



**How can technology  
facilitate parent and  
caregiver engagement  
in children's learning?**

Worldreader and Education Finance Network, 2024

# How can technology facilitate parent and caregiver engagement in children's learning?

The proliferation of digital education technology (EdTech) in recent years, spurred on by the COVID-19 pandemic, has not only dramatically increased access to teaching and learning resources [1], but also provided new ways for parents to engage in their children's learning. This paper explores the opportunities and challenges in enhancing parent and caregiver engagement through the use of EdTech, and presents lessons learned from EdTech interventions aimed at increasing reading among children in low- and middle-income countries across the world.

## Challenges to increasing parent and caregiver engagement through EdTech

There is overwhelming evidence that greater parent and caregiver engagement, in both traditional and technology-enabled learning, can lead to significant positive effects on children's learning outcomes. [2] Technology can help parents monitor their children's progress, collaborate more with schools and teachers around their children's learning, and engage with educational content together with their children. This active involvement enhances the support system around learners, leading to improved learning outcomes.

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[1] UNESCO, 2023. Global Education Monitoring Report. Technology in education: A tool on whose terms?

[2] Nicolai, S, 2023: Edtech and parental engagement

However, research featured in the Education Finance Network's *Non-State Actors in Education: Evidence Gap Map* [3] shows that there are barriers to parents' ability to engage in their children's learning through the use of technology, particularly in low-resource communities. These challenges include:

- **Geographic:** Low connectivity in isolated/rural areas means that parents are less likely to have access to technology or data at home, which will hinder their ability to engage with EdTech.
- **Gendered access to technology:** Cultural and financial barriers to women accessing technology means that mothers/female caregivers, who often play a more prominent role in children's learning overall, may face barriers in owning devices, having data, or engaging in technology.
- **Cost of devices:** While mobile ownership is indisputably on the rise, inequalities in ownership, particularly for low-income communities and women, persist.
- **Low levels of digital literacy:** Many parents in low- and middle-income countries have begun using mobile technologies in new ways (particularly mobile money) but working with education applications is in general new and unfamiliar.

Low levels of parent education can also negatively impact parent engagement in children's learning overall. Consequently, engagement in EdTech learning becomes even more challenging, as it is compounded by the presence of the other challenges above.

While these challenges are substantial and complex, organizations like Worldreader, an Education Finance Network member and key contributor to the Evidence Gap Map, are working to bridge these barriers and generate evidence on what works for engaging parents and communities in reading.

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[3] <https://www.edu-links.org/resources/nonstate-actors-education-interactive-evidence-gap-map-0>

## Empowering parents in children's reading development: Worldreader's BookSmart

Worldreader, a global nonprofit, operates at the intersection of technology, education, and research. Since launching in 2010, Worldreader has reached 22 million readers around the globe. Focused on children aged 3-12 in under-resourced communities, Worldreader works to get families and communities reading together. With a goal of improving reading comprehension, socio-emotional development, and digital literacy, Worldreader's reading program uses a combination of digital and community strategies to foster family-centered literacy practices.

Key to Worldreader's work is BookSmart, a versatile digital reading platform that aims to support and assist parents and children with appropriate, relevant, and high-quality children's books and activities in multiple languages. BookSmart is free, family friendly, and its resources are adapted to the local cultural, linguistic, and educational contexts of the reader.

Since 2015, Worldreader has set out to learn more about how mobile technologies and digital content can improve parent, community, and out-of-classroom learning. For the past eight years, through multiple research projects drawing from its programs, Worldreader has generated insights into how to reach and engage parents, caregivers, and families in reading. Through years of formative research, academic partnerships, reading data, and product testing, Worldreader has generated insights into key elements to consider when using technology to engage parents in learning.



Readers in Kenya. BookSmart, Worldreader's reading experience app, is available for free across devices, and is used in over 100 countries.



## Worldreader's insights into engaging parents and families

### 1. UNDERSTAND PARENTS

Formative research frequently demonstrates that parents may understand the value of reading, but not their role in helping their children become stronger readers. Parents who were not read to as children often lack the confidence, skills, and time needed to read to their children. In addition, parents often lack easy to use and trusted tools, including books. Barriers for parents differ based on location, gender, and context.

Including parents in co-design prior to launching any EdTech solution helped Worldreader understand parents' daily routines, lives, prior experience with reading, phone/data ownership, and gender dynamics. Taking the time to involve parents was critical to informing and adjusting programs, including the types of books, languages, messages, incentives, and technology to use.

