Expanding Notions of Literacy:
Developing Creative Commons Resources to Cultivate 21st Century Literacies

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Abstract
"Literacy liberates. Literate children become critical and creative thinkers, meaning makers, problem finders and problem solvers. Literate children become change-makers in an increasingly complex world," (Veldhoen & Crichton, 2017).

This paper shares the case study of Niteo Africa Society (http://www.niteoafrica.org/), an NGO and registered Canadian Charity working with in-country partners to establish literacy centers in East Africa and serving children and their families since 2008. As a support to improve school readiness and literacy, these centers offer reading materials freely to the community, specifically serving school-children, mothers, grandmothers, the disabled, and children unable to attend school. The overarching question guiding this paper is how can a reading culture be fostered when many adults in these challenging contexts do not understand literacy development and may not have held or shared a picture book with a child?

Keywords
Literacy, access, capacity building, making

Problem Statement
On January 1st, 2016 the UN launched the Sustainable Development Goals (SDGs), building on the initial eight Millennium Development Goals (MDGs) which set out "to eradicate extreme poverty and hunger; achieve universal primary education; promote gender equality and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria and other diseases; ensure environmental sustainability; and develop a global partnership for development" (United Nations, n.d. b ¶6). The 17 SDGs address

> everything from zero poverty, zero hunger, good health, quality education, gender equality, clean water and sanitation, and affordable clean energy, to decent work and economic growth, innovation, reduced inequalities, sustainable cities, responsible consumption, climate action, unpolluted oceans and land, and partnerships to achieve the goals" (¶10).

We have found that through the establishing of thoughtful and authentic partnerships that NGOs can begin to articulate key areas in which they can begin to make sustained impact among the most vulnerable – with sustainability and a long term plan for capacity building being key components. As expressed in SDG 4, "Education has a multiplier effect on all other SDGs," and our work suggests basic literacy is an essential building block.

This paper shares one NGO's efforts to provide access and opportunity through sustained alliances with in-country partners in the field of literacy development and the co-creation of relevant resources and spaces dedicated to investing in a culture of reading. Niteo Africa Society (http://www.niteoafrica.org/) (Niteo) has collected, sorted and delivered approximately 100 tons of age-appropriate children's literature to Uganda. As Niteo moved into its second decade of commitment to literacy, the NGO feels it is time to offer capacity-building activities. These activities include the sharing of an open source guide to instruct older children and adults how to read with children and a toolkit to teach and support community members in creating and making cultural relevant, local educational resources. To support this expanded commitment to literacy, the NGO is developing a comprehensive capacity building approach to support literacy leadership amidst family and community which it sees is an essential building block for quality education, especially in challenging contexts (Crichton, 2013).

Literature Review
Former UN Secretary General Kofi Annan (2014) stated,

Literacy is a bridge from misery to hope. It is a tool for daily life in modern society. It is a bulwark against poverty, and a building block of development, an essential complement to investments in roads, dams, clinics and factories. Literacy is a platform for democratization, and a vehicle for the promotion of cultural and national identity. Especially for girls and women, it is an agent of family health and nutrition."

We use the term challenging context in our work (Crichton, 2013) rather than more commonly used terms such as developing world, third world, global south, etc., recognizing challenging contexts exist everywhere, at various times and to various degrees. We define challenging contexts as settings in which individuals, due to a variety of circumstances, conditions or environmental constraints, do not have access to some or all of the components associated with a civil society (United Nations, n.d. a) and therefore are prevented or limited from reaching their potential.

A recent World Economic Forum article supports our position when it stated

Picture a country where a fifth of the population lives in poverty. People have to choose between eating or heating their homes and children go to school hungry. Homelessness is rising. And basic services are in crisis, leaving many struggling to cope. This is the damning indictment, delivered by a UN official, not of a developing economy or war-torn nation but of the UK – the world's fifth biggest economy (Edmond, May 2019, ¶ 1 & 2).

