



Contents

Foreword by Akanksha Bapna, EdTech Hub: EdTech and Systems Approach	4
Foreword by Lasse Leponiemi, HundrED: Breaking Barriers with EdTech	6
Introduction	8
HundrED's Mission	10
Chapter 1: Background	12
Education in BangladeshEdTech Sector in Bangladesh: Digitalisation of Bangladesh	
Chapter 2: Collection of Voices	24
Chapter 3: Methodology	32
The Selection Process	32
Chapter 4: Selected Innovations	38
Overview of selected innovations	38
Chapter 5: Conclusion	70
Do you want to organise a HundrED Spotlight?	
Endnotes	78
References	80
Appendix A: Shortlisted Innovations	82
Appendix B: Advisory Board Members	83

SPOTLIGHT ON EDTECH: BANGLADESH

Gonchigdorj, Ariunkhishig, Frederika Warren, Akanksha Bapna, Namrata Sharma, Arnaldo Pellini, and Crystal Green. *Spotlight on EdTech: Bangladesh.* Helsinki: HundrED, 2023. https://doi.org/10.58261/MISF7076

Published: November 2023

Authors: Ariunkhishig Gonchigdorj, Frederika Warren, Akanksha Bapna, Namrata Sharma, Arnaldo Pellini, and Crystal Green.

Principal Investigators: Akanksha Bapna and Crystal Green

Reviewed and edited by: Crystal Green and Mariah Voutilainen

Graphic design & layout: Jyri Öhman / Kilda

Conclusions and recommendations from HundrED reports represent the authors' own views.

Innovators featured in this report have granted HundrED consent to use certain images and written works.

3

This is an interactive document.

Foreword by Akanksha Bapna, EdTech Hub

EdTech and Systems Approach

Spurred by a growth in EdTech innovations and an increase in global incidence of crisis and conflict, the role of technology in teaching and learning has become central. While parents, teachers, and policymakers attempt to make sense of what works, researchers are attempting to understand the impact of technology enabled learning.

Bangladesh has made significant progress in school enrollment and has now shifted the focus to improving the quality of school education. In an effort towards continued improvement in access and outcomes, the Government of Bangladesh is undertaking major education policy reforms. One of these initiatives is the National Blended Education Master Plan that aims to use high-, low-, and no-tech interventions to improve learning outcomes. This Spotlight report on EdTech in Bangladesh is a collaborative attempt to understand the ecosystem of EdTech innovation in Bangladesh, with a view to supporting the government's focus on digitization of education.

This report is part of a larger systems study that aims to understand the context of the education and EdTech systems, and constraints and enablers that would support a healthy public-private sector interaction. A system is a "complex of interacting elements such that the system cannot achieve its purpose without the element, and the element by itself cannot replicate the system's functions." EdTech necessarily operates within a system of connected actors and processes and must navigate the context of the education system it operates in. Successful implementation of any EdTech initiative necessarily needs to consider curricular, pedagogical,

This Spotlight report on EdTech in Bangladesh is a collaborative attempt to understand the ecosystem of EdTech innovation in Bangladesh, with a view to supporting the government's focus on digitization of education.

technological, individual, political, legal, and organisational factors that might impact them.

We embarked on this study with the assumption that if we can understand the various entities and interactions within the EdTech ecosystem and their explicit and implicit purposes, and identify the levers that could support a rich EdTech innovation ecosystem, it would bolster the effective implementation of Bangladesh's Blended Learning strategy at the national level. The Spotlight report highlights the innovator side of the system analysis while at the same time providing an insight into a set of innovations - identified via a rigorous selection process - that have the potential to change the landscape of EdTech in Bangladesh.



Akanksha Bapna SENIOR RESEARCH FELLOW EDTECH HUB/ODI



Photo by Cambridge Education re Trainer in Your Pocket.

Foreword by Lasse Leponiemi, HundrED

Breaking Barriers with EdTech

HundrED Spotlights are our way to highlight educational solutions and practices within a topical theme, region, or a combination of both. There are some commonalities between the beginning of HundrED and this Spotlight on EdTech in Bangladesh. In both cases there was a willingness to identify and highlight new solutions that can improve the education system as a whole. In Finland, we were highlighting multidisciplinary solutions to support the primary curriculum at the time; in Bangladesh there is a determination to use a blended learning approach to bridge their educational attainment gap with the help of EdTech.

As education systems need to be always understood from their context, and there rarely are any silver bullets, we have been trying to identify solutions and practices that can fit Bangladesh's purpose. In this Spotlight report you can find 15 innovations we believe are representing high impact and opportunities to be scaled - not only in Bangladesh, but also internationally.

For us at HundrED, it has been a privilege to work with a multiorganisational consortium to identify these solutions. Furthermore, EdTech solutions have been welcomed by education policy makers as a way to ensure equal, inclusive, and better education for all in Bangladesh. This kind of value-based leadership can create an education ecosystem that is adaptable and flexible for renewing itself, but also the decisions are made based on the most important factor: to help every child flourish.

In this Spotlight collection there is a strong representation of EdTech tools for learning support, emergency education, and skill building, as well as blended learning practices and online learning platforms that are scalable across different contexts. Innovations focusing on teacher professional development and support are also included.

These solutions are already supporting the Bangladesh education sector to break education barriers, and they give more opportunities to reach students who typically struggle to access education, for example, in rural areas or in refugee camps. Especially in demanding conditions, EdTech innovations can create positive sustainable change as there are no printing costs, as well as less travel and commuting.

When the first HundrED innovation collection was revealed in Finland it made the work of educators and education innovators more visible within

their communities. Over time, that has led to a more active education innovation ecosystem and experimenting culture that has been allowed due to national and local policies. I am hoping that these identified solutions can boost something similar within Bangladesh's context.

Finally, I want to thank all partners who have made this Spotlight possible and to congratulate every identified and shortlisted innovator. This is only the beginning, and I want to encourage you and the policymakers to work together to make these solutions widely available in Bangladesh and beyond.



Lasse Leponiemi

CO-FOUNDER AND EXECUTIVE DIRECTOR
HUNDRED

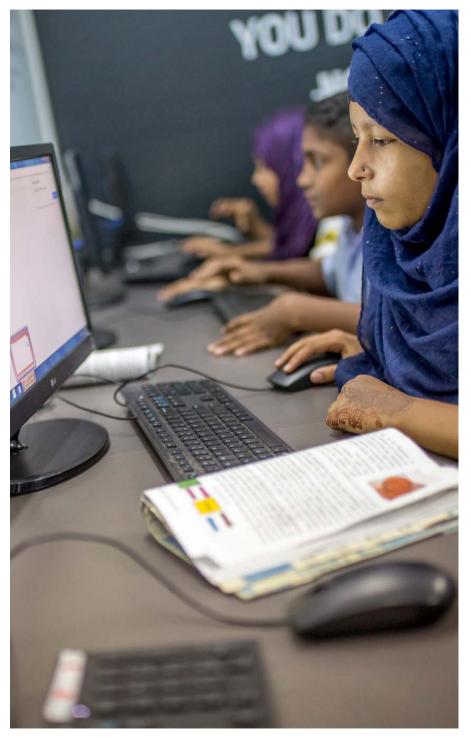


Photo by Digital school program.

Introduction

The era of technological revolution has drastically and rapidly changed all aspects of our lives. Education is not an exception. Education technology, more commonly known as EdTech, has been welcomed by education policy makers as a way to ensure equal, inclusive, and better education for all. School closures during Covid-19 meant that governments turned to EdTech solutions to reach out to students and minimise the potential of learning losses.¹ As online education took over as the "new normal", schools, teachers, parents, communities, and students looked for EdTech solutions to optimise and aid teaching, and support and engage learners. Consequently, investment into the EdTech industry rapidly grew during the pandemic and exhibited an impressive growth from 7.08 billion USD in 2019 to 20.8 billion USD in 2021. Although the number went down to 10.6 billion USD in 2022 as the world settled back to post-COVID on-site education, it still shows a considerable increase from pre-pandemic years.² How the EdTech market evolves, as we witness further technological advances such as AI and VR development, remains to be seen.

The broad interest from both the public and private sector have undoubtedly had an accumulated effect on the development, range, and availability of EdTech products. However, as stated in EdTech Hub's report on the case for a systems approach to EdTech, large expenditures on EdTech have not always yielded comparable or consistent results in

terms of learning outcomes. Access, uptake, and scalability, as well as the cost-effectiveness of interventions tend to vary across contexts.³ The vast majority of expansion is occurring in high-income countries, with other countries potentially falling further behind and widening the educational attainment gap globally. Thus, having education policies in place to strategically promote and provide support in implementing impactful and scalable EdTech solutions is not only beneficial, but also a necessity for developing countries.

After a robust selection process, HundrED and EdTech Hub have selected 15 innovations that highlight EdTech as an avenue to reach the needs of various stakeholders in education, and, most importantly, that of the learners. In this collection there is a strong representation of EdTech tools for learning support, emergency education, and skill building, as well as blended learning practices and online learning platforms that showcase potential for scaling across different contexts. Innovations focusing on teacher professional development and support are also included in this collection.

In this report, we present a profile of each of the selected innovations. Data from the review process is included in this profile, along with samples from the Advisory Board review comments. At the end of the



Photo by Digital school program.

report, we share recommendations and reflections from the innovators themselves, collected from interviews with our Research Team, as well as insights from EdTech specialists. These insights provide a deeper look into what is driving the future of EdTech innovations in practice, both in Bangladesh and globally.

EDTECH HUB

EdTech Hub is a global research partnership. Their goal is to empower people by giving them the evidence they need to make decisions about technology in education. EdTech Hub uses an integrated approach that marries research, technical assistance and innovation to address the educational challenges faced by low- and middle-income countries around the world. They do this by collaborating with partners to provide governments with the resources to effectively integrate EdTech into their education systems. They work globally, and also on the ground in 7 focus countries: Bangladesh, Ghana, Kenya, Malawi, Pakistan, Sierra Leone and Tanzania. EdTech Hub is supported by the Foreign, Commonwealth and Development Office (FCDO), Bill and Melinda Gates Foundation, World Bank, and UNICEF.

HUNDRED

HundrED is a global mission-driven organisation transforming K12 education. Its mission is to give recognition and visibility to practitioners who are driving innovative, impactful, and scalable approaches in education all around the world. At HundrED, they believe that through identifying, amplifying, and facilitating the implementation of education innovations we can transform education systems, equip students with the skills to thrive as global citizens, and ultimately help every child flourish. HundrED Spotlights are organised with partner organisations, who help from their area of expertise. Spotlights are unique opportunities for both educational professionals and independent organisers of the Spotlight to gain a thorough insight into the education innovations taking place in either a specific area of education and/or within a certain geographic region. For each Spotlight, HundrED accepts applications from the brightest innovations in education, which then undergo a thorough evaluation by its Research Team in collaboration with partner organisations and an expert Advisory Board.

HundrED's Mission

HUNDRED'S MANIFESTO ON EDUCATION TECHNOLOGY

HundrED's goal is to help improve education and foster a movement through encouraging impactful and scalable innovations to spread across the world, while staying mindful of context.

We believe that the purpose of education is to help every child flourish, no matter what happens in life.

In a fast changing world, focusing on traditional academic skills will remain important, but that is not enough. To thrive as global citizens, children must be equipped with a breadth of skills. While we are advocates of a child-centric approach and personalised, passion-based learning, the relationship between an inspired teacher and a motivated student will remain essential.

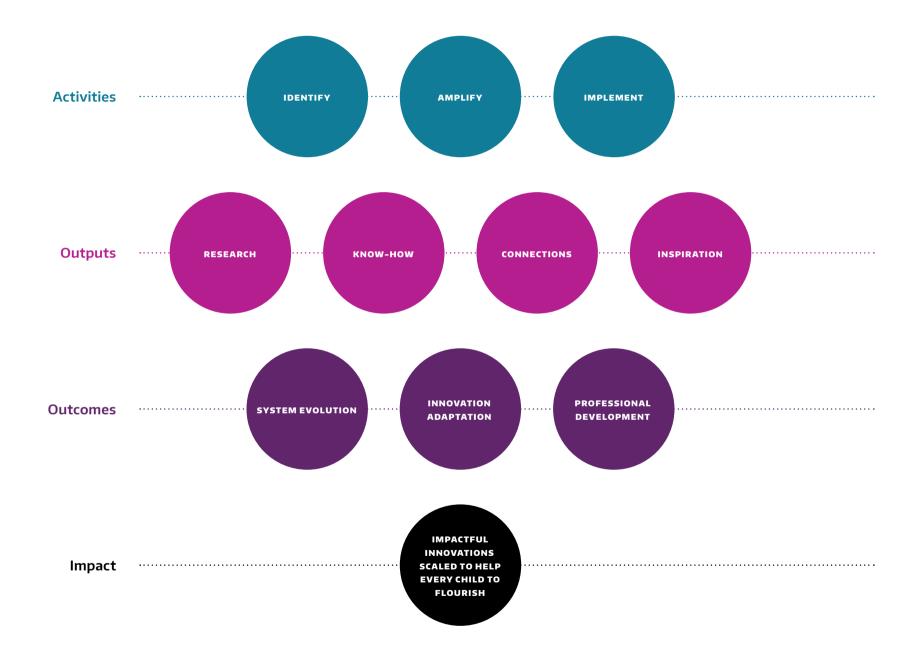
Assessment has to be aligned with the core purpose of helping children flourish and all of this should be reflected in the learning environments of the future. Education technology (EdTech) should be used as a tool to facilitate personalised and joyful learning experiences for children, and support teachers in accommodating learning needs of different learners. To offer benefits to every child, EdTech innovations should be used

appropriately to ensure accessible, available, and affordable education to all children.

To make this happen, we need visionary leadership at every level of our education system with ambitious, impactful, and scalable education innovations that are effective globally. The world of education is full of hardworking specialists who are making this happen every day.

Our mission at HundrED is to give them the recognition and visibility they deserve.

HUNDRED THEORY OF CHANGE



Chapter 1: Background

In this chapter we aim to provide context for the development of interest in EdTech in Bangladesh. Bangladesh has championed implementing the United Nations Millennium Development Goals (MDG) and continues to make steady and remarkable progress in key development areas, such as, poverty alleviation, primary education enrollment, and gender parity in primary and secondary level education. Bangladesh aims to use a Blended Learning approach to bridge its educational attainment gap, focusing on the merits EdTech can offer.⁴

COUNTRY CONTEXT

Bangladesh, which gained its independence in 1971, is one of the most densely and highly populated countries globally, with a population of over 165 million. Its capital city, Dhaka, has over 10 million residents. Along with other major cities such as Chattogram and Khulna, urban areas collectively house over 32% of Bangladesh's population. The country has been making notable progress towards reducing geographic inequality over the years; however, a significant disparity still exists between rural and urban areas when it comes to access to education, employment opportunities, and essential infrastructure such as sanitary facilities, transportation, and internet access.

Furthermore, due to its geographic location, land characteristics, monsoon climate, and the vast number of rivers, Bangladesh is highly vulnerable to natural disasters.⁷ Limited availability of resources and infrastructure, and challenges with disaster preparedness, response, and recovery plans make the rural areas even more susceptible. Such disasters lead to displacement of families, destruction of schools and facilities, and increase poverty; thus creating challenges in continuity of education for the local children. Climate change and rising sea levels are likely to have a big impact on Bangladesh in the future, particularly with respect to access to education for children and young people, especially in rural and remote areas.⁸

According to the latest "Household and Income Survey" conducted by the Bangladesh Bureau of Statistics, 18.7% of the population (30 million people) are living under the upper poverty line, and 5.6% are living under the lower poverty line. Due to the aforementioned reasons, the poverty level is higher in rural areas and imposes further challenges for education. Although education is a tool for economic prosperity both at country and household levels, people who are living in poverty cannot afford to value education due to their daily struggle for essential necessities. Families of lower socio-economic backgrounds often migrate from place to place in search for better livelihood opportunities and often require their schoolaged children to economically contribute to the family. Consequences of this are lower performance at school and/or school dropouts, which poses a further challenge of delivering education to children of marginalised communities.

COUNTRY OVERVIEW – INFORMATION COMPILED FROM THE BANGLADESH BUREAU OF STATISTICS

Population indicators¹¹

Total population 165.16 million



Digital indicators¹²

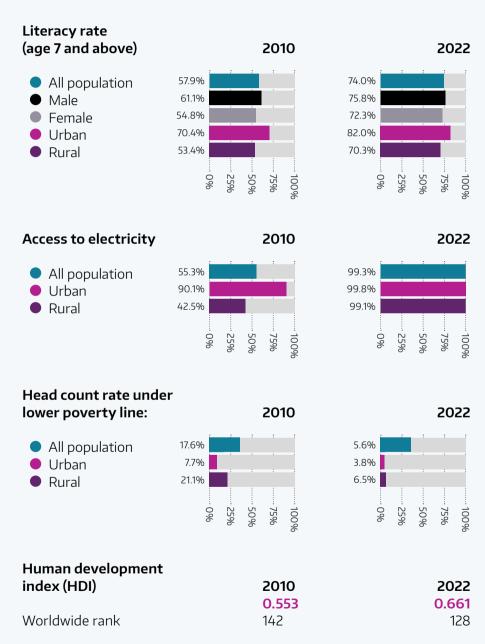
Mobile phone users



Internet users



DEVELOPMENT INDICATORS – INFORMATION COMPILED FROM THE BANGLADESH BUREAU OF STATISTICS¹³



Despite the remarkable overall improvements, gender and income inequality still remain key challenges to further development. Labour force participation rate for women is 36.4% compared to 80.7% for men, and the labour income share by women is only 16.9%. About 35.2 million women remain out of the labour force due to socio-cultural norms, gender roles, lack of education and skills, limited employment opportunities, etc.

A major employment sector for women who are in the labour force is the ready made garment (RMG) industry. Women were the driving force behind the RMG sector in the 1980s and 1990s by constituting 80% of the workers in the sector. As the industry expanded, the percentage of women employed continuously declined, reaching 54% in 2021. Women mostly take low-paying, low-skilled positions in the RMG, and advancing to managerial level positions is still very limited for women. In general, pregnancy and marital responsibilities remain the principal reasons behind leaving employment, and many employed women silently suffer through poor working conditions as there is limited employment opportunity for the education and skill they possess. Empowering women through education still remains a challenge.

RMG is the champion industry in Bangladesh, playing a vital role in strengthening the economic position of the country. It is not only a crucial industry domestically as the largest export revenue bearer, its presence in the global market is significant: Bangladesh was ranked the world's second largest garment exporting country at 45 billion USD in 2022. The prospect for the industry is optimistic; however, there is also growing competition from the other major players in the global market. In order to maintain or improve its competitiveness, Bangladesh needs to focus on increasing the productivity of the industry by upskilling the workers to match the skill set required in the era of technology. According to the UN Women study, over 70% of all RMG workers (both men and women) are 29 years old or younger, and more than half have no, or low, educational attainment.¹⁷ This is because traditionally, employment in the RMG required zero to minimal education and skills. However, with technological advances, automation, and increased capital investment in the industry, workers need skills and education that goes beyond primary education, thus creating a need for young people to stay in school through secondary years, take part in vocational training, and obtain professional and technical knowledge to sustain the industry.

