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Digital age: challenges for health systems worldwide

A digital health framework adopted by Non-Governmental Organisations

Digital health in international cooperation

By Gertjan van Stam

The growth and use of digital health have not been uniform across the world. The design and implementation of digital health interventions depends on many factors. In international cooperation, most important is 'how we talk about digital health'. As technologies and models emerge mostly from a Global North, there is a risk that narratives of modernity and eurocentrism conceal or misrepresent the needs and capacity in a Global South.



Digital health harbours significant promises, but also poses significant threats (Alston, 2019; The Lancet Digital Health, 2019). Seeking respectful balances are long-term processes and struggles that need careful consideration (Nyamnjoh, 2016). Digitisation can open doors for recolonisation: data is easily extracted, as technologies negate borders and hierarchies (Smart, Donner and Graham, 2016; Couldry and Mejias, 2018). Perceived international inequalities can leave local stakeholders unable to withstand foreign normalisations, political pressures, or expropriation of resources (Eubanks, 2018). Digitalisation is conceived in the context of ubiquitous computing (Dourish and Mainwaring, 2012; Ogbonnaya-Ogburu et al., 2020) and can open ways to extract data that circumvent sovereignties (Mawere and van Stam, 2020). Normative epistemologies can obscure lived realities outside of Europe, North America, where realities are locally understood through dynamic and integrative epistemologies (Bigirimana, 2017; Bidwell, 2018). The needed discourse is strained due to a complicated history between the Global South and centers of power in Europe, America or South East Asia, and an eurocentric hegemony in academic publishing (Peekhaus, 2012; Atolani et al., 2019).

The development of a transnational framework

The programming and assessment of digital health in international cooperation is in need of inclusive, transdisciplinary language and guidance. During 2020, a dedicated group of experts located in both north and south of the equator co-developed such a transdisciplinary, strategic, and practical guidance on how to approach digital health for that purpose. They convened workshops, distributed surveys, held online meetings, and listened to voices from communities (van Stam, 2020). This work resulted in "A Transnational Framework: Digital Health in International Cooperation" that was subsequently adopted by Non-Governmental Organisations working in digital health through Medicus Mundi in Switzerland.



Photo: USAID Digital Development/Photo by John O'Bryan/ USAID/flickr, CC BY-ND 2.0

De-centering

The central theme of the framework pivots around the theme 'de-centering'. De-centring counters the hegemony of so-called universal truths that neglect the diversity of experiences. It deals with data-extraction, the threat of surveillance, and economic exploitation, questions never-ending pilots, lock-in technologies, extortive licences, and the transfusion of dependencies. De-centring focuses on ethics, philosophies, and the value of *being together* (Metz, 2014), aiming for shifts:

- from perspectives based on me and us, to *being together*
- from a focus on North and South, to *living together*
- from narratives on success and deficiencies, to *working together*
- from action towards solutions and systems, to *the commons*
- from benefactors as individuals and conglomerates, to *communities*

Any particular understanding of *meaning* depends on the interlocutor's worldview, culture, and positionality. Language and culture are two sides of the same coin, harbouring implicit and explicit guidance on value and agency (Ahearn, 2001; Chumbow, 2005; Tangwa, 2008). Language can mask (geo)politicking (Mawere, van Reisen and van Stam, 2019) and translations out of context can make 'others' look incoherent, inferior and incapable.

International cooperation involves languages and views from at least two perspectives: the international ones and those from the local settings. Guidance for the former is contained in international policies, codicils, bilateral and other agreements. Guidance for the latter is set in a variety of local, national, regional social structures, including traditional entities. De-centring involves a recalibration of contemporary paradigms, moving the (Overton) window of which policies are politically acceptable, as well as a change in contemporary practices and orientations – from us-we-know to both-we-know.



Photo by Shane Rounce on Unsplash

Community Engagement

Inclusion and participation are essential elements of community engagement, which is the political dimension of de-centring. Engagement thrives on inclusion, shared values, and shared purpose (Irani, Vertesi and Dourish, 2010; van Stam, 2014). Some commonly revered maxims are: 'do not impose on others what you do not wish for yourself' and 'do unto others as you would have them do unto you'.

In digital health, community engagement enables co-development and is a hallmark of sustainability and human rights (Marais, 2011; Alston, 2019). Community members are the channels of development, harnessing local resources from conceptualisation through to the moment of realisation (van Stam, 2016). In communities, local agendas are pointers (van Oortmerssen and van Stam, 2010; Lorini et al., 2019), ideas and 'how to do it' spread (Sheneberger and van Stam, 2011; Micholia et al., 2018) and ownership is anchored and shared. Equality seeks consensus and prevents paternalism and elitism (Bon, 2019). 'Handing over projects' becomes needless when ideas, designs, and implementation are already socially embedded in communities (Bets, van Stam and Voorhoeve, 2013).

Community engagement involves dynamic and integrative approaches, focuses on local agency, seeks reciprocity, and needs a healthy dose of conviviality and stamina. It requires the pragmatic inclusion of different ways of knowing, conceptualisation, and meaning making. This involves looking beyond the usual suspects and what is assumed to be universally known, beyond the written word, and reading all verbal and non-verbal clues.

