

Learning with Mobiles: The Globalised South

Abstract

This paper addresses the need to build sustainable, appropriate and authentic foundations for learning with mobiles in the globalised South. It does this in two ways, firstly by reviewing aspects of the current environment, namely the nature of learning with mobiles in the global North, the relationships between research and policy in relation to learning with mobiles, the impact of mobile technology on language, and the meanings of international development, and secondly by consolidating these within a broader and critical historical framework that sees education and technology as the instruments of the hegemony of the global North, reinforcing its values and world view. This is however methodologically challenging and problematic, and the paper briefly considers how such arguments should be constructed. The paper concludes by offering ways forward as the basis for practical progress.

Introduction

Over the last twenty years, the author has worked as a researcher, developer and consultant in Africa and elsewhere in the developing contexts of the global South (all problematic terms to which we return later). In this time, he has written extensively but haphazardly as the opportunities, the perspectives, the stimuli and the thoughts have occurred. The current paper is an attempt to integrate and organise this body of work and provide a more secure and coherent platform for subsequent thinking, in particular, a secure and coherent platform for subsequent thinking in an open, inclusive and rigorous way about the potential for mobile technologies to improve the lives of people and communities outside currently privileged domains, outside the established hegemony of the mainstream. In working on this paper, it quickly became clear that the issues that seemed relevant to the global South were, perhaps unsurprisingly, recognisable in the global North and likewise, with different terminology and emphasis, the concerns of the global North resonated in the global South. We return to this later.

In this time, various clusters of ideas have appeared and reappeared, including the impact, nature, practice and limitations of research, especially in relation to official policy and programmes; language, literacy, culture, epistemology and pedagogy; mobile and social digital technologies; inclusion, opportunity, empowerment and education; development, modernity, anecdote and crisis. These in effect form the headings of the current paper but an underlying challenge is their permeability, connectivity and interaction.

The principal focus will be sub Saharan Africa (SSA) as this creates a clearer focus for the discussion (and incidentally creates a more direct point of contact with some fellow contributors). It also omits some confounding variables and the mess of contingent transient reality.

We explore communities and conditions in the global South, mainly in sub Saharan Africa and those of marginal, nomadic or indigenous peoples elsewhere and we see education systems and

educational technology being used, currently and historically, to co-opt and exploit them by a process of acculturation and identity transformation in the interests of the mainstream, the established and the powerful, and see this as the ongoing expression of historical forces of industrialisation, capitalism, modernity and the European Enlightenment.

In a different work, we have argued that such forces also operate on non-traditional students in domestic English higher education and this has been part of a recent European political agenda (Traxler 2016a).

This all represents a methodological challenge, namely merging or synthesising disparate arguments and sources to reach a robust and rigorous conclusion. Whilst small-scale empirical interventions are often strong on rigour, they are also by the same token likely to be weak on significance, at least outside a very tightly defined local domain. This paper and similar ones, sweeping backwards and forwards through history, geography and culture, have the opposite problem, attempting enormous significance but searching for a method that will give any kind of rigour. Possible methods and their flaws draw on both reason and rhetoric, and resemble localised theory-building. "Theory-building research seeks to find similarities across many different domains to increase its abstraction level and its importance. The procedure for good theory-building research follows the definition of theory: it defines the variables, specifies the domain, builds internally consistent relationships, and makes specific predictions." (Wacker, 1998:361). We should be alert to those various flaws of argument and of theory based on analogy, on suppressed premises, on self-referential paradigms, on appeals to authority and on ill-founded extrapolation. To be clear, what we mean here by a theory is, "a coherent description, explanation and representation of observed or experienced phenomena" (Gioia & Pitre, 1990, p. 587), nothing more. There are a variety of accounts of theory-building in applied social sciences (Lynam 2002) but these mostly depend on implementation, practice or observation as part of the cycle of development and this is problematic with historical analyses, with domains with such patchy and heterogeneous experiences and with such partial accounts. Politics may be the discipline to offer some tools (Munck 2001) as may some other disciplines but cautious analogy seems to have been the favoured tool until recently, and we should be aware that this is what we are about, trying to make inferences based on perceived similarity. The general problem is illustrated in a variety of online sources¹ that try to systematise this issue and others that tackle the issue as one of rhetoric and its fallacies². It is possible to argue that in exploring documented projects, pilots and initiatives we are attempting to build a theory from case studies and there is thinking that could be drawn on (Steenhuis & Bruijn, 2006; Eisenhardt, 1989; Gioia & Pitre, 1990; Hoon 2013) or approaches could be adopted (Briggs 2007; Hart & Gregor, 2013; Meredith 1993). Whilst there is a literature of theory building, its significance in the present context is really only to draw attention to potential flaws and failings. 'To be good theory, a theory must follow the virtues criteria. for 'good' theory, including uniqueness, parsimony, conservation, generalizability, fecundity,

¹<http://www.speaking.pitt.edu/student/public-speaking/reasoning.html>
<http://rintintin.colorado.edu/~vancecd/phil1440/induction.pdf>
<http://factmyth.com/the-different-types-of-reasoning-methods-explained-and-compared/>

² <http://www.kirbymountain.com/fallacies.html>
<http://www.don-lindsay-archive.org/skeptic/arguments.html>
https://en.wikipedia.org/wiki/List_of_fallacies
https://en.wikipedia.org/wiki/List_of_cognitive_biases
<http://examples.yourdictionary.com/examples-of-fallacies.html>

internal consistency, empirical riskiness, and abstraction,' (Wacker, 1998:361) so perhaps we should settle for a good theory irrespective of how it was built.

To move on from methodology, these are not the first instances of cultures, and their languages, values and understandings, being challenged by these forces but now universal, pervasive, ubiquitous and intrusive mobile digital technologies make such challenges significantly greater. This is the context for considering the possibilities of learning with mobiles in Africa and elsewhere in the global South but more generally for considering such possibilities amongst those outside the mainstream, the established and the powerful, in fact the *other*. (Canales 2000)

Some History and Context

A central interest in this account must be the possibility that mobile technology can and does deliver, support and enhance learning but at the time that the interactions between mobile technologies and societies transform pedagogy, epistemology and culture, and many manifestations of culture and society such as language, livelihoods and economic activity, arts and artistic expression; ethics and behaviour; community and identity. These are all explored elsewhere (Traxler 2010). The purpose of this section is merely to document some the trends and landmarks. A recent report from UNESCO, *Rethinking Education* (2016:50), says,

Mobile technologies 'hold the key to turning today's digital divide into digital dividends bringing equitable and quality education for all.' Notably, the development of mobile technologies has opened up many possibilities in literacy and language learning. Research has demonstrated mobile technology's effectiveness in improving literacy performance among learners. Because mobile technology can reach a wider audience, it holds the promise of transforming education for children and youth in isolated and other underserved conditions.

