

SUMMARY Learning through the crisis Helping decision-makers around the world use digital technology to combat the educational challenges produced by the current COVID-19 pandemic

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REPORT (SUMMARY)

Learning through the crisis

Helping decision-makers around the world use digital technology to combat the educational challenges produced by the current COVID-19 pandemic

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Crisis in education

Since the majority of schools, colleges and universities across the world went into lockdown following the outbreak of COVID-19, education has been affected globally. By April 2020, nearly 90% of learners were unable to go to school. In July of 2020, more than 1.1 billion learners were still affected.

To combat the unprecedented scale of this crisis, governments, schools, colleges and universities are turning increasingly to educational technology. There are however a number of issues that need to be addressed if the disadvantaged and marginalised are to benefit alongside other learners. The economic recession that will inevitably follow and the psychological trauma that many children will experience will likely lead to higher rates of school dropout, leave many learners more anxious, and at a higher risk of abuse. In our current report, we, the Education Observatory at the University of Wolverhampton and the EdTech Hub, examine responses to previous crises, as well as this one, in order to highlight emergent trends, issues and opportunities. We provide evidence and practical examples to inform policy and programming decisions. We focus on identifying digital ideas, in whatever form, that might firstly maintain the continuity of education systems and, secondly, might stop existing or potential disadvantages being amplified or exacerbated by the pandemic or indeed by responses to it.

We have drawn on a substantial body of methods literature, especially that literature relating to disadvantaged and development contexts, in the hope that the less regarded and small-scale projects might suggest solutions. We disregarded the axioms 'just because it worked for *them* it will work for *us*' and 'it didn't work for *them* so it can't work for *us*', and explored across a wide range of literature.

Our aim was to search literature that could help people during the current pandemic to both address threats to the continuity of their education systems and to combat probable reductions in educational access, engagement and opportunity amongst the already most disadvantaged. We therefore sought to capture experiences and examples that could be useful, knowing that contexts vary considerably.

Clearly there is already much activity in this space. As the pandemic takes its course in different countries and different contexts, many agencies, ministries and institutions have started to share a resources alongside overviews and analyses from the press and from authoritative bloggers. So, two challenges were immediately apparent: firstly, avoiding duplication and repetition, and secondly avoiding any emerging groupthink about what works and how to apply it. We were primarily interested in learning from where education systems had faced disruption or difficulty, and so were flipping the 'normal' lens of research. Frequently, the ideas of the developed 'West' or 'Global North' are adopted by the rest of the world. In this instance we were aiming to take a lead from situations across the low- and middle-income countries, from the marginalised and disadvantaged to see how what works amongst these communities could guide our own policymakers, educational institutions and teachers.

Our report was compiled over three months in the spring and summer of 2020. We hope that it addresses our original brief but also has some wider value and utility. The world will move on and the crisis will evolve; hopefully some sources and some suggestions,

recommendations, principles and findings will continue to say something and will ensure that those people, communities and cultures at the margins of their societies will not be further disadvantaged by attempts to maintain the continuity of mainstream education systems.

Our report is timely because COVID-19 has increased the barriers that separate educators from many would-be learners in marginalised communities whilst also increasing the education that these communities need. The report, and this summary, seek to help local and national decision-makers overcome these barriers. We believe that the continuity of education systems and the learning of those people cultures beyond the reach of education systems can both be strengthened by the development of informal tech systems for learning built upon popular and familiar web 2.0/social media/mobile delivering innovative digital pedagogies

The key emergent ideas

Principles for informal tech systems for learning

Firstly, let learners speak, write and share, underlining their value, their values, their interests, their language, their culture and their concerns. Secondly, start from where they are, building on what they do, acknowledging that their agency, autonomy and control are important in their learning. Thirdly, recognise, again, that context is everything, manifest in diversity and difference, and in fluidity and variety, in learners' experiences and expectations, as well as in their aspirations, challenges, barriers and habits, and equally in more objective and tangible factors such their local economy, services and infrastructure. COVID-19 is also very much part of their context, not just a physical and medical part but a social and emotional part. Our report outlines a range of pedagogies to be adapted and technologies to be exploited that enable the rapid, cost-effective and culturally appropriate development of informal digital community learning spaces and Communities of Practice.

Each situation is bound up within unique contexts

Almost every paper we have encountered, discussing groups as diverse as from marginalised communities in India to refugees in Syria and from indigenous peoples in Australia to rural Kenya, focuses on the need for local contextual dynamics to be taken into account in decision-making. Moreover, there is a strident call for local voices to be heard — for governments to do 'with *them*' and not 'to *them*' — coming through all of the literature we have analysed. The expert opinion we sought through the Delphi sessions repeatedly stressed locality and culture are crucial — 'context is king'.

