



Read Liberia's use of technology innovations to increase reach, accountability, and impact

Technology

How Did Read Liberia Use It?



Electronic tablets are small, hand-held computers with a touchscreen. They can store data, log global positioning system (GPS) coordinates, record video and audio, and take photographs.

Over the course of the Activity, Read Liberia switched from paper-based to electronic data collection using electronic tablets. Using a Google Grant, 120 tablets were purchased for coaches which enabled classroom observation and assessment data electronically. These tablets allowed coaches and the activity Monitoring, Evaluation, and Learning (ME&L) team to validate locations using GPS, record electronic signatures, take photos, and record videos.



Tangerine® is a mobile assessment and coaching tool (software) that facilitates offline data collection on low-cost Android electronic tablets. It is open source, which allows any user to adapt it to their needs.

Read Liberia developed tools in Tangerine for validating school visits and capturing daily coach activity logs, school census forms, student reading spot checks, parent-teacher association data, and classroom observation data. Having these data captured electronically and immediately available reduced the time the ME&L team needed for data processing, which improved data verification and allowed the team to focus more on data analysis and the use of these data to make programming decisions.



Short message service (SMS) texts are short electronic messages that can contain reminders or instructions. They can be accessed by any model of mobile phone or other dellulare or WiFi-enabled device.

Read Liberia used SMS texts during the 2020 virtual teacher training. Because of COVID-19-related school shutdowns, teacher training relied on teachers working through self-paced study guides. To support teachers in this process, coaches provided instructions to teachers and answered teachers' questions via SMS texts.



Interactive Voice Response (IVR) allows incoming callers to listen to pre-recorded information without paying for airtime.

Viamo is a telecommunications company that uses texts and IVR to communicate with many recipients at once and at no cost to the recipient. During the 2020 virtual teacher training, Read Liberia worked with Viamo to develop daily messages that were sent to all training participants to motivate them and orient them to each day's lesson. The IVR system also allowed teachers to respond to questions about each day's lesson, which provided a way to monitor participation and mastery.

The United States Agency for International Development (USAID) Read Liberia Activity is a five-year (September 2017–September 2022) program that aims at improving early grade reading skills for Liberian students in 640 public schools in grades 1 and 2. Read Liberia also pilot tested a program to develop emergent literacy skills for Liberian students in 60 public kindergarten schools. The Activity is implemented in six targeted counties—Lofa, Bong, Grand Bassa, Nimba, Margibi, and Montserrado. Read Liberia is funded by USAID and implemented by RTI International with subcontractors Another Option, Brattle Publishing Group, and DEEP through direct partnership with the Liberian Ministry of Education (MOE).

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Phone or video calls are when two people in different locations communicate with each other using their phones. Calls can be audio only or when smart phones are used, video can be used to see each other on the screen.

During COVID-19 school shutdowns, Read Liberia pivoted from the usual face-to-face teacher support to providing coaching support to teachers using mobile phones. During these scheduled phone support sessions, teachers modeled daily lessons from their Teacher Instructional Guides and discussed MOE Teaching by Radio lessons, while coaches provided real-time feedback. With the teachers' consent, coaches recorded these virtual coaching sessions, and audio files were then emailed to coach supervisors and the ME&L team to document that coaching sessions had occurred.



MP3 audio files are computer files that hold speech or music that can be played on an **MP3 player**, phone, or computer without the need for an internet or phone connection.

One challenge Read Liberia faced during the 2020 virtual teacher training was that some schools and teachers do not have cell phone coverage. To address this challenge, Read Liberia pre-recorded the daily IVR messages on MP3 players and distributed these MP3 players along with the teachers' self-paced study guides to the out-of-coverage schools before training started, with instructions for teachers and principals to listen to each day's message as scheduled.



Facebook and **WhatsApp** are social media applications that allow users to communicate using text, video, and audio calls. Users can create groups that involve multiple users.

During the 2020 virtual teacher training, Read Liberia coach supervisors extensively used Facebook Messenger to communicate with coaches, sharing report forms in a closed Facebook group, disseminating information, and coordinating planning and implementation. Because Read Liberia coaches and MOE master trainers and Education Officers had either electronic tablets or smart phones, their 2020 virtual trainings were held via online platforms such as Zoom, WhatsApp, and Facebook chat groups.



Google Drive is an online storage site where documents can be easily created and shared. **Google Forms** is used to create online forms and surveys with multiple question types.

During the 2020 virtual teacher training, the Read Liberia ME&L team monitored training participants daily via Zoom, Google Forms, and Tangerine and then provided feedback to the Read Liberia technical and finance teams about attendance. The ME&L team also used Google Forms to create unique monitoring packages tailored to the specific needs of program activities.



Microsoft Access is a database management system that helps with collecting and sorting data. **KoBo Toolbox** is a free, open-source toolkit for data collection and analysis in challenging environments.

The Read Liberia ME&L team innovated in using KoBoToolbox to collect GPS coordinates for its annual book distributions, using the application to collect photographs of recipients' ID cards, waybills, and recipients' signatures; schools' GPS coordinates; school enrollment data; and the quantity and types of books issued. These data were integrated with Microsoft Access to generate photograph books across implementation districts and counties. Read Liberia also transferred teacher training data into an Access database, which allowed them to immediately track teacher training completion to report on USAID indicators.

USAID/Liberia

Read Liberia Activity

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