Engaged and entrusted communities disempower token cooperation (in which plans are forced onto beneficiaries and local researchers are mere providers of raw data (Mamdani, 2011)). Community engagement replaces a 'mirror' (in which benefits are reflected towards the patron) with a 'window' (through which people see, engage, and collaborate with each other).

Workforce enhancement

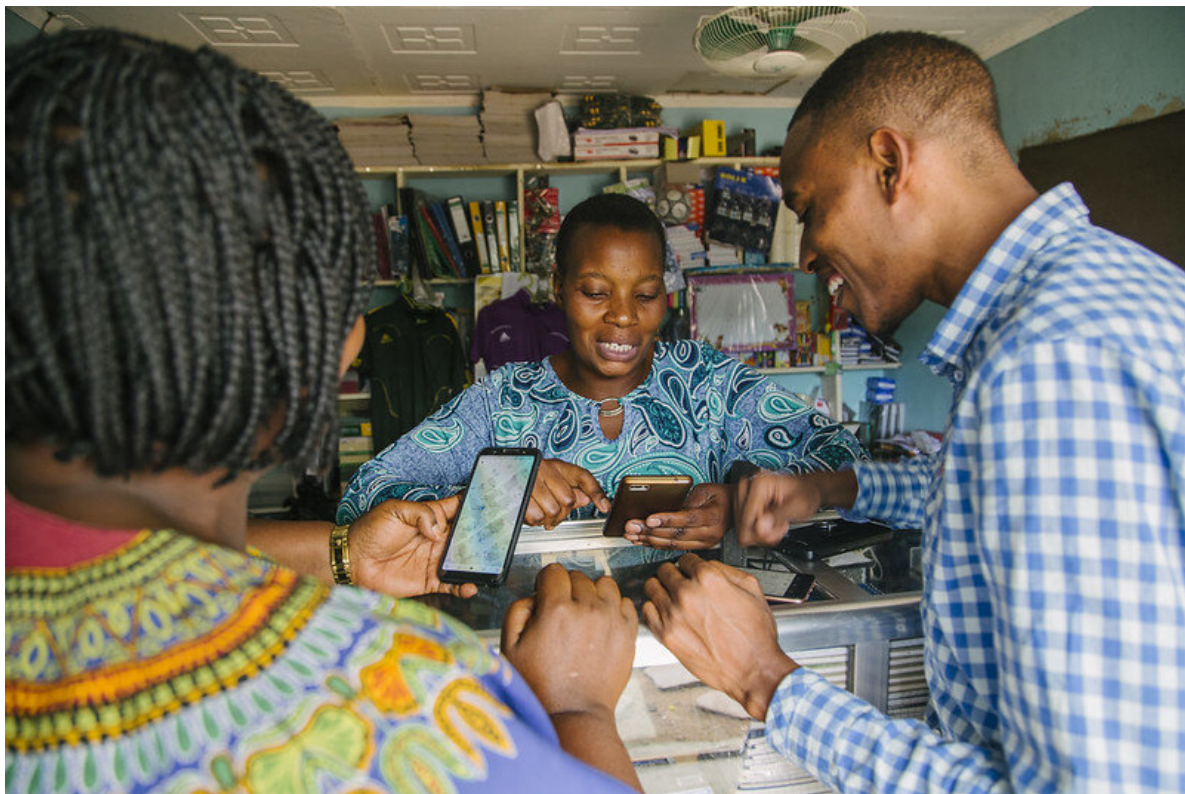
Workforce advancement, the practical dimension of de-centring, recognises, kindles and expands local capacity for the development of digital health. This advancement thrives on a love of humanity and commitment to respectful dialogue, as well as empathy and alignment with local meaning making, norms and values.

Receiving communal grace to access local knowledge and understanding unveils local agency (van Stam, 2017). Local workforce structures integrate knowledge and knowing set in local cultures and languages, often articulated orally, and set in the particular time and place of their dissemination.

Enhancing the local workforce emancipates the local economy. It builds on what is going well and expands upon existing capacity and agency, dreams, and visions. Crossing disciplinary boundaries, the inclusion of polyvocality, diversity, multiple perspectives and experiential data,

scoping across all stakeholders (KroczeK, Mweetwa and van Stam, 2013) and facilitating indigenous ways of addressing digital health debunks constructed bifurcations and narrow assumptions.

Development is complex and located (Suchman, 2002) – there are no one-size-fits-all solutions. Progress necessitates sensitivity to historical, enshrined power dynamics (Mbembe, 2019). Single-focus concepts and imported categorisations are inadequate (Alzouma, 2005). Space and time must be allowed for ‘capacity to grow’. This requires the inclusive reconciliation of ways-of-knowing, the balancing of oral and textual communication and cultures, among other things, and putting the ‘who’ in front of the ‘what’ (Collins, 2001). In digital health, this means respect for sovereignty, both in technology development and data-handling (Mawere and van Stam, 2020), as well as the way that they are designed to benefit people. Workforce enhancement benefits from national universities leading scientific explorations and the regional exchange of ideas.



