THE EDTECH HUB
Research and innovation to fulfil the potential of EdTech

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18 large-scale EdTech initiatives on our radar in 2020

Posted on 22nd January 2020 by Caitlin Moss in general

During the EdTech Hub's inception phase so far, one question we hear a lot is: "What interesting or notable EdTech initiatives are you seeing?" Another question usually follows: "Which ones are reaching scale?"

This week we have joined the global education community in London for the Education World Forum and BETT meetings. This is a chance for education leaders and decision-makers to come together to discuss and share how best to improve and accelerate learning outcomes. In the spirit of sharing ideas, we thought we would put forth some examples of large-scale EdTech initiatives that are on our radar.

Drawing on the Hub's collective brainpower, we put together a list of 18 large-scale EdTech initiatives and why we think they are interesting.

This isn't an exhaustive list, but will give you a flavour of the diverse EdTech work happening around the globe. You may notice that the list below does not include government-led initiatives, although many of them work closely with government. We hope to look at government-led EdTech initiatives and policies in a future post.

Can't Wait to Learn (educational gaming for conflict-affected children)

The Can't Wait to Learn initiative uses custom gaming technology to deliver education to conflict-affected children in six countries: Sudan, Uganda, Lebanon, Jordan, Chad, and Bangladesh. The programme partners closely with ministries of education, and aims to reach 1.5 million children by 2023.

Why this is interesting: Among other innovative aspects of the programme, Can't Wait to Learn uses a delivery system that operates in low-infrastructure environments to provide educational gaming content that children have co-created and designed based on their own experiences.

EduTrac (education monitoring via SMS)

Piloted by UNICEF and the Ministry of Education and Sports in Uganda, EduTrac is designed to enable more frequent education monitoring than the annual school census allows. Designed for use in planning and management, through EduTrac school administrators report data via SMS, which is then shared with district education officers and the ministry through an online portal. EduTrac is operational in 37 districts of Uganda with 10,000 registered reporters in 3,800 schools.

Why this is interesting: EduTrac is in the process of scaling across primary schools in Uganda. It is designed to track attendance of teachers, pupils, and other key information as part of an integrated dashboard that includes different data sources.

Karri Payments (financial technology for school collections and fee payments)

Karri Payments is a financial technology application that enables teachers and school administrators to more quickly collect school fees and payments from parents, in a way that is more secure than traditional cash collections. As of 2018, Karri reached 300 South African schools and has expanded its offering beyond the education sector.

Why this is interesting: Karri Payments has the potential to save both teachers and parents time that would otherwise be spent on the administrative task of fee collection and provision. It includes automatic reminders for parents about payments, and can help make schools more secure by reducing the amount of cash on campuses.

eKitabu (local language digital content accessible to children of all abilities)

eKitabu uses open architecture, a global collection of ebooks and a network of ecosystem partners to lower the cost of delivering accessible education content in local languages. Since it was founded in 2012, it has brought digital content to over 1,500 schools across Kenya's 47 counties and 13 other African countries.

Why this is interesting: eKitabu stands out for its accessibility; the app reads e-books aloud for learners with vision impairment, and provides videos with sign language for

deaf or hard of hearing individuals.

eLimu (accessible digital content for literacy in East Africa)

eLimu is a leading digital educational content provider in East Africa. Its 'Hadithi, Hadithi!' app aims to improve literacy rates for 6 and 7-year-olds in the first two years of primary education through interactive stories. These stories are written by local teachers and illustrated by artists across East Africa. eLimu also offers teacher training courses.

Why this is interesting: Each Hadithi, Hadithi! story includes letter tracing, spelling and sentence making exercises, which help speed up children's progress in reading and writing.

Open Learning Exchange Ghana (low-cost, offline, solar-powered technology for teachers and pupils)

Open Learning Exchange (OLE) Ghana has worked on several initiatives with the Ministry of Education to support teachers' and students' use of technology. Teacher-Mate Ghana assists teachers with handheld devices and differentiated learning systems to improve pupils' basic literacy levels. Ghana Reads is an approach to student literacy-building that emphasizes self-paced, student-centered individual learning plans. Students use low-cost tablets, which link to an offline digital library housed on a Raspberry Pi, to complete teacher-assigned learning tasks. These programs are being implemented with 50 rural elementary schools in 8 of Ghana's 16 regions, serving 6,000 K-6 students.