Educating and upskilling children from lower socio-economic backgrounds will also help to reduce the income inequality, where the top 10% of the population are earning 36.5% of the total income while the bottom 50% are only earning 20% of the total income.¹⁸



Photo by BYLCx.

Education in Bangladesh

ADDRESSING PERSISTENT CHALLENGES

Despite Bangladesh's commitment to the MDGs, it is working in a context full of challenges to education: Learning crisis, teacher shortage, and inequitable access to education. There is an increasing number of children, especially those from marginalised communities, who are dropping out or remain out of school. This is disproportionately impacted by the fact that 49% of girls between the ages of 15 - 19 are married or in a marital commitment.¹⁹ Similarly, child labour has a disproportionate effect on boys. Covid-19 school closures meant that many boys started working earlier in order to financially support their families.²⁰ These factors, amongst others, have led to an inability to reach all learners, particularly the most marginalised. In order for Bangladesh to meet its education goals, these socio-economic barriers must be addressed to allow students to access education equally.

As well as these socio-economic barriers, there are also areas for development within Bangladesh's education system. To benefit from EdTech, one should be able to afford it financially, have the means to access it, and knowledge to appropriately and efficiently use it.²¹ Solving this issue cannot be solely placed on EdTech innovators, but requires a systems change at government level. Without proper policy measures

and government support, education inequality could potentially deepen further through the digital divide.

EDUCATION FOR RURAL, REFUGEE, AND MINORITY CHILDREN

The fifteen innovations highlighted in this report address the complex barriers marginalised children face in Bangladesh. The majority of ethic minorities in Bangladesh are located in the border regions. They struggle to access quality education due to their rurality; 5.6% of the population are economically marginalised due to living in extreme proverty. Young people often leave education after the primary years to look for job opportunities that do not necessarily require an education, leading to a cycle of poverty.²²

Bangladesh hosts nearly one million Rohingya refugees from Myanmar, making it one of the largest and most prolonged refugee situations in the world. This situation has made a significant impact on Bangladesh's infrastructure; in particular, the camps are causing significant environmental damage.²³ Since the influx of refugees in 2017, following a dramatic increase in violence towards Rohingya in Myanmar, humanitarian organisations have worked alongside the government of Bangladesh to

provide aid to the refugee population.²⁴ The Bangladeshi government's aim is that Rohingya families will be repatriated to Myanmar, and therefore children should be taught in their own language ready to reintegrate.²⁵ However, In Myanmar, the Rohingya population were routinely blocked from formal education, leading to educated Rohingya setting up makeshift schools to teach students. It is currently not known when it will be safe for the Rohingya population to return to Myanmar and what education awaits them there. The Rohingya population has consistently faced barriers to gaining a quality education.²⁶

Zahid Mahmood, Global Advocacy and Representation Advisor for Street Child (Last Mile Learning - see page 56 for further details), notes that despite facing its own educational challenges, Bangladesh has accepted hundreds of thousands of refugees, among them children who also need access to education, bringing along their own unique set of needs. Of the 742,000 Rohingya who fled to Bangladesh in 2017, half of them were children, over 400,000 of whom are school-aged and in need of access to education alongside humanitarian relief.^{27,} A challenge innovations working with Rohingya children face is the language barrier. Rohingya is a spoken language, without a standard written version; this further complicates innovators' work in the camps.²⁸

Sixteen percent of children aged 3–14 and 81 % of adolescents aged 15–24 have no access to education in the refugee camps.²⁹

As noted by John Littleton from the selected innovation 'Connection Beyond the Camps: Digital Education for Rohingya Refugee Children' (see page 48 for further details), one of the biggest challenges is understanding what skills they should be teaching to Rohingya children, as their futures are currently unknown.

Five of our 15 selected innovations for this Spotlight work with Rohingya communities.

EDUCATION REFORM

Nearly half a century ago, Bangladesh stepped in as an independent state to deal with many challenges, a literacy level of barely 18% among them.³⁰ Education was not something accessible, especially to girls and children from rural areas, and, as a prerogative for the urban elite, was even considered irrelevant to the common masses.³¹ Thus, in the initial years of Bangladesh's independence, education policies were targeted towards improved access to basic education for every child, stressing girls' and rural education opportunities.³² The effort continued with the government launching of the Education for All (EFA) initiative in 1985, targeting gender inequality at school level and ensuring education for the needy, unemployed, minority, and other disadvantaged groups.³³

With the passing of the Compulsory Primary Education Law (1990) and implementation of the Female Secondary School Assistance Program (FSSAP) in 1994, primary school enrollment drastically and consistently climbed up, simultaneously closing the gender gap in enrollment and doubling the gross enrollment ratio.

"They are the world's largest stateless people, and so they are going to have to take the lead in determining their [own] future. I think the best way to do that is to address this issue of education, to give them the skills to advocate for themselves. Hopefully we can give them the best possible tools for their future and the ability to negotiate their future."

- John Littleton, Children on the Edge

Furthermore, the gross enrollment ratio for girls has more than tripled, from 13.6% in the 1990s to 46.9% in 2000.³⁴ In early 2010, with net enrollment hitting near 90%, focus shifted from universal primary education towards the quality of the education and improvements in teaching outcome. In 2010, Bangladesh issued a National Education Policy that would work as a strategy to counter existing problems. This revised education system would be, according to constitutional directives, pro-people, easily available, uniform, universal, well-planned, science oriented, and of high standard.³⁵

Historically, Bangladesh's main source of economic growth has been the ready-made garment industry and remittances made by citizens working abroad, with these sectors being dominated by an unskilled workforce. The Bangladeshi Government sees this as unsustainable and recognizes the need for skilled labour, therefore prioritising educating its citizens.³⁶ The resulting educational reform is focused on creative rather than rote learning, allowing students to understand a topic rather than memorise it. However, with current and present challenges of classroom practice, availability of resources, and teacher preparedness and capacity, students now require additional support in learning and acquiring such competencies. As a part of Bangladesh's commitment to improving education, in 2020 it published its "Education Sector Plan." The focus of this reform is access and equity, quality and relevance, and governance and system management. The biggest changes are seen in curriculum

"In developing countries, there is this realisation now that education is the answer, and so we see these communities hungering for access to education."

- Shafiq Khan, President of ELAN

(see page 52 for further details on this innovation)

content and the way in which students are assessed.³⁷ Although Bangladesh is making continuous progress, class sizes still remain large, education facilities are under-resourced, and quality of education remains a central issue.³⁸

EdTech Sector in Bangladesh: Digitalisation of Bangladesh

Improving educational attainment through technology has become a key priority in Bangladesh, due to the promise it has shown globally in breaking educational barriers. However, the ability to access EdTech

"Bangladesh has a huge education sector and EdTech is the fastest way to reach [teachers and students]. It would be unfair to not utilise this great resource in this day and age."

Azwa Nayeem, Founder & Chairperson,
 Alokito Teachers

(see page 40 for further details on this innovation)

relies on student access to technology, a potential challenge for the government of Bangladesh. In rural areas, only 53.7% of females have access to mobile phones, compared to 84.7% of males.³⁹ It is therefore equally important that EdTech innovations working in Bangladesh ensure that this gender disparity is not magnified by the use of technology as the predominant platform. Bangladesh's State Minister of Information and Communication Technology Division, Zunaid Ahmed Palak, believes that in less than twenty years, Bangladesh will be able to provide the digital infrastructure needed to make digital education accessible to all.

"By 2041, we are moving forward with the goal of providing 100% highspeed internet, 100% 5G smartphones, 100% inclusive and cashless economy and 100% green industry based on ICT. In addition, importance should be given to educating students and teachers digitally."⁴⁰

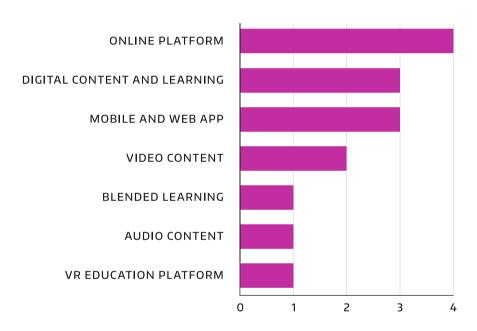
DEFINING EDTECH IN CONTEXT

EdTech Hub defines EdTech as "technologies — including hardware, software, and digital, television and radio content — that are either designed for or appropriated for educational purposes" and encompass

the "use of information and communication technologies (ICT) at any point within the education system – in ministries, schools, communities, and homes – including between individuals and for self-learning."

There are varying types of EdTech; audio (radio), blended learning, mobile, online learning, visual (video/television) and virtual reality. The selected innovations for this Spotlight predominantly focus on online learning, followed by digital learning tools, and mobile apps.

SELECTED INNOVATION BY MODALITY



During the Covid-19 pandemic, which caused the sudden closure of schools around the world, the use of EdTech accelerated. However, a consequence of this has been that education inequalities have widened.⁴² Lack of access to and wariness of technology have left many in rural areas falling behind.

"This is not rocket science. It is not hard. It is the mindset of the people that we need to change. We've seen that people were open [to the idea of virtual learning] when there was Covid, because everyone was at home. So, it is already a proven model."

- Korvi Rakshand, Digital School Program

(see page 50 for further details on this innovation)

STATE OF EDTECH IN BANGLADESH

Although there is a lack of comprehensive data available to make accurate estimation of the EdTech market in Bangladesh, in 2021 it was estimated to grow to 10% of the market share in the education market in the years following Covid, which is a significant and rapid increase from the 5% prepandemic. By 2025, the market is expected to reach 700 million USD.⁴³ This is a result of various government measures promoting development of the sector, improved internet penetration, and embracing of technology in education.⁴⁴ While in previous years the main target group of EdTech companies was students from higher education institutions, more and more EdTech innovations debuting during and after the pandemic address the educational needs of all types of stakeholders in the basic education sector. This Spotlight contributes to identifying those EdTech innovations that are being impactfully implemented to directly address and support the learning needs of children, as well as supporting such education stakeholders as educators, parents, and communities coming from varying social and economic situations and have great potential for scalability.

CHALLENGES

Despite the plethora of advantages EdTech can offer, it faces shortcomings both in terms of adoption and implementation in developing countries. Given the planned obsolescence of technology, especially smartphones, tablets and laptops, it is worth exploring whether EdTech is a sustainable medium of reaching students long term, especially those in developing countries.

Access to technology is a prerequisite of EdTech, yet in many countries it is not a given that students or their family will own a computer, tablet, or phone. The suggestion of initiatives using refurbished iPods and other similar mediums, although offering a short-term solution, will fall short of providing students with long-term access to digital education. In order to overcome this digital divide, innovations will need to invest in devices that are designed for longevity and provide regular technological assistance. Technology changes rapidly, which means that EdTech innovations will need to consistently adapt to stay up to date and relevant. This will not necessarily be cost-effective for small-scale innovations to do on a regular basis, with the implications not just affecting the innovation, but the technology students use and the skills they need to access it.

Often, those small-scale innovations are better at targeting the learning needs of the local children or addressing the challenges of the community; supporting them through robust policies, as well as through better legal and financial support, is paramount.

A lack of consistent access to electricity, as well as other infrastructure issues, are a challenge many students face, especially those in rural areas. Given that not all students have access to technology, there is also the challenge of providing students with the basic skills they need to operate devices and access educational platforms. The planned obsolescence of technology, in particular, phones and tablets, creates a vast amount of electronic waste, and calls into question how EdTech innovations fund the upkeep and replacement of the technology needed to access their work.⁴⁵

However, it is also worth noting the positive effect EdTech has on the environment, such as fewer printed textbooks, and that many of the innovators we interviewed noted that EdTech saved students and teachers a lot of time and money, as they no longer have to commute long distances.

"We face quite a lot of traffic jams in our country, and it's the one of the most common challenges in our region. We can mitigate city traffic by offering a possibility of digital learning. And also we can think about all the resources that can be saved by implementing e-learning resources."

 Alvi Ahmed, Co-founder and CEO of Mathtronics.

(see page 58 for further details on this innovation)

ENABLING ENVIRONMENTS

"If carefully used, EdTech can help reach learners marginalised by poverty, gender, language, disability, displacement, and being out of school."⁴⁶

So, how can EdTech help to address these challenges? Teachers can improve learner outcomes through efficient, confident and knowledgeable use of EdTech solutions. By providing enabling environments, EdTech could be leveraged to address problems that would be too costly or resource-intensive to solve through other channels.⁴⁷ For example, BRAC Play Labs is an innovation that provides vibrant, fun play spaces for children aged three to five to learn, heal and thrive (see page 42 for further details on this innovation). During the Covid-19 lockdowns, BRAC adapted their model for accessible low-tech remote learning modalities, helping children build better futures at a crucial stage of their development.

EdTech also has the potential to address the specific needs of students through personalised learning. However, the success of EdTech in Bangladesh and whether it should be used remains a political question for those in Bangladesh.

BANGLADESH'S BLENDED LEARNING STRATEGY

Bangladesh is seeking to implement a nation-wide blended learning strategy. Blended learning is a combination of face-to-face and online learning, which has become increasingly popular due to the need to personalise learning. It allows students to reflect on their work and allows for differentiated instruction.⁴⁸ "The Policy for Blended Learning in Bangladesh," which was put into place in 2022, defines blended learning as "... a learning design that strategically, systematically, and effectively integrates a range of face-to-face, online, mobile, distance, open, social, radio, television and other technology-enhanced learning across physical and virtual environments." ^{14,9}

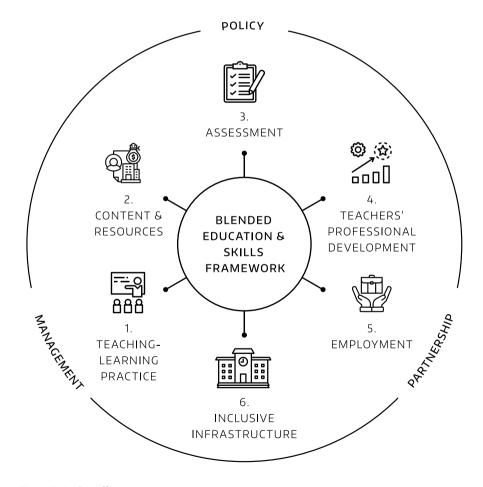


Figure 2: Credit a2i50

The Blended Education Accelerator (BEA) has been established to aid Bangladesh in reforming its education system. It is a national public-private collaboration that brings stakeholders (students, teachers, parents, administrators, and policymakers) from across K12 together to improve education for the next generation of students.⁵¹ BEA focuses on three main areas of facilitation: user interaction, global knowledge exchange, and education innovation. There is also a push for blended learning to ensure that Bangladesh is prepared to educate its students in the case of another global crisis.⁵²

Bangladesh's Minister of Education, Dipu Moni, has called on everyone to work together to implement blended education:

It is not possible to face the new challenges of education in the 21st century only with traditional education. Everyone has to work together to bring changes to the education system in the new era. Blending the education system is a part of this change but so is everyone working together on this journey of change. Our aim is to pave the way to build a smart Bangladesh by creating a smart education system through the collective efforts of all. That's why everyone should believe in this mission-vision and work forward ⁵³

ASPIRE TO INNOVATE (a2i)

a2i is a public service agency supported by the UN and USAID, which has been supporting the Bangladeshi Government in its aim of building a digital nation. a2i has been providing technical support to the Education Ministry to adapt a PPPM strategy to facilitate learning and teaching from home.⁵⁴ In education, a2i looks at how best to leverage new technologies and education innovations to improve the quality of learning in Bangladesh. Its objective is about prioritising "ICT-led innovation to make education more enjoyable, accessible, and available... while enabling teachers to share and co-create content".⁵⁵ It focuses on four areas:

- 1. To create a more enjoyable environment in the classroom through the use of technology.
- 2. To develop an online space for teachers to upload, share, extract, and comment on multimedia content.
- 3. To develop a national e-learning platform to promote learning anywhere, anytime, by anyone.
- 4. To ensure that every single visually impaired person has access to education content.

This strategy aims to address the challenge of reaching marginalised communities and learners. In order for the Blended Learning Policy to be successful, it needs the following: key elements, enabling factors, high-and low-tech blended learning solutions, and to fully address learning needs through a thorough understanding of the learner context.

So far, the strategy has enabled the government of Bangladesh to adopt the Private-Public-People-Media (PPPM) strategy, helping to cultivate a significant and positive change in the mindset of both learners and teachers. 56

Chapter 2: Collection of Voices

Behind each of the innovations are innovators and adopters who are making changes to education globally. We interviewed the selected innovators to hear more about their work and gain a better understanding about EdTech in Bangladesh as well as globally. Here, we share some of their insights about how their innovations form a foundation to build a brighter future. These pages present a snapshot of the things that the HundrED innovators in this Spotlight are thinking about this year. We also took the opportunity to speak to our HundrED community of Ambassadors to gain their insights on EdTech from a global perspective, and collected voices from the field by speaking to three teachers who have worked/work in Bangladesh. These are presented to showcase a diverse range of contextual perspectives on EdTech.

1. WHAT VALUE DO YOU SEE EDTECH INNOVATIONS BRINGING TO EDUCATION/LEARNERS/TEACHERS?



"Through Remote Play Labs' innovative application of a basic technology, learners who otherwise would not have access to quality early childhood development opportunities can access playful learning opportunities and psychosocial support while their caregivers learn about early learning and mental health during weekly calls, setting kids up for success at a crucial time in their development."

– Rafiath Rashid Mithila, Head of Early Childhood Development, BRAC Play Labs



"People are much more tech savvy than we think they are and teachers are ready to learn. The common refrain is that teachers do not have time. It's true teachers do not have time. And why do they not have time? Because we are giving them too much admin related work to do. Rangeet is trying to do all that admin work for them, fast and easily, so that they can focus on the joy of teaching and focus on seeing progress and results in their children."

– Simran Mulchandani, CEO and Co-founder, Rangeet



"Through Teacher's Portal's free online resources, they [the teachers] can learn about content development, as well as how to take care of not only their students, but also take care of themselves, their own well-being."

- Zunaira Khan, Young Professional at the Future of Education Team, a2i, Teacher's Portal



"In a couple of years, there will be more digital classrooms, and there will be more trained teachers. The curriculum is changing. So things are moving in the right direction and I think we are here at a very good time. In the next few years I do see a big push in that right direction where the quality [of education] improves."

- Zareen Hosein, Co-founder, Cholpori



"We thought that if we bring something online and make it available for everyone, everyone can learn from what BYLCx has to offer."

