

Refugees Respond: Using Digital Tools, Networks and ‘Production Pedagogies’ to Envision Possible Futures

Abdikadir Abikar, Abdullahi Aden, Kurt Thumlert, Negin Dahya
and Jennifer Jenson

The relationship between education and technology in the lives of refugees in camps is complex. This landscape includes practical matters of access to higher education under conditions of political change and instability, as well as essential supports like internet connectivity, the varieties of media tools available, and the technological and sociocultural resources in play. In the context of refugees pursuing higher education and engaging in international teaching and learning opportunities, digital technologies have been critical features of programmes offered to those living in and near to the Dadaab refugee camps. These technologies include everything from online learning management systems (e.g. Moodle, through which higher education courses for refugees are in part delivered) to email, discussion boards and emergent forms of pedagogical engagement over mobile devices, including communication using smartphones and cloud-based applications. These educational networks comprise a kind of digital media ecology that is both locally situated, community driven *and* globally connected, and internationally informed.

Social and academic supports for students in courses (often mediated by mobile-phone based communication) are important elements of formal educational enrolment in higher education for refugees in and from Dadaab (Dryden-Peterson, Dahya and Adelman, 2017). At the same time, informal, local and improvised uses of digital tools are also proving to be vital in this landscape – not just for achieving formal educational goals, but for transforming the everyday lives of refugee students, and for enabling local actors and communities to envision possible futures both within and beyond refugee camps. An ecological systems approach considers how individuals and communities interact with(in)

the multiple environments in which they are enmeshed, such as the links between settings like home, work and formal education sites (exosystems) or the cultural forms, gender roles and values that influence one's everyday life (mesosystems).

A digital media ecology consists not only of network infrastructure, access to formal educational resources and learning management systems, but also accounts for less conspicuous and emergent sites and practices of learning, where digital media ecologies can, as such, support the emergence of unexpected pathways to participation in academic, cultural and communicative practices (Dryden-Peterson, Dahya and Adelman, 2017; Thumlert, de Castell and Jenson, 2015). As we will discuss below, these ecologies, enabled by networks, mobile devices and new media, go beyond providing mere 'access' to higher education: they inaugurate dynamic and decentralized relations to technology tools, and in ways that can enrich pedagogical opportunities for refugees (e.g. communicating and sharing knowledge with student peers in North America and elsewhere), while also supporting new forms of creative agency using digital tools (e.g. creating video works, websites and other artefacts using new media).

In the introduction to this book, Giles and Miller adopt a similar perspective on technology, challenging what they call the 'MOOC fantasy', that is:

a pedagogical approach to teaching and learning that contends that making online courses available to refugees and other marginalized people makes higher education accessible. To the contrary, our hard-earned pedagogical success [in the BHER project] is principally due to the creation of a community of scholars or cohorts of students who learn from and support each other in ways that the institution of the university cannot.

cross-reference with page number in this volume p. XXX in this volume

Indeed, Dryden-Peterson, Dahya and Adelman (2017) point out that decentralized and ad hoc media micro-ecologies play a fundamental role in connecting students with one another, and in building organically emergent local/global learning communities. It is here, at the intersection of locally and globally situated technology supports, where refugee students are enabled, with greater local agency, to 'chart pathways' to educational success. Dahya and Dryden-Peterson (2016) also show that media micro-ecologies, including social networks enabled through mobile devices, expand educational opportunities and establish more inclusive pathways to higher education for refugees, particularly for women seeking educational opportunities in refugee contexts. In these same contexts, Giles (2018) states that professors in the BHER programme

are thus encouraged to employ technologies in ways that 'keep in mind the interests and needs of the Dadaab refugee and local Kenyan students' (p. 174).

At the same time, how the interests and needs of local actors in refugee camps are defined, and who represents those needs and interests, are determined not only by educational and technological 'exosystems', but also by vast technologies of national and transnational governance that already permeate and define everyday life in Dadaab – from NGOs that mediate the interests of refugees to policies that prevent refugees from leaving the camps. One irony, here, is that while borderless technology resources can be mobilized to connect students with professors and mediate communicative interaction with students worldwide (as well as lead to important symbolic forms of accreditation like advanced degrees and certificates), students in refugee camps like Dadaab are subject to geopolitical constraints, as well as top-down transnational humanitarian efforts that may organize everyday experience on the ground, and even script and coordinate the 'participation' of local actors (Alonso, Thumlert and de Castell, 2016).