It is therefore imperative that we recognise the ways that circumstances and contexts create unique issues, for example of digital access and equity. Policy frameworks or practical solutions must be responsive to the diversity and uniqueness of local contexts, and must involve the community these seek to support. The issue of context is most important for learners or communities with characteristics that differ most from national, established or mainstream norms.

Many learning gaps have become worse during the pandemic

It is vital that education authorities plan how they will identify and remedy learning barriers, and plan measures that will allow educators to mitigate the effects of this and

future crises. Some of these impacts on learning are not obvious, for example the children of key workers are getting less parental home-schooling than those of furloughed workers, one-to-one support for cognitively challenged learners has been withdrawn and there is insufficient bandwidth or laptops for the competing educational and recreational needs of some families, especially large ones in rural areas. It is possible to adapt the principles of inclusive design so that initiatives benefit every potential learner, and also to conduct audits, quality checks, conduct pilots, prototypes and use cases specifically on behalf of those learners at risk.

Digital technologies have the capacity to improve lives and narrow the education gap

Used ethically and skilfully, digital technology can empower learners and help to close achievement gaps. Otherwise, it will accelerate and accentuate them. People already develop skills and use technology that fit their aspirations, access and experiences and expectations. To be effective, education systems must align with these, and with the values, language and traditions of the learners they reach out to. For learners outside education systems or indeed the parents and community of learners inside education systems, these will be strongly focussed around existing habits and confidence with social media, internet cafes, broadcast media and mobile technologies.

Open educational resources (OER) are available and excellent — issues to be addressed

An immediate priority is telling teachers how and where they can identify and access curated lists of OER rapidly and how they can create, share and contribute their own solutions. Teachers can work with communities to produce localised versions from OERs by adapting images, language, context and examples and to feed new resources into a repositories for others. Pedagogic design, basically lesson plans, learning materials and assessment strategies, and mechanisms for tracking learner progress may be needed as well as online support around communities of learners to manage the necessary contextualisation and engagement.

OERs are scattered across different platforms. Compatibility, quality, contextualisation, personalisation and localisation, for example use of local languages and dialects are important but so are more subtle ways of recognising local values and situations. Resources in tribal languages, minority languages and languages not recognised by national governments are variable; there are few bilingual dictionaries, trained teachers or online translation tools for these languages. Learners use apps, tools and resources in their own dialect or mother tongue, and this should be supported.

Teachers need pedagogic and technical support

By developing local communities of practice and peer mentoring, teachers who are paired or teamed can solve problems jointly, share ideas, sites and materials, help each other with technology and provide cover for illness or family caring needs.

A local mentor or tutor figure can have significant impact on the educational trajectory of learners who are refugees or displaced persons. Teachers working with refugees require training and support in subject areas, curriculum, and assessment, in working with

people who have mental health problems such as trauma or isolation, who have language acquisition needs, and who may not be literate in their first language.

Teacher training and support is vital

Pre-service and in-service teachers must be prepared for digital teaching. They will need preparation in pedagogy, that is designing lessons, tests and assignments, and specifically in inclusive practice. A rapid engagement with digital learning will be catalysed through social media and mobile phones. Limited online synchronous time as groups might suggest a flipped learning approach with project-based learning. Online time together is valuable for discussion and support.

Teacher trainers must use whatever infrastructure is already in place. Teachers, trainee teachers and teacher trainers will already be familiar with social media and mobile phones. Short blended courses can start to build communities of practice, sharing resources, providing mutual support, curating materials now. It is possible to use YouTube, Facebook, Twitter or even SMS alongside community radio and perhaps national TV. Think about a blended approach and combine the best of each medium.

Technology can support decision-making

Decision-making can be supported by crisis management software, such as Ushahidi or FrontlineSMS, gathering data, conducting surveys and logging incidents. Open crisis mapping software could be used to manage high volumes of data and produce visual maps. Mobile network operators may donate air-time or bundles of SMS. Digital volunteerism, an offshoot of crowdsourcing initiatives, can be organised for mentorship and co-facilitation of online communities of practice, as well as for programmes and charities supporting refugees and learners quarantined in transit. Decision-makers should evaluate how their emergency educational and technology provision could be adapted to support the least advantaged learners in the longer-term and be adapted in readiness for future emergencies and for ongoing out-of-school learning and community learning that might support parents and learners unable to attend school.

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