- Anowar Sadat, Deputy Manager, BYLCx



"EdTech improves learner engagement, increases access to learning materials, enables personalised instruction, and develops 21st-century abilities. Additionally, they assist instructors in streamlining administrative processes, offering data-driven insights and enabling more productive teaching strategies."

- Jaohar Nusrat Bina, Young Professional at the Future of Education Team, a2i, Konnect



"Digital will do for learning what the internal combustion engine did for transportation--propel it to great new heights that were unimaginable earlier."

Shafiq Khan, Founder and CEO, Teach the World Foundation, ELAN

25



"The response to the [audiovisual] lessons was really incredibly positive, not just from the students but also from the teachers, because the teachers have been given textbooks in English and Burmese...in actuality these were not languages that they are versed in... they could not fully really read or write in either of them. So when we do the audiovisual lessons, it is illuminating for the teachers, because the teachers are then understanding the lessons as well. It has really opened the door for our teachers and the response from them has been nothing but positive."

 John Littleton, Asia Regional Manager, Children on the Edge, Connection Beyond the Camps:
 Digital Education for Rohingya Refugee Children



"There was a sort of recognition that it [teaching] does not have to be perfect and that it can be different from classroom to classroom. We are not all striving after some sort of magic, silver bullets of the perfect lesson and that's what the videos have served very well in disrupting that mindset. They're not perfect, they're not demonstrating exemplary practice. They are demonstrating something that's worked for a teacher at that moment in their context and the idea is that other teachers will think, yeah, I could do that."

 Kris Stutchbury, Senior Lecturer in Teacher Education, The Open University (The Trainer in your Pocket)



"I see the vast potential of EdTech innovations in shaping the world's education system while ensuring access and quality in the remote and challenging context of the world."

– Farvis Alam, Educator and Education Development Professional, Based in Cox's Bazar, Bangladesh



"EdTech innovations hold immense promise for education, learners, and teachers...worldwide. They facilitate personalised learning experiences, which can help address the diverse learning needs and varying paces of students. EdTech also extends education's reach, bridging geographical gaps and making learning more inclusive. Furthermore, it empowers teachers with resources and tools to enhance their teaching methods, making education more engaging and effective. With learning gaps widening annually within the West African region, and other regions with a similar context, EdTech remains the single most effective tool to be used to narrow the existing gaps and advance inclusivity for all."

Noble Dzreh, CPD & Membership Associate,
 Ghana Society for Education Technology &
 HundrED Ambassador, Ghana



"EdTech innovations bring immense value to education by enhancing accessibility, flexibility, and personalization. They can adapt to various learning styles and needs, providing students with tailored learning experiences. Furthermore, well-designed, tested and evidence-based EdTech initiatives enable educators to track progress, identify areas for improvement, and engage students more effectively, fostering a more engaging and productive learning environment for ALL children."

Md. Abdul Malek, Manager of Strategic
 Partnerships & Resource Mobilization at BRAC & HundrED Ambassador, Bangladesh



"The inclusion of EdTech in the education system is revolutionary. It makes education so convenient that we can easily find any information sitting at any corner of the world. Students can get access to a lot of study materials. Also, it's a blessing for a special child who cannot study in a typical classroom. There are lots of varieties of study materials available for them. Also, it makes studying enjoyable for students. They learn by seeing and hearing."

Jannatul Ferdous, former Junior School Teacher at Quest International School, Bangladesh



"EdTech innovations fosters learning experiences, it helps to solve real life education problems and improve teaching and learning. Learners get the opportunity to collaborate using various tools, simulations and techniques. Teachers can strategically plan and coordinate activities and track progress."

Purvi Parekh, IB Primary Educator & HundrED Ambassador, India



"EdTech makes education more accessible by letting students access resources and courses from anywhere with an internet connection, which is crucial for remote learners. It can also adapt to different learning styles and rates, and interactive elements in EdTech can boost student engagement and motivation by making learning more fun and engaging."

Khandakar Imdadul Haque Sohan, Lecturer,
 Department of Education and Training, Asian
 University of Bangladesh, Bangladesh



27

Photo by Nerdiz.

2. WHAT BARRIERS DO YOU THINK EDTECH INNOVATIONS WILL FACE?



"EdTech innovation culture means you are constantly moving forward very fast to address big challenges. It is important to be team oriented and look after one another's wellbeing." 8

 Muzzammil Patel, Senior Manager Research and Evaluation, Teach the World Foundation (ELAN)



"For smaller organisations funding is a key challenge."

 Azwa Nayeem, Founder & Chairperson, Alokito Teachers



"EdTech innovations face barriers in digital accessibility, equitable access, teacher training, and data privacy on their path to revolutionising education."

- Alvi Ahmed, Co-founder and CEO, MathTronics



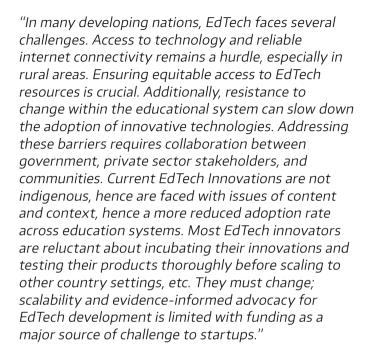
"One of the challenges around educational innovation is that funders inevitably want quick results, yet it takes time to create and show impact."

 Kris Stutchbury, Senior Lecturer in Teacher Education, The Open University (The Trainer in your Pocket)



"We were facing a lot of struggles...So over time, we had to create a feasible deployment strategy of how we reach out to our customers, how we reach out to our beneficiaries and who is going to pay for us, pay for the services, because that's how it's going to be sustainable, that's how it's going to reach a scale."

- Pradeepta Kumar Saha, Founder, Nerdiz



Noble Dzreh, CPD & Membership Associate,
 Ghana Society for Education Technology &
 HundrED Ambassador, Ghana



"EdTech innovations may face several barriers, including infrastructural limitations in remote and underdeveloped areas, affordability concerns, and the need for digital literacy among educators, parents, and students. Additionally, ensuring data privacy and security is crucial to maintain trust in these technologies. Overcoming these challenges requires collaboration among stakeholders and government support."

Md. Abdul Malek, Manager of Strategic
 Partnerships & Resource Mobilization at BRAC & HundrED Ambassador, Bangladesh



"The main barrier is the financial issue. Not all students and their families can afford smart devices like mobile phones, computers, etc. Also, not all the teachers are properly trained on how to use Edtech effectively. Government also needs to take proper steps to make the EdTech innovations more effective."

 Jannatul Ferdous, Junior School Teacher at Quest International School, Bangladesh



"There are too many applications and options, which is equally a benefit and drawback."

 Purvi Parekh, IB Primary Educator & HundrED Ambassador, India



"While working with EdTech interventions, I found it challenging to implement it in contexts where the internet is not good and the teacher/learner does not have good device access. Additionally, technological literacy and end-users' economic background can be big challenges"

Farvis Alam, Educator and Education
 Development Professional, Based in Cox's Bazar,
 Bangladesh



"There is a certain degree of reluctance among educators, students, and parents when it comes to embracing technology-based learning, as they may prefer more conventional classroom environments. Furthermore, the occurrence of technical glitches, connectivity issues, and platform outages has the potential to hinder the learning process and cause frustration among both educators and students."

Khandakar Imdadul Haque Sohan, Lecturer,
 Department of Education and Training, Asian
 University of Bangladesh, Bangladesh



29

Photo by Teachers' Portal.

3. WHAT IMPACT DO YOU THINK THE COVID-19 PANDEMIC HAS HAD ON THE RISE IN EDTECH INNOVATIONS?



"We work quite closely with Rohingya refugees through our education initiatives- when Covid hit. we realised that there were 400,000 Rohinava refugees who would be unable to continue education, due to the closure of face-to-face teaching. We suddenly had to come up with innovative solutions- and when you think of a low resource environment like Banaladesh, not evervone is going to have digital accessibility- no smart phone. So, with no physical face-to-face teaching, no smartphones. no laptops. no other device- what was the most cost efficient and easiest solution? And it was at this point where we reached, an MP3 player with pre-recorded content. We then thought, okav. we have an MP3 player, we are in a refugee camp, how would we charge the device? Again, we had to find a solution to that. Thinking simple but innovative, we looked to the sun, and thought, there's the solution, let's have a solar powered MP3 player. And there we have, an innovative but simple solution."





"I actually think that Covid was a catalyst, and has shed a harsher light on the problems that already existed...the needs before and after covid are the same... but now everyone has sat up and taken notice of the problems."

– Simran Mulchandani, CEO and Co-founder, Rangeet



"The COVID-19 pandemic has accelerated the transformation of education, pushing educators, students, and EdTech companies to think creatively. As schools and universities worldwide had to adapt to remote learning, EdTech firms were forced to innovate at an unprecedented pace. This fast-paced evolution of EdTech not only made education more accessible during the pandemic but also redefined the future of learning itself. It demonstrated how technology can enhance teaching and learning experiences by removing barriers and providing options for personalised education."

- Mobin Sikder, Founder, Science Bee



"We found during Covid that many people reached out to us. Before Covid people did not think our innovation would work and laughed, however, the pandemic and subsequent lockdowns showed that we were the only solution for teaching children, as many schools could not convert to distance learning. We were doing live classes and broadcasting them through Facebook, so that hundreds and thousands of students could watch."

- Korvi Rakshand, Digital School Program



"The Covid-19 pandemic has played a vital role in the EdTech revolution worldwide. It's also the same in Bangladesh as well. Students and guardians are now familiar with online classes, Zoom meetings. Also they are now familiar with using online study materials."

 Jannatul Ferdous, Junior School Teacher at Quest International School, Bangladesh



"The Covid-19 pandemic had a profound impact on education. It accelerated the adoption of EdTech solutions, as schools and universities transitioned to remote learning. While this highlighted the potential of EdTech to ensure continuous education, it also exposed the digital divide, with not all students having access to necessary technology and internet connectivity. The pandemic reinforced the need for policies that promote digital inclusion and resilient education systems."

Noble Dzreh, CPD & Membership Associate,
 Ghana Society for Education Technology &
 HundrED Ambassador, Ghana



"The Covid-19 pandemic has accelerated the rise of EdTech innovations by highlighting the importance of remote learning and personalised learning for exceptional circumstances, like this pandemic, natural calamities like floods, tropical cyclones in climate-vulnerable countries like Bangladesh. With schools and educational institutions forced to close temporarily, there was a rapid shift towards online education platforms. This crisis catalysed EdTech adoption, underscoring its potential to provide continuity in education during unforeseen disruptions."

Md. Abdul Malek, Manager of Strategic
 Partnerships & Resource Mobilization at BRAC & HundrED Ambassador, Bangladesh



"It has helped to shift the entire system into a digital mode, providing many options to pursue education with ease."

 Purvi Parekh, IB Primary Educator & HundrED Ambassador, India



"Covid-19 had a great positive impact on raising EdTech innovations, and the world clearly understood that we can use, teach, [and] learn through technology as well with distance learning."

Farvis Alam, Educator and Education
 Development Professional, based in Cox's Bazar,
 Bangladesh



"Remote learning solutions were needed immediately to continue education during lockdowns and school closures. EdTech companies provided online platforms, virtual classrooms, and digital resources to close the gap. The pandemic accelerated hybrid learning models, which combine in-person and online components. This flexibility will likely remain in education. EdTech generated massive amounts of student performance and engagement data that could be used for data-driven decision-making and learning improvement."

Khandakar Imdadul Haque Sohan, Lecturer,
 Department of Education and Training at Asian
 University of Bangladesh, Bangladesh

Chapter 3: Methodology

The Selection Process

Inspired by Everett M. Rogers' classic book Diffusion of Innovations, we use the following definition for innovation in education:

"Innovation in education can be defined as meaningful improvements considered within the place of implementation to a new or modified practice and/or technology that supports any part of the educational ecosystem (for example, skills, teachers, assessment, environment and/or systems, and leadership)."57

To progress through each evaluative phase, all innovations must have demonstrated evidence of impact and scalability to the reviewers using the following definitions:

- **IMPACT:** Evaluated as a valuable improvement within Bangladesh. All innovations must have at least one year of being implemented with their intended users.
- SCALABILITY: Either the innovation is actively expanding to other contexts or has a high degree of transferability for others to adopt its practice/technology.

To identify thematic relevance, the following definition will be applied:

broadly as technologies that are used for educational purposes. By technologies, we refer here to artefacts and devices, activities and practices, as well as the organisations that develop around these devices and practices. EdTech artefacts include high- and low-tech, analogue and digital resources, for example, hardware, software, and digital content, as well as devices like radio and television.

"Innovation in education can be defined as meaningful improvements considered within the place of implementation to a new or modified practice and/or technology that supports any part of the educational ecosystem (for example, skills, teachers, assessment, environment and/or systems, and leadership)."

– Everett M. Rogers, Diffusion of Innovations, 2013.

PHASE 1 - DISCOVERY

The first phase involved the discovery of leading innovations by HundrED's Research Team, our partner EdTech Hub, and HundrED's Global Community. The search was aided by surveys, interviews and indepth online research.

Discovery activities by the HundrED Research Team included:

- 1. Conducting targeted outreach and personalised applicant support to potential submissions;
- 2. Mobilising the HundrED Community (it is essential to have our local eyes and ears on the ground, recommending and reporting about the best practices and solutions, especially in locations that are difficult to get access to, such as rural schools and regions with limited internet);
- 3. Engaging in other research activities such as speaking with experts in and out of education, studying academic and non-academic texts such as peer-reviewed journals and blogs; and
- 4. Highlighting innovations from previous years' Global Collections and relevant Spotlights.

Those innovations from the previous collections/Spotlights were added to the pool to be reviewed along with the recently discovered innovations.

During this discovery phase, 168 submissions were received.

PHASE 2 - SHORTLIST

In this phase, HundrED's Research Team and Spotlight partner, EdTech Hub, thoroughly reviewed each innovation for thematic and regional relevance, and for impact and scalability. During the review process, the aforementioned definitions were used for innovation, impact, scalability, and EdTech. To be selected for the shortlist, each innovation was required to demonstrate impact and scalability using the following Standards of Evidence. For this particular Spotlight, we shortlisted 32 innovations to be reviewed by the Advisory Board in the next phase.

Impact

Measurable change/improvement within the context for at least 1-year.

Scalability

Actively expanding to other contexts or high potential of transferability.

LEVEL 5

VERY HIGH – An independent source verifies the demonstrated measurable improvement.

Example: They provide data from independent research evaluations in collaboration with Universities, Research Institutes or organisations that conduct external impact evaluations.

LARGER SCALE IMPLEMENTATION – An independent source or sources verify the initiative has been implemented by others on a larger scale.

Example: They provide data from independent research evaluations in collaboration with Universities, Research Institutes or organisations that conduct external impact evaluations in several contexts.

LEVEL 4

HIGH – An internal study provides evidence of the large measurable improvement.

Example: They can demonstrate research analysis of the data and evidence they have collected in the form of Innovations' Impact reports, annual reports, presentations, and powerpoints.

IMPLEMENTED ELSEWHERE – The initiative can be implemented in more than one setting and/or with different groups with at least the same impact. Documentation supports implementation.

Example: The innovation has been implemented in more than one school, district, region or country and it provides documentation that supports implementation (user manuals, curriculum materials, replication models, teacher training materials).

LEVEL

3

MODERATE – A reasonable explanation describes the initiative and supports attribution of a measurable change, but they cannot prove they have caused it.

Example: Innovation page includes data that shows improvement (social media posts, video content, testimonials), but they cannot prove they have caused it.

WELL DOCUMENTED – Documentation exists about how the initiative is implemented and is comprehensive enough to enable implementation with different groups or in other settings.

Example: The innovation provides documentation on how this innovation has been implemented in one context. It includes user manuals, curriculum materials and replication models, as well as it integrates teacher training as a process for consistent replication.

LEVEL

2

LOW – A logical plan describes the initiative and its objectives, target and outcomes.

Example: Innovation page and website convincingly describes what the initiative does and why it matters.

COULD WORK – Documentation describing the implementation of the initiative in one setting exists.

Example: A reasonable explanation describes how the innovation is implemented in practice.

LEVEL 1

UNKNOWN – The design of the initiative or the quality of the data is not sufficient to measure impact.

Example: Innovation page or website does not include enough information to measure impact.

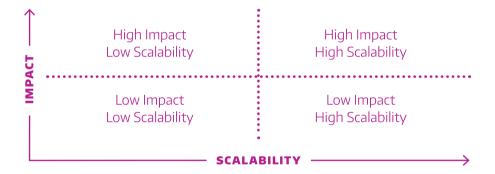
UNKNOWN – Insufficient documentation exists on the initiative.

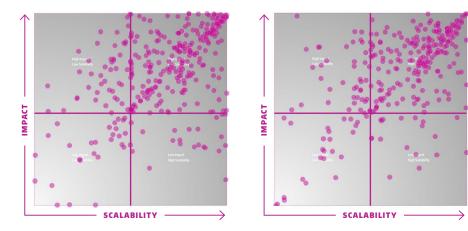
Example: Innovation page or website does not include enough information of how the initiative is implemented in practice.

PHASE 3: SELECTION

We believe that a diversity of perspectives from a wide range of contexts is fundamentally important to our selection process. Thus, for each Spotlight, HundrED, in collaboration with the Spotlight partner, recruits and forms an Advisory Board to review the shortlisted innovations. The selection process of the Advisory Board for the Spotlight was conducted carefully by both HundrED and the EdTech Hub to ensure that they support our mission to help every child flourish in life. We also sought a range of experienced stakeholders in education who would offer valuable perspectives on EdTech innovations in the context of Bangladesh.

The selected Advisory Board for this Spotlight consisted of 28 experts in education from 15 countries across the world including academics, innovators, teachers, students and leaders (refer to Appendix B for further information on the members of the Advisory Board). They





reviewed the shortlist of innovations over a two week period in June 2023 and extended their wealth of knowledge on a global and local scale to make recommendations towards the final selection of the most impactful and scalable innovations for the Spotlight.

The Advisory Board Review tool

Step 1: During an innovation review, the factors of impact and scalability were plotted on a graph by each Advisory Board member using HundrED's review tool, which is divided into four quadrants. We were looking for innovations that the majority of Advisory Board members plotted in the top right quadrant: highly impactful and highly scalable. This step provides us with quantitative data to measure the average score of impact and scalability for every innovation.

Step 2: Each reviewer also provided specific comments about each innovation that explained their evaluation on our review tool. This step provides us with qualitative data to understand how impactful and scalable an innovation would be if implemented in each Advisory Board member's context.

The 32 shortlisted innovations were divided into two batches to facilitate the Advisory Board review process. The plots on the graphs above represent reviews for all of the shortlisted innovations in this Spotlight. A total number of 423 reviews were completed and ranked from the most favourable responses to the least. Plots and review comments made by the Advisory Board members were carefully considered when making the final selection in the next phase.