Globally, children growing up in challenging contexts face additional obstacles in achieving basic literacy. These obstacles include lack of access to materials, living in family contexts in which literacy is situational, attending schools with inadequate basic education, not being able to attend school, and more. Even attendance at compulsory school does not mean a student graduates as literate, despite this being a core and fundamental right in education as recognised in the 1948 Universal Declaration of Human Rights. Recognizing these obstacles and considering ways to mitigate them is essential in order to support lifelong learning and help vulnerable members of society embrace and adapt to the economic and social evolution of our rapidly changing world. Seven hundred and fifty million people remain illiterate, with two-thirds being women (United Nations Education, Scientific & Cultural Organization, September 2017), so tackling this reality will require intentional effort from governments and NGOs as well.

While, Freire (1985) reminds us literacy / illiteracy is situationally different, suggesting if one functions in a society without writing, being unable to write does not constitute illiteracy. However, Krahn, in 1998, warned that as society moves toward a knowledge-based, global economy, exclusion from technology skills and higher levels of numeracy and literacy becomes a contemporary definition of illiteracy (p. 46-47) and will further limit success in the 4th Industrial Revolution.

In order to address the disparities, Ulrike Hanemann (2015) argues attitudes of entire societies must change to support the ongoing development of literacy. Hanemann sets out the notion of literacy learning as a life-wide process, disrupting the idea of literacy development merely as a classroom-based endeavour and expanding it to include literacy situated in social practice and understood as a continuum of learning. "Instead of aiming for the 'eradication of illiteracy', ensuring the achievement of literacy and numeracy) for all entails the development of 'literate families', 'literate communities' and 'literate societies'" (p. 7). Literacy is a process going beyond learning in the classroom. Literacy learning must be combined with the development of other skills and situated in social practice. This approach argues both for expanding our concepts of literacy and how it is developed, including embracing the notion of lifelong literacy competencies as media continues to evolve.

Literacy experts suggest, "One of the most powerful strategies for building [literacy] in early childhood is the shared reading experience. In listening to stories, children begin to pay attention to print (e.g., print referencing), which reinforces print conventions and concepts in the context of a meaningful experience" (International Literacy Association, 2018, p. 3). Further, they suggest play is crucial in supporting children as they interpret and begin to make sense of the world around them. Basic literacy, the decoding of print, is an essential component of what Fadel (2008) and other call 21st century skills – skills essential in an increasingly globalized world.

Therefore, it would appear that organizations and policy-makers must work towards the creation of a culture of reading and learning supported by fertile and dynamic literate environments. As Hanemann notes, literacy acquisition and development is a complex set of core competencies that takes place throughout the lifespan, in and out of school, in diverse contexts and life situations, and through formal, non-formal, and informal learning opportunities (2015). Cited in Hanemann, the European Commission of 2012 developed recommendations that

include "the most ancient of educational traditions: intergenerational learning" (p. 10). They suggest an approach to learning focusing on intergenerational interactions, including the broader community, to promote the development of literacy and related life skills. It is indeed, life-long and life-wide literacy learning.

A recent article from Eye Witness News, South Africa's multiplatform new publisher, suggests the need to inter-generational learning and identified the need for families to foster a culture of reading. It noted that nearly half of South Africa's children had never read a book with a parent or guardian (Ngatane, 2019) or participated in other literacy activities such as drawing book characters or creating / illustrating their own books.

Fortunately, there are many initiatives similar to Niteo Africa that are attempting to address literacy development in challenging contexts, and they offer potential models that could be scaled or adapted by governments and NGOs. Common to many are efforts to provide children and their families access to print materials. Significant to Niteo's renewed approach is the development of open access resources (i.e., training and toolkits) to support the notion of literate families, literate communities, and literate societies. Additionally, the promotion of purposeful play will be woven throughout this approach as a way of encouraging the acquisition of 21st century skills.

Research Design
Niteo has been creating literacy centres and providing books and resources in East Africa since 2008 for communities in diverse settings in challenging contexts ranging from urban slums to remote villages and its focus is on providing access to books for children (ages 0-18). In 2017 the Niteo Board requested a formal study to determine the impact and sustainability of the 10 Niteo Literacy Centres in Uganda. Two researchers from the University of British Columbia (UBC) and Niteo's Executive Director designed a mixed-methods approach, creating open ended surveys and drawing on program evaluation approaches. The research team members each had extensive experience, either specifically within the East Africa or in other challenging contexts.