This sounds both upbeat and superficial but, to be fair, is no doubt ideally suited to the publication's intended audience and the organisation's funders.

We should however look back at the last decade or more of learning with mobiles in the developed countries, mainly and initially Western Europe, rather more critically. This formed part of the expectations and experiences exported to developing countries in the global South.

We can identify two contrasting paradigms (Kuhn 2012) of learning with mobiles, firstly, the well-defined *mobile learning* movement of the research community. This paradigm, the dominant one over the first decade, can claim a range of achievements, those of extending learning, enriching learning, engaging learners, extending learning theories, adapting the theories of e-learning but essentially a Western European / North American account, in spite of some Asia Pacific and South Africa outliers (Traxler 2011). It was and still is largely a research-driven and funding-driven community, under-pinned by the rhetoric, lexicon and mechanics of innovation (Rogers 1995), working within existing curricular, institutions, professions and ideas and based on the pedagogic and epistemological foundations of European modernism. Its foundational disciplines were computing, education and psychology as earlier espoused by e-learning, and its aspirations and research agenda come from the same ancestry. It had the modernist imperative to generalize, theorise and extrapolate.

There is however also a second, an emergent and more subversive, paradigm in the global North. This paradigm portrays connection and mobility as defining characteristics our societies, arguing that this connection and mobility change attitudes, abilities and expectations about how we can generate, transform, share, discuss, store and consume ideas, images, information and opinions. This has a rather different conception of learning with mobiles that resonates with post-modern notions of transience, fluidity, partiality, subjectivity and relativity - see Kirby (2006) for a particular, comprehensive and ambitious exposition of this, branded *digimodernism*. It draws on a loose and emergent *sociology of mobilities* community (see for example Urry 2007) which incidentally argues that existing empirical methods are still rooted in stasis, exploring mobility merely as *freeze frames*, and that intrinsically mobile empirical techniques and attitudes are now needed (Büscher & Urry, 2009). This must be part of any agenda for researching, developing and understanding learning with mobiles, but is made more challenging in the global South by radically different cultural contexts and differences in resources and infrastructure (Bidwell *et al*, 2013).

Somewhere between these extremes, or paradigms, is the growing phenomenon of user-generated learning for mobiles, characterized by content, contexts, communities and conversations generated by learners for learners, or actually by anyone for anyone, often exploiting the affordances of mobile access to Web2.0 technologies (Cook 2010). This phenomenon may be the blurring and the bridging that takes our conception of learning with mobiles from the first and earlier paradigm to the second and most recent one.

These extremes and the work in between have offered conflicting models of learning with mobiles to the developing countries of the global South³. They have provided the templates. Accepting them too readily does however crucially ignore deeper and more problematic issues and fail to offer the foundations we seek. The two extremes are both the consequences of global and local trends, pressures and forces and these must be exposed and analysed to understand what threatens or constrains learning with mobiles in both the global North and the global South.

These paradigms have been discussed further elsewhere in relation to competing and evolving definitions of mobile learning (Traxler 2018a); the definitions encapsulate the paradigms. These definitions and types of definition, espoused or enacted, connotative or denotative, whatever, are clearly be shaped by competing cultures, communities and interests. The take-up and advocacy of *mobile learning* by agencies and organisations operating in the global South, Africa especially, from about 2008 onwards have accelerated this moulding or distortion, thus skewing many people's understandings, in one specific direction, as we describe later. The definitions and thus the discussion are never neutral, impartial and balanced. The methodological challenge we face here is that of reification, thinking any of the terms we have used, especially the more abstract ones, represent something real. We must proceed cautiously in our discussions, between the merely contingent and the untrustworthy abstract.

³ Reflected, for example, in the confused "Policy guidelines for Mobile Learning" from UNESCO, http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/pdf/UNESCO_Policy_Guidelines_on_Mobile_Learning_DRAFT_v2_1_FINAL_2_.pdf and current discussions within DFID about definitions of *edtech*

Modernity, Modernisation and Development

Some of the underlying forces cluster around ideas of modernity, development, progress and modernisation. This section briefly discusses the meaning, nature and impact of modernity, however crudely interpreted in the public and policy domains this may be, on the ideas of development and progress. They have been significant determinants of educational practice and policy in the global South but have been largely a discourse imported from the global North.

We need first, as a digression but also as an illustration, to define Africa or rather we need to say what Africa is *not* (Traxler & Ng'mbi, 2012). We are talking about the geographical and physical continent of Africa but that must be the limit of our capacity to talk intelligently about what happens or exists on that landmass without the necessity to talk with much greater specificity and precision. Africa is not a culture, a community, a language, a society, an environment, a climate or even – in spite of George W. Bush's⁴ or Boris Johnson's⁵ assertions – a country. It is often made into something, that is, reified, by the way people, organisations and publications describe and discuss it (Mudimbe, 1988; Ferguson, 2006). For example, UNESCO make it into something when Africa appears amongst gender and teacher development as a priority. So, in some senses, in our discussion, Africa exists beyond its merely geographical and physical definition because it is discussed as such and so the development and delivery of learning with mobiles on the landmass will be constrained by these conceptions. In the current context, it is worth observing that Africa is probably, on average, characterised by the most diverse and active mobile telecoms sector in relation to the other major regions/continents, to average incomes and to the penetration of general ICT (Porter 2012; Chabossou *et al* 2008) and on a country-by-country basis, this diversity has been heavily researched and documented, though more likely in the *hot-spots* like South Africa, Kenya, Uganda and Nigeria than, say, the *not-spots* of Angola, Niger, Chad, Cameroon or Gambia (Isaacs, 2012) (and these facts continue to shape possible business models for learning with mobiles especially in regions where policy, resources or capacity are not forthcoming).

So, we try to talk merely about the landmass but find ourselves constantly talking about something more. One meaningful unifying factor, however, if we ignore the history of Ethiopia, might be the experience of Victorian colonialism and of post-Victorian post-colonialism. One legacy of these is undoubtedly the imposition of arbitrary national identities across the continent, cutting across far more complex and fluid cultural, ethnic and linguistic identities that 19th and 20th century Europeans would struggle to comprehend (Simpson 2008); another legacy is national quasi-European education systems and bureaucracies (Joireman, 2001; White 1996; Young 1986). Given that the colonists were, at various times, Portuguese, British, French, German, Italian, Belgian and Arab, these generalisations quickly break down. This legacy does however shape the educational expectations that mobile learning - certainly the formal accepted sense of the phrase - initiatives and ideas will encounter and will also perhaps favour those interpretations that see mobile learning as an initiative and a responsibility located only within formal education systems, as modelled on those of Europe.