PHASE 4 - SELECTION WORKSHOPS

In this last phase of the selection, the HundrED Research Team and EdTech Hub participated in a structured workshop where innovations were selected to be highlighted in this Spotlight. The challenge in this phase was achieving a balance of approaches and contexts in the final collection. In the workshop, Advisory Board reviews were considered, while aiming to cover a diverse range of: (a) effective approaches to promoting accessibility, (b) target groups, and (c) educational contexts and modality.

As a result of this carefully phased process, 15 innovations were selected as highly impactful and scalable EdTech innovations in Bangladesh. Those 15 innovations are presented in the following chapter.

LIMITATIONS AND FURTHER RESEARCH

This Spotlight's methodology, as in previous years, is not without its limitations. There are a plethora of innovations working in this sector, yet it is impossible to ask each innovation to apply, therefore the selected innovations have been categorised as of a high standard compared to other innovations that applied to this Spotlight. Language barriers are a sector-wide issue, and a complex factor to mitigate. At HundrED we are aware that having an English language website and research reports impacts how those in the global education sector hear about our work and access our resources. The submissions we receive and the way in which we review innovations, as well as the fact that our Advisory Board must also have a good understanding of the English language when they are reviewing innovations, further limit the innovations we are able to highlight.

In this Spotlight, it therefore proved difficult to have an Advisory Board that fully represented Bangladesh. While all the Advisory members were from countries in close proximity, only three members were actually from Bangladesh. This may be due to language barriers, the time difference, and a lack of understanding of HundrED and its mission on the part of potential participants. However, this Spotlight improved HundrED's presence among innovators and educators in Bangladesh, and in upcoming collections we expect better representation of innovations from that country.

In putting together this report for the HundrED's Spotlight on EdTech: Bangladesh, we relied on the expertise of our partners and publicly available and reliable documents as sources of information to guide us on the Bangladeshi context. HundrED highlights real world examples of good practice in education, and innovators expertise is at the core of what we do. This is why it is important we collaborate closely with our partners during Spotlights.

In this Spotlight, we highlight highly impactful and scalable EdTech innovations in Bangladesh; however, as mentioned, this does not represent the entire EdTech market in Bangladesh. In order to gain a deeper understanding of EdTech in Bangladesh and to promote it as a tool for education quality reform, further research on the EdTech ecosystem of Bangladesh needs to be done. Such a larger scale study would help us to make sense of interactions between education stakeholders to address challenges and opportunities that arise. It would also be interesting to research the role of EdTech in other contexts with EdTech Hub, for example, Kenya, as well as take a gendered lens on the intersection of EdTech and girls' education.



Photo by Science Bee.

Chapter 4: Selected Innovations

Overview of selected innovations

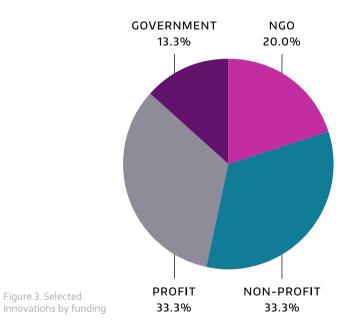
One hundred sixty-eight innovations were submitted to the Spotlight on EdTech: Bangladesh, which were narrowed down to 32 shortlisted innovations, and resulted in a final selection of 15 innovations. An Advisory Board of 28 experts reviewed the innovations.

The selected innovations in this Spotlight range from being implemented in one to five countries, with the majority of the innovations running solely in Bangladesh. The innovation that has impacted the greatest number of learners is 'The Trainer in your Pocket' (see page 68 for further details on this innovation), which has reached 7.4 million school-aged children through their work with teachers.

This year, instead of only including two categories, profit and non-profit, HundrED also allowed innovators to select from from government, multilateral, and non-government organisation (NGO). None of the selected innovations declared having multilateral funding.⁵⁸

The majority of the selected innovations use online platforms to reach learners, followed by digital content and learning and mobile/web apps.

SELECTED INNOVATION BY FUNDING



SELECTED INNOVATION BY MODALITY

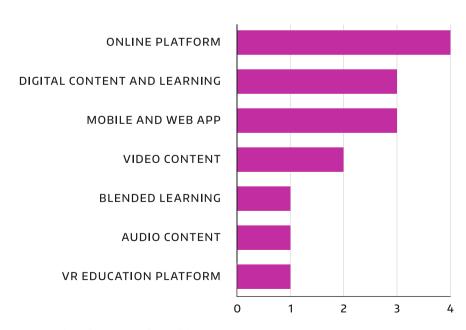


Figure 4. Selected innovations by modality

Figure 3. Selected

SELECTED INNOVATIONS

- 1. Alokito Teachers
- 2. BRAC Play Labs
- 3. BYLCx
- 4. CholPori
- 5. Connection beyond the camps: Digital education for Rohingya refugee children
- 6. Digital School Program
- 7. ELAN **Enhancing Literacy and Numeracy**
- 8. Konnect
- 9. Last Mile Learning
- 10. MathTronics
- 11. NERDIZ
- 12. Rangeet
- 13. Science Bee
- 14. Teachers' Portal
- 15. The Trainer in your Pocket transforming teaching through mobile video



Making quality teaching effortless.

Alokito Teachers

Bangladesh

A one-stop digital platform providing personalised, data-driven, evidence-based teacher development services for K-12 teachers to improve the quality of teaching and education.

2020

548 400

1

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRY

One million teachers in Bangladesh need different types of training every year, but only 28% of the need is met. Even when trained, experts say the training is inadequate. Additionally, based on a focus group discussion with 95 teachers, they said that they need help finding the proper support and resources, especially in the Bangla language.

HOW DOES THE INNOVATION WORK IN PRACTICE?

Our solution is an Effective Teacher Development Plan for schools. This provides personalised services and uses data to capture the impact on teacher performance.

The needs assessment matches teachers with relevant courses and workshops that we developed on our platform. We then conduct class observations to identify how well the knowledge gained translates to practise and provide coaching to help. Finally, we collect data for an impact report. In our pilot, 150 schools sponsored 1600 teachers to complete our workshops and courses and found an 80% improvement in teaching quality. We have online courses and provide both online and in-person workshops. Coaching, class observation, and performance appraisal are in-person.

HOW HAS IT BEEN SPREADING?

In the last two years, we have impacted over 17,000 teachers, trained over 1500 teachers, and built a library of 50 courses and workshops. Next, we want to specifically target the highest-need schools representing 1.2 million teachers in Bangladesh through an affordable membership plan. By next year, we want to transform the quality of teaching in 150 schools and, by 2025, in 500 schools, impacting 5000 teachers and 150,000 students.

Simultaneously, we will refine our existing platform, build more relevant courses based on the needs of the teachers and integrate the data-driven performance appraisal report, which is currently done using free or low-cost online tools. We will also create a pool of class observers from our trained teachers and provide training trainers workshops.

RESEARCH

Advisory Board review sample: Scalability

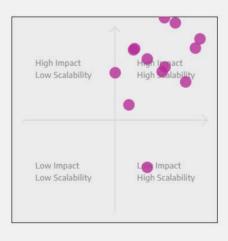
The protocols here are well documented and could work in other learning contexts- assessing the needs, formulating the solution, and supporting teachers throughout the process with their classrooms and long-term learning outcomes.

Advisory Board review sample: Impact

Albeit using simple technological mediums, this innovation is meaningful in a way that it targets teachers - one of most important players in enhancing education for children.

Innovator insight

Teachers are very enthusiastic that there is something different and something new that can help them. They're very eager to try it out.





Facilitating learning, development, and healing through the transformative power of play.

BRAC Play Labs

Bangladesh

Play Labs bring joyful, play-based early learning to young children ages three through five. We know that when children play, they also learn, heal, and thrive. Play Labs combine vibrant, fun play spaces, engaging facilitators, and a love for local culture with an evidence-based curriculum to give all children the early start they deserve. During the onset of Covid-19, BRAC adapted its flagship Play Lab model and Play Curriculum for accessible low-tech remote learning modalities.

2016

115 000

3

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRIES

Research confirms that quality early childhood development (ECD), and particularly play-based learning, can set up a child for lifelong success. But in low-resource contexts, children disproportionately lack quality ECD. BRAC's flagship ECD model, Play Labs, promotes children's development and helps the most vulnerable grow into adaptable, resilient, socially and emotionally literate adults who can navigate the adversities of poverty and conflict later in life.

HOW DOES THE INNOVATION WORK IN PRACTICE?

BRAC equips facilitators from local communities as Play Leaders who lead child-centred activities. The Play Curriculum, designed by international experts in child development, supports children's physical, social-emotional, and cognitive development, and activities are adapted to reflect local traditions and heritage. Play Labs engage communities and empower families with knowledge on ECD. A recent study in Bangladesh revealed that Play Labs improved children's development outcomes, reduced gaps between children's outcomes, and equipped parents with the knowledge and resources to support their children's development.

HOW HAS IT BEEN SPREADING?

In recent years, BRAC has adapted its approach in diverse settings—from South Asia to East Africa, from community spaces to government schools to crisis contexts—to demonstrate the transformative power of playful learning. During the onset of Covid-19, BRAC adapted its flagship Play Lab model and Play Curriculum for accessible low-tech remote learning modalities. The Pashe Achhi telecommunications model in Bangladesh reaches children and their caregivers through 20 minute calls weekly, using a script developed by BRAC's team of play-based curriculum developers and psychologists. A helpline uses interactive voice response messages and live helpline staff to provide caregivers with information and guidance on ECD. Remote Play Labs also deliver play-based learning content over radio stations to reach millions of additional children. Beyond the context of the pandemic, BRAC is continuing to scale its Remote Play Labs in low-resource and hard-to-reach contexts.

RESEARCH

Advisory Board review sample: Scalability

With a transformable curriculum and a distributed approach to using digital technology, this innovation could easily adapt to different geographies!

Advisory Board review sample: Impact

What a beautiful innovation! By letting children learn through play and allowing them to even choose what they want to do, this innovation impacts not only physical motor skills but also their social and emotional skills.

Innovator insight

BRAC's Remote Play Labs use telecommunications technology to disseminate content to learners and caregivers. Many families we work with have limited access to the internet, but the vast majority have at least basic feature phones, so this low tech approach enables us to reach underserved children and families.





Be future ready.

BYLCx

Bangladesh

BYLCx, the online learning academy of Bangladesh Youth Leadership Center (BYLC), is one of Bangladesh's first EdTech platforms focusing on soft skills and job readiness. We empower youths by providing access to 21st-century skills training anytime, anywhere, without charge. Our curriculum is developed in consultation with experts, ensuring our students receive the most relevant and up-to-date materials.

2017

130 000

1

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRY

In Bangladesh, employers say there are not enough skilled candidates; on the other hand, youths say there are not enough jobs for them. We offer solutions to end this dispute by providing free-of-charge and affordable self-paced skill development courses.

HOW DOES THE INNOVATION WORK IN PRACTICE?

We provide free online courses and blended training on job readiness, interpersonal skills, leadership education, and high-demand performative skills. The course completion rate of our platform is over 30%, key evidence that our platform and approach work. We use an easy-to-access learning management system where learners can watch video lessons and submit assessments based on their learning.

HOW HAS IT BEEN SPREADING?

In the last 3 years, over 130,000 students enrolled in our courses. We have already developed over 60 courses with assessments and interactive learning materials. In the next 2-3 years, we want to further create 50 or more relevant courses and reach an additional 100,000 learners. We also aim to connect at least 2000 learners with new jobs and opportunities through the job placement wing of BYLC.

RESEARCH

Advisory Board review sample: Scalability

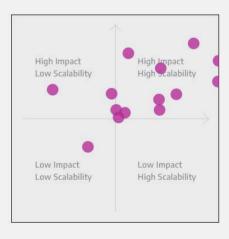
As their program combines both an online learning management system and blended learning with partner organisations, it could work easily in similar contexts.

Advisory Board review sample: Impact

Job readiness programs are the need of the hour as countries experience demographic dividends. This innovation has a high impact as it creates courses in consultation with potential employers, indicating responsiveness to industry needs.

Innovator insight

We are working towards closing the gap between the skills the employers are looking for and skills that youth acquire through their formal education. We are not only benefiting the youth, we are also benefiting the parents and the community as well. BYLCx also provides an opportunity for the teachers to polish their skills, and through them, we can reach more and more young people.



HUNDRED.ORG 4:



Learning Your Way.

CholPori

Bangladesh

We create and deliver quality digital learning materials for 17 million primary school students and teachers enrolled in the Bangladesh national curriculum to improve academic performance and socio-emotional learning. Materials include multimedia lessons, practice sets and e-books. Personalised accounts allow for progress tracking and storytelling is a key component of the teaching methodology.

2020

6789

1

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRY

We created CholPori to tackle low literacy and numeracy rates, and dropping motivation among students and teachers in the school system in Bangladesh. Bangladesh has a very high enrollment rate, with 25 million students in K-8 and 679,000 teachers. And yet, only 3 in 10 students are able to read at grade level and only 1 out of 4 is able to pass the Grade 5 Math examination.

HOW DOES THE INNOVATION WORK IN PRACTICE?

CholPori delivers quality learning content (multimedia lessons, practice sets, reading books) through a personalised and gamified web-app. A guardian can create an account for free to access the materials anywhere and anytime. Currently, the site contains lessons for Grade 4 and 5 for Maths, English and Life sciences and over 50 illustrated books in English and in Bangla. CholPori can be used in class by educators, with a projector, a laptop and Wi-Fi connection. Our pilot studies have shown improved classroom engagement, a boost in student and teacher satisfaction and most importantly, a marked difference in academic performance. The site contains free content and the subscription fee for 12-month access to all content is 3.5 USD per month, which is one fourth of what a junior tutor charges per month.

HOW HAS IT BEEN SPREADING?

Since January 2023, we have 6789 users. In 2023, we have signed agreements with 56 schools, where CholPori will be used in the classroom and the school will pay a monthly fee. We will be studying the outcomes and educators' feedback throughout the year-long partnership. In 2024, we will focus on business to consumer sales and development of a new subject. In 2025, we will release a new feature to allow teachers to create their own lessons and content.

RESEARCH

Advisory Board review sample: Scalability

It is highly scalable as it can be translated into different languages and the idea taken to any part of the world through the use of accessible device technology.

Advisory Board review sample: Impact

The innovation is using digital content to help students to learn and develop socio- emotional learning. To achieve it, they are using multimedia lessons created with storytelling methodology, and that key factor creates significant impact in the children.

Innovator insight

Students are more engaged and more active when teachers enrich their textbook materials with the content we have developed. Our innovation provides an inclusive environment for the children to engage, interact, and learn, but have a little bit of fun while doing it.





Where language creates a barrier to education, our exciting digital lessons bring learning to life.

Connection Beyond the Camps: Digital Education for Rohingya Refugee Children

Bangladesh

Rohingya refugees living in Bangladesh are only allowed to study the Myanmar curriculum in Burmese, a language they do not understand. Children on the Edge creates fun companion video lessons in Rohingya (a non written language) so that over 7300 children and their teachers can finally understand their textbooks, opening up a world of experience and learning for children confined to refugee camps.

2019

7300

2

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRY

Over a million Rohingya refugees live in Bangladesh, unable to return to Myanmar. Only English or Burmese textbooks are allowed in the refugee camps - languages the Rohingya scarcely understand. Consequently, an entire generation of children are at risk of growing up unable to read or write; lacking the basic skills needed to lead a healthy, productive life.

HOW DOES THE INNOVATION WORK IN PRACTICE?

We create engaging video lessons to use in classrooms within Kutupalong camp, on Bhasan Char Island and within host communities in Cox's Bazar. Trained refugee teachers utilise hundreds of videos, shown on portable handheld projectors to teach around 7,300 learners.

Lessons are based on the government-approved Myanmar curriculum and ensure that teachers can follow textbooks and children can understand what is being taught. The videos combine footage of Rohingya teachers explaining concepts with pictures and cartoons that bring subjects to life and make classes fun. To enhance the core curriculum, videos on subjects like health, human rights and culture are shown to allow the children to see aspects of the world that they did not previously know existed, giving them a glimpse into life outside the confines of where they live.

HOW HAS IT BEEN SPREADING?

We only provide 4% of education provision in the camps, but our learning centres are consistently ranked highest by authorities and children. Classrooms have a 96% average attendance rate and teachers continue to describe how children learn and concentrate better with digital lessons, and retain information for longer.

Alongside digital lessons, an online platform – "Moja Kids" – brings weekly student-made digital newsletters to all our classrooms. Children delight in creating and watching the newsletters, giving them a chance to express themselves, share their talents and interact with others. We are expanding this to India so the children can connect with others living in challenging environments.

RESEARCH

Advisory Board review sample: Scalability

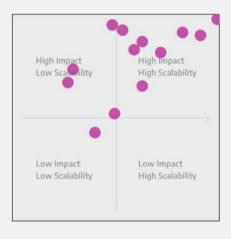
The innovation points out one of the urgent problems we face today. It has the flexibility and potential to be adopted and implemented in various locations worldwide.

Advisory Board review sample: Impact

Children on the Edge is redefining education for Rohingya refugees, providing digital lessons in their native language, enhancing understanding, and making learning accessible and enjoyable, turning linguistic barriers into bridges of knowledge.

Innovator insight

What makes us different perhaps, is that we are trying to find creative ways to make education a possibility in the [refugee] camp.





Bridging the quality gap of education among urban, rural, and hard-to-reach areas.

Digital School Program

Bangladesh

The Digital School Program is an innovative and sustainable solution to deliver quality education using digital classrooms and enabling synchronous and blended learning approaches, exclusively for underprivileged children in rural and hard-to-reach areas in order to mitigate the educational quality gap and break the cycle of poverty through quality education.

2011

5 000

1

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRY

Educational institutions in rural and hard-to-reach areas face several obstacles due to the quality gap, including inadequate resourcing, lack of certified and trained instructors, and high poverty levels which results in high dropout rates. Aiming to bridge the quality gap between rural and urban education, the Digital School Program was initiated to provide quality education to all.

HOW DOES THE INNOVATION WORK IN PRACTICE?

The key components of the program are an ICT-based digital schooling system, a pool of skilled and qualified teachers, a modern, creative curriculum, and digital content designed by in-house experts. The use of an interactive whiteboard, facilities for desktop, document, slide-sharing, video-sharing, and a sketch board makes it sufficiently versatile for an education setting.

The trained teachers deliver their class and conduct interactive sessions with students along with support onsite by two classroom facilitators who assist the children with classwork. As per the assessment report of the program, the data proves that the teaching approach in Digital School is highly participatory in all classes (100%).

HOW HAS IT BEEN SPREADING?

Starting with 17 students in 2007, the Digital School now has over 5000 students and more than 180 qualified teachers in 11 digital schools in 5 divisions of the country. In 2013, only 30 students appeared in the secondary board exam, but the number increased to 365 in 2021 with a passing rate of 100%.