In 2018 three members of Niteo travelled to Uganda and engaged in 14 semi-structured interviews of reading centre partners and managers. Their work and data gathering protocols were guided by the UBC researchers. Thirteen interviews were digitally recorded, and the 14th was documented in the field notes of one of the interviewers. Eleven of the interviews were conducted in Uganda; three were conducted by phone or Skype.

The interviews were approximately an hour in duration, and the interviewers completed the data transcription to ensure accuracy and to capture tone and context. The interview data was analyzed by the researchers, using Goffman's (1974) frame and code methodology, as well as Argyris and Schon's (1974) gap analysis approach.

Discussion
Findings from the 2018 study suggest the impact of the literacy centres was strategic, in terms of meeting Niteo's intended goals; and diverse, in terms of addressing community needs. The diverse impact included community development, literacy learning, and leadership development. Additionally, unexpected outcomes were reported of developing positive values around health, personal hygiene, and nutrition, plus offering safety and observable healing from trauma (a significant issue following Ugandan civil war which victimized child soldiers).

For example, a leader of one center in Northern Uganda reports,
> So now people are very happy with us because we brought them here now, all these boys you are seeing who have just come out of the library. Because they used to fear this place so, so, so much. And they always ask me, really, "how do you stay there?" I say, "that place is safe." So now, when they build the place, people start coming, so they realize that this places is a very good place (Manager, semi-structured interview, July, 2017).

These diverse impacts establish a clear value of the literacy centres for the community.

Further analysis of the data revealed a gap in the Niteo project design. Niteo's intention to provide access to books was shown to not be enough. While an important starting point, the in-country partners suggested that to use the books well, Niteo needed to build capacity in the form of a literacy leadership system. They suggested that this system would help Literacy Centre Managers and community members develop and then share a deep understanding of how literacy is fostered, how adults can read with children, and local resources can be developed. Five of six partner and many managers interviewed during the 2018 study requested Niteo to deliver more than just books, asking for capacity building materials. Suggestions for these materials including community sensitization to the importance of literacy in an increasingly globalized world, training for teachers,

training for mothers and grandmothers, and support for promoting a change in attitudes towards reading and considering addition 21st century literacies (i.e., reading digital materials, government forms, social media, etc.).

One Manager at a Niteo Africa literacy centre acknowledged with candour,

> For now, they [the mothers] teach their children through song. But, reading and writing, they would have to have community sensitization. And I know they [the mothers] will do it very well. So if your organization could just do community sensitization. People were suggesting, if you can even open adulty literacy here to help empower mothers who are unable to read to also learn. Others stop reading when they are young, they don't even know how to write their name. So if they could open adult literacy to help them read and write (Manager, semi-structured interview, July, 2017).

The Niteo Partners noted the need for sensitization and mobilization of the community's members towards reading. Okello Kelo Sam, a longtime Partner in three literacy centres, stated,

> So my role is really to bring the opportunity to the people and then after that, to continue to mobilize the people to see the opportunity. Because it is possible to bring the opportunity to people and they don't see it. They don't see it in so many ways, they cannot comprehend the final product. The people are still at that stage. While we can see that to open those minds, all they need to do is to open the book. So they need to be mobilized to buy into that concept. So, one of my roles is to make sure they are mobilized (Partner, semi-structured interview, July, 2017).

The data suggests the Managers in the literacy centres were passionate about their centres. They saw their roles as being responsible for encouraging and supporting the visiting children, maintaining and looking at the books, and operating the day to day work managing their centre. The data further suggests that these individuals had rarely, if ever, had the experience or confidence in reading with children in the literacy centre, and they saw their roles more as *protectors* of the books than advocates for literacy development.

The Managers reported that the key users in their centres were typically older students who were avid readers. They noted these users were willing to help with upkeep of the shelves, encourage younger children to explore the books, and protect the books which reinforced the value they and the manager placed on the books as community resources. The Managers confirmed the key users were reading with and supporting the younger students in the exploration of the books.

The findings from the 2018 study suggest the Niteo's next steps should include empowering key users by offering simple instructions, tips and resources that could enhance their role as literacy mentors.

