

From Technology to Social Change: How Inclusive Digital Education Can Transform Opportunities for Migrants and Refugees

Digital transformation is changing the way we learn, work, and communicate today. For millions of people around the world, access to digital education opens new possibilities for acquiring knowledge, developing skills, and participating in social life. Yet this privilege is not shared equally by everyone. Forcibly displaced persons, refugees, and communities hosting migrants remain particularly vulnerable to exclusion, often operating under conditions of limited access to infrastructure, appropriate educational resources, or trained teachers. Among these are the beneficiaries of the project Inclusive and Innovative Digital Education for Migrant Communities in Kenya and Somalia (IIDEMIC), carried out under the Erasmus+ programme in cooperation with partner universities from Europe and Africa. The project responds to the specific educational challenges faced by migrant communities in Kenya and Somalia. At its core lies the creation of a digital education design model that is accessible, flexible, and adaptable to diverse learning environments – one aimed at building the professional and pedagogical competences of teachers working in refugee and internally displaced persons' camps.

Why Technology Alone Is Not Enough

Digital education can only be effective when it is designed with the diversity of its recipients in mind, takes their experiences into account, and enables the active participation of all learners. Why was this particularly important for IIDEMIC's beneficiaries? It might seem that learning through a computer or mobile phone is simply an everyday reality today – that education no longer functions any other way. Nothing could be further from the truth. This is often our own cognitive illusion, shaped by the privilege of living in a highly developed country.

In adult learning, it is essential that learners can steer their own learning process and draw on their own experience within it. When someone lives through or experiences something, reflects on what happened, draws conclusions from that reflection, and then tests a new way of acting based on those conclusions, they have a real chance of building new knowledge and skills. Equally important, however, is the learning context – the environment in which learning takes place. What does that context look like for IIDEMIC's beneficiaries? Let's take a closer look at this environment and at the participants themselves.

How Do Educators Teach in Migrant Camps in Kenya and Somalia?

This is a highly diverse group – not only ethnically, but also in terms of competence. The teachers who benefit from the project bring very different qualifications to their work: some hold higher education degrees and a solid pedagogical foundation, while others emerged from their own communities and, on the basis of government-issued

authorisations, serve as teachers in the camps. Many teachers have no formal pedagogical training at all; they are so-called “incentive teachers.” Educators work in highly diverse classrooms. Every day, they teach children who have experienced war, migration, repeated displacement, or the loss of their homes. A typical class includes students of different nationalities and ethnic groups, speaking different tribal languages (so-called “mother tongues”). Students differ in gender and age; some learn faster, others need more support, and some live with disabilities though these often go unrecognised. This means that a teacher’s everyday reality in a migrant camp involves working with an enormous range of diversity and educational barriers. Many of these educators lack training in inclusive education, struggle to work with students who have special educational needs, and do not even feel competent to manage such large classes (51 to 90 students).

Interestingly, despite differing levels of education, teachers taking part in the project reported that theoretical knowledge was not, in fact, what they felt was missing from their teaching toolkit. On the contrary, they most often pointed to the need to develop practical skills such as managing diversity, using digital technologies in teaching, intercultural communication, emotional intelligence, and collaboration with the local community.

How Do Educators Learn in Migrant Camps in Kenya and Somalia?

Often under difficult conditions. Access to technology is basic, and the teachers themselves reported in the project’s research that infrastructure is severely limited. Shortages of assistive devices, teaching materials, and ICT integration are part of everyday working life. Many of them come from camps operating under crisis or post-crisis conditions (Dadaab, Kakuma, Bosaso, and Mogadishu) places where access to electricity can be unstable and internet access is limited. Learning is further complicated by the fact that in many locations, access to mobile phones is far more common than access to computers, a factor that proved crucial in designing the process and tools used to educate the project’s beneficiaries.

This highly uneven educational infrastructure determined the fact that the Moodle platform developed for the project, featuring 10 modern e-learning courses in English, Swahili, and Somali, had to respond to very concrete professional needs and to a strongly determining learning context. We know that when the learning process incorporates stimuli present in the workplace, the likelihood of recalling information later increases. Learners remember more when the context of learning and the context of recalling information are synchronised when they draw on similar perceptual cues. The importance of matching learning context has also been confirmed for a range of contextual stimuli: learners remember more when they have to recall information in the same room where they studied, compared with situations where they studied in a different room. For this reason, the IIDEMIC project focused on developing educators’

competences in designing inclusive educational experiences. Particular emphasis was placed on preparing materials in line with accessibility principles, using activating teaching methods, and accounting for the diverse needs of learning process participants. This approach fits within a broader direction in the development of contemporary education, in which inclusivity does not simply mean enabling access to learning, but rather designing an educational environment in such a way that every participant has a genuine opportunity to succeed and develop their competences (UDL 3.0).