Notwithstanding the critical aims and purposes of borderless higher education programmes, Hyndman (2011) points out that we still need to acknowledge the 'contradictions between liberal democratic norms [that inform initiatives like BHER] and the prevailing international, economic, and geopolitical sentiments that favour keeping refugees in camps' (p. 7). This means acknowledging, too, the multiple transnational organizations and state institutions that determine the ambit of local agency, including state educational systems, which themselves may be animated by technocratic (post)colonial forms. Complicating this, we need to also account for the dominant media representations of refugees *over which* refugees have no control or sociotechnical position from which to 'speak back'. As Dahya (2017) points out, the dominant media that shape public knowledge about refugees may misrepresent them, and thus 'impact how refugee persons are treated, particularly in host communities. These narratives can also impact how refugee persons perceive themselves as valued (or undervalued) insiders/outsideers throughout their forced migration' (p. 24).

From geopolitical policy to humanitarian governance to the legacy of colonial education forms, in this chapter we argue that technology needs to be theorized not just in terms of digital tools and borderless systems that support access, but also in terms of the complex sociotechnical systems that can scaffold local agency or, conversely, continue to reinforce notions of refugees as 'passive', in 'need of governance by the humanitarian community, rather than as people with

opinions about how their lives should be organized’ (Duale et al., 2019: 56). As these authors also point out, refugee teachers are rarely ‘consulted on matters concerning teaching and learning in the school, employment terms and conditions, or curriculum implementation’ (p. 58).

A further contradiction, under these conditions, is that the BHER students in Dadaab, many of whom are refugee teachers, affirmatively perceive themselves, fundamentally, as ‘change agents’ – not just in terms of advancing transformative local change within Dadaab, but also in terms of envisioning reconstruction strategies and taking leadership roles when they return to Somalia or respective countries of origin. As Dryden-Peterson, Dahya and Adelman (2017) signal, ‘refugee students’ motivation for education is ... often tied to a desire to contribute to peace-building and post-conflict reconstruction’ (p. 1044). And in their present situations as well, Duale and our Dadaab-based authors (2019) again assert that refugees, and particularly refugee educators, ‘must have meaningful participation in the planning and provision of education for refugees since it is refugees, above all others, who have the most to gain from reform’ (p. 58), including, we argue, critical and productive uses of networked digital tools and informal media ecologies that are less subject to top-down administration and ‘MOOC fantasies’. This ecological view of technology reminds us, too, that our most intuitively given teaching methods and curricular constraints can also be seen as technologies, that is, as subject-forming techniques that might be reconstructed otherwise (Thumlert, de Castell and Jenson, 2015: 789).

These considerations bring up new questions regarding technology tools, questions that animate our conversation below: how can technology tools be mobilized by local actors to their own ends, to co-construct their own pathways to educational success, including forms of self-representation in an era where persons experiencing forced migration are subject to dominant narratives that may position refugees as abstract objects of geopolitical policy?

Framing our Conversation: Course Contexts, Tools and Theories

Below, our Dadaab-based authors illustrate how digital tools might be utilized not simply to ‘connect’ students in refugee camps to higher education but explore how those tools might be mobilized to support the ends and self-defined purposes of local actors and communities.

Our Dadaab-based authors, Abdikadir Abikar and Abdullahi Aden, are currently enrolled as graduate students in York University's BHER cohort. Abdikadir is currently a secondary school maths and computer studies teacher and has been teaching in Dadaab in primary and secondary schools since 2012. Abdullahi is a humanities teacher, school administrator, and has taught religion and history in primary and secondary schools in Dadaab since 2007. Both received teacher education and teacher credentials (2014) through the BHER project and are currently completing their graduate studies through BHER related programmes.

Our Toronto-based authors include Kurt Thumlert (the course instructor, Faculty of Education, York University); Negin Dahya (University of Toronto, who has conducted on-the-ground research in Dadaab and Kakuma refugee camps); and Jennifer Jenson, who, along with Kurt Thumlert, co-developed the pedagogical frameworks mobilized in the course discussed below.

The Course

Cultural Studies of Technology for Education was originally developed as a face-to-face York University course. The autumn 2018 version of the course was modified to include Dadaab-based graduate students. Classroom interactions between Toronto and Dadaab were mediated through tools like the course website, a discussion board, weekly face-to-face Zoom meetings between the instructor and the Dadaab-based authors, communication through email, videos and mobile/smartphone tools like *WhatsApp* (a messaging tool) and *DU Recorder* (a video screen-capture presentation tool for mobile devices), along with one synchronous whole-class meeting using *Zoom*, with a discussion of readings led by the Dadaab-based authors. This class meeting was conducted at 7am (EST) in order to account for time zone differences and connect 'live' with students in Dadaab.