Children, for whom the receiving of basic education was merely a distant dream, are now able to pursue higher education both at home and abroad, and participate in economic opportunities. One student received a fully funded scholarship to study in the USA. The initiative provides a platform for children to build a strong foundation for their growth and development. JAAGO intends to expand its program to colleges and establish residential campuses for extremely disadvantaged children.

RESEARCH

Advisory Board review sample: Scalability

This innovation uses simple video conferencing technology and already existing skills within communities, it has a big potential to be scaled up in disadvantaged regions in collaboration with telecommunications networks.

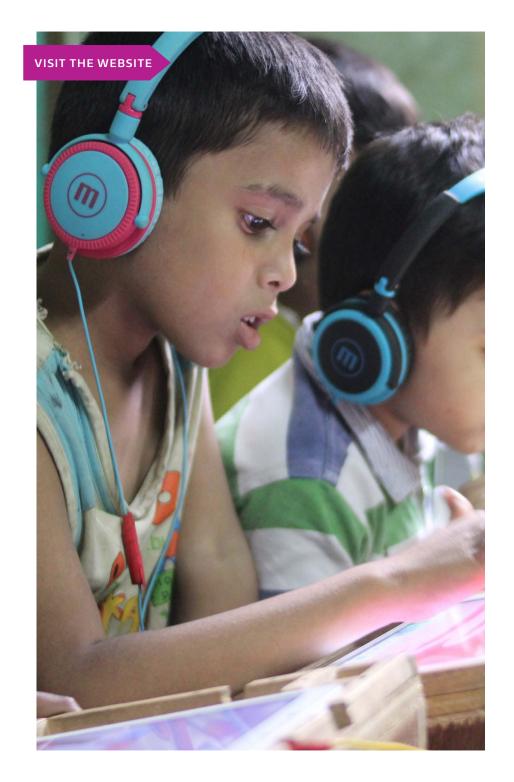
Advisory Board review sample: Impact

Excellent innovation that clearly has a huge impact on those children's lives who have geographical and other hurdles in going to school. A digital classroom as seen in the video is giving them the atmosphere of a classroom while the lessons happen.

Innovator insight

I think the delivery of teachers has not changed, but a lot of tools have opened up. For example, when I was in school I had one book, with a picture and writing. But now, with the Digital School Program, when the teacher is teaching about volcanoes, they can go to YouTube, giving children a much better concept.





We provide functional literacy/21st century skills in marginalised contexts via digital technology.

ELAN – Enhancing Literacy and Numeracy

Pakistan

Over 1 billion people in the world cannot read, write or do basic math. Millions of children in developing countries are out of school. Traditional approaches cannot solve the problem in an acceptable time-frame. ELAN's digital learning program is a proven solution; it can be deployed rapidly and cost-effectively. It uses eLearning, tablets, and the world's best educational games to provide quality education to underserved populations.

2016

2700

3

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRIES

The education crisis is global, with developing nations being hit the hardest. In Bangladesh, 4.3 million children are out of school and 58% of Grade 5 students struggle to read and comprehend a simple text. Traditional education models are too slow to solve the problem, but digital technology coupled with self-learning and gamification provide a cost effective and scalable solution.

HOW DOES THE INNOVATION WORK IN PRACTICE?

ELAN's model is a simple and scalable "functional literacy" solution for students in Pre K to Grade 2. It has been deployed with excellent results in Pakistan, Bangladesh, and Malawi, in varied settings, from urban slums to refugee camps and remote Himalayan villages.

We partner with best-in-class award-winning content providers and deploy their content on tablets and smartphones. The model does not require reliance on a trained teacher. The model delivers world-class reading, writing, and Maths applications in a gamified format, on low-cost tablets and smartphones. Children learn Math, English and their local language in a gamified format for 2 hours a day/6 days a week in a facilitated setting within existing schools or in community-based learning centres powered by solar technology.

HOW HAS IT BEEN SPREADING?

Over the last 2 years, ELAN has scaled to 2,700 learners in 3 countries, with validated impact evaluations showing students outperform traditional models by 1.5 times. ELAN has also received global recognition, winning the World Bank's Ideas4Action competition and featured by UNESCO among the best Covid-response interventions in 2021. Over the next 3 years, we aim to scale to 200,000 learners globally by partnering with local governments for policy integration and implementation, creating lasting social impact by:

- Accelerating access to education
- · Enhancing socio-economic well-being
- Empowering girls and communities

RESEARCH

Advisory Board review sample: Scalability

Use of low-cost tablets and smartphones along with a focus on functional literacy makes it highly scalable. Also, it does not require trained teachers which would have been a barrier to scale.

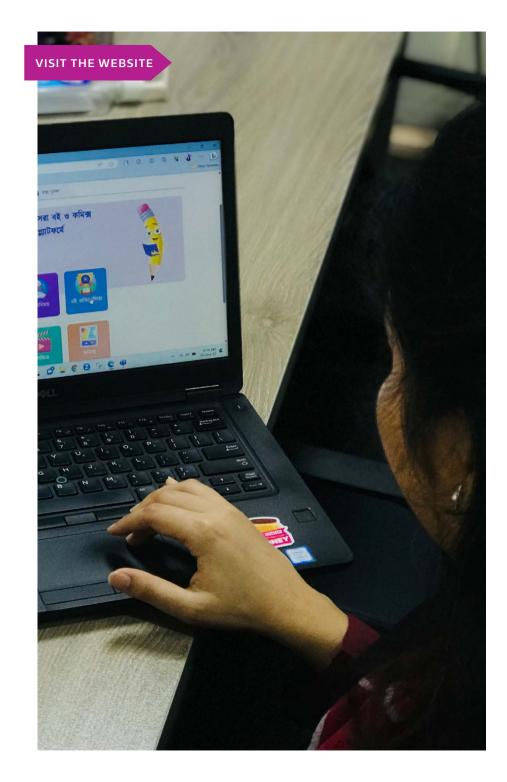
Advisory Board review sample: Impact

I have personally visited this innovation in Bihari Camp Dhaka and Rohingya Camp in Cox's Bazar in-person, and found it very much engaging and joyful to students. It is impacting students' learning significantly.

Innovator insight

Assessment of learning gains is only one part... it's not just about learning gains, in fact, the bigger impact is a change in habit, developing a love for learning and the independence and confidence of teaching themselves.





A platform for edutainment related to intellectual development and creative skills among students.

Konnect

Bangladesh

Konnectis an online platform that helps to guarantee 36 million adolescents across Bangladesh have access to academic and entertainment materials. In addition it improves connection amongst all youth development efforts and equips them with the information and abilities they will need to succeed in the 21st century beyond their school curriculum.

2018

2700000

1

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRY

In Bangladesh, adolescents constitute around 22% of the whole population. However, there is yet to be a platform specifically designed that would enable them to interact socially with their peers, obtain academic help, and acquire life skills. Konnect aims to solve this and transform adolescents into a future-ready workforce through skills, education, and counselling.

HOW DOES THE INNOVATION WORK IN PRACTICE?

Konnect has over 38,000 contents, divided into different categories-books, skills, tests (science-subjects), comics, movies, and news, catering to the 300,000 registered users. Konnect organises live programs on Facebook aimed at the new generation of students to enable them to learn from and interact with experts on diverse topics.

HOW HAS IT BEEN SPREADING?

The support of the Department of Secondary and Higher Education has ensured the participation of students across all educational institutions in phases. Konnect has been introduced in the Digital Technology textbooks as a result of the revised curriculum to emphasise ICT education, allowing 600,000 students of Grades 6-7 from all schools to enrol in and enjoy Konnect's services.

Konnect Mentor Teachers initiative has been launched from 2023 where over 350 teachers were selected from all over Bangladesh to participate in extracurricular activities at Konnect Clubs in their schools. This will help to connect with proactive adolescents who will be recruited via the clubs to be a part of future initiatives under Konnect.

RESEARCH

Advisory Board review sample: Scalability

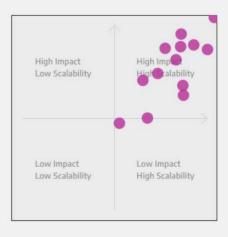
Highly scalable in its community. A similar learning system could be implemented, and its development could be expanded and further developed in higher educational institutions

Advisory Board review sample: Impact

The interactive learning experience through various functions such as experiments, counselling, and tests positively impacts life skills development. It also contributes to students discovering different areas of their interests and abilities.

Innovator insight

The revised national curriculum focuses on skills and competence building; however, not everything can be taught at schools. What Konnect does is it provides outside academic learning opportunities. Through our courses and contents, students can learn and acquire whatever life skills they want to or are trying to gain.





Accelerated foundational learning through a digital approach.

Last Mile Learning

United Kingdom

Rohingya refugees in Bangladesh are one of the most marginalised groups around the globe, with little to no access to basic education. This project focuses on the 'education' of children aged six to 11, with self-sufficient solar-powered MP3 player instruction in foundational literacy and numeracy. Children self-direct their own learning- it is a game changer for education!

2022

1680

5

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRIES

There are around 400,000 Rohingya refugee children of school- age living in Cox's Bazar, Bangladesh, and all of them have been out-of-school since March 2020 due to COVID-19 lockdown and school closures. The negative effects of this are both immediate and long-term. The languages of humanitarian assistance in the camps are Burmese and English, but the Rohingya can read neither.

HOW DOES THE INNOVATION WORK IN PRACTICE?

The unique selling point for this model is that it is designed for children learning outside a formal structure, who have limited resources, and little-to-no learning support from caregivers. It uses a tried and tested accelerated learning methodology called Teaching at the Right Level (TaRL), which forms the basis of all Street Child's education provision and which resulted in an endorsement of SC's education provision in Liberia by the Center for Global Development in 2019. Street Child proposes to adapt this methodology for use in the Rohingya refugee context, where there is an urgent need for a swift return to learning. The audio-recorded classes shall be monitored by community volunteers where the whole community will own the learning modality to ensure the sustainability of the project.

HOW HAS IT BEEN SPREADING?

The project has reached 1,680 Rohingya children aged 6-11, who could not access digital technology, with almost entirely self-sufficient instruction in foundational literacy and numeracy. Children have self-directed their own learning, using a blended approach of activities including:

- 1. Printed and laminated learning packs containing games, songs, worksheets, activities and reading materials, to be deployed with resources that children are likely to have available in their homes and environments (e.g. sticks and stones); and
- 2. Audio-assisted learning via pre-recorded audio messages played through solar-powered MP3 players, which children will share.

Over the next 2 years, we hope to reach over 10,000 Rohingya children in Bangladesh.

RESEARCH

Advisory Board review sample: Scalability

The project can be expanded rapidly using the existing model to replicate. Many people in various poverty affected regions are in need of education, this simple solar powered device will be easy to supply and implement.

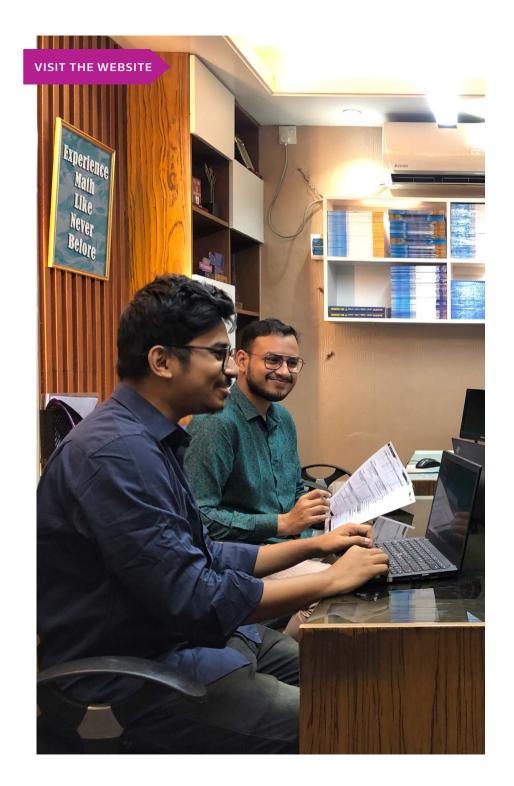
Advisory Board review sample: Impact

To utilise solar powered technology for particularly vulnerable children helps in more than just learning skills and ensures that these children find their confidence again. Rated excellent.

Innovator insight

One of the things that we're quite strong with is our work alongside refugees. It's not about creating projects or initiatives for refugees, but it's to work in collaboration with the refugees to create something that will be most beneficial to them.





Experience maths like never before!

MathTronics

Bangladesh

MathTronics is a game-changer in maths education, leveraging cutting-edge technology to offer innovative solutions. Engaging Animated Lessons and attractive learning materials simplify complex concepts. Upcoming Augmented Reality and Math Solver Calculator App foster analytical and critical thinking. Bridging the gap empowers students to succeed academically and build a foundation for the future.

2021

100 000

2

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRIES

With six years of tutoring experience in mathematics, the founder observed a demand for specialised maths teachers to address learners' deficits. Unfortunately, high costs make it unaffordable for many. Hence, he created MathTronics, an affordable and interactive learning platform that is accessible to all students. He aims to provide an inclusive, engaging learning experience, regardless of their financial background.

HOW DOES THE INNOVATION WORK IN PRACTICE?

MathTronics' innovation works by providing students with digital interactive Maths books and animated lessons that simplify complex concepts. Additionally, MathTronics is developing augmented reality and a Math solver calculator app, both of which will promote analytical and critical thinking skills. Our solution addresses the need for specialised Maths teachers and affordable tutoring services. By offering an interactive and engaging platform, MathTronics enables students to learn at their own pace and gain a deeper understanding of math concepts. We have received positive feedback from students and parents who have used our platform and noticed significant improvements in their maths skills. We use technology such as interactive digital books, augmented reality, and a maths solver calculator app, as well as a proprietary curriculum and teaching methods developed by our experienced maths tutors.

HOW HAS IT BEEN SPREADING?

MathTronics, an affordable and interactive learning platform, gains traction through word-of-mouth recommendations and social media promotions. We plan to establish formal partnerships with schools and educational organisations in the future. Achievements over the past year include our Digital Interactive Math Book Series and the publication of the Calculus Tutor. We were named champion startup in a competition at the University of Chittagong. In the next 2-3 years, we aim to expand our user base, establish school partnerships, and develop new features. Our goal remains to provide an accessible and engaging learning platform for all students.

RESEARCH

Advisory Board review sample: Scalability

They have grown through recommendations and social media, aiming for partnerships with schools. Given the potential of app based delivery, there's high potential for expansion in similar contexts, especially with language translation of content.

Advisory Board review sample: Impact

Through its simplified complex concept videos, real-world examples, nice video animation and accessibility, Mathtronics can successfully enhance students' mathematical skills and foster an enjoyment of the Math subject.

Innovator insight

The platform has successfully bridged the gap between specialised maths tutoring and affordability. Mathtronics not only enhances the maths skills of its learners, but also boosts students' confidence in the subject.





Transforming education experiences.

NERDIZ

Bangladesh

In Bangladesh, the education system is theoretical and monotonous. Students have very little insight into how their education content transpires in reality. Hence, Nerdiz was born to provide experiential learning experiences for students with the help of virtual reality where students will not only read but will be able to virtually experience their educational content.

2017

20 000

1

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRY

As a visual learner in Bangladesh's education system that focused heavily on theoretical learning, I faced difficulties in my school days. Realising that many others may struggle with the same issue, I founded Nerdiz, a virtual reality education platform in Bangladesh, where students will not only read, but will be able to virtually experience their educational content.

HOW DOES THE INNOVATION WORK IN PRACTICE?

Nerdiz's innovative solution to the education system in Bangladesh utilises virtual reality technology to provide an immersive and experiential learning experience to students. The education curriculum in Bangladesh is heavily theoretical, and Nerdiz's virtual reality content bridges the gap between theory and reality by allowing students to virtually experience their educational content. Through Nerdiz's virtual reality learning sessions, students can take virtual field trips, visit the moon, and witness real-life science experiments, all from the comfort of their classrooms. Nerdiz addresses monetary and physical constraints on experiential learning. Nerdiz has partnered with private and NGO schools in Bangladesh to demonstrate the effectiveness of their virtual reality education content. Research studies have shown that visual learning can help students retain 60% more information. Nerdiz provides its content through both physical sessions and its online web platform.

HOW HAS IT BEEN SPREADING?

Achievements:

- Served over 20,000 students through offline and online sessions
- · Partnered with well-known NGOs such as BRAC and Teach for
- · Bangladesh to host Virtual Reality learning sessions
- Finalist in the Entrepreneurship World Cup, GP Accelerator, and Banglalink Incubator
- Winner of Brac CED Incubator

Goals for the next 2-3 years:

- · Work in 24 districts in Bangladesh and serve one million students
- Collaborate with stakeholders to enhance content and provide a superior learning experience.

RESEARCH

Advisory Board review sample: Scalability

In my context, this innovation has tremendous scope for scalability as the government is focusing on using more technology in education.

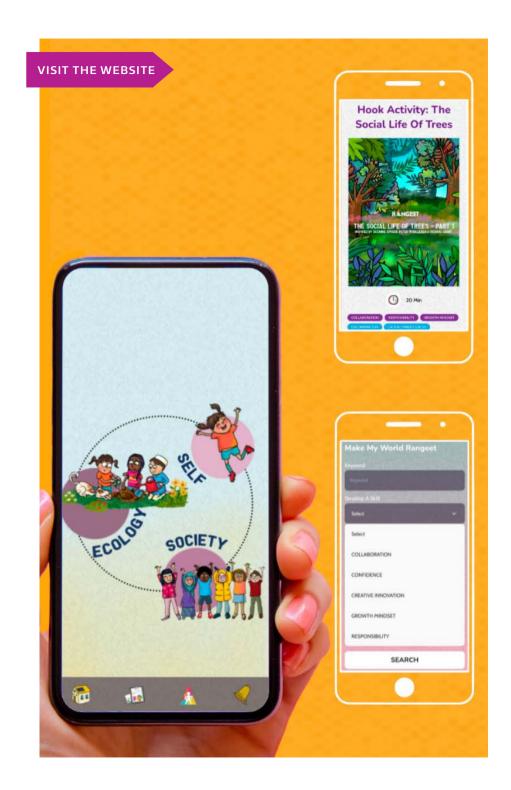
Advisory Board review sample: Impact

The effort to engage students and create an immersive learning environment that fosters their creativity and curiosity is something that brought me to give this innovation a high impact level. Fostering these is key to building more meaningful relationships in life.

Innovator insight

Students are having experiential learning and they are enjoying their learning. When students visit Taj Mahal virtually while learning about the history of Taj Mahal as one of the seven wonders of the world, they are not going to forget that easily. Classes are not only engaging, retention rate is much higher.





SEEK: Social Emotional & Ecological Knowledge.

Rangeet

India

Rangeet solves for inequities and variability in learning at scale. A platform for schools and communities to measurably develop a breadth of skills using active pedagogies to promote wellbeing, agency and global stewardship in children. Includes a mobile application to teach the SEEK curriculum and submit data. It works anywhere and is accessible both online and offline; and has a web application to manage programs and monitor impact, informing timely decisions.

