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High, Low, or No Tech? A Roundtable Discussion on the Role of Technology in Refugee Education

Outcome paper
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Introduction

As the initial shock of the COVID-19 pandemic begins to wear off, and children in many countries head back to school, the effects of the pandemic continue to linger. The global education community has witnessed increased attention on education technology (EdTech)* to adapt to learning from home and mitigate the effects of learning loss. The pandemic has had a disproportionately harmful impact on refugees around the world, exacerbating already existing participation challenges. 48% of school-age refugees are unable to attend school.[i] Only 68% of refugee children attend primary school – compared with 91% of children globally - and only 34% of refugee children were enrolled at secondary level in 2020.[ii] Now, refugee children and youth are more likely than others to not return to school when schools reopen and may drop out quickly if they do return.[iii]

Against this background, a roundtable discussion was hosted on 5th October 2021 by the Abdulla Al Ghurair Foundation for Education (AGFE), Save the Children, and EdTech Hub. As the third annual roundtable on refugee education, the event brought together global education stakeholders from diverse perspectives and geographic locations, including donors, practitioners, and beneficiaries of EdTech programmes in refugee settings. Roundtable participants reflected on the achievements of the past two years[iv] and the role of EdTech in refugee education.

Key message	**Questions for discussion**
Recognising that EdTech does not present a silver bullet, but that it can be part of the solution to equitable refugee education, roundtable participants discussed:	• *When* is it most appropriate to use EdTech in refugee education? • *How* can EdTech be used? • *What* lessons have been learnt in the past year? • *Where* are the strategic investments in relation to EdTech and refugee education?

*** Definition of EdTech for this roundtable:** The use of digital or electronic technologies and materials to support teaching, learning and data collection on education services.

This paper contributes to the global discourse on EdTech and refugee education, through synthesising outcomes of the roundtable and sharing the calls to action.

CALLS TO ACTION

1. **Listen, reflect, and engage** with refugee students, teachers, and parents.
2. Build **multi-stakeholder collaborations** to provide holistic responses to refugee education.
3. Prioritise **localisation** in EdTech approaches to refugee education.
4. Use **high, low, and no-tech modalities for refugee education** to align with the context.
5. Strengthen the **technological infrastructure** to increase access for all.
6. Prioritise **student and teacher learning and wellbeing**.
7. Maintain a **sustained focus** on EdTech and refugee education.

Calls to action

1. Listen, reflect, and engage with beneficiaries

Roundtable participants emphasised the importance of ensuring the equal participation of beneficiaries of refugee education programmes at the table. At this roundtable, youth participants - Syrian refugees - were present in the discussion to share their views and engage with education stakeholders.

The adoption of participatory approaches in the design phase (through human-centred design) to EdTech and refugee education is critical to ensure that programmes and interventions truly reflect the needs of beneficiaries, and ultimately benefit the communities they are designed to support.

Stakeholders are urged to listen carefully and with intentionality. This means adopting the intention to hear what is needed, to create jointly and purposefully designed ecosystems, to ensure the technological infrastructure is in place, and to engage in capacity-building and systematic customisation of education for all learners.

Spotlight: The role of the youth in the continuity of refugee education

Name: Nahla Al Abrash
Age: 14 years
Role: Youth participant, Syrian refugee in Lebanon

Name: Mohammad Khaled
Age: 17 years
Role: Youth participant, Syrian refugee in Lebanon

Continuity extends beyond high-level stakeholder discussions. Mohammad and Nahla are both appreciative of the education they have received through the support of Abdul Aziz Al Ghurair Refugee Education Fund and War Child Holland using the Discovery Education platform.

EdTech can play an important role in **motivating** learners to continue their education. Mohamed emphasises that the use of the platform motivated him to continue his studies, particularly referencing useful videos, interactive quizzes, and entertaining content that help him to understand the subject matter.