For asynchronous communication, students in Dadaab and Toronto used a discussion board system called DAAGU, which was developed based on complexity theory in education (Mitchell et al., 2015) and, as such, reflexively connected with our course orientations to technology-based learning. Using DAAGU, students co-explored theories from the course readings, shared digital artefacts and engaged in dialogue *about* technology as we *used* technology. As the developers (Mitchell et al., 2015) of DAAGU state (in an article read by the class prior to using the tool), 'our typical educational approaches are still largely informed by assumptions that teachers have knowledge that they dispense to

learners in carefully constructed learning activities and sequenced content modules aimed at moving students toward teacher-defined outcomes' (p. 206). By contrast, DAAGU was designed to disrupt conventional epistemologies and e-learning practices and to support open-ended inquiry and collaborative knowledge construction. In the context of working with BHER students, it was not inconsequential that DAAGU was named after the learning practices of the Afar people of Ethiopia, who share knowledge through diverse communicative modes across diverse regions using a 'traditional communication system' that resembles the ad hoc, decentralized and multimodal forms of contemporary media (Menbere and Skjerdal, 2008). The platform developers in fact named the discussion platform DAAGU because it creates a 'networked community that facilitates a collaborative process of exploration of difference and discovery' (Mitchell et al., 2015: 206). As these tools mediated class interaction, we begin our conversation below by reflecting on the affordances of the tools used.

Building upon theories/practices explored in the York University Graduate Faculty of Education course, *Cultural Studies of Technology for Education*, the authors in Dadaab enacted a 'production pedagogy' to explore where and how technology-based learning and making with digital tools might be intertwined with local interests and aspirations, leading to the development of *Refugees Respond* (a website/blog and Wikimedia platform), and to the authors' creative use of digital storytelling and video production as vehicles for inquiry, making and sharing. A production pedagogy (one of the course theory frames) is defined as one in which learning actors are enabled to situationally engage practical design challenges through the making of authentic real-world technology artefacts that have social worth, that have use-value to their makers. Production pedagogy links critical inquiry with place-based social action, where design and technological making are informed by the present needs and purposes of learning actors. Further, through cultural production using authentic communicational media, it is argued that learning actors build participative status in cultural practices as they make and share (Thumlert, de Castell and Jenson, 2015; de Castell 2016; Alonso et al., 2019).

We emphasize here that our learning community and the creative artefacts (websites, videos, graphic texts, digital games) produced by our Dadaab-based authors depended upon complex assemblages of other actors and, principally, the foundational efforts of the BHER organization in constructing – from the ground up – an educational centre in Dadaab. Alongside these material supports, our learning together was also scaffolded by a learning culture, a community of scholars, established during the first years of the BHER project.

The following sections were written using a 'conversational' mode of inquiry using Google Docs and Zoom (a video conferencing tool). Dadaab-based authors responded to prompts and questions from the Toronto-based course instructor and co-authors using Google Docs. Preliminary drafts were followed by several recorded video conversations using Zoom; video conversations were then transcribed, merged and revised by all of the authors on Google Docs. The conversation represents the voices and views of the Dadaab-based authors, prompted by the questions and comments (in italics) of the Toronto-based authors.

Outcomes from Our Conversational Inquiry

Questions to the Dadaab-based graduate students co-authoring this chapter are presented *in italics* followed by their responses.

In the first article read by the class, Mitchell et al. (2015) suggest that traditional Learning Management Systems (LMS), such as Moodle and Webct, have not offered sufficient innovation consistent with the new pedagogies required for education in the 21st century. Given that we were all very much improvising as we went, how did tools like DAAGU and Zoom work – or not work – for you? Can you talk about the experience of inclusion as a BHER student, too, and the role of technologies? Were there any things you might change?

Abikar Abdikadir DAAGU was one platform that opened our eyes to what was possible with technology. All the BHER students think that Moodle is the only space for learning, but using DAAGU, it was exciting and we loved working within the new space of learning, the chat rooms with the other [Toronto-based] students. Exchange between graduate students in Dadaab and Toronto is something we would like to see more of, across different systems. From Dadaab, we led a [live] class discussion on course readings using Zoom, meeting early in the morning in Toronto, with students connecting from their homes. It's very hard because of the time differences, but when these meetings happen they are a golden opportunity for both sides, the graduate students in Toronto and the graduate students in Dadaab. Even though it was early for them, it was an eye-opening session and we hope to do more. Moving from the Zoom presentation to the DAAGU discussion board and being able to continue our discussion on DAAGU when the Zoom session was over – that was another way to be

connected and answer questions. We hope to build a similar forum for chat on our website, and the course I am enrolled in now [*Digital Games and Learning*] is being run on our own *Refugees Respond* Wikimedia site.