Argument and Analysis

The 2018 study determined that Niteo had done a good job of providing access to books to 10 diverse communities in various challenging contexts across Uganda. Further analysis of the findings suggest that for this access to continue to make a significant impact on literacy, the on-site managers of the centres and the key users needed to be empowered to move from protecting and managing the resources to becoming literacy advocates and literacy leadership capable to teaching the necessary skills required to support literacy development in children as well adults.

This call to formalize literacy development amongst Literacy centre managers and users and conceptualize a sustainable why to build this capacity will be discussed in the next section. Niteo recognizes that this next step is both needed and logical, but consistent with the Niteo mandate, it does not want to over promise support that they cannot continue or create a model that does not support in-country, capacity building.

Implications For Practitioners In Learning For Sustainable Development Practice

Findings from the study have helped to inform Niteo's next steps. Niteo is currently developing a capacity building system for literacy leadership. The system begins with the distribution of the open access learning guide, *When We Give Children Books* (Veldhoen & Crichton, 2017).

This resource situates core concepts of literacy developing within the East African context. It is illustrated by photographs taken in Uganda, and it is written in plain language so as to be accessible by those with basic literacy levels and easily translated into local languages and dialects. The photographs are illustrative to the degree that the text is more supportive than required. The primary audience for guide include the literacy centre Managers, key users, mothers, grandmothers, and community members, and it offers suggestions as to how to read with children and why it is so important. The guide offers beginning concepts of language development; tips to decode words and illustrations; suggestions for building comprehension; and ways of making authentic

connections between words, concepts and ideas – connecting story ideas to real world events. Its intention is to help build the capacity of literacy leaders and support them in conceptualizing ways they can build relationships and empathy for learning through the experience of reading with children. Additionally, the text provides concrete examples of in-situ early learning through the making of accessible manipulatives and learning resources. The maker methodology and the notion of multiple literacies are expanded in the second open access resource, *Taking making into classrooms in challenging contexts: A toolkit fostering curiosity, imagination and active learning* (Crichton & Nicholas, 2018).

The toolkit shares a variety of learning resources developed by educators in East Africa and has used widely by Aga Khan University – Institution of Educational Development, East Africa as a training manual for certificate and graduate level study into 21st century literacy development. Sample resources such as letter bottle caps; puppets; small, cultural relevant, local books offers ways that educators and families can support literacy development in under resourced setting all too often found in challenging contexts. Further, the resource offers professional learning into ways in which adults can use local materials to empower more student-learning pedagogies. The resource acknowledges that many educators in challenging contexts have limited or no access to professional training and ongoing professional development, so this resource was created to help bridge the gap between how those educators might have experienced learning and how they can change their practices.

The resource expands on the notion of situational literacy and broadens the concept of literacy from reading to include numeracy and spatial literacies including making and potential changes in vocational training and the 4th Industrial Revolution. A primary intention of the toolkit is to help cultivate an appreciation for play and wonder, by unlocking personalized learning and providing just-in-time support for educators and adults.

The two resources, *When We Give Children Books* and the toolkit, provide ways in which communities can embrace life-long and life-wide literacy development. Further, they provide suggestions for the creation of resources and materials that could create employment through the making and sale of learning resources for educational providers, including NGOs and various aid organizations. The authors have observed many NGOs bringing expensive learning resources from Europe or North America to support their projects while not appearing to not see the opportunity for capacity building and small scale, economic development in the creation of cottage enterprise to make more contextually relevant and cultural appropriate materials.

The third element in the Niteo capacity building system is the development of a micro-credential, *Leadership in Literacy*. This micro-credential is targeted at Literacy Centre Managers and key users and will provide community leadership training. It explains key research informed literacy development strategies and ways to support and enable it. It begins by focusing on the importance and power of reading for pleasure and offers practical tips and suggestions for how to read aloud with children. Further, it offers suggestions for encouraging reading comprehension. The aim for the *Leadership in Literacy* micro-credential is fostering the love of lifelong literacy into a weekend micro-credential module that provides certification upon completion. The next step in the developing of micro-credential is field testing and seeking recognition of the certificate from potential employers and post-secondary institutions in the region.