They also account for the current efforts and rhetoric to *decolonise the African mind* that we discuss later.

⁴ <http://www.azquotes.com/quote/559211>

⁵ <https://www.express.co.uk/news/uk/716897/boris-johnson-africa-that-country-tory-party-conference-conservative-Britain>

As a former Permanent Secretary of Kenya's Ministry of Information and Communication points out,

Africa's learning methods through imitation and the oral tradition of knowledge transmission are dying. Modernity is destroying the little that was transmitted. (Ndemo, 2014:8)

This death of Africa's learning methods is mentioned later in the context of the destruction of indigenous knowledge (IK) and in the context of epistemicides, the destruction of epistemologies. Another aspect of the differences in these underlying epistemologies can be found in Kaplan's (1966) seminal study of different, culturally-determined, styles of expository writing. According to Kaplan, text production is influenced by different 'cultural thought patterns' (represented schematically in his diagrams), and a comparison of these patterns can predict the kinds of problems learners face when writing in their second language: this is known as the contrastive rhetoric hypothesis and illustrates that the global North cannot merely paste its thinking and teaching styles onto parts of Africa or parts of the global South.

This does however sit uneasily with other remarks about *zombie linguistics* (Perley, 2012) – who decides which cultures, traditions, pedagogies and languages to keep, destroy or discard?

More generally, using the term *global South* (Chant & McIlwaine, 2009) to frame our discussion is equally problematic and clearly privileges one aspect of disadvantage as opposed to any others, most obviously age or gender. It is the also only the latest in a long line of dichotomies, a facet of modernist binaries perhaps, initially *underdeveloped/developed* then *developing/developed*, followed by *non-industrialised/industrialised*, *LDC/MDC*, *traditional/modern*, *poor/rich* and now, most recently, *global South/global North*. There are other development categorisations that cut across these dichotomies. There is, for example, the political one of First World, Second World, Third World (all widely understood, albeit based on constructs of the post-war Cold War) (Wolf-Phillips, 1987) and now Fourth World, a term referring to peoples beyond the Third World, the indigenous, the nomadic and the marginal, now however accessible to mobile network technologies (Donner, 2008), that we discuss later in the context of the epistemological threat posed by these very technologies.

There are other concepts at work too, *development*, as we have said, related to ideas about technology and contrasted with *underdevelopment*; *modernisation*, related to industrialisation, easily mistaken for *Westernisation* and contrasted with *traditional*; and *globalisation*, a recurrent theme, related to *digitization* and contrasted with *localisation*.

There are also a range of other development theories: the *modernisation* paradigm, a type of convergence or *catching up*, copying what was perceived as linear and immutable progress from the global North onto the global South but sometimes subverted, especially by ICT technologists, by the notion of *leap-frogging*; the *dependency* paradigm, based on the notion of capitalism causing a core/periphery division that can be tackled with *appropriate* technologies, sometimes referred to *trickle-down*; the *multiplicity* paradigm, based on the possibility of *bottom-up* and *alternative* developments each appropriate to different regions and the *post-development* paradigm (Matthews, 2004), based on *grass-roots* participative approaches and finally the recognition that development may be a purely Western construct embracing modernity, science, reason, technology, consumption, nation-state and globalisation.

There is also a broader contextual background of global crisis, the notion that the current drift or direction of history and events is characterised by crisis, in fact crises, crises of ecological sustainability, of political legitimacy, of diminishing meaningful employment and of economic equity. This has implications for education, for example what might be the purpose of education in such a world and how might education systems and technology systems be complicit in supporting it (Traxler & Lally 2015)? This obviously plays out differently in different regions, cultures, classes and countries of the world but in the global South alerts us to the activities and motives of national governments, global corporations, technology providers and international agencies especially in relation to people and communities at the margins.

This is not a definitive account, merely an indication of the complexity and confusion through which learning with mobiles must navigate and negotiate if its theorists and practitioners are not to be distracted or diverted. It also begs questions about the purpose of learning to support whatever poses as development.

Capability

We are now however seeing a widespread move away from development perceived and measured in the purely material and economic terms described above, and thus as a pre-determined and universally applicable trajectory. An alternative, the Capability Approach of the Nobel Laureate Amartya Sen, has gained considerable visibility,

Development can be seen as “a process of expanding the real freedoms that people enjoy” (Sen 1999:3)

and

Focusing on the “substantive freedom – of people to lead the lives they have reason to value and to enhance the real choices they have.” (Sen 1999:293)

(quoted in Kleine, D. (2009)

In this more holistic view of development, economic growth plays an important, but not exclusive, role. It sounds like a very inclusive definition, one that should implicitly and automatically include learning. There are, however, problems,

The first is uncontrollability: the structure of the ‘development industry’ is such that funders tend to be persuaded to commit resources based on the promise of pre-determined impacts, not by a promise that people will be empowered to make much less predictable choices of development outcomes. The second is practical applicability: even if one were to accept expansion of freedom, and thus freedom to choose, as the primary end and principal means of development (Sen 1999:36) then how can the conceptual richness of this approach be translated into an operationalisable modus operandi in development planning, execution and evaluation?

(Kleine 2011)

Several things are apparent: the issue of *practical applicability* is exactly the challenge faced by

education, and secondly the Capability Approach puts education, learning and training in a more holistic context than merely mechanically servicing the needs of investors, employers, companies and the economy. There are now attempts (Unterhalter, *et al*, 2007; Royle & Nikolic, 2016) to work through the educational implications of the Capability Approach, and these would be attractive foundations to models of mobile learning that were collaborative and participative in their design and development.

And then secondly, a difficulty specifically in relation to digital technology,

Technologies become sources of unfreedom, for example, when first people who would like to use them in order to better lead the lives they value cannot access them, while others can; and second, when people feel or are forced to use technologies which do not reflect the lives they value. The challenge facing “information and communication technologies for development” (ICT4D) is thus twofold: first, to work toward a situation in which people can have access to information and communication technologies (ICTs) if they so wish and, second, to consider whether and how new technologies relate to the lives that people value, individually and collectively.