The question I ask myself now is, should I not be doing this in the future? In Somalia? I should be using the Moodle idea, translated, the same idea, but a Somali Moodle for those who can't reach the cities, so they can learn, too. Moodle is something that can be created, or you can make something like Moodle. I have hope to integrate York University's modality of teaching in my homeland, because I see many students in Somalia who are living in rural areas, who need to be reached, so I am of the idea we could use these models of teaching, translated to Somali. For example, we could collaborate with York University in order to serve other marginalized youth who are out there. I am hoping to use technology in my future, making teaching and learning more interesting for teachers in Somalia, and to reach many other teachers who have not had yet the opportunity to use technology in their classroom.

Abdullahi Aden Learning through platforms enabled by the internet holds the future of education, particularly higher education for refugees. Technology promises innovative learning, which shapes education and transforms learner opportunities. Traditional approaches to teaching are challenged, and under transition, as new ways of teaching [have emerged], which are more interactive, meaningful. This is due to the digital materials that complement the intended content or what the teacher has covered in the physical classroom.

Digital platforms have resulted in the growth of knowledge for Dadaab students who are undergoing their higher education, particularly for BHER students. Platforms such as DAAGU, Moodle, Zoom, YouTube and WhatsApp enable students to get connected with their instructors, participate in discussion forums, receive instruction . . . post videos . . . and even lead class discussions.

At the moment, most universities have adopted a virtual or blended system of learning which offers a collaborative model where student interact freely and discover their own learning through social platforms with less instructor [direction]. Students explore abstract thoughts and justify the results of their thinking. This advancement of technology makes education global, breaks barriers and enhances networking . . . And so, we have our website, *Refugees Respond*, which Abdikadir and I developed for the course.

As part of this course on technology and production, you created with technology tools, including building your website/blog and Wikimedia site, and worked with video tools and graphic text-making tools like ComicLife. Right now, as we speak,

you are hosting York University students on your Wikimedia platform for our Digital Games and Learning course. In a sense, Toronto-based York students in the course have come to Dadaab. Can you tell us, first, why you picked Refugees Respond as a website domain name?

Abikar The website name suggests that refugees can respond – it shows that refugees are able to act and do some changes in their own lives and share with other people their thinking. It is a site that represents the refugees – and it shows a kind of creativity, that they can also do something. That shows a kind of power and ownership – for education, for teachers and learning – and it may become a learning resource for students and educators around Dadaab. They can add materials into the system so other people can see their thinking or retrieve important materials from the platform. To create awareness among the refugees and communities, to attract people.

How are refugees responding?

Abdullahi This is a significant platform or site because it takes the meaning of being a refugee, [where] refugees are saying something about what they think and feel. Initially, the way Dadaab operates, you find organizations just impose their own things and the refugees normally accept the way it is. Refugees, they don't share in the system or administration in any way. This site [helps] some refugees – particularly [students] – decide for themselves and write about their thinking, and not be subordinate to things imposed on them. They can share their responses and that reaches out all over the world.

And what refugee students in Dadaab now appreciate most is how 'connected learning' allows collaborating with their peers in diverse parts of the world and manipulating the same things, engaging the same challenges. This breaks with the notion that higher education is unattainable in the Dadaab refugee context, and universities like York University have disproved such conceptions, as some students have already accomplished their studies through distance learning programmes, through digital platforms and through onsite visits here [by professors]. It is technology that made the impossible possible.

Abikar This challenged the views of the primary knowledge donors, of individuals and agencies running education programmes in the Dadaab refugee camps. The original expectations, what the UNHCR wanted, was for all the refugees to have a primary education. The basic needs, knowing how to read and write. When we finished the basics, we said we wanted secondary schools, we want secondary education, which is not the mandate of the UNHCR. We [then]

wanted higher education, more opportunities, refugees looking for a durable solution for their homeland: an opportunity that UNHCR never imagined. With BHER, the idea was to educate teachers, and to help students, and now we have new opportunities, with different courses, with social and political [themes], and now we are becoming writers and graduate students, looking to the future as change makers and, again, students are still wanting more. We now have a Master's programme and some of us are hoping to get PhDs. We are telling BHER we want more.

Abdullahi Our website is also a kind of landmark for showing how refugees interact with technology, access education through it, and sometimes post their grievances to concerned stakeholders without any intermediary. The platform, along with smart devices, [is] defining the needs of the refugees, shaping their thinking towards the world; their responses count in the world.

So, now that you have the website/blog and digital storytelling software like ComicLife, how can you use these tools to support learning and self-representation – two themes you explored when you led the class discussion on the readings, 'Voices beyond walls: The Role of digital storytelling for empowering marginalized youth in refugee camps' (Sawhney, 2009) and 'Digital media and forced migration' (Dahya, 2017)? As Sawhney (2009) states, 'Sharing [digital] narratives are important not only for [refugees'] sense of identity, understanding and recognition by others, but as a form of creative expression and advocacy of issues in their lives' (p. 1).

