

Transforming early learning through social innovation

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What do blockchain technology, savings groups, social impact bonds, smartphone apps and supermarket signage have in common? These are all ideas being applied to early learning in South Africa. This article explains how the Innovation Edge is fostering ‘disruptive innovation’ in the early childhood sector, generating and nurturing new ideas that could have global applications.

The past two decades have rapidly expanded scientific understanding of how the human brain develops in a child’s early years, and the lifelong impact of early brain development on health, education and social outcomes. But the implications of new knowledge in neuroscience have been slow to translate into developments in policy or practice. The internet is bursting with references to innovation in business, science, medicine, technology and communications. How should we innovate in early learning?

In July 2014, the Innovation Edge was launched in South Africa to bring new ways of thinking and doing to all aspects of early learning: pedagogy, systems efficiency, delivery models, financing mechanisms, human resourcing, business processes, technology applications and entrepreneurial practices, amongst other yet-to-be-defined categories.

The Innovation Edge was started by ‘Ilifa Labantwana’ (meaning ‘Children’s Heritage’), a philanthropically funded South African early childhood development programme which works in partnership with civil society and government¹. The focus of the Innovation Edge is on sourcing potentially innovative ideas, supporting implementation and evaluation to proof of concept, and transitioning successful innovations to scale. As it approaches the end of its initial two-year phase, the Innovation Edge is currently finalising a strategy for further growth and development.

Some of the innovations that are funded are evolutionary – improving the efficiency and effectiveness of government systems incrementally – while others are revolutionary. In his book *The Innovator’s Dilemma* (1997), Clayton Christensen identifies the tendency for truly disruptive innovation to come from outsiders – those who are already working in any given sector tend to think about how innovations can serve existing markets, rather than envisaging potential future markets.

¹ Donors include the DG Murray Trust, the FNB Fund, the ELMA Foundation, the UBS Optimus Foundation and the Omidyar Network. For more information, visit www.innovationedge.org.za



△ Photo: Ilifa Labantwana / Deborah da Silva

Disruptive innovation requires different ways of thinking. The Innovation Edge therefore seeks diverse expertise to contribute to the development, implementation, evaluation and scale of innovation for early learning.

How to generate disruptive ideas

Over the past 18 months, the Innovation Edge has experimented with various techniques for generating ideas that have innovation potential. These techniques include ‘Potluck Sessions’, which bring together individuals who have demonstrated creative problem-solving skills within their particular sectors and encourage them to apply their minds to resolving early learning problems through facilitated brainstorming. The sessions are essentially a gathering of unlike minds and they stimulate new ways of thinking about challenges and opportunities. Another technique is ‘ECD Hackathons’, which bring together computer programmers and early childhood professionals to find innovative digital solutions to early learning challenges.

The Innovation Edge has a continually open call for applications; we host an innovation exchange; we look at repurposing innovations; we regularly post challenges; we look for ‘positive deviance’ that might highlight potential innovations; we attend pitch sessions at other innovation events; we present at academic institutions; and we do purposive networking and connecting – this last approach probably being the most effective in the co-generation of great ideas.

We’ve seen at first hand that the best ideas happen in the spaces between diverse sectors, as different perspectives collide to spark new ways of thinking: 13 of our 20 current projects involve collaboration across traditional sectoral boundaries. We have also found that the development and testing of innovation leads to further innovation as teams attempt to solve unanticipated challenges during the proof of concept stage.

Innovation with and without technology

Many of our projects have technology at their core. For example:

- South Africa has the world’s highest reported prevalence of foetal alcohol spectrum disorder, caused by mothers drinking during pregnancy and associated with permanent neurological damage. Interventions to stimulate neuroplasticity in affected young children can improve their educational and mental health outcomes, but in many areas there are no resources or trained personnel to implement these interventions. Innovation Edge is funding the development of an open-source computer game to see how effectively it can fill this gap.
- Better collection and sharing of data has great potential to improve the delivery of services to young children, which are often fragmented and bureaucratically costly – but how can this be done without compromising individuals’ rights to privacy and to control how their data are used? Innovation Edge is funding an open-source platform based on blockchain technology, which underpins Bitcoin.