- Worldreader's early research in India found parents associated reading with studying, and therefore any call to action to parents needed messaging focused on the relationship of reading to academic success. In the testing of digital messages or "nudges", research showed parents engaged in books more frequently when the benefits of reading were associated with improvements in vocabulary, grades, or cognition. [4]
- Conversely, research from Jordan discovered that Syrian refugee parents saw their role in reading as an opportunity to improve parent-child connections, hence digital messaging for parents needed to remind them of the socio-emotional benefits of reading to their children. [5]

Further, the effectiveness of messaging to parents is also impacted by external factors (like COVID-19) In Peru's CreceLee program [6], in the midst of COVID-19 school closures, parents were motivated by messages that reminded them they were critical players in helping teachers with remote instruction and advancing the Peruvian curriculum during school closures.

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[4] Worldreader. [Leveraging Mobile Technology for Parental Engagement in the Early Years. Findings from the Read to Kids India Pilot 2015-2017](#)

[5] Worldreader. [The Benefits of Digital Reading for Vulnerable Families in Crisis Settings. Findings from the Tuta Tuta project in Jordan](#)

[6] Worldreader. [Informe de estudio de caso. Promoviendo el acceso a la lectura y los aprendizajes durante el cierre de escuelas por el COVID-19 en Perú.](#)

## 2. FIND TRUSTED INFLUENCERS

Concerns over the type of content children can be exposed to is a concern for parents almost everywhere. Working with both individuals and organizations that parents trust is critical when introducing new technologies and reading habits in the home. Pediatricians, teachers, schools, churches, and community-based organizations help build trust in both digital technology and belief in the benefits of reading in the home.

- **Healthcare:** In India, health clinics regularly recommended storytelling and reading aloud to support healthy child development while parents were in waiting rooms. Parents reached through clinics were more willing to read to their children because the call to action came from a trusted health provider. [7]
- **Schools:** In Kenya, in partnership with Overseas Development Institute (ODI), the Raising Readers project found that teachers were critical in influencing parents' uptake of BookSmart and reading to children in the home. Secondary benefits of teacher-assigned reading included more "school-to-home" communication, and community building helped reinforce positive parent-school relationships. [8]
- **Community-based organizations:** Worldreader partners with international NGOs such as CARE International or World Vision that have strong footprints in rural, vulnerable communities and established trust with parents. These partnerships are key to supporting parent awareness, skills-building, and digital literacy, and to increase impact and reach. Partners can provide additional support such as in-person training, community-based reading celebrations/campaigns, and coordination with local education authorities. In Egypt, CARE and Worldreader got over 712 families reading for 23 minutes a day on average after a few weeks, fostering new daily reading habits in communities without previous experience using digital tools or habits of reading aloud to children. [9]

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[7] [The Read to Kids Program Receives the mBillionth Award After Reaching 200,000 Families](#)

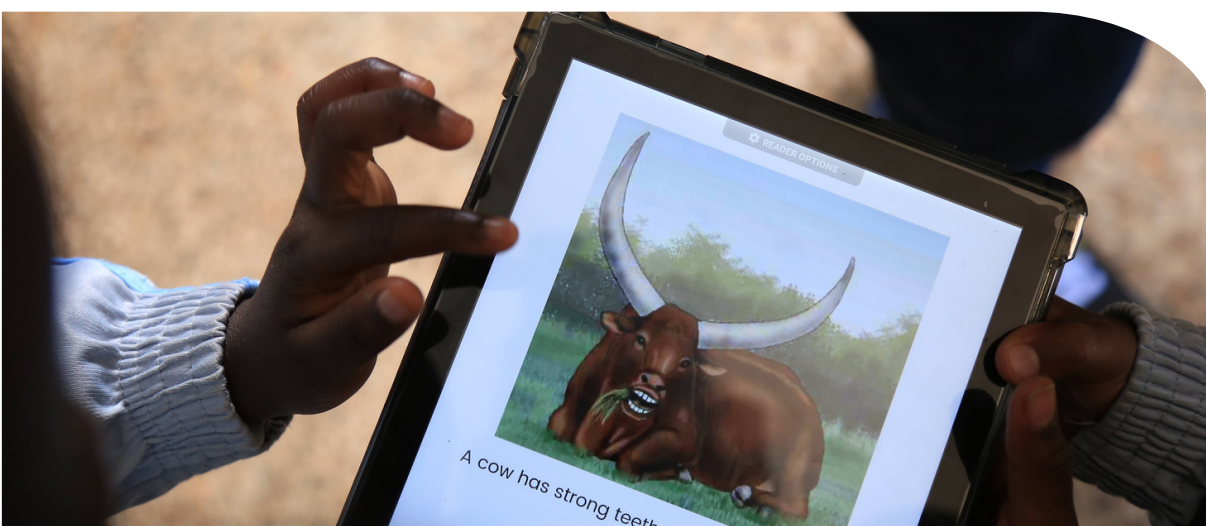
[8] EdTech Hub, 2022. [Raising Readers Baseline Report](#)