2018

60 000

3

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRIES

Quality education is unevenly distributed, impacted by income, culture and geography, worsened by access issues, climate change and Covid. Schools employ outdated rote methods, ignoring learner variability and vital skills. Learning science states that children learn best through active pedagogies and require a breadth of skills. Education must be holistic, scalable, sustainable, adaptable and measurable.

HOW DOES THE INNOVATION WORK IN PRACTICE?

NGOs, caregivers, and private/public schools implement the platform, adaptable to any language/culture and can be taught anywhere by anyone. Only one device is needed to teach, collect, and submit data. Works offline, so does not need continuous electricity. Users are trained with in-app videos. Rangeet's proprietary content is used in a manner that fits any facilitator's needs:

- The ability to search for activities e.g. how to teach mainstream subjects in an active manner, how to solve issues in the classroom.
- WebApp includes data visualisation tools to manage implementations, monitor impact and adapt

HOW HAS IT BEEN SPREADING?

Rangeet has spread to 3000 teachers and 60,000 students across seven Indian states and Bangladesh. Rangeet has won the following awards:

- Brookings Nov'22 Top Digital Tool for Data Collection/Visualisation
- 2023 HundrFD Global Collection
- 2022 Winner HundrED/Holistic Education
- 2021 Jacobs Foundation/MIT Solve Most Promising Innovation, Equitable Classrooms

Rangeet has authored a wellness curriculum for Oxford University Press for distribution across Asia and the Middle East. Rangeet hopes to implement its work globally, influence policy/curricula, and make data open source for advancement of learning sciences.

RESEARCH

Advisory Board review sample: Scalability

Highly scalable because the idea can be easily promoted due to the fact that it works both online and offline; it can be taken and distributed all over the world.

Advisory Board review sample: Impact

This innovation is rated as a high-impact project. I love how the concept focuses on the 6Cs and uses play-based approaches to engage children and teachers. These are proven methods scientifically to help a learner feel engaged and feel positive while learning.

Innovator insight

We are seeing that teachers are changing the way they are approaching the kids. The teachers' own social emotional knowledge and competencies have improved and they are more empathetic in the way they communicate with their classrooms, and their overall teaching.





Learn like never before.

Science Bee

Bangladesh

To ensure quality education for all and to make science education more popular and accessible, Science Bee is working to improve science education in Bangladesh. Its long-term goal and aspirations are to make a society free from all types of misinformation and make science education available for all. Science Bee is now a community of over 1.2 Million learners.

2018

1200 000

1

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRY

Science Bee's founder saw many of his classmates struggling with their lessons; sometimes they could not understand the topic, and there was a lack of authentic information. He has seen huge discrimination among the students who live in urban areas and others who live in village areas. Students living in rural areas were deprived of proper guidelines and good instructors.

HOW DOES THE INNOVATION WORK IN PRACTICE?

Science Bee has Bangladesh's largest Science-based website, with over 200,000 monthly active students, most of whom are from rural areas. We have arranged seminars in more than 15 schools, where we have been able to teach more than 5,000 students. We have also launched Bangladesh's first live talk show on science. Scientists and technology-related people come as guests in this show to teach students about their respective fields. We have reached about 1 million people with this show. Till now, we have arranged 40+ competitions on various topics. About 10,000 students took part in it, and the event successfully reached 1,42,000 students. Besides, we have a monthly prize-giving option in our Q&A section, where every month, the top 3 contributors are presented with gifts to encourage them to ask and answer more questions.

HOW HAS IT BEEN SPREADING?

Mobin Sikder, Science Bee founder, received 'The Diana Award' in 2023, and won the 'IVD Bangladesh Volunteer Awards 2021' for his work in the education sector. Science Bee was honoured with the 'BYLC Volunteer Awards 2021', 'Funding For Bangladesh 1.0', and the 'YSSE Global Education Award' for its contributions to e-learning. We have gained media coverage in top Bangladeshi media outlets. Our upcoming gamified app will offer STEM courses, quizzes, ebooks and news, promoting accessible learning. We plan to create more practical video content so that tough science-related topics can be easily understood.

RESEARCH

Advisory Board review sample: Scalability

By providing a centralised hub for science news, courses, and quizzes online, this innovation has the capability to reach and engage a wide range of users globally. Their interface and intuitive navigation make it easy for users to explore.

Advisory Board review sample: Impact

This innovation can help in providing a valuable resource for tackling misinformation through their valid sources of science and tech news. The news, videos, and quizzes can help the student to gain an update on the STEM field of study.

Innovator insight

We enable students to participate in practical science experiments which would have otherwise been impossible due to lack of supplies and materials at their school. This helps them to understand the process and understand the science. They become curious and confident enough to ask questions and feed their learning.





Bangladesh's largest educational network is setting new standards in peer-learning.

Teachers' Portal

Bangladesh

Teachers' Portal is the world's only lifestyle gateway platform dedicated to teachers where they can access educational content, as well as financial and healthcare services.

2013

700,000

ı

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRY

This platform has been made to facilitate all teachers within the shortest possible time. It has increased the capacity of our teachers to produce content and innovative implementations in the classroom more effectively.

HOW DOES THE INNOVATION WORK IN PRACTICE?

Teachers can upload videos, blogs and publications on various topics ranging from general academic subjects to madrasas and technical subjects. A content repository is maintained where multimedia educational contents are stored, accessed and shared freely amongst teachers. Fellow teachers can post comments which help content creators to improve by peer feedback. Every fortnight, teachers are categorically recognised as best content developers, innovative teachers, one institution head for leadership, and best online performers based on various criteria including their online rating by users. Some teachers are also endorsed as ICT4E ambassadors in their respective school districts and play pioneering roles in teaching-learning development. Via the ICT4E ambassadors the practice is spreading all over the country, allowing more citizens to enjoy the benefits of this platform.

HOW HAS IT BEEN SPREADING?

Bangladesh has nearly 1 million teachers in over 120,000 primary, secondary and tertiary institutions. Over 60% of teachers all over Bangladesh have developed their communication skills after being a part of Teacher's Portal, 55% improved their skills for content creation, and 23% teachers have enhanced their classroom facilities. Several workshops are conducted annually to collect data, scope areas of improvement and needs analysis of users.

RESEARCH

Advisory Board review sample: Scalability

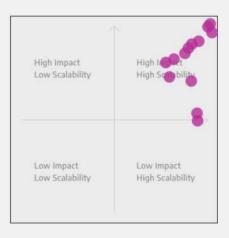
Its centralised platform to foster collaboration and knowledge sharing has high potential for scalability. By incentivising teacher participation, they are also able to increase adaptability in the teacher network at large.

Advisory Board review sample: Impact

As teachers are one of the main determinants of quality education and not enough addressed, this innovation supports and empowers educators to be change-makers in society by fulfilling their most pressing needs.

Innovator insight

We can see that there are changes in the pedagogical approaches teachers employ. They are encouraging more project-based learning for their students instead of just handing them notes and asking them to memorise the content, for example.



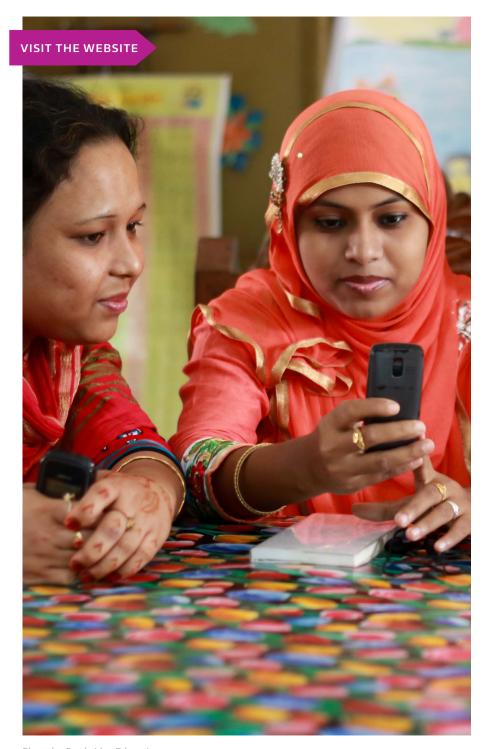


Photo by Cambridge Education.

Seeing the possibilities for strengthening classroom practice in the palm of your hand.

The Trainer in Your Pocket – Transforming Teaching Through Mobile Video⁵⁹

Bangladesh

Teachers need to see and hear how effective teaching and learning can work in classrooms like theirs - with many children and few resources. The Trainer in Your Pocket puts videos of authentic classroom practice, filmed in local schools, in the palms of teachers' hands. Using their own phones, on or off-line, these videos guide teachers to improve children's learning at mass scale.

2012

7 400 000

5

YEAR ESTABLISHED

CHILDREN / USERS

COUNTRIES

Millions of teachers worldwide need help to improve the quality of teaching. There are not enough 'expert' trainers to meet this need directly, and cascade training is not effective, with ideas and practices getting lost in transmission. Teachers need to see real life examples of how they can make learning more effective via small changes that can make a big difference over time.

HOW DOES THE INNOVATION WORK IN PRACTICE?

The Trainer in Your Pocket replaces ineffective one-off teacher professional development (TPD) workshops with ongoing support. Teachers use authentic videos on their phones to improve their teaching of specific subjects or stages of learning. They see teachers like themselves, their classrooms, and their students in the videos, while a narrator highlights what the teacher in the video is doing differently and how this impacts learning in ways that support noticing and reflection. Teachers can use the videos at any time, at home or at work, on their own and with their peers. The Trainer in Your Pocket makes TPD meetings more effective by providing opportunities for teachers to discuss the video content and its application in their classrooms.

In English in Action (http://www.eiabd.com), a collaboration funded with UK aid, led by Cambridge Education with The Open University UK as academic and technical TPD lead, authentic video was used by 54,000 teachers teaching 7.4m students in Bangladesh. Students' ability to communicate in basic English rose from 36% to 70% and from 40% to 80% at primary and secondary level.

HOW HAS IT BEEN SPREADING?

This innovation by The Open University, UK, has spread from Bangladesh to India, Nigeria, Zambia and Zimbabwe. Bangladesh's Government is now using video in at-scale TPD courses on its national eLearning platform. We aim to embed the innovation across TPD programmes in Sub-Saharan Africa and South-East Asia in the areas of Early Childhood Education, Foundational Literacy/Numeracy and Science.

RESEARCH

Advisory Board review sample: Scalability

The programme is readily accessible across school grades and communities. The availability of different language options makes it pragmatic in a multi-ethnic country like Bangladesh. No internet connection is needed which makes it scalable.

Advisory Board review sample: Impact

The video-based approach has a significant impact on enhancing teacher communities across diverse geographies. Moreover, it enables the translation of classroom experiences by adapting teaching methods for various lectures and disciplines.

Innovator insight

A really important thing that this work can do is to give teachers a voice. We are all experts and it is about helping people to see that, to get to a point where we actually see the expertise that we each hold and value that.



Chapter 5: Conclusion

This Spotlight aimed to identify and highlight the most impactful and scalable EdTech innovations in Bangladesh, and demonstrate how private and public sector players fit in the EdTech innovation ecosystem. This report has underscored the numerous educational challenges EdTech can address in Bangladesh, from providing those in rural areas with access to quality education, to empowering teachers with the skills they need to teach effectively.

For this report, we interviewed the selected innovators to understand more deeply their perspectives about the role EdTech can play in helping students receive a quality education. The research team sat down (virtually) with each innovator and members of their team to discuss their perspectives on EdTech and their hopes for how they see their work continuing in the future. Our hope is that bringing their voices and experiences into this report provides a richer picture of how EdTech can play a role in innovative educational practices, both in Bangladesh and globally.

These interviews led us to the following key recommendations for EdTech innovations (particularly those in the private sector):

There is a need for greater research and development support, alongside mentorship.

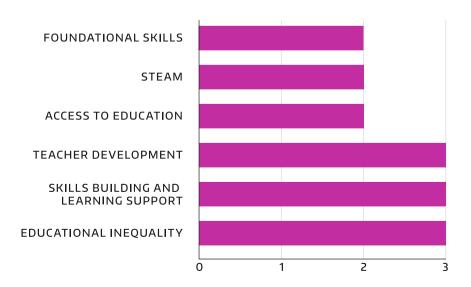
We see a necessity for consistent funding support, to ensure that this promising work can be kept resourced and up to date to meet the quickly changing needs of a digital society.

Funders need to understand that education impact cannot always be measured quickly, and it takes time to measure and show educational gains long term, and this should not affect support.

There needs to be a uniform approach to government endorsement and policy support, so that all EdTech innovations are afforded the same opportunities.

The innovations selected for this Spotlight have been chosen due to the positive impact they are having on providing access to quality education in Bangladesh. Figure 5 shows the innovations broken down by broad category themes, with the visual table on the next page summarising the key challenges raised in this report and how the selected innovations note that they are addressing them.

SELECTED INNOVATION BY CATEGORY



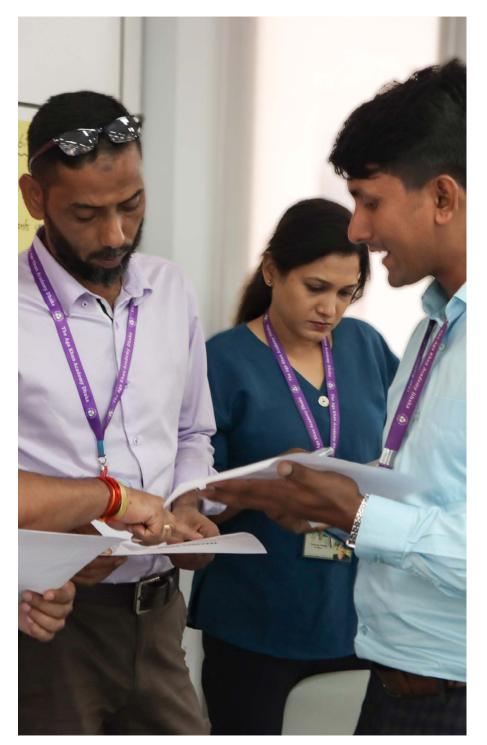
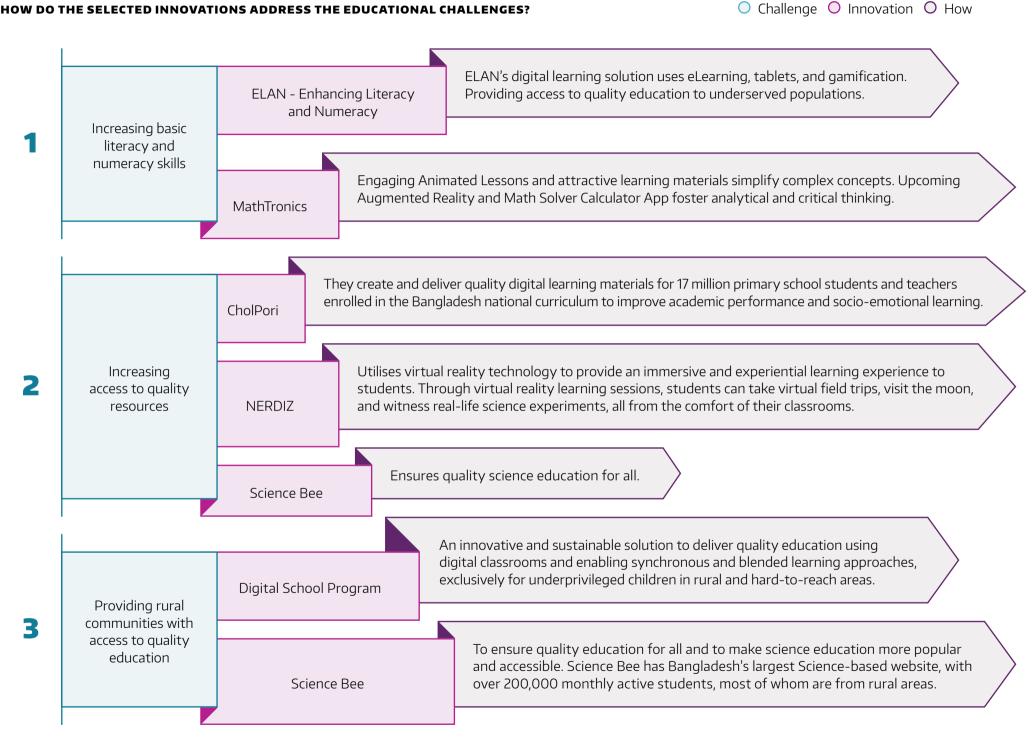


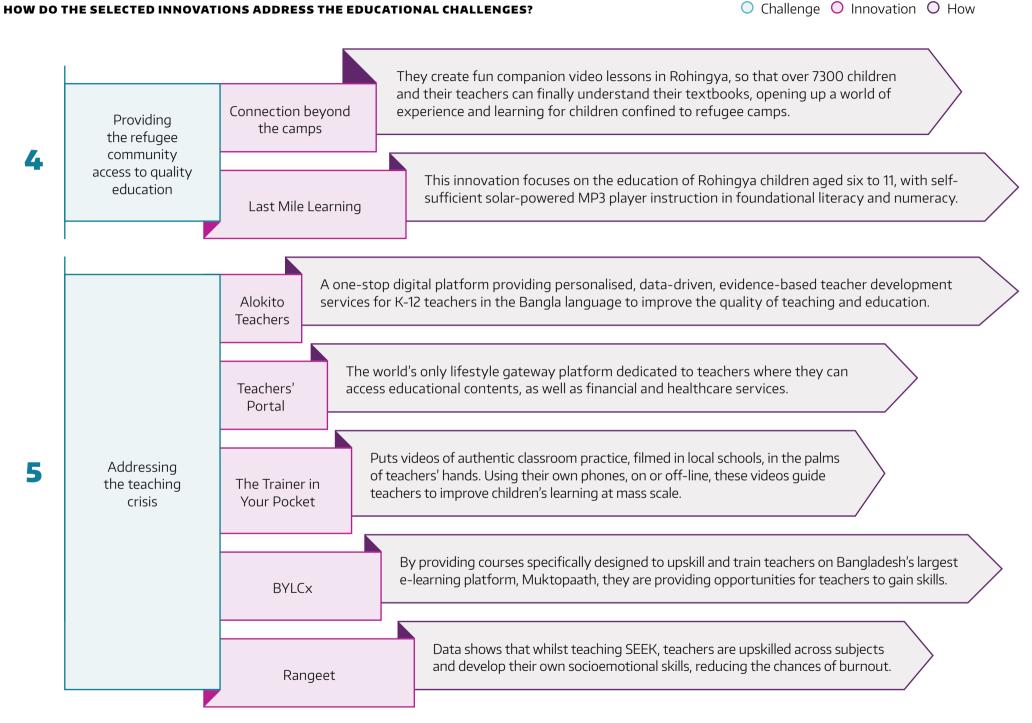
Photo by Alokito Teachers.