Likewise, programme beneficiaries play a critical role in **continuing the cycle** of education, through leveraging what they have learnt to benefit others. Nahla repurposes the lessons she has learnt from Discovery Education to teach others: *"I take tools and ideas from the platform, rearrange and reorder them, then post them on my YouTube channel."*

Nahla pledges to continue this cycle. "*This is our promise to you. We will build a beautiful future and achieve our goals. Everything we learn from you today, we will need a lot tomorrow."*

2. Build multi-stakeholder collaborations

The challenges facing refugee education are complex and require multiple stakeholders to effectively address them at scale. Stakeholders can collaborate on different fronts, including financing, operations, and the exchange of ideas.

When we discuss stakeholder collaborations, it is critical to foreground the role of teachers and parents in the discussion. Stakeholders should view EdTech investment as incorporated into wider education investments which deliver on education sector plans – it should not be viewed as a separate approach or investment. Additionally, stakeholders should collaborate with national governments to include refugees in the national education system to reduce the access and learning gap between refugees and host communities. Through investing in refugee education, donors, philanthropists, and the private sector have the opportunity to leave a tangible legacy with displaced communities. The private sector has a critical role to play in providing funding and resources for EdTech-supported refugee education programmes.

Multi-stakeholder collaborations are impactful when there is alignment of shared values, prioritisation, and accountability. H.E. Abdul Aziz Al Ghurair emphasises the need for strategic partnerships in order to make a large-scale impact.

> ***"We need strategic partnerships funding EdTech programmes together... Making sure that the skills are relevant and that graduates find jobs."***
>
> ***– H.E. Abdul Aziz Al Ghurair, Chairman, AGFE***

Adopting collaborative principles informs the design of EdTech solutions. EdTech platforms, software, and technologies should be interoperable, meaning the systems can integrate with each other. In order to achieve this, the education community needs to consider the use of open APIs (Application Programming Interfaces), as well as open-source applications and technologies. Mike Dawson, CEO of Ustad Mobile, calls on donors to place open standards in their contracts,[v] and calls on implementers to openly license their work. Picking up on these remarks, we encourage all stakeholders involved in EdTech to refer to the Principles for Digital Development which were developed through a long period of consultation and have been endorsed widely.

Box 1. Examples of multi-stakeholder collaborations.

- Pearson, Save the Children, and the Ministry of Education supported learning in Jordan through the Every Child Learning programme
- UNHCR and Vodafone Foundation implemented the Instant Network Schools
- DOT Lebanon offers blended certificates with Google and CISCO
- Abdul Aziz Al Ghurair Refugee Education Fund increased their partners to include USAID, GIZ, and Global Affairs Canada. During the same year, their reach grew from 5,000 to 11,000+ students

3. Prioritise localisation in EdTech approaches

When it comes to refugee education, one size does not fit all.[vi] Education needs to adapt to the learner, the context, and the level of access to technology. A rapid evidence review on EdTech and refugee education highlights key considerations when adapting EdTech for refugee contexts.[vii] Data collection is critical to ensure education is driven by the needs of learners. However, while data-driven decision-making is critical, data collection may be politically sensitive in refugee contexts. This can be mitigated through working with trusted partners.

> ***"Refugee learners have experienced more frequent and chronic disruptions to schooling, with an increased need for personalised learning pathways."***
>
> ***– Verna Lalbeharie, Executive Director, EdTech Hub***

EdTech initiatives need to be localised, which refers to the choice of technology. This can mean using platforms and products that emanate from the context or ensuring that initiatives are designed to build on the existing technology. For example, the Mobile Learning Lab provides learners with computers or tablets depending on the need, whilst at other times, learners access the platform through their own smartphones. Learners are sometimes provided with solar panels for charging, or a RACHEL server with 1TB of data, depending on the local needs.