(Kleine *et al*, 2012)

This second remark is addressing the issue of equity – might digital technologies merely further privilege the already privileged, might mobile digital technologies create and exacerbate digital divides, which, everywhere are complex and different (Mutula, 2005)? ICT is however a very broad term and some component technologies, plasma screens for example, will certainly privilege the privileged whilst others, 2G feature phones for example, less so. In countries with a weak public sector and no capacity, commitment or history around state support for learning beyond primary and secondary schooling, this is potentially worrying because the burden or opportunity represented by learning with mobiles falls on the commercial sector, where sustainability will depend on viable business models, ones that may not automatically enhance equity.

This discussion is important when we consider the possible contribution of mobile technologies to learning. There is a resonance with the commercial corporate community’s growing discussion of *shared value* (Kramer 2011), a concept embraced increasingly by corporations and focused on the connections between societal and economic progress, and having some influence on the donor community (reflected in the report submitted to the World Economic Forum, mentioned later), so important to many mobile learning programmes.

The discussion is also important because it hints at the continued inability of the ICT4D community (Unwin, 2009; Raiti, 2006) to see the extent of the transformative possibilities of education and to portray it, certainly in Africa, as merely *service delivery* (Braithwaite & Osiki, 2008), which is at odds with *expanding the real freedoms that people enjoy*, in Sen’s phrase.

In the current context, we are looking for foundations that give equity and sustainability, that recognise the various different configurations of public and commercial sectors in different countries and that embrace the conceptions of different research communities.

At a less conceptual level, the *Sustainable Livelihoods Framework, SLF*, adopted by the UK DFID⁶ amongst others offers a more rounded vision of development compared to earlier, purely materialistic ones and provides an analytical tool to understand systemically the elements influencing the lives of poor people. It addresses the issue of *practical applicability* that afflicts the Capability Approach. The SLF includes the concept of an individual's *capital portfolio* made up of five *capitals*: human capital, natural capital, financial capital, physical capital and social capital. Human capital is measured by formal education and health indicators. *Social capital* is more problematic, but this is exactly where informal and lifelong learning operate, building social cohesion and educational empowerment, and perhaps drawing in digital literacy as the concept expands beyond European conceptions (Gebremichael & Jackson, 2006). Furthermore, in the SLF livelihood outcomes are defined *a priori* and so fail to reflect the real choices of individuals and communities. In the DFID version, *more income* is listed at the top, even before *increased well-being*. The SLF offers a broad and systemic view of development but its set of capitals is limited, and the development goals are predetermined; unlike the Capability Approach, they are not up to the individual to choose.

Nevertheless, at any e-learning conference in Africa, there is still talk of *unexpected consequences*, of *objectively verifiable indicators*, of *leap-frogging*, of *multi-causality* and much else that reveals a crudely modernist mind-set, and this continues to shape the policy and practice around learning with mobiles (Parfitt, 2002). One side effect of this vocabulary is that it shapes each experience and makes raw accounts into apparently sensible narratives with identifiable causes and logics; these sensible narratives are of course the product of a pre-existing mind-set, but they determine what is documented and what is discarded; they separate the narrative from the anecdotes.

There is however also an argument that whilst connectedness and mobility are propelling the global North from modernity to post-modernity, they are propelling the cultures of the global South from pre-modernity to non-modernity (Traxler, 2008a), at odds with the official modernism of *development*. The development of learning with mobiles in the global South must recognise this fraught complexity. Our foundations must recognise and challenge this thinking and this rhetoric with constant critical vigilance; our aim is not necessarily the construction of a new perspective, certainly not a new orthodoxy, merely an ongoing caution about those already around us.

Research, Development and Progress

The policy context and the strategic delivery of learning with mobiles in the global South are both profoundly affected by external constraints and pressures coming from the global North, and from the agencies and organisations, local and global, ostensibly devoted to helping the South. We draw on a recent paper (Traxler, 2016b) on the relationships and transactions between the loosely-defined research communities and policy communities working with mobile technologies for learning in the global South (Lomas 2002; Srivastava & Thomson, 2009). The paper was based on data from participants at a UNESCO symposium and was intended to expose the misunderstandings of research and of the potential of technology for learning, that exist in the relationships between the communities who fund research and consume its findings and the communities who do the research and consume the funding (Bradley, 2007). We see how, in the development of policy that might support learning with mobiles in the global South, the role and impact of research are skewed

⁶ <https://www.gov.uk/dfid-research-outputs/sustainable-livelihood-approach-a-critique-of-theory-and-practice>

and filtered. As the paper observes, this not an area that is easy to objectively and systematically research or even document and so must draw on experience and expertise to reach its conclusions and its judgments. The topic of policy research will need continued progress on better tools and methods to reach more trustworthy conclusions (Ritchie & Spencer, 2002).

In the present context, we will not reiterate the general points in the earlier paper. It starts, however, perhaps predictably, with a brief discussion of the definitions and conceptions of learning with mobiles, similar to those outlined in our current introduction. It does so in order to draw out the policy implications, for example in terms of ministerial responsibilities or macro-economic benefits, of different conceptions and definitions, or paradigms to use our earlier term. It then addresses the scope of research in the same vein, seeking to explain and analyse different types of research, for a policy audience, in terms of their implications for meaningful, appropriate, authentic and sustainable impact in the global South. The earlier paper draws attention to the practices and preferences that mean that academic professionals and academic institutions in the global South reproduce those of the global North but in a subordinate and subservient role, attempting to copy the North but always lower down any global league tables or international rankings (Obasi, 2008). By way of illustration the paper notes:

- The differing professional structures, careers, practices, rewards and environments for researchers from the global North and the global South, not to mention the chronic under-funding, lack of networking, organisational under-capacity and low status of research especially in Africa.
- How research funding, reporting, reviewing, networks, publication and dissemination favour the values and voices of the global North even when describing and discussing the global South
- How projects and programmes sited in the global South are often staffed, managed and directed from the global North
- How funding, rewards and programmes skew research and deployment in favour of the success-driven technical-fix agenda
- How the funders' preferences determine the trajectory of research and how these themselves, because of their own funding, are predisposed to scale, uniformity, transferability, measurable outcomes and financial sustainability.
- How the default research ethics are those of the literate, technically-savvy and individualistic global North.
- How funders, in terms of their own abilities, accountability and constituencies, prefer simple, scalable and generalised causal relationships and explanations, and not multi-causality and 'unexpected consequences'.

In the context of learning with mobiles in the global South and specifically in Africa, we can see these pressures and constraints in the research and policy environment, alongside the colonial legacy education systems and the prestige and authority of American technologies, pushing research, development and deployment in some directions and not in others.