Figure 5. Selected innovations by category

HOW DO THE SELECTED INNOVATIONS ADDRESS THE EDUCATIONAL CHALLENGES?



HOW DO THE SELECTED INNOVATIONS ADDRESS THE EDUCATIONAL CHALLENGES?



HOW DO THE SELECTED INNOVATIONS ADDRESS THE EDUCATIONAL CHALLENGES?

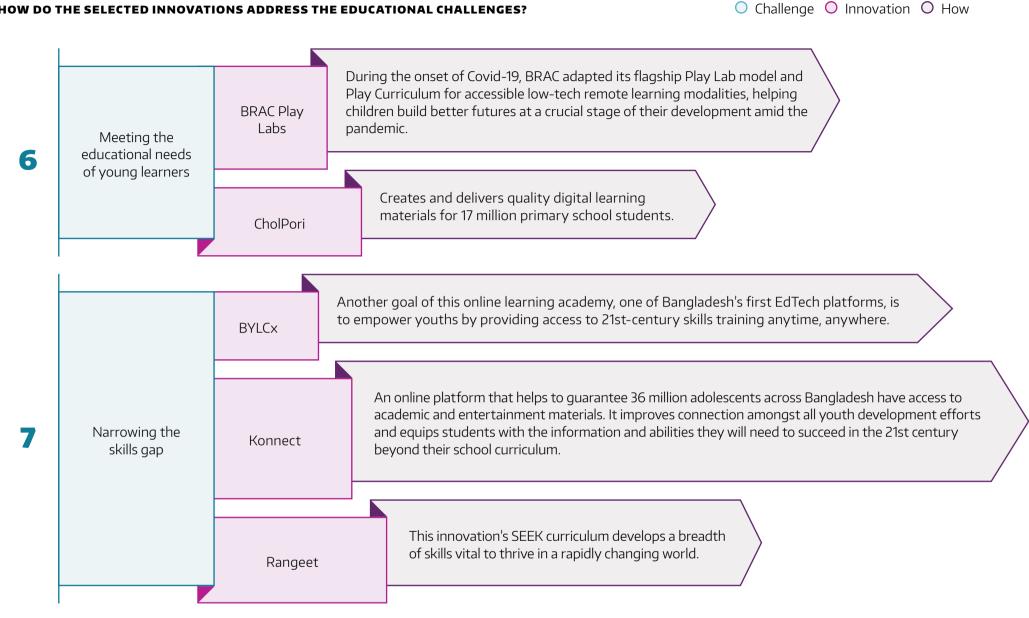




Photo by Teachers' Portal.

A key challenge that has not been directly addressed by the innovations selected for this report is girls' access to education. Girls are more likely to remain out of school, disproportionately impacted by the fact that 49% of girls between the ages of 15 - 19 are married or in a marital commitment. Fo As noted earlier in the report, gender and income inequality still remain key challenges in Bangladesh, with the labour force participation rate for women being 36.4% compared to 80.7% for men; and the labour income share by women being only 16.9%. Therefore, we also recommend that a concerted effort is made to address the unique challenges girls in Bangladesh face in accessing and using EdTech.

This report has highlighted some of the key concerns surrounding EdTech; however, the Covid-19 pandemic, a rise in the number of climate change-related crises, and the attainment gap between students in urban and rural areas all exemplify the promise EdTech innovations can have in providing access to education in challenging circumstances.

Bangladesh has come a long way since its independence. The literacy rate has increased; families, regardless of their socioeconomic situations, understand and appreciate the importance of education; and primary school enrollment has risen from 50 percent in 1970, to 98 percent. However, for millions of children and their families, being and staying in school is a daily struggle. This Spotlight has shared inspiring stories of innovators who are working to help children develop into skilled and knowledgeable adults, whilst providing teachers with the tools to face professional and pedagogical challenges, alongside championing their own wellbeing. This report has shown that EdTech can be used to reach those who would not always have access to quality education, whilst making learning fun and joyful, and shows immense promise for closing educational gaps. Through rigorous policy support and funding, professional guidance and collaboration with education stakeholders, EdTech innovations will be able to scale their solutions and have longterm impact on students and educators.



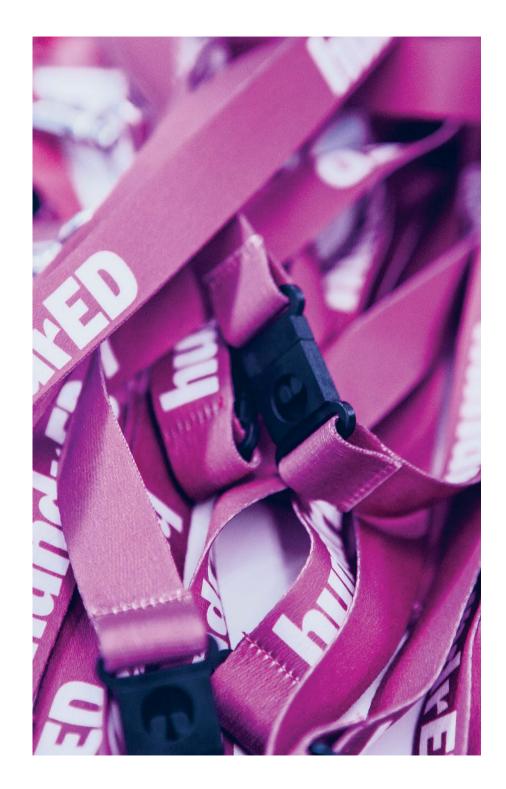
Do you want to organise a HundrED Spotlight?

HundrED Spotlights are an opportunity to gain a thorough insight into the education innovations taking place in either a specific area of education, like literacy or sustainability, or within a certain geographic location, for example, India or London.

HundrED Spotlights are organised by HundrED and a Spotlight Partner. Together we select the location or theme of focus and will encourage applications from innovators for this Spotlight. In-depth research will be conducted together into these innovations and 10-20 will be selected by HundrED, partners, and an advisory board. Spotlighted innovations will be packaged and shared on the HundrED platform.

HundrED Spotlights are non-profit but rely on funding from Spotlight Partners. If you are interested in becoming a HundrED Spotlight Partner please contact us.

We believe that these selected innovations deserve to be spread across the world. And there is a lot more good innovations just like them waiting to be discovered.



Contact information

info@hundred.org hundred.org facebook.com/hundredorg twitter.com/hundredorg

Endnotes

- 1. Daniel Rodriguez-Segura, "EdTech in Developing Countries: A Review of the Evidence," The World Bank Research Observer 37, no. 2 (September 2022): 173. https://doi.org/10.1093/wbro/lkab011
- 2. Education Intelligence Unit, "2022 EdTech VC funding totals \$10.6B, down 49% from \$20.8B in 2021," Holon IQ, January 3, 2023, https://www.holoniq.com/notes/2022-edtech-vc-funding-totals-10-6b-down-from-20-8b-in-2021
- 3. Akanksha Bapna et al., "A Case for a Systems Approach to EdTech" (Position Paper, EdTech Hub, 2021), 7. https://doi.org/10.5281/zenodo.5651995
- 4. Blended learning definition: A way of learning that combines traditional classroom lessons with lessons that use computer technology and may be given over the internet. $\underline{\text{https://dictionary.}} \\ \text{cambridge.org/dictionary/english/blended-learning}$
- 5. Bangladesh Bureau of Statistics: Statistics and Informatics Division, Population and Housing Census 2022 Preliminary Report, (Dhaka: Ministry of Planning, 2023), https://sid.portal.gov.bd/sites/default/files/files/sid.portal.gov.bd/publications/01ad1ffe_cfef_4811_af97_594b6c64d7c3/PHC_Preliminary_Report_(English)_August_2022.pdf.
- 6. "Population of Cities in Bangladesh 2023," World Population Review, accessed June 20, 2023, https://worldpopulationreview.com/countries/cities/bangladesh.
- 7. "Information on Disaster Risk Reduction of the Member Countries: Bangladesh", ADRC, n.d. https://www.adrc.asia/nationinformation.php?National Coat=50 Lang=en.
- 8. "Bangladesh Country Profile," BBC News, last modified May 26, 2023, https://www.bbc.co.uk/news/world-south-asia-12650940.
- 9. Bangladesh Bureau of Statistics: Statistics and Informatics Division, Household Income and Expenditure Survey 2022, (Dhaka: Ministry of Planning, 2023), 9. https://bbs.portal.gov.bd/page/57def76a_aa3c_46e3_9f80_53732eb94a83/2023-04-13-09-35-ee41d2a35dcc47a94a595c88328458f4.pdf; Bangladesh Bureau of Statistics: Statistics and Informatics Division, Household Income and Expenditure Survey 2022, 9 & 21.
- 10. Md Nazirul Islam Sarker, Min Wu, and Md Altab Hossin, "Economic Effect of School Dropout in Bangladesh," International Journal of Information and Education Technology 9, no. 2 (February 2019): 136-142, http://www.doi.org/10.18178/jijiet.2019.9.2.1188
- 11. Bangladesh Bureau of Statistics: Statistics and Informatics Division, Population and Housing Census 2022 Preliminary Report, 5-14.
- 12. Bangladesh Bureau of Statistics: Statistics and Informatics Division, Population and Housing Census 2022 Preliminary Report, 19.
- 13. Bangladesh Bureau of Statistics: Statistics and Informatics Division, Household Income and Expenditure Survey 2022.
- 14. "Labour force participation rate," World Bank Open Data, accessed June, 2023, https://data.worldbank.org/indicator/SL.TLF.CACT.ZS?locations=BD
- 15. "Where are the women? A study on the declining number of women workers in the Bangladesh RMG industry Summary Report", Ethical Trading Initiative, 2023, https://www.ethicaltrade.org/sites/default/files/shared_resources/ETI_GIZ%20Study%20on%20Women%20Workers.pdf

- $16. \ \ Aya\ Matsuura\ and\ Carly\ Teng,\ Understanding\ the\ Gender\ Composition\ and\ Experience\ of\ Ready-Made\ Garment$
 - 17. Matsuura, Understanding the Gender Composition and Experience of Ready-Made Garment
- 18. "Bangladesh," World Inequality Database, accessed June, 2023. https://wid.world/country/ bangladesh/
- 19. UNICEF et al., Survey Findings Report: Survey on Children's Education in Bangladesh 2021, (Dhaka: Bangladesh Bureau of Statistics (BBS) and UNICEF Bangladesh, 2023) https://www.unicef.org/bangladesh/media/7791/file/Survey%20on%20Children.
- 20. Corinne Redfern and Ali Ahsan, "Tens of Thousands of Boys in Bangladesh Were Forced into Work During the Pandemic. Now School Is Resuming Without Them," Time, April 26, 2022, https://time.com/6170432/bangladesh-child-labor-pandemic/.
 - 21. Bapna et al., "A Case for a Systems Approach to EdTech"
- 22. Bangladesh Bureau of Statistics: Statistics and Informatics Division, Household Income and Expenditure Survey 2022, (Dhaka: Ministry of Planning, 2023), https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/57def76a_aa3c_46e3_9f80_53732eb94a83/2023-04-13-09-35-ee41d2a35dcc47a94a595c88328458f4.pdf.
- 23. UN Women and UNDP Bangladesh, Report on Environmental Impact of Rohingya Influx, (Dhaka: UNDP Bangladesh, 2018), https://www.undp.org/sites/g/files/zskgke326/files/migration/bd/f1bdfc9f775aea24b4bcb19715dc363c93c4e94c90293d25a6419194642350a9.pdf
- 24. "Country Bangladesh," Operational Data Portal: Refugee Situations, accessed July, 2023, https://data.unhcr.org/en/country/bqd.
- 25. Md Mahbubur Rahman, Al Jamal Mustafa Shindaini and Taha Husain, "Structural barriers to providing basic education to Rohingya children in the Kutupalong refugee camp, Cox's Bazar, Bangladesh", International Journal of Educational Research Open 3 (2022). https://doi.org/10.1016/j.jiedro.2022.100159
- 26. Rahman et al., "Structural barriers to providing basic education to Rohingya children in the Kutupalong refugee camp, Cox's Bazar, Bangladesh".
- 27. UNHCR, "Rohingya Refugee Crisis Explained," UNHCR: The UN Refugee Agency, August 23, 2023, https://www.unrefugees.org/news/rohingya-refugee-crisis-explained/#;~:text=The%20 Rohingya%20have%20suffered%20decades.; UNICEF, "UNICEF: Education Milestone for Rohingya Refugee Children as Myanmar Curriculum Pilot Reaches First 10,000 Children," UNICEF, May 1, 2022, https://www.unicef.org/press-releases/unicef-education-milestone-rohingya-refugee-children-myanmar-curriculum-pilot.
- 28. Rahman et al., "Structural barriers to providing basic education to Rohingya children in the Kutupalong refugee camp, Cox's Bazar, Bangladesh".
- 29. Hossain, A. N. M. Zakir, "Educational Crisis of Rohingya Refugee Children in Bangladesh: Access, Obstacles, and Prospects to Formal and Non-Formal Education," Heliyon 9, no.7 (July 2023). https://doi.org/10.1016/j.heliyon.2023.e18346.

- 30. Waseef Hussain, "Education in Bangladesh: Achievements and Challenges," Daily Sun, April 21, 2022, https://www.daily-sun.com/printversion/details/616841/Education-in-Bangladesh:-Achievements-and-Challenges.
- 31. Simeen Mahmud and Sajeda Amin, "Girls' Schooling and Marriage in Rural Bangladesh," in Children's Lives and Schooling across Societies (Research in the Sociology of Education, Vol. 15) ed. Emily Hannum and Bruce Fuller, B (Bingley: Emerald Group Publishing Limited, 2006), 71–99, https://doi.org/10.1016/s1479-3539(06)15004-1.
- 32. Linda A. Dove, "Educational Policy in Bangladesh 1978-81: Promise and Performance in Political Perspective," Comparative Education 19, no. 1 (1983): 73–88, https://doi.org/10.1080/0305006830190107.
- 33. Munira Fidai, "Lessons Learned | Unpacking 50 Years of the Bangladesh Education Sector," ICE Business Times, September 17, 2021, https://ibtbd.net/lessons-learned-unpacking-50-years-of-the-bangladesh-education-sector/
 - 34. Mahmud and Amin, "Girls' Schooling and Marriage in Rural Bangladesh," 71-99
- 35. Ministry of Education, "National Education Policy 2010," Ministry of Education, Government of the People's Republic of Bangladesh, 2010, https://planipolis.iiep.unesco.org/sites/default/files/ressources/bangladesh_national_education_policy_2010.pdf.
 - 36. Ministry of Education. "National Education Policy 2010"
- 37. Jubayer Rahma et al., "The Challenge of Education Reform in Bangladesh," Dhaka Tribune, February 22, 2023, https://www.dhakatribune.com/opinion/longform/305384/the-challenge-of-education-reform-in-bangladesh.
- 38. Ministry of Education and Ministry of Primary and Mass Education, "National SDG 4 Strategic Framework for Bangladesh," Ministry of Education, Ministry of Primary and Mass Education, and UNESCO, 2020. https://planipolis.iiep.unesco.org/sites/default/files/ressources/382835eng.pdf.
- 39. Bangladesh Bureau of Statistics: Statistics and Informatics Division, Population and Housing Census 2022 Preliminary Report.
- 40. Tribune Desk, "International Consultation on Implementation of Blended Education held in Bangladesh," Dhaka Tribune, May 17, 2023. https://www.dhakatribune.com/business/284207/international-consultation-on-implementation-of
 - 41. Bapna et al., "A Case for a Systems Approach to EdTech", 4.
- 42. EdTech Hub, "EdTech and Covid-19: 10 Things to Know," EdTech Hub Newsletter, February 21, 2021. https://edtechhub.org/covid-19-resources/edtech-and-covid-19-10-things-to-know/.
- 43. Ahmed Shoyeb Iqbal, "The big picture of online education business," Dhaka Tribune, January 2, 2022, https://www.dhakatribune.com/opinion/op-ed/318352/the-big-picture-of-online-education-business# ftn1.
- 44. Ayrin Ria, "Market-Map: The State of Edtech in Bangladesh," Future Startup, March 27, 2023, https://futurestartup.com/2023/03/27/the-state-edtech-in-bangladesh/#:~:text=The%20edtech%20 market%20size%20in%20Bangladesh.
- 45. John Harris, "Planned Obsolescence: The Outrage of Our Electronic Waste Mountain," The Guardian, April 15, 2020, https://www.theguardian.com/technology/2020/apr/15/the-right-to-repair-planned-obsolescence-electronic-waste-mountain
 - 46. EdTech Hub, "EdTech and Covid-19: 10 Things to Know."
 - 47. Rodriguez-Segura, "EdTech in Developing Countries: A Review of the Evidence," 174.

