

Technology for Education and Training

Technologies are increasingly present in everyday life and across the world. RTI is leveraging the accessibility of technology and harnessing its unique characteristics to improve the delivery of basic education and enhance traditional face-to-face training approaches.

RTI designs, implements, and evaluates strategies to make the most of multimedia, rapid computing, connectivity, and other capabilities of technology—especially mobile devices—to improve access and instructional quality in the education sector. We develop and deploy focused, practical interventions to stakeholders across multiple sectors.

Technology for Education

As public education systems in low-income countries expand enrollment, there is an increased need to improve the efficiency and efficacy of education to ensure that all school children are equipped with skills that can contribute to a better quality of life. RTI works with local partners to evaluate how appropriate and scalable technologies can enhance teaching and learning through digital teaching aids, coaching resources, and education data collection methods, while supporting change management for technologies integration. Core areas of expertise include:

- Information systems for management, administration, and governance of education
- Hardware and software for data collection, student assessment, and monitoring and evaluation
- Multimedia and communication tools to enhance teacher training, coaching, and teaching
- Technologies to improve learning outcomes and foster inclusive education
- Sector assessments, research and analytical reviews of current trends in technology for education.

Recent Project Highlights

- RTI developed Tangerine®, an open source data-collection software tool optimized for mobile devices in low-resource environments. Tangerine® has been used

for surveys and child assessments, such as the early grade reading and mathematics assessments (EGRA/EGMA), the Measuring Early Learning and Quality Outcomes (MELQO) assessments, and the International Development and Early Learning Assessment (IDELA), in more than 60 countries, in 100 languages, and by over 50 organizations. Visit <http://www.tangerinecentral.org> for more details.

Tools		
RTI has developed mobile data collection and communication systems applicable for a wide range of technologies and contexts.		
Tangerine® Open-source assessment and survey platform. Adaptable to other languages and assessment tools.	Tangerine:Class Offline continuous assessment platform for teachers to track student progress.	Tangerine:Tutor Combines data from assessments, surveys, and classroom observations to inform coaching feedback.
Gooseberry System to capture data via interactive text messages/SMS.	School Gateway Mobile-centric monitoring and reporting platform.	Papaya Phonological awareness application that assists teachers and students in learning correct letter/syllable sounds in any language.
Strawberry Uses Gooseberry data to streamline the process of paying people for attending training sessions.	CurrantMobile™ Mobile skills assessment tool that uses a games-based approach to measure employability skills.	KiwiPrints Biometric solution to connect and track the relationship between education and health data over time.



- In Kenya, efforts to carefully evaluate the effectiveness of technology-supported teaching and learning tools—including e-Readers and Tangerine:Class—led to the government’s national adoption of tablets for teacher coaches as a way to improve instructional support and program implementation monitoring.
- Following a pilot program in Bangladesh in 2008 that demonstrated the positive aspects of using simple phones and SMS technology to support teacher professional development at a distance, RTI has been adapting this method to provide support, motivation, program updates, and content to teachers and district officials in projects in Uganda and Malawi.
- In Samoa and Egypt, RTI contributed to enhanced classroom teaching in primary and secondary schools, respectively, through the use of carefully selected hardware packages and relevant, curated content. The projects enhanced the capacity of national officials to design curriculum-integrated digital learning resources, and to design and conduct school administrator and teacher training that promote integration of technology to sustain learning outcomes.
- RTI is implementing the evaluation of the Global Learning XPRIZE field trial in Tanzania, a rigorous experimental research program covering nearly 4,000 disadvantaged children, designed to determine whether software can support children’s learning of basic literacy and numeracy outside of school.

Technology for Training

RTI provides focused, practical interventions to improve the quality of professional development, across multiple sectors, including education, health, and governance. We offer alternative training opportunities that can reach and connect remote and often underserved populations, and enhance the effectiveness of traditional face-to-face approaches, by applying multimedia in innovative ways. Core areas of expertise include:

- Promoting access to education opportunities and learning resources through innovations and partnerships
- Enhancing face-to-face training and follow-up using games, simulations, and other multimedia solutions

- Facilitating knowledge management through integrated reporting dashboards, data mining, and visualization
- Supporting social mobilization and community engagement.

Recent Project Highlights

- To strengthen government capacity in implementing surveys and assessments, RTI has developed multimedia reference toolkits and adapted existing workshop-based training programs for blended or distance delivery using a range of platforms in Kenya, Egypt, Iraq, and the Philippines.
- In Ethiopia, RTI is assisting teacher training colleges nationwide in the adoption of a package of multimedia teaching aids to improve pre-service teacher preparation in reading instruction for seven mother tongues.
- Also in Ethiopia, RTI supports implementation of regional pilot programs to test how technology can support early reading teacher training and instruction targeting children with special needs. This effort has highlighted the prevalence of visual and hearing impairments in general education classrooms, and investigates whether technologies can support teachers in adopting more inclusive practices in early reading instruction.
- In Nigeria, Uganda, Kenya, Indonesia and Ethiopia, RTI supports the development and use of model videos to support teachers in the adoption of new instructional methods and materials.

Explore <http://SharEd.rti.org> for articles and reports on a variety of topics, including SMS-mediated training, MOOCs, assistive technologies, and more.

More Information

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