Why it is interesting: Although not yet as large scale as some of the other entries on this list, OLE Ghana's programmes are notable for their use low-cost, offline, solar-powered technology, making them accessible in low-infrastructure environments.

Onebillion (hardware and software for mother-tongue literacy and numeracy education)

Onebillion provides educational hardware (Onetab and a solar-powered projection solution) and software (Onecourse) for literacy and numeracy that is implemented both in schools, as well as in communities with limited access to traditional education. Over 100,000 children are already using Onecourse numeracy material in 50 languages. Onebillion is a Global Learning XPRIZE winner and is working with partners in Kenya, South Africa, Uganda, India, Ethiopia, Brazil, Cambodia, Malawi, and the United Kingdom.

Why this is interesting: Onebillion has been tested both in schools, with teacher support, and communities, and has shown learning gains for children in both settings. In addition, recent evidence from Malawi shows that in contrast to typical gender discrepancies between boys and girls in early-grade mathematics and reading performance, boys and girls using Onebillion performed equally well in these subjects.

Eneza Education (supplementary content for rural learners in Kenya, Ghana, and Cote d'Ivoire)

Eneza Education provides supplementary revision and learning materials through basic feature SMS, online and mobile applications that provide individualised feedback to learners. It uses basic feature phones that enable students to access curriculum resources, ask questions to teachers, look things up on Wikipedia, and more. Eneza supports learners in rural areas, who make up 70% of its user base of 380,000 monthly subscribers. Students in Kenya who use Eneza have been shown to improve their academic performance by 22% after 3 months.

Why this is interesting: Eneza's content is not only hardware-agnostic, but also affordable, government-accredited, and designed to accommodate the reality of low smartphone penetration in rural areas.

Kolibri (openly licensed, offline digital content for low-resource communities)

Kolibri is an offline app for education that works in low-resource communities, such as rural schools, refugee camps, orphanages, non-formal school systems, and prison systems. It is hardware-agnostic and provides offline access to its educational content library in 23 countries for over 6 million users.

Why this is interesting: Kolibri scrapes openly-licensed digital content from the web and hosts it in a library that is accessible to users offline via local server.

Africa Knowledge Zone – Know Zone (educational TV content to improve literacy and numeracy)

Know Zone is a locally produced TV series in Kenya, Uganda and Rwanda. It aims to raise children's literacy and numeracy levels, and is aligned with official primary school syllabi. In 2014, Know Zone reached 3 million viewers, with children who watched Know Zone outperforming non-viewers (who own a TV) by 10%.

Why this is interesting: Not only is Know Zone's content locally produced and relevant, but the programme also supplements its educational TV content with two-way interaction with viewers through SMS and social media channels.

Impact Network (holistic e-school model for education in Zambia)

Impact Network uses a technology-enabled, eLearning model called eSchool 360 to provide education. After a pilot with eight schools in 2013, Impact Network launched an expansion to reach an additional 35 schools in Zambia. Learn more about the program's results.

Why this is interesting: The model includes student-centered instruction, tablets and projectors containing pre-loaded, curriculum-aligned lesson plans for locally hired teachers, and weekly coaching sessions to support these teachers to improve classroom practices. While it is still relatively small in scale, it is on our radar as a holistic school model facilitated by tech to support learning, instruction, and management.

Bridge International Academies (technology-enabled schools)

Technology underpins much of the model of Bridge International Academies. They use smartphones, digital teacher guides, and a cloud to deliver standardised lessons, monitor classroom activities and more. Bridge's experience represents a significant deployment of EdTech at scale, having reached over 750,000 students in Africa and Asia since 2009. Bridge runs some low-fee schools, but the majority of their work is now supporting government schools through public-private partnerships, as in Liberia, under the Liberian Education Advancement Programme in which it is one of seven partners. A recent report shows mixed results.

Why this is interesting: Bridge has reached a scale that other EdTech initiatives have yet to achieve. It is also one of the few initiatives on this list where the technology is put in the hands of teachers. The tech is designed to work in low-infrastructure environments and touches almost every component of Bridge's model, from education content and classroom interaction, to school monitoring and management.

Gooru (individualised learning in India)

Gooru uses technology to assess students' baseline knowledge and skills and then creates individualised learning journeys, providing learning materials and iterative assessment through its learning Navigator. Gooru's Navigator is being piloted with 200,000 primary school students in the Indian states of Chhattisgarh and Maharashtra.