[9] Worldreader. 2022. [Care Egypt: Case Study](#)

### 3. DESIGN TECHNOLOGIES WITH EQUITY AND INCLUSION IN MIND

For many parents in low- and middle-income countries, digital solutions remain challenging. Infrequent or unstable connectivity, high data costs, coupled with low digital and adult literacy skills, mobile technologies need to adapt their design and delivery to reach even the most vulnerable - often those facing extreme digital divides. To address this, Worldreader designed its digital platform with features such as:

- **Downloadable content:** Users could download books for offline access.
- **Low data consumption:** Worldreader technology was optimized to minimize data usage by keeping BookSmart incredibly light.
- **Simple app interface:** Keeping the interface simple and intuitive and avoiding unnecessary features or intricate navigation helped parents understand BookSmart.
- **Vary content formats and language:** Audio, video, and interactive elements helped Worldreader cater to different learning styles and abilities by keeping language simple. Adjusting language preferences is also critical. In several geographies, parents prefer the app interface in one language but may be reading books in another language. Flexibility and choice in multilingual environments is critical when designing for all.



Worldreader's BookSmart app offers thousands of books and learning activities in several major and local languages.

#### 4. PARTNER TO OVERCOME BARRIERS AND SCALE

Internet connectivity, data cost, and lack of phone ownership are obstacles that require investment and partnership to better support parents with low income. Partnerships with the private sector, civil society, and state actors are critical in bridging such digital divides. Key partnerships have enabled:

- **Reduced or free data:** Some tech and telecommunication companies have emerged as partners in global development, offering app distribution by reducing or eliminating mobile data costs. The Moya App in South Africa applies a reverse billing mechanism, so readers are not charged for their mobile data consumption. Through this partnership, Worldreader supported over 200,000 unique readers in 2023 (primarily female users from low to very low socio-economic backgrounds) to read to their children, in a country where learning poverty is at 81% [10] and no organizational presence on the ground.
- **Lower device cost:** In a joint effort to fight the global learning crisis and bridge the digital divide, KaiOS Technologies and Worldreader partnered to enable parents in India and Sub-Saharan Africa to read to children on affordable “smart” feature phones used by millions of low-income families. [11] In 2023, this partnership celebrated reaching one million readers reading in total over 3 million books.
- **Technology alternatives:** In Peru, during the nearly two years of school closures, the government and civil society worked together to get thousands of offline tablets preloaded with BookSmart into rural homes to keep children reading during school closures as part of their “Aprendo en Casa” national response. [12]

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[10] [Progress in International Reading Literacy Study 2021. South African Preliminary Highlights Report](#)

[11] [KaiOS Technologies and Worldreader Celebrate Milestone of Empowering 1 Million Readers](#)

[12] [Global Center for the Development of the Whole Child. Education Response to COVID-19 in Peru.](#)



## Future research priorities

Worldreader is constantly learning about how to best engage parents in their children's learning. With a continued focus on parents and families, Worldreader is also generating evidence on in-home, family centered reading and its critical role in improving reading comprehension, digital literacy, and socio-emotional development in both the parent and child.

In the ever-evolving landscape of technology and education, the continued generation of evidence around what works and what doesn't, especially from low- and middle-income countries, is critical. In the area of parental engagement in learning, more research is needed around how to effectively involve fathers since most of the parents in Worldreaders' programs are mothers, as well as extended family or community members. Understanding the most effective program dosage and its cost-effectiveness at scale is another research priority for Worldreader. Moreover, longitudinal studies are necessary to assess the true impact of parent/family focused programs like BookSmart on children's overall academic performance, especially in contexts where financial resources are limited.



Readers in Cusco, Peru.

In 2023, 5,000 Peruvian families spent an average of 21 minutes per day reading together on Worldreader's BookSmart.