This discussion of the transactions and relationships between policy and research communities is important because of the increased interest in the role of mobiles to support and deliver learning in *international development* amongst foundations (Shuler, 2009), agencies, donors, corporates

(Roberts & Vänskä, 2011) and ministries. From about 2011 onwards, various events signalled that these organisations had noticed mobile digital technologies as a way to deliver their humanitarian missions. Specific examples include,

- February 2011, the massive *World Mobile Congress* in Barcelona sponsored its first annual awards for learning (<https://www.mobileworldcongress.com>)
- August 2011, USAID convened the first *m4Ed4Dev* symposium in Washington DC and later launched the *mEducation Alliance* in early 2012. (<http://www.meducationalliance.org>)
- November 2011, the WISE debate in Qatar focused on *mobiles, education and the hard-to-reach*. (<http://www.wise-qatar.org/john-traxler-mobile-learning-africa>)
- December 2011, UNESCO in Paris convened its *First Mobile Learning Week*, and so on. (<http://www.unesco.org/new/en/mlw>)

There were also significant reports,

- the Development Fund of the GSMA, the trade association for the MNOs (mobile network operators), published *mLearning: A Platform for Educational Opportunities at the Base of the Pyramid* (GSMA, 2010).
- the World Bank, *eTransform Africa Final Report*, (2012)
- the World Economic Forum, *Accelerating the Adoption of mLearning: A Call for Collective and Collaborative Action* (2012),
- the GSMA, *Transforming learning through mEducation*, produced by McKinsey & Company, in Mumbai, (2012) and
- the *eLearning Africa 2012 Report*, and so on, marking a turning of the tide in the practical possibilities for learning in the global South, especially Africa (ICWE, 2012).

Increasingly, of course, the general conception of learning with mobiles was influenced by these organisations and agencies, by their specific conceptions and their priorities. UNESCO for example said, "Mobile learning, or "m-learning", offers modern ways to support learning process through mobile devices, such as handheld and tablet computers, MP3 players, smartphones and mobile phones." whilst the USAID position on mobile learning was, "the identification and applications of mobile technologies that can be effectively leveraged to address pressing educational issues including: literacy, appropriate educational content development and dissemination, system strengthening (such as education data for decision making), accessibility for learners with disabilities, professional development for educators, and workforce development." These definitions were and are at odds with the current ideas about learning with mobiles mentioned earlier but are nevertheless significant.

At roughly the same time, interest and activity in learning with mobiles in North America, especially in the USA (and we must remember the proportion of US nationals staffing international agencies and global corporations), and especially with the symbolic emergence of the iPhone (Wortham, 2009), grew, gradually shifting the intellectual and commercial centre of gravity away from its roots in Western Europe, particularly away from the UK and parts of Western Europe and Asia Pacific, and

in South Africa, changing the nature of what were understood to be the most effective pedagogies for mobiles. In the practitioner and policy communities of the international organisations everyone now owned and understood powerful mobile devices and their affordances, for learning and anything else. These were clearly now just *common sense*, no longer requiring specialist research input or practitioner experience. Everyone, including those outside the organisations of formal education, had a theory of education and a theory of learning with mobiles, perhaps not ones that were proven, profound or rational, perhaps only something simplistic like *content is king*. This meant that the role and impact of the research community became increasingly marginal, as well as always having been culturally specific.

The common ethos within global corporates connecting corporate social responsibility CSR with other business centres or between corporates and their foundations (for example, Gates, Ganz-Cooney, Hewlett-Packard, Nokia, Pearson) will have favoured particular solutions, approaches, technologies, methods and values, and perhaps to blur, merge or confuse business and philanthropy, in fact representing a 'tighter coupling' (Lee 53:2008).

There was a risk, in the simplistic analysis within the agencies, donors, foundations and ministries, that the facts that infrastructure, content, and devices could scale up easily would lead to assumptions that culture and pedagogy would scale up too, and that the priorities and values of the agencies, donors and ministries, namely, value-for-money, scale, sustainability, transferability and impact would push developments towards a limited range of pedagogies, those based on the distribution of majority language content, most likely American English from global publishers accessed through global mobile networks or their regional and national subsidiaries (Guardian, 2013).

Our argument here, based on pulling together these instances and examples, is to call attention to the global and international forces that might subvert any authentic foundations to learning with mobiles within the communities of the global South.

Culture, Language and Literacy

This section looks at the interactions between mobile technologies, essentially Anglophone American technologies produced by global corporations, and languages, especially those of minor mother tongues and pre-literate societies. We draw on a recent paper (Traxler 2017) and merely summarise some of the observations. The paper was an attempt to organise observations that were perhaps not-worth-mentioning or taken-for-granted, observations that technology is not necessarily benign or even neutral, and that it skews language and learning in a multitude of subtle and not-so-subtle ways, but generally in one direction, the direction that favours powerful mainstream interests.

These include the ways in which interfaces and interactions, graphical, textual and audio, favour some languages, vocabulary, scripts, dialects and gestures over others, altering the balance amongst mother tongues, indigenous languages, national languages, lingua franca and global languages (Jackson, 2012). These perturbations are not random but usually reflect the hegemony of US English and its culture, values and gestures, US digital technologies and global corporations, and indirectly of the international agencies and donors with whom they work (Watson, 1999). Even a handful of

examples from Africa, from the Maghreb (Dodson *et al* 2013), Namibia (Le Roux, 1990; Semali & Tataleni, 2014), West Africa (Rosenberg, 2011), East Africa (Halvorsen, 2008; Traxler & Leach 2006) and South Africa (Blommaert & Velghe, 2012; Lambrecht 2015; Jantjies & Joy, 2012), show the diversity and significance of these perturbations. Some authors identify this somewhat mildly as *linguistic interference* at work in Africa (Asino & Mushiba, 2015), meaning the malign dynamic in an African context between colonial/global languages and mother tongue languages, whilst another sees African mother tongue languages as already historically weakened, though possibly by the same underlying causes,

Throughout Africa in the early 1960s, the language of education was not the language of the people's culture. The imitation of Western values has changed African behaviour and attitudes. As a result, African languages have become static compared to dynamic European languages. It is much easier to express ourselves as Africans in foreign languages because new words [for example those for digital technology], for example, have not been reflected in local languages (Ndemo 2014)

In all events, the paper points out how the design of interfaces and interactions in messaging, voice recognition, gestural interfaces, skeuomorphic icons and auto-correction, amongst other features, all favour some languages, some dialects and some communities but not some others. The paper argues that at a deeper level the technology, specifically the relationships between systems analysis, systems design, programming paradigm and programming language, are culturally specific (Baniassad & Fleissner, 2006; Petre 1994), placing the worldviews of marginal or minority cultures in the global South at a disadvantage in comprehending, co-opting and controlling the digital technologies of the global North.