Abikar This question has been big on my mind a lot lately. Who else can use the site? How? So, I came up with an idea. Last week I saw some students in the school where I teach in Dadaab who are always interested in presenting news at school. They do this on Mondays. International news, local news, sports news. So, I met with them and I said, what if I gave you the website to use and every Monday we can post the news. They were so happy – *where can we get a website?* I plan to meet with them to help them type, and introduce a section called The Writers Club – and release news and information for the school. And then I will tell students, if you want to know more about something, please go this site, please go to this link. This is how I want to start – and expand further once it works. Once it works, we can bring more people. Sunday, they prepare. Every Monday, they release the news. That is the plan. In the meantime, I use my website blog to upload pictures and report on events in Dadaab.

Abdullahi According to Negin (Dahya, 2017), in her article on digital media and forced migration, she noted that 'digital media can be used in critical ways to promote engagement with content about the refugee crisis among young people' (p. 25). It is true that Dadaab is one of the largest refugee camps in the world, and we are hoping to make use of digital media to promote this engagement.

So, in our course we also used a multimodal graphic narrative making tool, ComicLife, which enables users to create pretty dramatic digital stories where you can integrate your own photographs and images into graphic story forms. How might this tool work for you in these contexts and for those purposes?

Abikar [ComicLife] was enjoyable – it is a creative way of writing, of presenting your own thoughts and stories. We have the full licences, but we can only use [the software] in the BHER Centre – and, for example, I also showed some students from Kenyatta University how it works. They were interested in using ComicLife, and I gave them a lesson. They enjoyed it and were giving me good feedback – that is what I wanted! To give those opportunities – teachers who can teach other teachers and then work with students. And I asked them to send me their comics so I can post them someday [on Refugees Respond.org].

Yes, the affordances of the software enable people of all ages to create sophisticated graphic narratives.

Abdullahi Again, the creativity is excellent – [these media] help make things more creative. However, we can't bring local primary and secondary students into the BHER Centre [where the computers are located] and so we can't easily share ComicLife with them.

Abikar I want to create a computer lab of my own – and my challenge there is that I don't have access to the internet, and I need the internet to install software. But I should have access soon, and when the internet is ready, I can start teaching special needs and deaf students [and] students who cannot write well: these computers can support these students – [the students] are very good with visual representation but do not do a lot of writing [have writing skills] yet. With this programme, *ComicLife*, we can use this tool to teach them. That is one way I am planning to use *ComicLife*, a way for differentiated and multimodal literacy instruction.

I am wondering about the use of smartphones and mobile devices here as well? ComicLife and other graphic text-making software are also compatible with smartphones and tablets. So . . .

Abikar Smartphones are also very important in [the BHER] project – they really help us connect to professors outside the Centre [from home or elsewhere] using data-bundles. If a professor wants to communicate with us, or vice versa, we can communicate using Gmail or through our class WhatsApp page. This was very useful when there was a labour dispute at York University during the winter semester (2018) and courses were suspended for some time. We were grateful to a dedicated professor, Robert Bridi, who was able to guide us while the University and Moodle were shut down. This smartphone alternative helped us during confusing times. First, mobile devices connected us with our professor and, second, we were able to interact amongst ourselves: we started chatting, clarifying ideas and helping each other out on course-related activities.

Abdullahi Students in the camps use smartphones, and they make a lot of videos – funny videos, playful stuff. We need to [in the future] have them use the smartphone to make small projects. But in schools they are not allowed to have mobile phones – that is like a crime and you will be punished, your phone broken into pieces. Some argue that the phone is a destructive agent in the school. And it is concerning that students and teachers don't use the phones well, [don't] use them creatively.

What is the difference between you making video films vs NGOs making films about you?

Abikar The difference is that when NGOs film us, the video speaks for refugees and their interests, but when I make my own films, they represent myself, they speak for my own interests, what I need for others to get to know me. With organisations it is different; they normally guide you on what to say so that they capture what they want. And, lastly, when you are filmed you don't get any compensation, so no one appreciates the time and energy you spend. The difference? I love making my own videos. I am also more confident because they are not cut off, nothing is removed or added. When NGOs make videos, sometimes important messages are trimmed out, and they also moderate. When NGOs film, it is also very hard to be understood when an interpreter translates who may not speak the language, and they do not convey the message you wanted to communicate. If you are serious about videos, you can make your own videos, though we do not have their equipment or editing tools. The difference is, the more you make, the more you work on your own videos, the better it is going to be, and we don't have to depend on somebody who is recording for us. We don't have to rely on somebody else, for example, if they are no longer there.

This issue connects to the idea of student-driven inquiry and media production as pedagogy and as social action. That was a theme in the course. So, how to support students to use tools creatively, to connect inquiry with video production? Or with digital storytelling? In the same way you would like to have a writer's workshop on your website? That seems to me to be a very innovative idea you have there, based on student interest in writing and presenting news within their community.