From User Needs to Ready-Made Courses

The project teams, representing six partner universities – two Kenyan partners, Kenyatta University and Masinde Muliro University of Science and Technology; two Somali partners, Red Sea University and Mogadishu University; Kütahya Dumlupınar University in Turkey; and WSB Merito University in Poznań – asked themselves a fundamental question at the outset of the project: what competences do educators working with refugees and internally displaced persons actually need? Today it is easy to design an e-learning course and select a tool for it; budget most often determines the shape, cost, and possibilities of such courses. Here, however – following the ADDIE instructional design model – a needs analysis was conducted in schools operating in the Dadaab and Kakuma refugee camps in Kenya, and in schools for internally displaced persons in Mogadishu and Bosaso in Somalia. The study covered teachers, school principals, and representatives of educational administration, providing insight into the challenges they face daily. It was precisely this knowledge of the conditions under which the project's beneficiaries teach and work that made it possible to adopt a much broader understanding of inclusive digital education than simply making online courses available. The starting point became designing a learning environment that would be accessible, flexible, and usable by people working under very different social, cultural, and organisational conditions. For the course designers, this meant moving away from thinking of technology as an end in itself, and treating it solely as a tool supporting a well-designed instructional process.

Inclusive Digital Education in Practice

It is easy today to declare that one is creating inclusive digital education. But what does this concept really involve? Inclusive digital education rests on several pillars.

The first is bridging the digital divide and reaching the most marginalised groups – people with disabilities, refugees, migrants, people from disadvantaged backgrounds, and residents of isolated areas (Yılmaz Gümüş, 2018). This condition was met in the project. The pilot, carried out at the turn of 2025/2026, involved 60 educators from three migrant camps: Dadaab, Kakuma, and Bosaso. Experience from the three locations showed that success in implementing inclusive digital education depends not only on the substantive

and methodological quality of the developed courses, but also on the efficient organisation of the implementation process. Where participants could actually access the courses, completion rates were high (<75%). Among those who did not complete the training, the most commonly cited reasons for abandoning the learning process were time constraints, technical problems, or difficulties related to internet access. These results serve as a reminder that designing digital education for environments operating under crisis conditions requires taking into account not only the quality of teaching materials, but also the everyday realities of participants' working lives. And although these factors were considered here, they proved insufficient. Repositories for beneficiaries were prepared using Articulate Rise and hosted on the widely available Moodle platform. Moodle is an open-source platform that does not require costly licences, can be deployed on local servers, and is relatively undemanding in terms of technical resources. The courses developed in Articulate Rise, meanwhile, use responsive HTML5 technology, allowing them to function correctly on both computers and smartphones. A simple course structure, materials in the form of MS Word documents and PDFs, few elements requiring high bandwidth (such as authors' video avatars), and the ability to resume learning after a connection interruption or to study entirely offline were all intended to accommodate conditions marked by unstable access to electricity and the internet.

The second pillar of inclusive digital education is the application of Universal Design for Learning (UDL) principles. This means proactively planning and designing flexible curricula from the outset, so that they fit the varied learning preferences and needs of a broad range of learners. Digital platforms and courses should provide multiple means of engagement (motivating the learner), multiple means of representation (presenting information in different formats as text, sound, image, tactile materials), multiple means of action and expression (allowing knowledge to be demonstrated in ways other than a traditional written test), and adjustments in line with accessibility standards (such as the WCAG 2.0 guidelines). In the Bosaso and Dadaab camps, most participants were able to access the platform without major difficulty and could begin their studies. The situation in Kakuma was quite different, where problems distributing login credentials prevented most teachers from taking part in the training. This showed that even a well-designed solution can fail to fulfil its purpose if the organisation of the implementation process falls short. The pilot also provided valuable information about user experience. Teachers from Bosaso rated the platform as intuitive and easy to use, while participants from Dadaab far more often pointed to difficulties with navigation. These differences showed that the reception of the same digital solutions can depend on local context, users' prior experience, and their level of digital competence.