Offline solutions can be used when access to the internet is limited. Displaced people are 50% less likely to have an internet-capable phone,[viii] which limits their opportunities to access the internet and digital learning. As an example of offline solutions, UNHCR has been working with Learning Equality to develop Kolibri Fly, a platform that enables students and teachers to access curriculum-aligned educational material offline.

When localising EdTech solutions, it is critical to consider learning outcomes, as well as a broader set of data points, allowing stakeholders to tailor education for the whole child. For example, Luminus provides children with laptops for learning, and where needed, they also provide children with food packages that protect their food security as they learn.

Cost can be a significant barrier to adopting EdTech solutions, and it is critical to consider innovative, appropriate, cost-reducing interventions such as radios, printed materials, and technology that does not rely on a regular internet connection. Ustad Mobile designed a cost-reducing intervention that made it possible for phones to connect with each other. When a teacher downloads an educational package, they can share the package with 20 other phones, reducing the costs of downloading material by a factor of 20.

H.E. Abdul Aziz Al Ghurair engaging with students in UNHCR's Connected Learning Lab during his visit to Azraq

© Abdul Aziz Refugee Education Fund, 2019
Camp, Jordan in 2019

4. Use high, low, and no-tech modalities for refugee education

When EdTech is being used, it needs to be tailored to the particular context. This means, firstly, recognising the particular need that EdTech is addressing and, secondly, using high, low, and no-tech modalities to ensure the EdTech approach is suitable for the context and individual needs. Save the Children has done a rigorous review of the role of EdTech in emergency settings[ix] which provides key findings and areas for ethical engagement.

Firstly, EdTech programmes should respond to a particular, contextualised need. For example, more than 85% of Syrian refugee families in Jordan live below the poverty line,[x] making it critical to connect education to employment, empowering learners with the skills they need to lift themselves out of poverty.

Secondly, EdTech programmes must account for the individual skills and needs of teachers and learners. Refugee children typically lose multiple years of schooling, so there can be a mismatch between their age and their learning level.[6] This makes data gathering on students' levels, and the development of personalised learning pathways, all the more critical. Relatedly, refugee learners may have particular needs such as language support, remedial classes, and mental health and psychosocial support. EdTech can be used to conduct formative assessments of student learning, such as the One Billion, One Test.

Beneficiaries of education programmes will have different levels of digital literacy. For example, the 60 Million Girls Foundation gave tablets to children in Sierra Leone without any instructions. Within a matter of minutes, children were able to connect and use the tablets. Typically, children adapt faster to technology than adults do.

Thirdly, the choice of high, low, and no-tech modalities needs to be informed by the available technology. This means considering available devices, levels of connectivity, access to electricity, and the digital literacy of learners and teachers. EdTech Hub's curated resource list for using EdTech in settings of fragility, conflict, and violence[xi] is informative in offering a range of EdTech interventions to suit different contexts. Over

the past year, Save the Children has supported many children through EdTech programmes, within which they tailored the use of technology to the context. Across these programmes, they worked with a range of technologies including the use of low-tech solutions including interactive voice response (IVR) with teachers, SMS with parents, and radio with children. They have also used high-tech solutions including, WhatsApp, Moodle, Zoom, and Microsoft Teams with teachers.

> ***"Do not be afraid to reinvent education. Rather than modelling technology to teach in the same ways as offline learning, be innovative."***
>
> ***– Andrew Ko, CEO, Education 4.0***

Whether high, low, or no-tech modalities are used, it is beneficial to design EdTech programmes in line with the unique benefits that technology can offer. Rather than remodelling face-to-face instructional techniques in a virtual environment, educators should adopt instructional methods and pedagogical strategies that exploit the functionalities of technology. Examples include flexible learning through the use of asynchronous activities, interactive programming, and virtual manipulatives for teaching mathematics.

Maria, 13, Za'atari Refugee Camp, Jordan, poses with her new tablet which will be used to support her with extracurricular learning.

© UNICEF/Al Jabari, 2021.