Abdullahi This kind of production pedagogy would be very good, but the administration does not allow mobile phones in the primary and secondary schools, for the most part. It is a good technology, and the question is, how to make it help the creativity of the students. We just have the tablets for [special education students] right now.

Abikar Another challenge with technology is the curriculum; it does not allow the teacher to manipulate or change content. It's like the content is fixed. What is taught in the farthest ends of Kenya is taught here in Dadaab. It's hard for the teacher to come up with a pedagogy using mobile phones. Once you do that you are 'cheating' the child, you are not helping the child to pass the exams, and there is competition. The system prevents change. The national exams are viewed as a fundamental stage for all students in Kenya. For students to be accepted or be seen as successfully educated, they must do national exams. It is also regarded as a unifying factor, a national interest. All the local universities use the national results to sort their future students; and that is why it is important to the country (see Gitome and Dipppo, this volume). Personally, I don't like these kinds of exams, because it cannot be the only way to 'rate' the future of children.

What about out-of-school or after-school media making? If the Kenyan curriculum is fixed – and if the National Exams and the forms of status it confers create a pressure to 'teach to the test' – what are the opportunities of mobilizing these tools outside of the school in Dadaab where you both teach?

Abikar Sure, people are creating things on their own. We can do this through the website, and from home, and from outside of the school, but not in schools. They have to connect outside of school – and that is why I am setting up the writing workshop. But if you are in a developed nation, like Canada, maybe you can come up with your own pedagogy, your own content, the way you want.

To some extent, teachers in North America are constrained by curricular routines, too, as well as by standardized curriculum, content and testing systems. Yet, as explored in our course, some of the most interesting learning spaces are often those

outside of schools, as in the article (Sawhney, 2009) about digital storytelling in Palestinian refugee camps. Is there any way you can connect that model to teaching and learning in Dadaab?

Abdullahi In local schools? The problem is that if you [teachers] add something different or creative [to the curriculum], you are taking up time; if you remove anything from the curriculum, you are messing with the child, the student's' possibility of passing [the exams]. Again, the same syllabus – what is taught in the farthest end of Kenya – is taught here, and that is what is required to be taught.

It's a problem we have in North America, too: the pressure to 'cover content'. It does not support teacher or student agency and, paradoxically, educators are encouraged – by educational systems – to actually deprive students of potentially richer and more meaningful learning experiences in order to help them 'succeed' in schooling systems. So, that leads us to ask: how does the system of education generate tensions with what you are learning and doing through the BHER project? For example, in our technology course, we explored different approaches to student-directed inquiry, situated learning, and production: specifically, making digital artefacts with technology tools and new media.

Abikar In the Dadaab context, there are four universities that have set up BHER programs: UBC, York, and two local universities within Kenya, Kenyatta and Moi. The only one doing a Master's programme is York. With local BHER programs, students – the students training to become teachers – those students are not transformed through their educational experience as much as the York students are. The students have much less control over the curriculum, their learning. This is different from the York version of the BHER project. The other [teacher education] cohorts don't use the technology as well, and that is a big problem. Their programmes [locally] do not use Skype or Zoom or mobile devices to the extent that they should, and online learning activities that support dialogue, critical thinking and creativity are quite rare, I think.

Yet there is reason for hope. For example, one time – York professor Don [Dippo] was using Zoom and speaking all at once with students in Somalia, in Mogadishu, here in Dadaab, in Nairobi, Garissa and Mombasa – and one BHER professor from a Kenyan university, who was visiting Dadaab, was amazed: 'How do you do that? How have you connected all these students together on the screen? I need to be doing this!' Imagine that: this professor came from Nairobi to Dadaab to teach one student – think of the time and resources that can be

saved. But he witnessed the power of technology to connect people, and he wanted to do the same. Technology is important, and in my way of thinking, there should be more ways of connecting students and professors, through online tutorials and by creating networked learning communities. And even when local professors do come to visit, Dadaab is a very complex area, where floods, insecurity and other obstacles may hinder students' access to the BHER Learning Centre.

Can you put this technology discussion within the wider context of pedagogy – and the history of education in post-colonial Africa? Is it just about technology?

Abikar It could also be about the traditional colonial system of teaching. And changing to new ways, or adapting to new systems, of course takes time. For example, in the York programme, we learn to critically think, criticize, open our eyes, and to see what is beyond the page, and to see what is behind the content on the page. In the traditional university, those students who are taught, they are only reading *this* content [*Abikar holds up a piece of paper*], what's on the page only: they cannot see outside the page. What students do is read line-by-line, cover to cover, just the page, memorizing and repeating facts. This is maybe one effect of colonial education, which is didactic. The students with York – things are different, they are given courses that change them. The creativity is not killed. We are transformed through the educational process.