An important element of inclusive education is also the empowerment of the individual that is, the learner's shift from the passive role of "digital bystander" to that of an active participant and citizen. In practice, this means, for example, working with disadvantaged

people (through co-creating content), rather than merely on their behalf. Digital environments are meant to constitute a safe and democratic space that encourages involvement, the telling of one's own stories (for example, through digital storytelling), and that strengthens learners' sense of agency and social belonging. This is why six of the ten courses were authored by academic teachers from universities in Kenya and Somalia. The courses developed are not simply a transfer of European educational models to East Africa. Local experts worked on their preparation, allowing the content to be grounded in African educational realities and to reflect the experiences of teachers working with refugees and internally displaced persons. This is also visible in the choice of topics. The courses developed focus not only on issues related to inclusive education, but also on psychosocial support, trauma-informed education, intercultural communication, the use of artificial intelligence, entrepreneurship, digital competences, and the use of English as an official language proficiency in which significantly raises the socio-economic status of a Kenyan citizen. Together, these form a comprehensive programme for developing the competences of teachers working in environments marked by high levels of diversity and uncertainty. The course topics reflect the results of an earlier needs analysis conducted among teachers and representatives of educational institutions in Kenya and Somalia. Each module responds to a specific problem reported by future users. This broad thematic scope reflects the complexity of the challenges faced daily by teachers working with refugees, migrants, and internally displaced persons, and shows that effective inclusive education requires the simultaneous development of pedagogical, digital, and social competences. The substantive content of the courses was rated very highly in the pilot. Participants particularly emphasised the clear structure of the materials, their practical character, and their relevance to the challenges they face in their daily work. At the same time, they noted that the courses could include more interactive elements and clearer examples, more firmly grounded in the local educational context. This kind of feedback became a valuable source of guidance for further refining the materials developed.

Inclusive digital education does not end with technical accommodations or support for people with disabilities. It also means the full respect of socio-cultural and linguistic diversity. Inclusive online education involves designing learning environments that offer multilingual interfaces and content relevant from the perspective of a given culture. Attention is paid to avoiding treating a foreign culture as a monolith, and to the need to consciously create environments free of dominant cultural biases imposed from above, offering forms of communication natural to a given community. This is why the IIDEMIC project prepared each course in three language versions – English, Swahili, and Somali as a deliberately planned element of its inclusivity strategy. This allowed participants to use materials in the languages functioning in their everyday work environment, which not only made it easier to absorb knowledge but also reinforced the sense that the solutions developed were addressed to their communities. The multilingual nature of the courses

thus became one of the practical expressions of inclusive education and of a learning-supportive context, in which accessibility also means linguistic and cultural accessibility.

The final element of inclusive education is the project's implementation of a systemic approach that extends significantly beyond digitalisation itself. Providing infrastructure with digital technology that reduces barriers and offers opportunities for equalising the competences of teachers from Africa is not enough on its own. Education has a chance to be inclusive only when it is understood as a deep pedagogical and systemic transformation. The new paradigm views education as a sustainable, democratic, and inclusive ecosystem – one that must provide multi-level support addressing three basic psychological needs defined in Self-Determination Theory (SDT): the need for autonomy (control over one's learning), competence (a sense of coping with challenges), and relatedness (a sense of belonging to a group and being supported). This requires appropriately learner-centred, inclusive strategies on the part of institutions, as well as educators qualified for these new roles. Many of the solutions applied in the e-learning courses developed under the IIDEMIC project fit within this understanding of inclusive digital education. The courses strengthen teachers' competences by providing them with practical tools for working in diverse classrooms; they support autonomy by enabling independent learning in a flexible e-learning format; and, thanks to the collaboration between partners from Europe and Africa and the consideration of local cultural context, they also build a sense of belonging – showing participants that the solutions created were designed with their real needs and experiences in mind, rather than merely adapted from other education systems.

Why Do We Need Inclusive Education So Much Today?

In recent years we have experienced something of a paradox: discussions of digital education tend to focus more on technology than on teaching methodology. We talk about e-learning platforms, artificial intelligence, content-creation tools, and new possibilities for online communication. Yet the experience of the IIDEMIC project shows that technology alone does not solve educational problems. What determines its value, above all, is how it is used.

Working with people experiencing forced migration requires particular sensitivity to the diversity of personal experiences, cultures, and educational needs. Teachers and trainers often operate under conditions of limited resources, while at the same time having to support participants with very different competences, school experiences, and levels of familiarity with technology. Under such conditions, ready-made solutions rarely prove sufficient. What becomes far more important is the ability to design flexible learning processes and to adapt working methods to a specific group of recipients. The IIDEMIC project addresses these needs by focusing on developing the competences of those responsible for education. Rather than proposing a single, universal teaching

model, it provides tools in the form of language learning or the use of digital resources that help educators consciously design the instructional process in ways that account for accessibility, inclusivity, and the active participation of learners in migrant camps.

This approach matters not only in the context of migrant education. Many of the solutions developed can also be applied in schools, universities, non-governmental organisations, or institutions providing vocational training. They can also be used by teaching staff employed at the universities partnering in this project. Contemporary groups of learners are becoming increasingly diverse in terms of experience, capability, and needs. Competences related to designing inclusive education are therefore becoming a universal element of the modern educator's toolkit.