A radio learning show begins in Rwamwanja refugee settlement, western Uganda. As part of the response to Covid-19, Save the Children used local radio stations to broadcast educational information.

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5. Strengthen the technological infrastructure

Taking a long-term view on the sustainability of EdTech in refugee education, it is important for stakeholders to invest in strengthening the national and local technological infrastructure, in order to allow for appropriate EdTech solutions to be used. This includes strengthening access to devices, connectivity, and electricity. In order to do so, it is critical for national governments to be engaged in the solution, such as with UNICEF & ITU's Giga Connect.

Approximately 85% of all refugees worldwide are hosted in low- and middle-income countries (LMIC).[xii] In many cases, these countries have poor levels of technological infrastructure. In order to strengthen the capacities for refugee education, it is important to invest in the infrastructure, whilst also innovating solutions for learners with low levels of access. For example, in Lebanon, the provision of tablets to learners did not solve the educational challenge, as many children did not have access to the internet to access education on these devices. Low-tech solutions were key in these contexts. For example, MMKN, Save the Children (in India), and Jusoor (with UNHCR and EdTech Hub) used WhatsApp as a way of communicating with students and delivering lessons through a medium that was familiar to most students. Given the recent power shortages in Lebanon, it is worthwhile to consider the use of alternative forms of power, such as solar panels for charging.

Limited resources in LMICs present a significant challenge with refugee education. Firstly, inequalities in in-person education often get translated into EdTech engagement.[xiii] For example, inequalities in access to smartphones can lead to inequalities in access to digital education facilitated through these smartphones. The poorest refugees, girls, children with disabilities, and those in rural areas are less likely to have access to devices. Secondly, integration of refugees can prove more difficult when resources are limited and there is competition for resources between refugees and host communities, as is the case in Lebanon.

> ***"To move forward with bridging the digital divide, we need to rebuild the basic infrastructure first."***
>
> ***– Yasmine Sharif, Director, Education Cannot Wait***

Roundtable participants highlighted the importance of paying due consideration to the digital divide and its effects on education. Improvements in the EdTech space can, at times, have an adverse impact on vulnerable groups.[xiv] The COVID-19 pandemic has catalysed discussion on remote education and digital connectivity, along with increasing donor attention, government buy-in, and financial investments. As a result, remote education may advance quickly, widening the gap for refugees and displaced learners who are disconnected. It is, therefore, imperative to strengthen the digital ecosystem for all, whilst ensuring that we are leaving no one behind.

6. Prioritise student and teacher learning and wellbeing

When implementing EdTech programmes for refugees, practitioners should engage in capacity-building for students and teachers. As well as academic capacity-building, this extends to providing them with safe learning spaces, food and health security, and professional and socio-emotional support.

EdTech interventions should never be solely about the *technology;* rather, they should focus on the *educational* components. As an example of this, the 60 Million Girls Foundation designed an intervention using Universal Design for Learning, ensuring the intervention was accessible for all students, and prioritising the pedagogical design of the intervention.

Skills and training are needed for EdTech interventions to be a success. Teachers need to be supported and trained to introduce the use of technology in the classroom. For example, the Abdul Aziz Al Ghurair Refugee Education Fund, in collaboration with Discovery Education and War Child Holland, supported the training of teachers to create interactive lessons aligned to the curriculum and learning outcomes. 97% of teachers reported being likely to continue using the resources.

When using EdTech for learning, it is critical to also consider what may be lost from a learner's educational experience. While the focus of EdTech is often on learning outcomes, it is important to also pay attention to learners' socio-emotional growth.

Children and teachers in refugee contexts have suffered recent - and likely ongoing - traumas, and EdTech can be leveraged to offer socio-emotional learning and psychosocial support. For example, the Ministry of Education in Jordan worked with Save the Children to deliver psychosocial programmes for teachers, administrators, students, and their parents. These programmes included e-learning pedagogy, online safety, psychosocial wellbeing and resilience, and problem-solving. Similarly, MMKN launched *Mind Relief*, a platform that supports refugees to navigate trauma. It is important that the use of technology for well-being purposes reinforces in-person activities, rather than replacing them.