The paper also points out that mobile digital technologies also affect the processes by which languages form and change, and how they are perceived to be owned and regulated (There are connections being made between language, ICT and post-modernity (Pennycook, 2006; Sutherland, 2012)). These observations and inferences about languages can however be placed in a wider historical context, since language is an expression of epistemology and of learning.

There was of course some recognition that linguistic differences should be addressed. Localisation (Shen *et al* 2006), so-called, was sometimes proposed as a cost-effective mechanism for mobile learning developers facing the challenges of cultural, linguistic and pedagogic diversity. It implies the initial development of resources in some abstract neutral language, and then instantiating them into any specific target language and culture. In practice, however, it meant translating a US English original into a secondary language. A slightly better technical fix might focus on the pedagogic difference or distance between the cultural values of global, corporate resources and those of local learners. It might be possible to measure or estimate the cultural distance between Western culture and African cultures (Hofstede & Hofstede 2001) in order to try to estimate the differences and distances involved and thus estimate the suitability of resources from the North, or more accurately a specific culture within the global North, for specific cultures in the South. In development terms, these are all in effect *trickle-down* theories (Arndt 1983).

There is nevertheless recent work that looks at this specifically in relation to mobile learning in Africa (Mwendia *et al* 2014). It attempts to describe the cultural variability dimensions that exist in African countries, to establish a classification framework that provides a theoretical framework for integrating emerging cross-cultural mobile learning projects launched in African countries and to identify influences of cross-cultural mobile learning applications in African countries. It does so by looking at a selection of projects and placing them on scales representing Hofstede's PDI (power distance), IDV (individualism), UAI (uncertainty avoidance), MAS (masculinity) and LTO (long-term orientation). This may be a modernist conceit, a technical fix, a pragmatic response, but it nevertheless makes a simple (naïve) point about cultural differences rather than behaving as though such differences do not exist (and one next step might be to use these attributes within OER (Open Educational Resources) metadata).

A rather starker analysis evokes the notion of *epistemicide* (Bennett 2013; Hall 2015) to highlight the impact of alien epistemologies, usually European ones, buried inside language, technology and learning, on indigenous cultures. OER, a specific and much vaunted technology for educational development in Africa, has been critiqued as *information imperialism* (Mulder, 2008:18) and alerts us to be on our guard against *pedagogic imperialism* as we build our foundations.

The methodological challenge we face here is that of generalisation, of thinking that our instances and examples add up to something more general, of thinking that *joining the dots* composed of projects and pilots is a trustworthy process. In this case, however, the generalisation is a safe one, in that accepting it even if it is plausible but incorrect, does no harm.

Knowledge, Indigenous and Global

The previous sections have indirectly highlighted the potential for tensions between local and global forms of knowledge, specifically, to choose the current example from Africa, between the increasingly uniform model and standard for global higher education and local African forms of knowledge, language and learning. These are in effect tensions between a global epistemology, delivered through increasingly globalised and corporate higher education and through international aid and trade, and scattered and diverse fragile local ones (Stabinsky & Brush, 1996). These tensions now attract increasing attention and relevance since mobile technology has become pervasive and ubiquitous in the South whilst the academic *indigenist* community has articulated the nature and extent of the threat to indigenous cultures (Breidlid, 2009; Wasserman, 2002; Lebakeng *et al* 2006; Sylvain, 2002; Saugestad, 2001).

These tensions have exploded in recent months in South Africa, where there have been violence and disruption⁷ on university campuses, sparked off partly by the local fees regime but also by an increased awareness of the concrete legacy of colonial oppression⁸ and its echoes within the curriculum. This has been encapsulated in the slogan or project, *decolonising the African mind* (Ndlovu-Gatsheni, 2013). A recent review (Green 2012) summarises the contending points of view and draws on comparisons with India, Latin America and Australia but, whilst highlighting their

⁷ <https://www.theguardian.com/world/2016/oct/04/south-africa-students-attack-police-protests-tuition-fees-escalate>

⁸ <http://uk.reuters.com/article/uk-safrica-rhodes-idUKKBN0MZ24E20150408?feedType=RSS&feedName=worldNews>

practical importance, for example in policies for anti-retro-viral treatment of HIV/AIDS, land rights activism or the rights to exploit pharmaceutical IP, makes the more fundamental point that,

If South African scholarship is to move beyond the current impasse, there is a need for recognition that the idea of 'indigenous knowledge' not only incorporates claims to identity or efforts to incorporate financial gain, but also indexes a challenge to central ideas of modernity: including in relation to notions of personhood in medicine and jurisprudence, to notions of ecologies, to notions of well-being, and to what it means to know or believe or imagine. Once one recognises the language of indigenous knowledge as a resistant appropriation of the language of difference, and that it is not solely the advancement of interests that is at stake but an interest in the possibility of different worlds other than those defined by the Cartesian dualisms (mind–body, nature–culture, and so on), it becomes possible to escape the paralysis of a debate confined to whether or not 'indigenous knowledge' is a 'thing' that is or is not 'real'.

(Green 2012:5)

This has been quoted at length because it draws in the Capability Approach, language and modernity, and implicitly the epistemicide, see next section, with which mobile technology and mobile learning might be complicit.

As we said, it forms part of a wider resurgence of academic interest and activity in indigenous language and culture in relation to knowledge systems (Ntuli, 2002) and in the relationships between digital technology and indigenous culture (Bidwell & Winschiers-Theophilus, 2015), but mostly limited in Africa itself to South Africa. There are of course attempts to reconcile the competing epistemologies (Agrawal, 1995).

The significance for learning with mobiles in the global South especially in Africa is clear; without vigilance, scrutiny and criticality, we cannot be sure that mobile digital technologies will deliver and enhance learning that expresses the cultural values of the local communities of learners.

Mobiles and the Next Epistemicide

The impact of mobile digital technologies is potentially symptomatic of wider historical trends and forces. This section addresses the role of epistemology within cultures, both dominant and fragile, exposed and submerged, and its role in underpinning or undermining education and learning. In particular, we discuss different instances of historical *epistemicide* and the risk of further such events due to universal intrusive mobile digital technologies in the hands of national, international and global organisations and institutions.