Niteo Africa is an example of an NGO that is working to foster can a reading culture in a variety of challenging contexts in East Africa. The 2018 study reported in this paper shows the value of the Niteo model and offers suggestions for further growth and ways to ensure in-country capacity building. Our paper illustrates the importance of developing an understanding of the importance of literacy in adult, especially when many of them are struggling with literacy issues themselves. The 4th Industrial Revolution will put increasing demands on workers to develop literacy skills beyond reading, but our work suggests that meeting those demands will be difficult, if not impossible, if basic literacy and fluency are not achieved.

It is heartening to note that Niteo is committed to continue to promote access to children's literature and will now also seek funding from larger organizations such as UNESCO and CIDA to support their capacity-building system for family and community-based literacy leaders in challenging contexts – both locally and globally.

References
Argyris, C., & Schon, D. (1974). *Theory in practice: Increasing professional effectiveness*. San Francisco: Jossey-Bass

Annan, K. (September 8, 2014). *Need for political will and resources to meet challenge of fight against illiteracy*. Retrieved from https://www.un.org/press/en/1997/19970904.SGSM6316.html

Crichton, S. (June 26, 2013). *Leapfrogging pedagogy: A design approach to transforming learning in challenging contexts*. 8th International Conference on eLearning (ICEL 2012), Cape Town, South Africa.

Crichton, S. & Nicolas, W. (2018). *Taking making into classrooms in challenging contexts: A toolkit fostering curiosity, imagination and active learning*. Retrieved from
http://media.royalroads.ca/owl/media/takingmakingwordpress/toolkit-limited-resources.pdf

Edmond, C. (May 24, 2019). The UN went to one of the world's richest countries to look at poverty – This is what it found. *World Economic Forum*. Retrieved from https://www.weforum.org/agenda/2019/05/the-un-went-to-one-of-the-worlds-richest-countries-to-report-on-poverty-this-is-what-it-found/.

Fadel, C. (2008). *21st Century Skills: How can you prepare students for the new Global Economy*? Available form https://www.oecd.org/site/educeri21st/40756908.pdf

Freire, P. (1985). *The Politics of Education: Culture, Power, and Liberation.* South Hadley, MA: Bergin and Garvey Publishers, Inc.

Goffman, E. (1974). *Frame analysis: An essay on the organization of experience.* Boston: Northeastern University Press

Hanemann, U. (2015*).* Lifelong literacy: Some trends and issues in conceptualising and operationalising literacy from a lifelong learning perspective. *International Review of Education*, UNESCO Institute for Lifelong Learning, Retrieved from https://link.springer.com/article/10.1007/s11159-015-9490-0

International Literacy Association. (2018). *Literacy Leadership brief: What effective pre-K literacy instruction looks like*. Retrieved from https://literacyworldwide.org/docs/default-source/where-we-stand/ila-what-effective-pre-k-literacy-instruction-looks-like.pdf.

Krahn, H. (1998). *Work, Industry, and Canadian Society.* Toronto: ITP Nelson

Martinez, S. & Stager, G. (2013). *Invent to learning: Making, tinkering and engineering in the classroom.* Torrance, CA: Constructing Modern Knowledge Press.

Ngatane, N. (May 28, 2019). *Nearly half of SA's children have never read a book with a parents*. Retrieved from https://ewn.co.za/2019/05/28/stats-sa-two-thirds-of-sa-s-children-don-t-live-with-two-parents.

United Nations (n.d. a). *Civil society*. Retrieved from https://www.un.org/en/sections/resources-different-audiences/civil-society/.

United Nations (n.d. b). *Sustainable development goals*. Retrieved from
https://sustainabledevelopment.un.org/?menu=1300

United Nations Education, Scientific & Cultural Organization. (September 2017). Literacy Rates Continue to Rise from One Generation to the Next. Fact Sheet No. 45. Retrieved from
http://uis.unesco.org/sites/default/files/documents/fs45-literacy-rates-continue-rise-generation-to-next-en-2017_0.pdf.

Veldhoen, K. & Crichton, S. (2017). *When we give children books*. Available from
https://issuu.com/niteoafricasociety/docs/new_sample_01