December 14, 2018: Mugumu, Tanzania: Geoffrey Katerrega, [right] a trainer from the NGO Humanitarian OpenStreetMap Team (HOT) and Rhobi Samwelly, [left] the director of the Hope Center Mugumu Safe House, train villagers from the northern Serengeti District of Tanzania on how to add data to the free, crowdsourced OpenStreetMap. These entries, such as names of roads, schools, shops, churches, and other points of interest, are helping create the first ever digital map of this part of Tanzania that can be used by citizens for an array of purposes. One crucial way the maps are being used are to help locate girls at risk of female genital mutilation, or FGM, which, though illegal, is still traditionally practiced in communities throughout the Serengeti. Photo: Global Devlab/ Photo by Bobby Neptune for DAI/flickr, CC BY-NC 2.0

Thought Leadership

Thought leadership enacts the ethical dimensions of de-centring. It puts on display what is known and how it is enshrined in embodied knowledge (Mawere and van Stam, 2017). Through thought leadership, communities of practice contribute to conversations in international health cooperation, influence public policy, and use relevant experience to complement the skills of professionals.

Thought leadership discloses local knowledge, resulting from evaluation *in situ* (Alston, 2019). It provides guidance for other communities and for the scaling up of digital health practices. Thought leaders express and act locally, and then further afield, when properly authorised. Thought leadership is the key to social innovation and transfer of solutions to other communities. It puts local capacity on display and provides inspiration by validating the enabling and empowering aspects of digital health interventions.

The exposure of local talent and disclosure of local practice support regional and global integration. Thought leadership champions indigenous social capital – set in communities – and empowers local institutions, authorised by digital health beneficiaries. Thought leadership strengthens relationships and opens up ways to establish new ones. It explicates local and shared visions, values, motivations, and experiences. It results in the establishment of local authorities in digital health that are able to elucidate local policy and provide well embedded answers to the questions raised. Thought leadership delivers in context and culture. Through thought leadership, communities of practice are recognised as part of interventions and conversations, boosting their involvement and relevance in governance, education, research and development. Of course, thought leadership can challenge assumptions, erode non-local power houses, and chew away at the status quo. Thought leadership integrates the cognitive components in a complex, multicultural environment.

"Thought leadership champions indigenous social capital – set in communities – and empowers local institutions, authorised by digital health beneficiaries."

Systems Conciliation

Digital health interventions are produced through integrated systems. They are the product – the embodiment – of human thought and choices. Societies are held up by systems that align with the needs, available infrastructure and measures of success in the local domain.

System imports and digital oligopolies (UNCTAD, 2019; EIT Digital, 2020) carry significant risks for adverse integration (Heeks, 2020). The foundations of systems like 5G, the Internet of Things, clouds, digital platforms and artificial intelligence are firmly rooted in unequal global

power dynamics (Dourish and Mainwaring, 2012). They often reflect and reinforce colonial legacies and promote the interests of international partners.

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Conclusion

De-centring alters the centre of gravity in the development of digital health interventions in the Global South. It empowers local specialists to lead in complex system integrations aligned with local needs, using local resources. This transnational approach caters for stability, inspires synergy and trust, and brings together various perspectives on realities. It opens up opportunities for redemption and the use of local capacity, rather than the imposition of digital health systems by powerful, Northern based partners.

Regardless of where they are established, digital health systems should emerge from embedded engagement, involved and local workforce and thought leadership from the communities involved. From such a base, digital health systems can bolster health services and bring us closer to universal health coverage, ensuring good practices in local, national and international health cooperation.

MMS Transnational Framework:

Digital Health in International Cooperation

This transnational framework for 'Digital Health in International Cooperation' relates to the development and sustaining of digital health within so-called 'Southern countries'. The goal of the document is to establish a practice for the development of digital health interventions. The framework provides guidance for developing digital health strategies and programmes in a responsible way. The overall aim is to describe and harmonise the practicalities involved in connecting and mobilising people to co-develop digital health interventions within international cooperation. [DOWNLOAD](#)

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Gertjan van Stam (PhD, MTech), Great Zimbabwe University.

<http://www.vanstam.net/gertjan-van-stam>

Gertjan lives in Zimbabwe. He has been involved with strategic developments in ICT in Africa since 1987. He holds an MTech (cum laude) from Nelson Mandela Metropolitan University and a PhD in Cultural Studies from Tilburg University. His research is focused on the mechanisms of society and technologies in (rural) Africa under the banner of 'community engagement, culture, and digital technologies'. Email

Kontakt

Deutschschweiz

Medicus Mundi Schweiz
Murbacherstrasse 34
CH-4056 Basel
Tel. +41 61 383 18 10
info@medicusmundi.ch

Suisse romande

Route de Ferney 150
CP 2100
CH-1211 Genève 2
Tél. +41 22 920 08 08
contact@medicusmundi.ch