In another paper (Traxler, 2008b) we have tried to make the case that the universal mobility and connectedness afforded by mobile technology, played out in different ways at different rates in different cultures and different countries, challenges the established or mainstream modernity of European culture and its global off-spring, and in its place we see something akin to a crude post-modernity characterised by the transience, fragmentation, subjectivity and untrustworthiness of knowledge, communities, affiliations and identities, maybe representing the *liquid modernity* of Bauman (2000). This is not a novel position and probably represents a specifically mobile but

cautious position somewhere between the quotidian and prosaic analysis (eg Ling 2004) and the more speculative and sensational (eg Geser 2004, Fortunati, 2002).

In much of the world outside the colonising North, the impact of modernity may have been partial, creating institutions, professions and organisations that attempted to *modernise* their nations but still left much of the informal culture untouched and unchanged, marginal and marginalised. This would have been especially true away from the metropolitan centres of government, education, entertainment, commerce and industry, and especially true in the remote and the rural, amongst the indigenous, nomadic and displaced.

Whilst this part of our account sees the world moving on from the modernity of the European Enlightenment, a historical perspective sees modernity in a different light. This is where we make our first attempt at theory-building, trying to generalise and extrapolate.

To give our argument some context, there are precedents for analyses that look at historical events in terms of the large-scale eradication of knowledge cultures, of systems of epistemology, as *epistemicides*. One account (Grosfoguel, 2013) enumerates 'the Four Great Genocides/Epistemicides of the Long 16th Century'⁹, namely those against the Jewish and Muslim populations of Al-Andalus during the Reconquista, against the Indigenous peoples during the conquest of the Americas, against the Africans kidnapped and enslaved in the Americas and against women, most obviously those burned as witches in Europe at this time. Obvious there were others, for example in Australia (Hall 2015).

Another account (Kearney, 1971) talks of the epistemological changes within Europe itself in the same 'Long 16th Century', describing the rise to pre-eminence of the mechanical tradition, epitomised variously by Galileo, Boyle, Bacon and Descartes, and more ambiguously by Newton, *the great amphibian* (Webster 1982), over both the Hermetic and Aristotelian traditions (characterising the role of God in each respectively as mechanic, magician and gardener, and the universe respectively as clockwork, mystery/theatre and garden). This too could be portrayed as epistemicide, certainly as the triumph of one epistemology over its two competitors. Furthermore, Kearney talks about these traditions or paradigms partly in terms of the languages, that is the vocabulary, the metaphors, that they use, and this resonates with our ideas that learning is essentially a process of acculturation and language acquisition and in the current context, "these traditions appear as sources of model-building or, what is much the same thing, as the grammars of specific languages." (Kearney, 1971:49)

So, we are implicitly drawing a parallel between the suppression of epistemologies outside Europe, including those identified by Grosfoguel with ones inside Europe, those identified by Kearney, making the case that both non-European cultures and working class cultures were *othered*, made different and less esteemed, and then *educated*, a strange dynamic suggesting that inclusion is the flip-side of educational othering, putting these cultures outside the mainstream in order to bring them back. This has happened to other cultures too and perhaps the *orientalism*, making the Levant and Arabia exotic, of Edward Said is another example, and this analysis, as it happens, has been reflected back as a form of analysis in Africa (van Wyk Smith 1996).

⁹ Commonly taken to mean the epoch c. 1450-1640 and put into a critical environmental / ecological context (Moore 2003)

These different paradigms and epistemologies are also manifest in the forms of expression and argumentation that explain, support and justify them (Bennett, 2007) and as the former are suppressed so the latter become marginal and intellectual advancement depends on adopting the hegemonic modes of expression. This observation is made historically but also in contemporary in relation to the hegemony of Anglo-American academic writing, growing out of “the English academic discourse emerged out of the scientific paradigm that first began to take shape in England in the 17th century.” (*op. cit.* page 9).

Both these sources, Kearney and Grosfoguel, and indeed Weber and Tawney, and their ideas could be quite easily accused of the kind of *grand unified theories* (Smith 2006) or perhaps *meta-narratives* (Lyotard 1979), so characteristic of modernism and we readily accept such a critique. They do however provide a stimulus and a lens for analysing the significance of a universal mobile digital technology at the disposal of a dominant ideology or world-view, perhaps recalling the printing press at the service of Luther and Calvin (Eisenstein 1980).

The titles – and the texts – *The Protestant Ethic and the Spirit of Capitalism* (Weber, 1920) and *Religion and the Rise of Capitalism* (Tawney, 1920) both provide complementary accounts and carry the narrative forward into the European industrial era and the European Enlightenment, towards modernity and to the *scientism* (Voegelin, 1948; Waddell, 1977; Hyslop-Margison & Naseem, 2007) that has informed much of policy-making and political discourse and thus the established practices of international development, manifest at a bureaucratic level by the fetishisation of Log Frame Analysis (Kurki 2017; Gasper 1997) including ICT in Africa (Fassil 2009).

There are of course other perspectives, for example wider ones that “Europe is a late-comer rather than a forerunner to major strands of modernity”, when placed “in the wider field of Eurasia and deeper in time, going back to the Bronze Age, characterized by plough agriculture, the use of animal traction and urban cultures”. Raising the question that, “if Renaissance in the singular produces modernity in the singular, do renaissances in the plural produce modernities in the plural”. (Pieterse, 2011:149). Our current concerns would look rather different from this perspective.

Our point in passing is to argue for the inclusion of an extra epistemology in this narrative of suppression, that of working people, their folklore and craft knowledge, particularly during the rise of capitalism and then during the onset of the European Enlightenment, but also to point to the risk of further epistemicides, those of marginal cultures and language systems in the global South at the hands of pervasive and ubiquitous mobile technologies. We alluded to this point when we looked at the ways in which mobile technologies skew language and languages. This might seem a worthwhile but largely irrelevant debate until we introduce modern technology, especially universal intrusive personal digital technology into the discussion, laden with the very specific language, values, gestures and meanings. Our foundations for theories of learning with mobiles in the global South must address this possibility.

Having remarked on the religious component implied within modernity, specifically within Protestantism and the Enlightenment, we see also the rise of certain moral obligations to educate others. Educating others, specifically others in the newly discovered global South, was difficult, expensive and dangerous before the prevalence of widespread digital broadcast technologies and hence the impetus of this moral imperative was perceived or presented as a necessary spur. Technology, especially mobile digital technology, has progressively however now made this easier

and perhaps calls for a rebalancing of the moral obligation to educate others on the one hand with an antidote, the moral right to educate them on the other. We must shift towards asking ourselves in the global North about our right to educate others. Do we have the right rather than do we have the duty?

