufficient for a mindset shift? What else is required?

Although teachers can be trained to use AI tools, it does not guarantee that they will be used in practice. Various factors, including self-efficacy, AI understanding, and individual characteristics, impact teachers' perceptions of the benefits, concerns, and trust in AI in education (\*Viberg et al., 2024). These factors may influence teachers' attitudes and acceptance of new technology, particularly if it is perceived as a replacement rather than a complement to their existing role in the classroom.

#### 4. What does AI readiness require?

Beyond the technical readiness and practical considerations for AI adoption addressed by existing frameworks, there is a need to unpack the underlying beliefs, values, attitudes, and other intangible factors that might contribute to AI adoption or rejection throughout the education system.

# 5. Is Bangladesh going to play catch-up, or is there an opportunity for leapfrogging into leading innovation?

Bangladeshi talent, both domestic and abroad, is engaged with Al development, including tools for education. Identifying and leveraging this talent could position Bangladesh not only as an adopter of technology but also as a pioneer in innovation.

# 6. Which path does Bangladesh take? One that limits technology in the classroom or one with greater integration?

At the Education Development Partners' meeting, a discussion centred on the tension between the need to explore Al's potential to improve teaching and learning, and the growing concerns about the negative impacts of technology on learning, as evidenced by a ban on smartphones in 40% of education systems worldwide (\*UNESCO, 2025b).

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# **Appendix**

# 7.1. List of Key Informant Interviews

Key informants were identified through the authors' professional network and input from colleagues at FCDO.

**Table 5.** Key informant interviews (listed in alphabetical order by organisation)

Organisation	Category
10 Minute School (10MS)	Private sector
a2i (Future of Education)	Government/Policy
BRAC Education Program	Development Partner
BRAC University	Academia
Department of Primary Education	Government/Policy
Department of Secondary and Higher Education	Government/Policy
Ostad	Private sector
Private School, Rangpur	Head teacher
Shikho	Private Sector
UNDP Bangladesh (Accelerator Lab)	Development Partner
UNESCO	Development Partner
UNICEF	Development Partner

# 7.2. Interview questions

The interviews followed the topics and questions listed below. As the interviews were semi-structured, specific questions were tailored depending on the type of key informant.

#### **Organisational profile**

This was an introductory section designed to gather general information about the organisation and their engagement with AI in education initiatives.

- Please introduce your organisation, its mission, and work in the education sector.
- How is Al currently positioned in your organisation's work in Bangladesh?

#### Al use and development

This section asked key informants to provide a description and use case of AI tools for education that they have developed, or that they are using.

- What AI tools or products are you using or planning for education?
- Are these tools developed locally, adapted from international platforms, or entirely external?
- What are the key use cases (e.g., content generation, teacher assistance, assessment)?
- What is the cost of the AI product/app/platform itself, and who covers or is expected to cover that cost (e.g., schools, government, donors)?

#### Piloting and evidence

This section asked for details about implementation of AI tools, including their setting (public or private institutions, for which grade levels), and any key insights that had been generated. Key informants were also asked to share any relevant reports or resources that could be included in the research.

- Have you piloted these tools in Bangladeshi schools or learning settings? Were these public or private schools?
- What were the results or key insights from these pilots?
- Have you used any data or feedback from the field to guide your Al deployment strategy?
- Are there any public reports, case studies, or evaluations you can point us towards for additional reference?

#### **Costs and market**

In this section, key informants were asked to discuss the costs of AI tools and the target market for the product or initiative.

- How are you currently estimating the cost of Al deployment per school or per student in Bangladesh?
- What market segment are you currently targeting (e.g., NGOs, public schools, low-cost private schools)?

#### Training and safeguards

Key informants were asked to describe any training that teachers or administrators needed to use to use the AI product, as well as if any considerations about language or accessibility had been taken.

- What kind of training do Bangladeshi teachers or admins need to use your AI tools effectively?
- How are you thinking about issues like language accessibility, privacy, and algorithmic bias?

#### Vision and support needs

This section asked key informants how they envisioned AI in education in Bangladesh in the near future, within two to three years. It also asked what support key informants would like in the process of developing and implementing their AI products or initiatives.

- Where do you see AI in Bangladesh's primary education sector in the next 2–3 years?
- What support—technical, financial, or policy-related—would help your organisation succeed?

#### Close and reflections

- Do you have any final reflections or suggestions regarding AI in primary education in Bangladesh?
- Are there other organisations, initiatives, or individuals in Bangladesh you think we should speak to?
- Thank you for your time. We'll keep you informed about the next steps and outcomes of this review.