It aims to reach over 10 million students with statewide implementation by 2022. It is also used by 3 million K-12 students (5 to 18 year olds) in the United States.

Why this is interesting: Gooru's Navigator, which uses Artificial intelligence to personalise learning, integrates into a variety of applications that serve a range of learner needs, from primary education to higher and technical education. And it makes data on progress accessible to students, teachers, administrators and content providers.

Mindspark (computer-assisted learning in India)

As a computer-based, online and offline self-learning tool based on pedagogical research, Mindspark helps improve children's maths skills by combining individualised learning with curriculum-aligned content. The programme is reaching over 80,000 students and over 200 schools in India.

Why this is interesting: Recent research has shown Mindspark's promise in improving learning outcomes in Hindi and maths for its users.

Let's Read (locally contextualised digital library of ebooks for Asia)

Developed by the Asia Foundation and Library for All, Let's Read is a digital library of books for children in Cambodia and Mongolia. It aims to improve access to age- and culturally-appropriate children's literature in resource-poor schools and foster an affinity for reading. Let's Read uses an Android-based digital platform to distribute over 200 titles in multiple languages, with characters, themes, and settings that reflect the lives of its grades 5 to 9 readers.

Why this is interesting: Not only is Let's Read directly providing digital books to address scarcity in Asia; it is also working towards systemic, long-term solutions to this issue by bringing together educators, publishers, universities, and community organisations.

Mtabe (AI and SMS for secondary school students' offline learning in Tanzania)

Mtabe is a startup that uses artificial intelligence and SMS technology to deliver learning content to students who cannot afford textbooks and do not have internet access. Mtabe provides instant curriculum-aligned answers to secondary school users through an SMS chat-based search engine that works online and offline. Over 15,000 students use Mtabe, with plans to introduce the app nationwide.

Why this is interesting: Mtabe offers a promising solution for access to supplementary materials and content for contexts with limited internet access, and relies on basic hardware that is already familiar to students.

Siyavula (Open Educational Resources and adaptive software for high school mathematics and science)

Siyavula Education aims to help learners improve their performance in high school mathematics and science. It uses software to provide adaptive and targeted practice for maths, physics and chemistry for grades 8 to 12 (13 to 18 year olds) in South Africa. It also supports adaptation based on learners' progress and teachers' data-driven decision-making in the classroom via a teacher dashboard. Siyavula was projected to reach over 300,000 learners in 2018.

Why this is interesting: With equity as a major focus since the beginning, Siyavula provides learners with openly licensed, curriculum-aligned, Open Education Resources (OERs) that avoid heavy data requirements and can be accessed on basic-feature phones.

Syafunda (localised supplementary education for high school maths and science)

Syafunda is a learning and data management platform that provides access to supplementary education through mobile technology and localised digital content development and distribution in South Africa. Video tutorials in local languages for maths and science in grades 8 to 12 (13 to 18 year olds) are distributed directly to learners through mobile devices in over 900 schools with over 80,000 subscribers across the country.

Why this is interesting: Syafunda is designed to be accessible to rural students; it can be used both online and offline, and video tutorials are available in Zulu as well as English.

In conclusion

As mentioned earlier, this isn't an exhaustive list. As you might have noticed, we didn't worry too much about a specific definition of "large-scale" and instead focused on identifying edtech initiatives that are working at *some* level of scale. That said, one tool that the EdTech Hub is using to think about scale is the International Development Innovation Alliance scaling framework (you could think of many entries on this list as falling against IDIA stages 4 or 5).

By including these projects here, we're not endorsing everything they do, but hopefully, they will have sparked your interest in the ever-expanding world of EdTech. We will have missed other projects out there – please share exciting projects you know about by tweeting us! We hope you enjoyed our quick introduction to some exciting EdTech projects on our radar. Stay tuned for an upcoming post on our EdTech research reading list.

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One thought on "18 large-scale EdTech initiatives on our radar in 2020"

Juliana Amoateng says:
26th January 2020 at 10:35 pm

This wasn't exhaustive at all! I'm so happy for all those children having access to these initiatives and improving gradually amidst their location. And I'm glad Ghana is on the list too! I'm enthused about Edutrac and Karri Payments and I hope Ghana jumps on them soon. Worldreader is also an open-license app that hosts story books for both children and adults. Great content in there!
Ps. Ghana now has 16 regions.

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