This leads us to another question: you both sometimes refer to yourselves as 'change-makers'. How do you see yourselves, as change makers, transforming learning and education when you, for example, return to Mogadishu or Somalia?

Abdullahi [With regards to] production pedagogy, in relation to the current Kenyan curriculum, the educational system is not flexible. You can't apply learning in your daily life. At York, we understand the importance of learning and context and sharing knowledge across the world with others, and the value of student engagement. Here, the system is purely teacher-centred, so innovative pedagogies can't be easily applied. In Somalia, we hope to make change – so students can apply their learning.

Abikar The problem is that there is very little space to change the system and educational culture here. After decades, the government is now rolling out a new system (the competence-based curriculum, or CBC), but this change is still surrounded by much argumentation and debate. There is still massive cheating on high stakes national exams, which are highly competitive and based on an

educational system that force students to memorize content, which leads to widespread cheating. My hope is that the new curriculum will provide new ways of learning and better assessment, and a better teaching and learning culture that is not based on discipline, individualism and competitive exams. The national exam has too much power over students' future possibilities. In my recent Master's research, I have discovered that any system change, including the CBC, should also be accompanied by transformations in educational culture: instead of individualistic and competitive behaviours associated with the old system's teaching and learning culture, my research recommends the creation of local professional learning communities where collaboration and knowledge sharing are central; there needs to be a new sense of community and responsibility to colleagues, students and to students' learning. Finally, we need to question 'individualistic' and competitive dispositions that are learned in schools and become part of the teaching culture, too. We need to understand that no teacher is perfect, and that we need each other, and that we need technology like smartphones to connect these new learning communities.

Abdullahi We hope to bring something else to Mogadishu, with the experience we have from York, and we can work with other universities – any university we like – that can bring new pedagogies to the people of Somalia.

Abikar The students from [other teacher training programmes] say that we, in the BHER graduate cohort, are learning very differently, and even say, 'you, you can rule the world' . . . And, so we started engaging them, for example, we gave them the links to courses . . . and I showed one student the graphic text making software . . . still, even then, the certificate belongs only to the person who is enrolled. But we showed them, this is how we learn. We gave them the links to York so they could do it themselves. And even when they are writing projects, they come to us: they learn how to write, format, not plagiarize, and create a bibliography, and [recently] a York professor was here and helping them as well.

Reflecting on being change agents and leading the way, this brings us to another question: How would you describe the engagement of women compared to men in online and technology-based learning? What do you observe as different among refugee women in Dadaab compared to refugee women outside of Dadaab engaging in this learning, using technology?

Abikar One challenge women have is that many [women and men] believe they need to have families – if they finish secondary school, they marry, and

perhaps some have a fear of not having children. And then they [the women] become engaged with [childcare].

One of the things about BHER, they say we need to empower women, but often women come to the BHER Centre with their children, and they need to attend to their children, and that [is a difficulty]. Most men don't have those added responsibilities. Those women who succeed, mostly, are those who wait to get married and finish their courses first.

In the Dadaab camp, women and men are not equal because of the traditional culture. Normally, women have a lot of domestic work at home, and men leave and do tasks outside of the home. For those who may be learning [through the BHER project], it is quite difficult for them as they may have these other domestic tasks and [childcare] – and the online technology helps. I remember women students who were part of the BHER programme who could not make it to the Centre, but they could still connect using their mobile data-bundles. Then they are connected when they are at their homes. The issue of technology can help in terms of men and women, and traditional culture creates different standards between men and women; but technology can help with this, too, as even women who are breastfeeding can Skype or Zoom to attend class. And send their weekly posts from home as well.

And about the women who are waiting to marry and have children, in the programme, how are they regarded for doing that? Do people support that culturally? And, again, how can you, as men, lead the way to support girls and women's full participation?

Abdullahi From the Dadaab level, in the BHER Centre, women, if they are married, normally [they] are assisted: we share our work in groups, we come together and boost others up, so they are not left out. Group work means that no one stands alone.

Those who wait to marry. How are they treated?

Abdullahi They are part of the family in Dadaab, and the BHER family. [Students in the BHER related programmes] don't have any problems, and we don't push them [other women students] to marry – we push them to finish. We advise them to wait and don't marry until they finish the courses and tell them that marriage is another chapter in your life. For example, one student who finished her Bachelor's moved onto the Master's programme with us, and now she has gone to Somalia where she is connected and very hard working. All of

the women have graduated with us, and there are two now in the Master's programme, with more women now applying.