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- Even if they don't have access to early childhood services, most parents have access to a mobile phone. Innovation Edge is testing MomConnect ECD, a service which sends regular text messages to parents with information about the stage of development their child is currently passing through and suggesting positive ways of parenting.
- Almost nine in ten South Africans don't speak English at home – yet more than nine in ten smartphone apps are English. Innovation Edge is funding the development of Xander, a fun and educational app aimed at children in local languages such as Afrikaans, isiXhosa and isiZulu, and will investigate the extent to which it improves numeracy and literacy development in marginalised communities.

However, technology is by no means the only avenue for catalytic change. Non-technology innovations in our portfolio include some of the first to demonstrate impact:

- The Innovation Edge supported the development of the first social impact bond for early childhood development in South Africa, in collaboration with the Bertha Centre for Social Innovation and Entrepreneurship, government and other donors². As a direct result of this work, the Western Cape government has allocated R 25 million (EUR 1.5 million) to trial three social impact bonds dedicated to early childhood outcomes over the next three years.
- Based on US research, and with the help of award-winning illustrator Xanelé Puren, Innovation Edge funded eye-catching signs in supermarkets and clinic waiting spaces that prompt caregivers to ask their children questions, turning a shopping trip into an opportunity for engagement and stimulation. The first signs, in isiXhosa, went up at the Boxer Superstore in Duncan Village, East London. Preliminary data suggest they have increased positive verbal communication between adults and children, and reduced negative interactions.
- South Africa has around 40,000 centres for young children, and all should be registered with the Department of Social Development – but the registration system is slow and inefficient. The Innovation Edge funded a project in two of the department's offices to test if workflow boards from private-sector factories could be adapted to tackle backlogs more quickly. Following the success of the pilot, the system is being scaled up across several provincial departments of social development, with boards currently in place in over 30 offices.

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Scale and the private sector

As our portfolio matures beyond the testing phase, our role is expanding – to identify partners for scale, explore integration of innovations into existing systems and provide the necessary intermediary support. Collaborative approaches can achieve economies of scale, taking advantage of market mechanisms to use resources more efficiently and drawing on private sector companies' wealth of knowledge around scaling, financing, processing and marketing.

² The wider potential of social impact bonds in early childhood is further explored in the article by Emily Gustafsson-Wright and Sophie Gardiner on pages 58–63



△ Photo: Ilifa Labantwana / Deborah da Silva

In our communication with the private sector, we convey the message that early learning interventions need not be confined to the realm of corporate social responsibility – they can also be sound business propositions. For example, in the supermarket signage intervention, there is clear potential for mutual benefit – signs can potentially help supermarkets to increase footfall, and offer the basis for developing customer loyalty programmes by incentivising responsive caregiving.

Another example is a project we are funding to target savings and credit groups – these collaborative savings groups are well established in many developing countries, with almost 12 million members of 800,000 groups in South Africa alone. Large corporates already invest substantially in building brand loyalty through sending ‘brand ambassadors’ to meetings of these groups, and we are developing a model of ‘early childhood ambassadors’ to promote positive parenting. We are encouraging businesses to partner with us as a way to add value, distinguishing their brand ambassadors from others.

The route to scale is more complicated in the development space, where there is no market mechanism to ensure that the best innovations are widely adopted. Given the diverse nature of our portfolio, channels for scale include government, donors, non-governmental organisations and international development agencies. Planning for scale begins as early as the proof-of-concept stage, with the need to consider which key stakeholders would need to buy into the model and what information would be needed to persuade them; the things that may be important to them may not be the things that initially drive the idea. If we are aware of these at the outset, we can ensure that we have information on hand to support scale when the time comes.

Ultimately, initiatives like the Innovation Edge depend on an enabling environment for social innovation and social entrepreneurship – one in which diversified funding possibilities are available and different stakeholders are open to partnership. As we enter the next phase of our work, we are beginning to explore partnerships with other organisations to enable an idea exchange across geographies and to look at ways of supporting innovation within those spaces.

Reference

Clayton Christensen, C. (1997). *The Innovator's Dilemma*. Boston, MA: Harvard Business School.