An important value of the project also lies in its international character. Collaboration between partners from different countries made it possible to combine different experiences and to view educational challenges from multiple perspectives. This approach favours the creation of solutions that are not tied exclusively to a single education system, but can be adapted to different social and cultural conditions. The project reflects the importance of cooperation between the academic community, social organisations, and educational practitioners. The experience of IIDEMIC feeds into a broader debate about the future of education. It has long been emphasised that effective learning is not solely about transmitting knowledge. It is essential to build educational environments that foster collaboration, a sense of safety, participant activity, and the development of learner autonomy. In this context, inclusive education is not an add-on to the instructional process, but one of its fundamental elements. The project's results show that investing in the development of educators' competences can yield long-term benefits. A well-prepared teacher or trainer is able to create more accessible, engaging, and effective learning environments regardless of whether they work with refugees, students, adult learners, or participants in vocational training. This is precisely why the project's effects can reach far beyond the direct participants of the pilot activities.

From Project to Lasting Social Change

In the literature, inclusive digital education is referred to as the "great global equalizer," since it makes it possible to reduce educational and social inequalities by increasing access to knowledge and strengthening the competences of people at risk of exclusion. An analysis of the IIDEMIC project's results shows that many of these functions are reflected in its assumptions and the solutions it has developed.

The first function of education is the development of human capital and preparation for active participation in professional life. IIDEMIC pursues this goal indirectly, by focusing on strengthening the competences of teachers working with refugees, migrants, and internally displaced persons. The courses developed build skills in inclusive education, the use of digital technologies, intercultural communication, entrepreneurship, and

psychosocial support. Better-prepared educators can more effectively support their students, increasing their chances of continuing their education, developing their competences, and pursuing future employment.

The second function of education is building a sense of agency and active participation in social life. IIDEMIC pursues this aim not only through course content, but also through the way the courses were designed. The needs analysis that preceded the development of the materials, together with the pilots carried out with teachers, meant that future users became co-creators of the project. Their experiences, opinions, and recommendations shaped the final form of the courses. This approach reflects the idea of designing solutions with users rather than for them, strengthening their sense of influence over, and responsibility for, the development of their own educational environment.

Another social function of education is building relationships, trust, and cooperation. IIDEMIC pursues this at several levels. On one hand, it created an international network of cooperation among six universities from Europe and Africa, enabling an exchange of experience between experts representing different education systems. On the other hand, it supports the development of competences among teachers responsible for building safe, open, and diverse learning environments. Courses on inclusive education, working in multicultural settings, and counselling show that effective education is not limited to transmitting knowledge, but also involves building communities based on cooperation, mutual respect, and a sense of belonging.

One of the most important functions of inclusive digital education remains reducing the barriers that hinder participation in the learning process. IIDEMIC addresses this by developing open e-learning courses aligned with Universal Design for Learning principles and making them available in three languages: English, Swahili, and Somali. This solution increases the accessibility of materials both linguistically and culturally, while enabling their use by teachers working in a variety of educational environments. The pilot results also showed that content accessibility alone is not enough – equally important are the organisation of the implementation process, the ease of using the platform, and adequate technical support. The project thus provided not only finished teaching materials, but also knowledge about the barriers that need to be considered when designing future digital education initiatives.

The experience of the IIDEMIC project confirms that inclusive digital education can serve a function far broader than the transmission of knowledge. A properly designed learning environment becomes a tool for strengthening professional competences, building agency, developing intercultural cooperation, and reducing educational inequalities. In this sense, the project fits within the contemporary understanding of education as a mechanism that supports social development and increases opportunities for people belonging to groups particularly at risk of exclusion.

Find out more about the project: <https://iidemic.org/>

Agnieszka Goncerzewicz

WSB Merito University in Poznań

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Social media post:

We love talking about EdTech platforms, AI, adaptive dashboards. We talk a lot less about teachers in Dadaab and Kakuma running classes of up to 90 students, many with no formal teacher training, using tools built for a world with reliable electricity and Wi-Fi. The IIDEMIC project didn't start with a tech stack. It started with a needs analysis in refugee schools and camps for internally displaced people and a genuinely inconvenient finding: teachers didn't say they lacked knowledge. They said they lacked practical skills: managing diversity, intercultural communication, using digital tools they'd rarely had access to before.

The result: 10 e-learning courses, in English, Swahili and Somali, on Moodle + Articulate Rise, chosen precisely because they don't demand a fast connection or an expensive license. Completion rates were high wherever the rollout worked and collapsed wherever login logistics failed. Which is the real lesson: inclusive digital education isn't primarily a UX problem. It's an infrastructure, language and trust problem wearing a UX costume.

Find out more about project: [\[link to text\]](#)

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