This earlier moral imperative to educate others does of course sit uneasily with attempts to move forward with more appropriate research ethics (Smith, 1999; Sherman *et al* 2012; Traxler 2013; Sterling & Rangaswamy 2010; Dodson & Sterling, 2011; Winschiers-Theophilus *et al*, 2012) to developing learning with mobiles in the global South. We must ask whether the notion of individual one-off informed consent, as understood in the institutions and practices of the global North, as the basis for educational intervention is appropriate for collectivist cultures and appropriate for fluid, complex and abstract systems such as personal digital technologies, and no longer asking about ethics *for* the *subjects* of our research but ethics *with* the *participants* of our research.

Concluding this section, we summarise our argument and method as extrapolating the past into the present, not always easy (Park 2017), and we must of course, learn from Hegel that, "We learn from history that we do not learn from history."

Education, Pedagogy and Learning

The preceding sections have outlined the various forces shaping the development in the global South of learning with mobiles, and have attempted to integrate these within a wider historical context.

In this final section, we look for a framework that will allow practical progress on sound foundations. Richard Heeks (2008) in a well-known exposition, analyses ICT4D, seeing it moving into a new phase, which will,

.... require new technologies, new approaches to innovation, new intellectual integration, and, above all, a new view of the world's poor. The phase change from information and communication technologies for international development (ICT4D) 1.0 to ICT4D 2.0 presents opportunities for informatics professionals and offers new markets for ICT vendors.

.... ICT4D 2.0 focuses on reframing the poor. Where ICT4D 1.0 marginalized them, allowing a supply-driven focus, ICT4D 2.0 centralizes them, creating a demand-driven focus. Where ICT4D 1.0 - fortified by the "bottom of the pyramid" concept - characterized the poor largely as passive consumers, ICT4D 2.0 sees them as active producers and innovators.

Within his notion of ICT4D 2.0 he sees

- *Pro-poor* innovation occurs outside poor communities, but on their behalf. (29)
- *Para-poor* innovation is done working alongside poor communities. (30)
- *Per-poor* innovation occurs within and by poor communities. (30)

Clearly, Heeks is arguing *para-poor* or better still *per-poor* but no longer *pro-poor*.

We can generalise these remarks, from canonical *ICT-for-Development* to ICT for any kind of development and from the poor of the global South to the disadvantaged and disengaged wherever they are; all are *other* and Heeks addresses the *othering* implicit in development. We can also focus these remarks on the current context, thinking about reframing mobile learning from *mobile_learning1.0* to *mobile-learning2.0* and asking about the implications of this manifesto.

It is certainly plausible to see the first generation of 'mobile learning' as described in our introduction as *mobile_learning1.0*, top-down, short-term, supply-driven, globally Northern, sometimes *open* and what we have called 'learning with mobiles' as *mobile_learning2.0*, user-generated, bottom-up, embedded, demand-driven, maybe free and potentially globally local.

It is no great leap taking us from reframing mobile learning to thinking about the design of mobile learning since design is its foundational activity. (Heeks does, incidentally, identify the mobile phone as the iconic technology of ICT4D 2.0.) This would imply a very different set of practices, for example, a greater focus on designing the learning experiences inside the community rather than designing the learning artefacts outside of it, of empowering communities to exploit the content, communities and communications available online but with the critical skills to recognise the interests, cultures and classes that all content, communities and communications must inevitably serve and support; usually the larger against the smaller. (Kam *et al* 2007; Ramachandran *et al* 2007; Winters & Mor 2007; Townsend 2015; Banks 2017)

We did in passing allude the potential parallels between communities and cultures outside the global North threatened by the hegemonic values from the North, especially the nomadic and indigenous, and those with the North, especially the excluded and marginal, and offered the possibility that education was one process by which both were remade and co-opted. There are however several significant differences in, for example, marginal and nomadic communities in Africa and non-traditional students in Europe and so generic prescriptions are problematic. Clearly, there are differences in access and infrastructure, and in educational experiences and expectations. Furthermore, the vast proportion of online resources that these learners can access and must exploit are in English, most likely in American English, and embody American, corporate or global values and ideas, but in every case still involve some critical and informed balance between the local and global, between preservation and progress. There are alliances to be built, not between and amongst the great and the good, but between and amongst the *other*, wherever they are.

So, at this point, we must recognise that the development of our arguments has been difficult and insecure, the outcome has been, over and over again, the need for openness, scepticism and criticality. Thus, the conclusion may be incorrect may be wrong but do no harm, whereas ignoring openness, scepticism and criticality pose far greater risks.

So Far...

We must now review where we are in our attempt to build sustainable, appropriate and authentic foundations for learning with mobiles in the globalised South.

By reviewing aspects of the current environment, namely paradigms and activities in the global North, the nature of reporting, documentation and dissemination; the relationships between research, funding and policy; the impact of digital technology on language, the contested nature of international development, we conclude that the communities of the global South must be vigilant, rigorous, critical and sceptical. By consolidating these individual aspects within a broader and critical historical framework, we see education and technology as the instruments of the historical hegemony of the global North reinforcing its values and world view, and conclude that the local, contemporary, concrete and specific are always taking place within contexts that are more abstract, historical and problematic. We have outlined some principles and methods, coyly entitled *mobile_learning2.0*, that promise mechanisms for people, organisations and communities to build their own learning, and could develop these further, borrowing from ideas about community MOOCs (de Waard *et al* 2012), culturally specific notions of digital literacy (Traxler 2018b), learner-generated content (Lee & McLoughlin, 2007), curation of digital content and communities (Porcello, & Hsi, 2013; Flintoff *et al* 2014), self-determined learning (Blaschke, 2012) and participative user design and development, working with pedagogies and technologies aligned to local sensibilities and local resources, rooted in the certainty of local language, culture, traditions and heritage, and underwritten by the Capability Approach.

We are however, writing from the global North and are actually arguing to relinquish the credibility, prestige and authority we have in the global South, even that conferred on us by the global South. So paradoxically, we are saying (Young, 1986),

'Take my advice,

Don't listen to me'.

We recognise that this project is methodologically challenging and problematic, and we must continue to work for the development of better intellectual tools, specifically those for critiquing, contextualising, and synthesising our varied experiences. We acknowledge also that this paper has perhaps an uneasy and paradoxical relationship with modernism, certainly some of its less grand narratives, drawing for insight and inspiration on Kearney (1971), Tawney (1926), Hofstede *et al* (1991) Rogers (1995) and Kuhn (2012) but ultimately not for truth.

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