- 48. University Grants Commission of Bangladesh, "Policy on Blended Learning for Bangladesh," July 2021, http://www.ugc.gov.bd/sites/default/files/files/ugc.portal.gov.bd/policies/ddeb0952_f123_4d24_8ddf_53b9b24031f8/2022-06-06-06-44-a6a5dea173d2d0ec327b83f57cd55e24.pdf
 - 49. University Grants Commission of Bangladesh, "Policy on Blended Learning for Bangladesh," 2.
- 50. Dipu Moni, Anir Chowdhury, and Shakil Ahmed, "Six Elements Accelerating Education for a Smart Bangladesh and a Smart World," A2i, May 15, 2023, https://a2i.gov.bd/six-elements-accelerating-education-for-a-smart-bangladesh-and-a-smart-world/.
- 51. "Blended Education Accelerator," A2i, accessed July 2023, https://a2i.gov.bd/a2i-trending-insights/blended-education-accelerator/.
- 52. CT Online Desk, "Bangladesh to Introduce 'Blended Education' Policy to Avert Learning Gaps in Future," The Daily Commercial Times, March 18, 2022, https://bdnews24.com/education/bangladesh-to-introduce-blended-education-policy-to-avert-learning-gaps-in-future.
- 53. Tribune Desk, "International Consultation on Implementation of Blended Education held in Bangladesh," Dhaka Tribune, May 17, 2023, https://www.dhakatribune.com/business/284207/ international-consultation-on-implementation-of
- 54. "Future of Education: Accelerating a Blended Education Ecosystem," Mission, A2i, accessed September 10, 2023. https://a2i.gov.bd/a2i-missions/future-of-education/#:~:text=Keeping%20 pace%20with%20the%20changing.
- 55. Zubairi et al., "Country-Level Research Review: EdTech in Bangladesh," EdTech Hub, 2021, https://doi.org/10.5281/zenodo.4943272.
 - 56. A2i, "Future of Education: Accelerating a Blended Education Ecosystem."
 - 57. Everett M. Rogers, Diffusion of Innovations, (New York: Simon & Schuster, 2013)
- 58. Definitions: Multilateral organisations are comprised of three or more organisations cooperating toward a common goal (often governments or states). A non-profit organisation is usually small-scale (operating in communities or at largest scope, nationally) and cannot generate profits for the benefit of its members/operators. A non-profit's income must go toward the operation of its services or into its own upkeep. An NGO is non-profit by design, but is larger and takes on an international scope, sometimes working in the same arenas as governments. Nair, madhu. 2021. "NGO vs. Nonprofit: What's the Difference? | UoPeople." University of the People. April 22, 2021. https://www.uopeople.edu/blog/ngo-vs-nonprofit/.
- 59. Power, Tom, Robert Mccormick, and Elsbeth Asbeek-Brusse, A Quasi-Experimental Study of the Classroom Practices of English Language Teachers and the English Language Proficiency of Students, in Primary and Secondary Schools in Bangladesh (Dhaka, Bangladesh: EIA, 2017), https://assets.publishing.service.gov.uk/media/59d3353fed915d01433faade/2017_QE_study_report.pdf; Kris Stutchbury and Clare Woodward, "Mediated Authentic Video: A Flexible Tool Supporting a Developmental Approach to Teacher Education," Journal of Learning for Development 4, 2 (2017), https://doi.org/10.56059/jl4d.v4i2.205.; Clare Woodward, "Internet Not Available! Using Offline Networked Learning to Enhance Teachers' School-Based Continuing Professional Development in Zambia." Tenth Pan-Commonwealth Forum on Open Learning, September (2022), https://doi.org/10.56059/pcf10.6083.
- 60. UNICEF et al., Survey Findings Report: Survey on Children's Education in Bangladesh 2021, (Dhaka: Bangladesh Bureau of Statistics (BBS) and UNICEF Bangladesh, 2023) https://www.unicef.org/bangladesh/media/7791/file/Survey%20on%20Children.
- 61. "Labour force participation rate," World Bank Open Data, accessed June, 2023, https://data.worldbank.org/indicator/SL.TLF.CACT.ZS?locations=BD

References

- A2i. "Blended Education Accelerator." Accessed July 2023. https://a2i.gov.bd/a2i-trending-insights/ blended-education-accelerator/.
- A2i. "Future of Education: Accelerating a Blended Education Ecosystem," Mission. Accessed September 10, 2023. https://a2i.gov.bd/a2i-missions/future-of-education/#:~:text=Keeping%20pace%20 with%20the%20changing.
- ADRC. "Information on Disaster Risk Reduction of the Member Countries: Bangladesh". ADRC. n.d. https://www.adrc.asia/nationinformation.php?National Coat=50 Lang=en.
- Bangladesh Bureau of Statistics: Statistics and Informatics Division. Household Income and Expenditure Survey 2022. Dhaka: Ministry of Planning, 2023. https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/57def76a_aa3c_46e3_9f80_53732eb94a83/2023-04-13-09-35-ee41d2a35dc c47a94a595c88328458f4.pdf.
- Bangladesh Bureau of Statistics: Statistics and Informatics Division. Population & Housing Census 2022
 Preliminary Report. Dhaka: Ministry of Planning, 2023. <a href="https://sid.portal.gov.bd/sites/default/files/files/sid.portal.gov.bd/publications/01ad1ffe_cfef_4811_af97_594b6c64d7c3/PHC_Preliminary_Report_(English)_August_2022.pdf.
- Bapna, Akanksha, Susan Nicolai, Christina Myers, Arnaldo Pellini, Namrata Sharma, and Sam Wilson. A Case for a Systems Approach to EdTech. (Position Paper) EdTech Hub. 2021. https://doi.org/10.5281/zenodo.5651995.
- BBC News. "Bangladesh Country Profile." Last modified May 26, 2023. https://www.bbc.co.uk/news/ world-south-asia-12650940.
- CT Online Desk. "Bangladesh to Introduce 'Blended Education' Policy to Avert Learning Gaps in Future." The Daily Commercial Times. March 18, 2022. https://bdnews24.com/education/bangladesh-to-introduce-blended-education-policy-to-avert-learning-gaps-in-future.
- Dove, Linda A. "Educational Policy in Bangladesh 1978-81: Promise and Performance in Political Perspective." Comparative Education 19, no.1 (1983): 73–88. https://doi.org/10.1080/0305006830190107.
- Education Intelligence Unit, "2022 EdTech VC funding totals \$10.6B, down 49% from \$20.8B in 2021." Holon IQ, January 3, 2023. https://www.holoniq.com/notes/2022-edtech-vc-funding-totals-10-6b-down-from-20-8b-in-2021
- EdTech Hub. "EdTech and Covid-19: 10 Things to Know." EdTech Hub Newsletter. February 21, 2021, https://edtechhub.org/covid-19-resources/edtech-and-covid-19-10-things-to-know/.
- Ethical Trading Initiative."Where are the women? A study on the declining number of women workers in the Bangladesh RMG industry Summary Report". Ethical Trading Initiative. 2023. https://www.ethicaltrade.org/sites/default/files/shared_resources/ETI_GIZ%20Study%20on%20Women%20Workers.pdf
- Fidai, Munira. "Lessons Learned | Unpacking 50 years of the Bangladesh education sector." ICE Business Times. September 17, 2021. https://ibtbd.net/lessons-learned-unpacking-50-years-of-the-bangladesh-education-sector/
- Harris, John. "Planned Obsolescence: The Outrage of Our Electronic Waste Mountain." The Guardian, April 15, 2020. https://www.theguardian.com/technology/2020/apr/15/the-right-to-repair-planned-obsolescence-electronic-waste-mountain

- Hossain, A. N. M. Zakir. "Educational Crisis of Rohingya Refugee Children in Bangladesh: Access, Obstacles, and Prospects to Formal and Non-Formal Education." Heliyon 9, no.7 (July 2023): e18346. https://doi.org/10.1016/j.heliyon.2023.e18346
- Hussain, Waseef. "Education in Bangladesh: Achievements and Challenges." Daily Sun, April 21, 2022. https://www.daily-sun.com/printversion/details/616841/Education-in-Bangladesh:-Achievements-and-Challenges.
- Iqbal, Ahmed Shoyeb. "The Big Picture of Online Education Business." Dhaka Tribune, January 2, 2022. https://www.dhakatribune.com/opinion/op-ed/318352/the-big-picture-of-online-education-business#_ftn1.
- Mahmud, Simeen and Sajeda Amin. "Girls' Schooling and Marriage in Rural Bangladesh," in Children's Lives and Schooling across Societies (Research in the Sociology of Education, Vol. 15), edited by Emily Hannum and Bruce Fuller, 71-99, Bingley: Emerald Group Publishing Limited, 2006. https://doi.org/10.1016/s1479-3539(06)15004-1.
- Matsuura, Aya and Carly Teng. Understanding the Gender Composition and Experience of Ready-Made Garment (RMG) Workers in Bangladesh. Bangladesh: ILO, 2020. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-dhaka/documents/publication/wcms_754669.pdf
- Ministry of Education. "National Education Policy 2010." Ministry of Education, Government of the People's Republic of Bangladesh, 2010. https://planipolis.iiep.unesco.org/sites/default/files/ressources/bangladesh_national_education_policy_2010.pdf.
- Ministry of Education and Ministry of Primary and Mass Education. "National SDG 4 Strategic Framework for Bangladesh." Ministry of Education, Ministry of Primary and Mass Education, and UNESCO, 2020. https://planipolis.iiep.unesco.org/sites/default/files/ressources/382835eng.pdf.
- Moni, Dipu, Anir Chowdhury, and Shakil Ahmed. "Six Elements Accelerating Education for a Smart Bangladesh and a Smart World." A2i. May 15, 2023, https://a2i.gov.bd/six-elements-accelerating-education-for-a-smart-bangladesh-and-a-smart-world/.
- Operational Data Portal: Refugee situations. "Country Bangladesh." Accessed July, 2023. https://data.unhcr.org/en/country/bgd.
- Power, Tom, Robert Mccormick, and Elsbeth Asbeek-Brusse. A Quasi-Experimental Study of the Classroom Practices of English Language Teachers and the English Language Proficiency of Students, in Primary and Secondary Schools in Bangladesh. Dhaka, Bangladesh: EIA, 2017. https://assets.publishing.service.gov.uk/media/59d3353fed915d01433faade/2017_QE_study_report.pdf.
- Rahma, Jubayer, Rezaul Karim, M Shamsul Alam and Mohammad Sorowar Hossian. "The Challenge of Education Reform in Bangladesh." Dhaka Tribune. February 22, 2023. https://www.dhakatribune.com/opinion/longform/305384/the-challenge-of-education-reform-in-bangladesh.
- Rahman, Md Mahbubur, Al Jamal Mustafa Shindaini and Taha Husain. "Structural barriers to providing basic education to Rohingya children in the Kutupalong refugee camp, Cox's Bazar, Bangladesh". International Journal of Educational Research Open 3 (2022). https://doi.org/10.1016/j.ijedro.2022.100159.
- Redfern, Corinne and Ali Ahsan. "Tens of Thousands of Boys in Bangladesh Were Forced into Work During the Pandemic. Now School Is Resuming Without Them." Time, April 26, 2022. https://time.com/6170432/bangladesh-child-labor-pandemic/

- Ria, Ayrin. "Market-Map: The State of Edtech in Bangladesh." Future Startup, March 27, 2023. https://touch.com/2023.https://touch.com/2023. https://touch.com/2023. https://touch.com/2023/03/27/the-state-edtech-in-bangladesh/# https://touch.com/2023/27/the-state-edtech-in-bangladesh/# https://touch.com/2023/27/the-state-edtech-in-bangladesh/# https://touch.com/2023/27/the-state-edtech-in-bangladesh/# https://touch.com/2023/27/the-state-edtech-in-bangladesh/# <a href="https://touch.com
- Rodriguez-Segura, Daniel. "EdTech in Developing Countries: A Review of the Evidence." The World Bank Research Observer 37, no. 2 (September 2022): 171–203. https://doi.org/10.1093/wbro/lkab011
- Rogers, Everett M. Diffusion of Innovations. New York: Simon & Schuster, 2010.
- Sarker, Md Nazirul Islam, Min Wu, and Md Altab Hossin. "Economic Effect of School Dropout in Bangladesh." International Journal of Information and Education Technology 9, no. 2 (February 2019): 136-142, http://www.doi.org/10.18178/ijiet.2019.9.2.1188
- Stutchbury, Kris, and Clare Woodward. 2017. "Mediated Authentic Video: A Flexible Tool Supporting a Developmental Approach to Teacher Education". Journal of Learning for Development 4 (2). https://doi.org/10.56059/jl4d.v4i2.205.
- Tribune Desk. "International Consultation on Implementation of Blended Education held in Bangladesh." Dhaka Tribune, May 17, 2023. https://www.dhakatribune.com/business/284207/international-consultation-on-implementation-of
- Tribune Desk. "International Consultation on Implementation of Blended Education held in Bangladesh." Dhaka Tribune, May 17, 2023. https://www.dhakatribune.com/business/284207/international-consultation-on-implementation-of
- UNHCR. "Rohingya Refugee Crisis Explained." UNHCR, August 23, 2023. https://www.unrefugees.org/ news/rohingya-refugee-crisis-explained/#:~:text=The%20Rohingya%20have%20suffered%20 decades.
- UNICEF, Statistics and Informatics Division, and Bangladesh Bureau of Statistics. Survey Findings Report: Survey on Children's Education in Bangladesh 2021. Dhaka: Bangladesh Bureau of Statistics (BBS) and UNICEF Bangladesh, 2023. https://www.unicef.org/bangladesh/media/7791/file/Survey%20on%20 Children.
- UNICEF: "UNICEF: Education Milestone for Rohingya Refugee Children as Myanmar Curriculum Pilot Reaches First 10,000 Children." UNICEF. May 1, 2022. https://www.unicef.org/press-releases/unicefeducation-milestone-rohingya-refugee-children-myanmar-curriculum-pilot.
- University Grants Commission of Bangladesh. "Policy on Blended Learning for Bangladesh." July 2021. http://www.ugc.gov.bd/sites/default/files/files/ugc.portal.gov.bd/policies/ddeb0952_ f123 4d24 8ddf 53b9b24031f8/2022-06-06-06-44-a6a5dea173d2d0ec327b83f5rcd55e24.pdf
- UN Women and UNDP Bangladesh. Report on environmental impact of Rohingya influx. Dhaka: UNDP Bangladesh, 2018. https://www.undp.org/sites/g/files/zskgke326/files/migration/bd/f1bdfc9f775aea24b4bcb19715dc363c93c4e94c90293d25a6419194642350a9.pdf
- Woodward, Clare. 2022. "Internet Not Available! Using Offline Networked Learning to Enhance Teachers' School-Based Continuing Professional Development in Zambia." Tenth Pan-Commonwealth Forum on Open Learning, September. https://doi.org/10.56059/pcf10.6083.
- World Bank Open Data. "Labour force participation rate." Accessed June, 2023. https://data.worldbank.org/indicator/SL.TLF.CACT.ZS?locations=BD
- World Inequality Database. "Bangladesh." Accessed June, 2023. https://wid.world/country/bangladesh/
- World Population Review. "Population of Cities in Bangladesh 2023." Accessed June 20, 2023. https://worldpopulationreview.com/countries/cities/bangladesh.
- Yelenevych, Alex. "Council Post: The Future of EdTech." Forbes, December 26, 2022. https://www.forbes.com/sites/forbesbusinesscouncil/2022/12/26/the-future-of-edtech/?sh=4ad09f5e6c2f
- Zubairi, Asma, Adam Kreimeia, Tom Kaye, and Amy Ashlee. "Country-Level Research Review: EdTech in Bangladesh." EdTech Hub, 2021. https://doi.org/10.5281/zenodo.4943272.

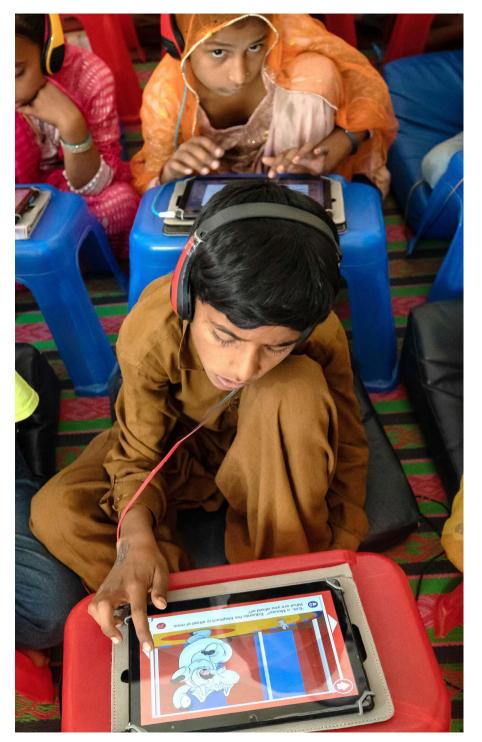


Photo by ELAN.

Appendix A: Shortlisted Innovations

Innovation Name	Country
Undisclosed innovation	Bangladesh
Adolescent Girls Non-Formal Education in Emergencies (AGNEE)	Bangladesh
Alokito Teachers	Bangladesh
Bangladesh Virtual Classroom (BVC)	Bangladesh
Blended Learning Toolkit	Bangladesh
BRAC Play Labs	Bangladesh
BYLCx	Bangladesh
CholPori	Bangladesh
Connection beyond the camps: Digital education for Rohingya refugee children	Bangladesh
Digital School Program	Bangladesh
Edu Lawn	Bangladesh
ELAN – Enhancing Literacy and Numeracy	Bangladesh
Experiential Play-based Learning Boats	Bangladesh
Goniter Jhuli by Banglar Math	Bangladesh
Goofi World	Bangladesh
GYAAN – Education Evolved	India
Konnect	Bangladesh

Last Mile Learning	Bangladesh
Lead Academy	Bangladesh
Learning in Tabs	Bangladesh
Librari – A Social platform for Gen Z to collaborate, learn, build community and showcase their skill	India
MathTronics	Bangladesh
Mekateam	Bangladesh
MuktoPaath	Bangladesh
NERDIZ	Bangladesh
Online Education Platform Called "Bondi Pathshala"	Bangladesh
Rangeet	India
Science Bee	Bangladesh
STEAM Kiddies	Bangladesh
Teachers' Portal	Bangladesh
The Trainer in your Pocket – transforming teaching through mobile video	Bangladesh
Tinkers Quizhero	Bangladesh

Appendix B: Advisory Board Members

Full Name	Country	Role, Organisation
Amod Gupta	India	Edtech Specialist
Amrita Bahl	Bhutan	Education Research Consultant, Druk Gyalpo's Institute
Anna Lager	Finland	Expert in Education Development, Omnia Education Partnership
Anoop Erakkil	India	Independent Researcher, Curriculum and Pedagogy Analysis
Ayu Maghfurroh	Indonesia	Graduate student, University of Helsinki
Balaussa Tursynbek	Kazakhstan	Student, New York University-Abu Dhabi
Carrie Lau	UK	Question Bank & VLE Administrator, London Institute of Banking and Finance
Chaea Lee	UAE	Student, New York University-Abu Dhabi
Francisco Robert	Argentina	Hundred Ambassador
G M Rakibul Islam	Bangladesh	Assistant Professor and Chairman, Department of Educational Administration, Noakhali Science and Technology University, Bangladesh
lpek Kay	Turkey	Co -Founder & Designer, MonnoM
Jagadish Reddy	Canada	Founder and CEO, HLEP (Hybrid Learning Ecosystem Platform)
Karime Pulido Ramzahuer	Mexico	CEO & Co-founder, Impakto Edukativo and Principal, Centro de Desarrollo Juan Jacobo Rousseau
Md. Hajrat Balal	Bangladesh	Education Specialist , Plan International Bangladesh
Md. Abdul Malek	Bangladesh	Manager and Innovation lead of Global Resource Mobilisation and Partnerships (GRP), BRAC
Megha Bhagat	India	Co-founder and CGO, Project DEFY
Meghana Srinivas	India	Founder & CEO, TrustIn
Mirela Gabriela Tanc	Romania	Teacher, trainer and mentor, "Oltea Doamna" Secondary School Oradea

Özge Karakaya	Turkey	Senior User Experience Designer, Commencis
Parvani Dawar	India	Program Manager - Learning & Development, KLAY Child Development Center
Rachel Shi	USA	Manager, DC Public Schools
Ram Chandra Dahal	Bhutan	Teacher, The Royal Academy
Samia Kazi	USA	Vice president, Arabian Child
Dinesh Kumar K.	India	Mission Leader, BigBodhi Academy
Savitha Ravi	India	Director and Cofounder - Pramiti School, Cofounder and researcher at Ekayana Learners Huddle
Sharanya Bharath	Denmark	Teacher
Shikha Tripathi	India	Principal, Orchids The International School
Yogesh Kumar	India	Post graduate teacher of Biology, Navodaya Vidyalaya Samiti



Photo by Konnect.