> ***"Our children may be learning in isolation, but they need to be growing in societies."***
>
> ***– Dr. Sonia Ben Jaafar, CEO, AGFE***

Critically, EdTech can support teachers to build communities, so that they can support and learn from their peers. For example, Discovery Education runs an Educator Network which connects educators with each other, encouraging them to share best practices, and to build up the confidence to trial what they have learnt in their own classes.

7. Maintain a sustained focus on EdTech and refugee education

Noting that this is the third annual roundtable on refugee education, participants emphasised the importance of continuity in approaches to refugee education, including the role of EdTech. Participants encouraged all stakeholders to continue the discussion on refugee education and EdTech beyond this session, using the calls to action as guidance for the ways forward. While discussions are useful for bringing stakeholders together and identifying possible routes forward, it is critical that discussions are seen as merely the first step towards taking effective action for refugee education.

> ***"Children's futures are on the line."***
>
> ***– Gwen Hines, CEO, Save the Children***

When it comes to practical implementation, stakeholders should prioritise continuity by considering the sustainability and cost of EdTech programmes at the start of any intervention, ensuring that they are designed for scale, that lessons can be learnt from the programmes, and that they can be implemented across contexts.

Two children at a UNICEF supported Makani centre using tablet to support their schoolwork during closures.

Conclusion

The global COVID-19 pandemic has brought increased attention to the use of EdTech to improve the access and quality of refugee education. Through this roundtable, the co-hosts sought to bring together diverse stakeholders in order to discuss innovative programmes that have worked on the ground, and to foreground the critical role of multi-stakeholder collaborations to effectively respond to the challenges of refugee education. There is sufficient evidence available, from the academic community and from empirical cases on the ground, that points to 'what works' in refugee education. Given the availability of evidence, roundtable participants call on education stakeholders to take action, leveraging evidence-based effective practices, before there is a larger disaster.

Refugee populations have unfortunately had to become accustomed to shocks that interrupt their access to education. It is time our education systems were better prepared to respond to shocks, taking an anticipatory action approach. Technology can support stakeholders in adopting such an approach.

Roundtable participants unanimously agreed to continue efforts towards the effective use of EdTech in refugee education beyond the roundtable. Participants call on the global education community to learn from the key messages, positive examples, and calls to action in order to collectively work towards increasing the equitability of refugee education around the globe. Through leveraging the benefits of EdTech, and through working together, young people, teachers, parents, donors, philanthropists, international organisations, and the private sector can make a tangible impact on refugee education.

Harriet holds the radio she brought with her from South Sudan, at her home in Bidi Bidi Refugee Camp in Northern Uganda.

