PRINCIPLES FOR DIGITAL DEVELOPMENT IN PRACTICE

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DESIGN WITH THE USER: THE CASE OF UBONGO

Ubongo is a Tanzanian social enterprise that creates interactive edutainment for learners in Africa, delivered to them via the technologies they already have. An important factor behind the success of Ubongo is a continuous human-centred design process and 'design with the user' approach – in this case the users are Tanzanian children aged 3–6 years and their parents. Building user testing and rapid experimentation into the production process has allowed Ubongo to craft a product that is much more effective and engaging than if they were to simply create from prior knowledge and expertise. As this example shows, there can often be a big difference between the two.

Early childhood education (ECD) is an urgent developmental issue to be addressed in Tanzania, where less than half of children receive any formal education before entering primary school at the age of six. With so many challenges to providing early education in Tanzania (and across Africa), mass media presents a unique opportunity to reach tens of millions of families with educational media for their young children.

HDIF provided funding to develop *Akili and Me*, an innovative new edutainment cartoon and radio series that helps young children develop pre-literacy and English language skills through fun learning. Around 1.2 million Tanzanian households are now tuning in each week to daily TV broadcasts and weekly radio broadcasts.

In the design phase of their school readiness programme, *Akili and Me*, the producers discovered

Akili and Me **is an innovative new edutainement cartoon.**

through user feedback that their original design was appealing to adults but confusing and complex for the actual users, the children. The episodes were re-written and the animations adapted and then tested again. Following a more positive response from the children and parents, production began on the full 26-episode season. Throughout the production

process the Ubongo team has continuously sought feedback from viewers, communicating with users via phone interviews and focus groups. An evaluation of the programme, conducted in partnership with the University of Maryland, has shown that the programme is highly effective for improving children's school readiness, and has a significant effect on school readiness for both girls and boys aged 3–6 years. The findings also showed that the impact on pre-literacy was not significant. In the second series of the show, the makers are turning their attention to improving children's literacy skills as well as teaching socio-emotional skills – 'early mindset building' – and creating positive role models for girls.

Ubongo embraced the Principle for Digital Development 'Design with the User' and adopted a five-step approach championed by d.School at Stanford University.

PRINCIPLES FOR DIGITAL DEVELOPMENT: DESIGN WITH THE USER

- Develop context-appropriate solutions informed by user needs.
- Include all user groups in planning, development, implementation and assessment.
- Develop projects in an incremental and iterative manner.
- Design solutions that learn from and enhance existing workflows, and plan for organisational adaptation.
- Ensure solutions are sensitive to, and useful for, the most marginalised populations: women, children, those with disabilities and those affected by conflict and disaster.

Akili and Me **helps young children develop pre-literacy and English language skills through fun learning.**

Step one – Empathise

Since the launch of Ubongo Kids, Ubongo staff have constantly been communicating with users via phone interviews and focus groups. Facebook has also allowed parents to provide Ubongo with a continuous flow of feedback about how their children were responding to and interacting with each new episode.

When Ubongo visited rural families without access to TV, they discovered that parents and guardians really wanted their kids to have access to fun learning too. As two-thirds of the population in Tanzania live in rural communities this was an important insight that Ubongo could not afford to ignore.

Step two – Define

This feedback helped Ubongo define a number of needs that could be addressed:

- Tanzanian children aged 3–6 NEED to develop critical skills to be ready to learn when they start school.
- Education stakeholders and schools NEED parents to understand the importance of early childhood education and their own role in their children's early learning.
- Parents NEED easy access to low-cost resources to help develop their young children's school readiness.

Step three – Envisage

With these needs in mind, Ubongo staff brainstormed possible solutions and discussed a variety of different ideas. These included using the same characters from Ubongo Kids to teach younger children or developing spin-off products like pick-your-own adventure mobile phone stories for parents to read to their children. They also found it helpful to frame this formation of ideas as 'how might we' statements connected to specific user needs, for example:

- How might we deliver edutainment content to families who do not have access to a TV?
- How might we help parents find learning moments at home?
- How might we hold young children's attention for a full half-hour of intensive learning?

Steps four and five – Prototype and test

Stories, characters and ideas were developed into testable prototypes which were then shown to users. However, instead of moving straight into production on a new show, Ubongo also pitched series ideas to parents, told potential episodes to groups of children as stories, and developed short video clips to assess engagement. They also prototyped audio content, video content and written content. The end result was their new product, *Akili and Me* – an edutainment program for children aged 3-6 years old and their parents, to help children learn English as well as early numeracy, literacy and art in Kiswahili. Each episode was produced in both audio and video formats to attract as wide an audience as possible.

RECOMMENDATIONS

- Even experienced designers and experts can fail when implementing based on prior experience. Exposing planned services to users at the outset and embracing critical feedback from them helps to avoid wasting time and money.

- Designing with the user should be viewed as a continuous, iterative process of improvement, not a one-off activity. Using piloting, pitching and prototyping has allowed Ubongo to develop new products and to fine-tune them to address actual needs in the community

- Social media enables continuous communication and feedback with and from users without a great cost. Managing responsive and interactive social media channels allows Ubongo to receive feedback from every episode.

- Design with the user principle requires an open mind, but can be applied by anyone with access to resources readily available on the internet. All digital development projects should be encouraged to start experimenting, changing and adapting until they find the right tools and processes for them.

ABOUT THE PRINCIPLES FOR DIGITAL DEVELOPMENT

The Principles for Digital Development are designed to institutionalise lessons learned in the use of information and communication technologies (ICTs) in development projects. They were written by and for international development donors and their implementing partners, but are freely available for use by all. The principles are 'living' guidelines, intended to serve as guidance rather than edict, and are meant to be updated and refined over time.

Further reading

▶ http://ubongo.co/

▶ http://digitalprinciples.org/

▶ https://dschool.stanford.edu/

▶ www.designkit.org/

Credits

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Disclaimer: All opinions included here represent those of HDIF and not those of DFID.

HDIF'S APPROACH TO DIGITAL INNOVATION

HDIF's Digital Approach sets out actionable steps for using the Principles for Digital Development to support cross-sector technology adoption and scaling-up for innovation-related practitioners (including HDIF and its partners) and policymakers in Tanzania. The prevalence of digital innovation in the HDIF portfolio presents an opportunity to generate learning from grantees who are putting the principles into practice in a Tanzanian context.

The Human Development Innovation Fund (HDIF) aims to identify and support innovations that have the potential to create social impact in education, health and, water, sanitation and hygiene (WASH) across Tanzania. With a focus on market driven solutions, HDIF catalyses the development, testing and scaling of innovative models of service delivery, information and communication technologies for development (ICT4D), and product solutions in health, education and WASH.

HDIF aims to contribute to the global dialogue on the principles through the Digital Impact Alliance (DIAL), the stewards of the digital principles, who facilitate lesson-sharing around digital development and promote their adoption globally. The HDIF digital framework for learning borrows from DIAL's materials and content. For more information see https://digitalimpactalliance.org/

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