

RTIA and digitalisation

Digitalisation is a transversal theme within the Regional Teachers Initiative for Africa (RTIA), supporting innovation, accessibility, and collaboration across education systems in Sub-Saharan Africa. By integrating digital approaches into teaching, learning, research, and institutional development, RTIA aims to strengthen the quality and reach of education initiatives across the region. Digital tools also create new opportunities for knowledge exchange, capacity building, and inclusive learning environments. On this page, we present a selection of digital solutions that the Facility of RTIA is currently working with in different countries across Sub-Saharan Africa. These examples illustrate how digital innovation can contribute to more connected, resilient, and future-oriented education systems.

Some of our DIGITAL SOLUTIONS

1. The Raspberry Pi: a scalable, sustainable teacher-centred digital solution

Raspberry Pi devices are small, low cost computers that act as flexible enablers of digital education in low resource settings. In RTIA-projects led by Handicap International Senegal, World Vision Zambia, and Results for Development Tanzania, they address different challenges through a shared offline-first approach.

In Senegal, Raspberry Pi powers Digital Learning Hubs, providing teachers with access to digital libraries, pedagogical resources, and emerging AI tools without internet. In Zambia, it hosts an offline Moodle platform with Ministry approved Continuous Professional Development (CPD) content, strengthening teacher training at school level. In Tanzania, it enables offline access to the national MEWAKA Learning Management System (LMS) in "last mile" schools, supporting peer learning, reporting, and facilitator tools.

Teachers benefit from reliable access to high-quality teaching and training materials that support effective learning in the classroom. Through continuous, school-based professional development, they are able to strengthen their skills and stay engaged in lifelong learning. The approach also encourages enhanced collaboration and peer learning, creating opportunities for teachers to share experiences, ideas, and best practices with one another. In addition, the use of simple, low-maintenance technology adapted to local contexts ensures that educational tools remain practical, accessible, and sustainable for everyday use.

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2. Scaling digital pedagogy and teacher transformation

ESTDEV's digital approach within RTIA focuses on transforming how teachers and teacher educators learn, collaborate and apply competency-based teaching practices in Kenya and across partner countries.

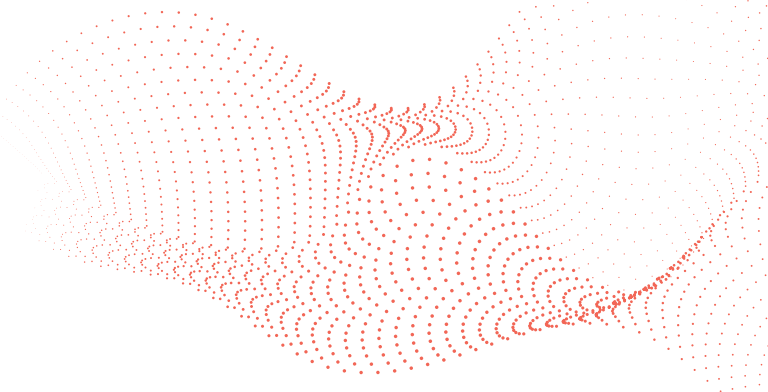
Working together with universities, ministries and the Education Deans Forum network in Kenya, ESTDEV supports the scaling of CBC-aligned teacher education models that integrate learner-centred pedagogy, digital competencies and practical classroom innovation. The approach strengthens the capacity of institutions and educators to apply digital and active learning methodologies in everyday teaching practice.

Teachers are supported to experiment with digital tools, collaborative learning methods and inclusive STEM approaches that strengthen critical thinking, creativity and learner engagement. Through Train-the-Trainer models, peer learning and communities of practice, teachers learn to design interactive and student-centred lessons adapted to local contexts, while the programme builds long-term local expertise and institutional ownership.

The model combines:

- Digital pedagogy and technology-enabled teaching
- Hybrid and practice-based learning approaches
- Train-the-Trainer and peer-learning models
- Gender-responsive and inclusive STEM methodologies
- Regional collaboration and local adaptation

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3. Scaling Innovations Hubs for Teachers

Enabel's Innovation Hub model (currently being applied in Uganda, Tanzania and Rwanda) is a locally anchored, proximity-based learning and innovation ecosystem designed to help teachers in rural and low-resource contexts build practical digital skills and foster innovative approaches to local educational challenges. By combining a physical space with reliable connectivity and devices, continuous tailored support, and an exploration and innovation lab, the Hub turns digital training into everyday practice through hands-on approaches, collaboration, and confidence-building.

Teachers use the Hub to prepare lessons, explore curated online/offline resources, try out new tools, and exchange with peers. Through mentoring, coaching, communities of practice, and structured methodologies that stimulate innovation, teachers gain the confidence to transfer new approaches into classrooms and surrounding schools, supported by mobile digital toolkits when needed.

The Innovation Hub is effective when it is reliable and relevant: clear leadership buy-in, a strong Hub Manager and Teacher Champions, predictable opening hours, and dependable equipment and connectivity. In short, it is a practical bridge between access, support, and experimentation, so teachers can adopt digital pedagogies and test innovations that respond to real needs.

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4. IFADEM's blended digital training approach

IFADEM's digital approach (currently being applied for RTIA with support of APEFE in Senegal, DRC and Benin) combines robust, scalable technologies into a seamless learning ecosystem designed for in-service teachers in low-resource contexts. At its core lies an offline-accessible Moodle LMS, hosting enriched pedagogical content – interactive exercises, audio-visual materials, and structured modules – ensuring continuous access to quality training regardless of connectivity constraints.

Complementing this, Google Workspace for Education (Classroom, Meet, Drive, Gmail) enables dynamic interaction, tutoring, and collaboration. Teachers receive assignments, personalised feedback, and participate in synchronous and asynchronous exchanges with tutors and peers, fostering an engaged professional learning community.

Designed for scale and impact, the system integrates:

- Offline-first accessibility for equity of access
- Real-time tracking and feedback to ensure accountability and progress
- Structured peer-to-peer and tutor-led support, enhancing motivation and retention

This hybrid model – blending self-paced digital learning, online interaction, and periodic face-to-face sessions – allows teachers to upgrade their skills without leaving the classroom, directly linking training to practice.

The result: a resilient, teacher-centred digital solution that bridges distance, standardises quality training, and embeds continuous professional development into everyday teaching practice.

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