Endnotes

[i] UNHCR, 2021. 'Staying the Course: The Challenges Facing Refugee Education.' Education Report 2021. Available online at: <https://www.unhcr.org/612f85d64/unhcr-education-report-2021-staying-course-challenges-facing-refugee-education>.
[ii] Ibid.
[iii] UNHCR, 2020. 'Coming Together for Refugee Education.' Education Report 2020. Available online at: <https://www.unhcr.org/5f4f9a2b4>.
[iv] See outcomes of last year's roundtable on Refugee Education: https://resourcecentre.savethechildren.net/node/18601/pdf/refugee_education_roundtable_discussion_outcomes_paper.pdf.
[v] Example contract requirements can be found here: "Federal Open Licensing Playbook" - https://eca.state.gov/files/bureau/open_licensing_playbook_final_.doc.
[vi] Burns, 2021. 'Background paper prepared for the 2023 Global Education Monitoring Report: Technology and education.' Available online at: <https://learningportal.iiep.unesco.org/en/library/background-paper-prepared-for-the-2023-global-education-monitoring-report-technology-and>.
[vii] Amy Ashlee, Giulia Clericetti, and Joel Mitchell, 2020. 'Refugee Education: A Rapid Evidence Review'. Available online at: <https://edtechhub.org/rapid-evidence-review-refugee-education/>.
[viii] UNHCR, 2016. 'Connectivity for everyone.' (Accessed 5 October 2021), <https://www.unhcr.org/innovation/connectivity-for-everyone/>.
[ix] Michaelle Tauson and Luke Stannard, 2018. 'EdTech for Learning in Emergencies and Displaced Settings.' *Save the Children*. Available online at: <https://www.savethechildren.org.uk/content/dam/global/reports/education-and-child-protection/edtech-learning.pdf>.
[x] UNICEF, 2018. 'UNICEF assessment shows 85 per cent of Syrian refugee children in host communities live in poverty.' (Accessed 5 October 2021), <https://reliefweb.int/report/jordan/unicef-assessment-shows-85-cent-syrian-refugee-children-host-communities-live-poverty>.
[xi] Saalim Koomar, Caitlin Moss Caflan, and Tom Kaye, 2020. 'Using EdTech in Settings of Fragility, Conflict and Violence: A Curated Resource List'. Available online at: <https://docs.edtechhub.org/lib/?all=Using+EdTech+in+Settings+of+Fragility%2C+Conflict%2C+and+Violence%3A+A+Curated+Resource+List&page=1&page-len=1&sort=score&id=CMS6HPI8>.
[xii] Amnesty International, 2021. 'The World's Refugees in Numbers.' (Accessed 5 October 2021), <https://www.amnesty.org/en/what-we-do/refugees-asylum-seekers-and-migrants/global-refugee-crisis-statistics-and-facts/>.
[xiii] Kevin Hernandez and Tony Roberts, 2018. 'Leaving no one behind in a digital world.' Available online at: <https://assets.publishing.service.gov.uk/media/5c178371ed915d0b8a31a404/Emerging_Issues_LNOBDW_final.pdf>.
[xiv] Tim Unwin, Mark Weber, Meaghan Brugha and David Hollow, 2017. 'The Future of Learning and Technology in Deprived Contexts.' Available online at: <https://resourcecentre.savethechildren.net/pdf/the_future_of_learning_and_technology.pdf/>.

Annexe 1: Roundtable speakers

H.E. Abdul Aziz Al Ghurair	*Chairman, Founder*	*Abdulla Al Ghurair Foundation for Education, Abdul Aziz Al Ghurair Refugee Education Fund*
Gwen Hines	*CEO*	*Save the Children UK*
Dr. Sonia Ben Jaafar	*CEO*	*Abdulla Al Ghurair Foundation for Education*
Khaled Khalifa	*Representative to the States of the GCC*	*UNHCR*
H.E. Mohammad Abu Qudais	*Minister*	*Ministry of Higher Education and Scientific Research, Jordan*
Yasmine Sherif	*Director*	*Education Cannot Wait*
Marianne Bitar Karam	*Managing Director*	*DOT Lebanon*
Robin Headlee	*Managing Director*	*Discovery Education*
Mariam Nusrat	*Education Specialist*	*World Bank*
Andrew Ko	*Founding Team/ Director*	*Education 4.0*
Verna Lalbeharie	*Executive Director*	*EdTech Hub*
Mike Dawson	*CEO*	*Ustad Mobile*
Wanda Bedard	*President and Founder*	*60 Million Girls Foundation*
Magdalena Brier	*CEO*	*Fundacion ProFuturo*
Paul Ellingstad	*Social Innovation Director*	*Pearson*
Nahla Al Abrash	*Youth participant*	*Abdul Aziz Al Ghurair Refugee Education Fund, War Child Holland, and Discovery Education*
Mohammad Khaled	*Youth participant*	