Abikar I want to add that technology and smartphones are very important in helping and confronting gender barriers. It depends first on how the person interacts with the technology. There are many women who are as capable and skilled with technology as the men. [And using *WhatsApp*], they feel they can communicate with one another without men in an online group, too, to protect their privacy. The female students are also role models – with education, they more easily get jobs with local organizations, and NGOs in Dadaab, and elsewhere are also attempting to empower women through increased employment. As role models, female students tell other girls that education is important, and with York's upcoming graduate BHER cohort, 60 per cent of the graduate students will be female. Upcoming Master's students will be role models, the women, the 60 per cent.

When you become professors or educational leaders in Somalia, what do you see as the changes you might bring to the curriculum, for children and young people there.

Abikar [laughs] We see a lot of hope in the future. We now feel more qualified even than many [local] professors, here, when we compare ourselves, because we can create our courses now, we can create our websites and web pages, we can connect to students with Zoom, or own websites, wikis and discussion boards. And that is how technology changes things, if you know how to use it. This technology helps us connect – and if it were not for this technology, we would not be the people we are today. Yet, we still face internet problems – and that is always an issue. If we don't have the internet, or the cell phone data-bundles, we could not have this conversation now.

Technology is important, and Wifi needs to be powerful wherever we go, in Somalia, [and elsewhere], and so internet connectivity is important. Then we can make changes: some Somali universities have begun operations in cities, so we hope to improve things by adding what we have learned from York University, upgrading the Somalia curriculum with York University methods and technology practices. I think we should be borrowing some of York University's teaching methods and trying to help educate the Somali educators and teacher assistants in order for them to understand better ways to teach and serve the community at large. From Somali universities, we need to use technology to connect students within Somalia. We can have, or create, a BHER-like programme that helps the displaced and marginalized access education within Somalia.

Abdullahi In Somalia, in the future, it will also be possible to apply and introduce the skills we learn [through the BHER project] to where we are teaching. And if it is the case that we become leaders in an educational department or in the educational sector, then we can instruct those who are doing the field work, the real [teaching] work, and how to do that particular work – even as consultants – to bring new skills to the teaching and learning process.

Abikar This also symbolizes the problem of the current curricular system in Kenya, which has been in place since 1985, and is only now being updated to the competence-based curriculum. Learners have been taught within this older system and educational culture for decades, without improvements or adjustments, and this system limits the potential of children, and it also kills creativity. Learning should not be a reformatory, like a predictable situation for the child, but an interactive situation that will allow the learners to learn new things. For example, as a graduate student, last semester, I was struggling with video making, but with some technical help and ideas from the professor, we finally made an impressive video; and, so, the same strategy can be applied to the learners: it can work as it has worked for me, and we learned through trial-and-error and we engaged several video making tools. Sometimes we failed, but we learned through overcoming mistakes, and later we succeeded.

As a game designer [in our *Digital Games and Learning* course], I am hoping to make use of the production method as a starting point for myself and see if I can apply it to a digital game about Mogadishu, one that I am proposing as my final project. Since most kids can get cell phones, I would try to use a mobile-friendly game-making tool, to make a game about rebuilding Mogadishu.

By way of a conclusion, Abikar, can you tell us more about your game?

Abikar My game [using the software, *Twine*] is based on the idea that Somalia's capital, Mogadishu, has been at war for so long, and I think using the game to teach civilians is one way out of war and conflict: this is an important move, and developing a game model to reconstruct the capital city is one idea I hold on to. [With input from BHER students, Ochan Leomoi and Dahabi Ibrahim] my future Somalia game should be about reuniting the Somali people inside and outside the country, and it should also include symbols of unity, peace and reconciliation. And Dahabi also brought the idea that this game should bring hope to the young girls whose rights had been violated, and especially to [today's] women who, during the days of the conflict, had undergone torture and experienced stigma. According to my plan, I want [the player/avatar] to be a

university teacher trying to change the system and make lives better through education and building stability. The situation and experience of the game should mitigate the depression, trauma and stress that occurred during the prolonged wars in Somalia . . . though the player feels stress while playing the game as they empathize with the [avatar/character] in the game. The game will make them feel they are in other people's stories; and in the game, the player will experience the look of Mogadishu before the civil war, as well as how it currently looks now. And in playing the game, some Somali patriots may feel sorrow. In the game, the future Mogadishu will look different, and this has led us to compare the future Mogadishu in the game with Konza city in Machakos, Kenya, which was designed by the Kenyan government and, as planned, Konza looks promising through the artists' imaginations. This is a good idea and will be a good model for my Mogadishu game, though stability and education will be more important than tall buildings.

My idea is that the player can take the role of a teacher coming home, along with experiencing the story of the past and present and future Mogadishu. The character in the game, the teacher, will return to serve the country after more than two decades away from his or her homeland, who learned outside the country and then came back, trying to see how quickly he or she can bring change and stability to Somalia.