Here Comes Everybody: Humanities Computing Meets the Era of Social Media

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Abstract

This article sets out to re-evaluate some of the themes raised in the *Alternation* number on humanities computing that I guest edited in 2002, and to trace their subsequent evolution. To what degree can the meeting of literature and technology, however tentative, influence social transformation? We reflect on the themes of cyberspace and 'collective intelligence', ICTs and creative writing; virtual classrooms as open forums for discussion and dialogue; digital libraries to support research in the humanities; the Internet as a platform for promoting development, the advent of Massive Open Online Courses (MOOCs) and their implications for education in developing countries; making the information society accessible to all. The effects of the mobile Internet are wide-ranging and this article explores the extent to which knowledge production in the humanities may be able to harness the potential of the new digital ecosystem to effect social transformation.

Keywords: humanities computing, mobiles for development, M4D, massive open online courses, MOOCs, connectivism, cyberspace.

Preamble

Literary scholarship sits uneasily amidst the discourse of 21st century social media. It was no different in 2002 when I undertook (assured of a sceptical reception from many of my peers in literary studies) the guest editing of an *Alternation* number on Humanities Computing in the third year of the new millennium (2002 *Alternation* 9,2). Vestiges of the first Internet bubble,

swollen by the feverish 90s were by then conspicuously evaporating, and the hype of hypertext exposed as the imposter many in the Humanities had suspected it of being all along. In my introduction to the edition (Stewart 2002:2), I go on to lament the lacuna between the discourse of literary studies on the one hand, and information technology on the other, that militated against productive interdisciplinary research. Literary academics shrank from the prospect of IT being employed as instrumentation (or a source of research material) for literary study. Attempts to formulate a middle ground where notions of creative writing, literary history or online learning could be contested and critiqued continued to be hobbled by mutually incomprehensible lexicons and conceptual frameworks. So, recently, on returning to an online literary database project abandoned in the mid 2000s, I was bemused at how little change in attitude was apparent almost a decade later. Even though e-book sales (considered a non-starter in 2002) have by now begun to rival and outstrip print, entire libraries of literary titles are now available online, and new literary titles are published in a penumbra of Twitter chatter, a gulf still remains between literary research, and that of ICTs. I remain convinced that there is a world of promise buried in this (inter-) disciplinary ravine. Rigorous exploration the interstices between creative writing, criticism and the store of current and previous writing in the vast repository of the Internet - continues to offer a space for reclamation and re-discovery for societies like our own with histories distorted by political disruption, social engineering and injustice. Like the Cemetery of Forgotten Books in Zafón's *The Shadow of the Wind* (2004) this overlooked storehouse of South African wisdom, scholarship and creativity could feasibly be restored to public access using new technologies. Sitas and Mosoetsa (2011: 39) is surely thinking of a neglected archive much like Zafón's when he calls for a national project to

> address […] the fact that most of the formative work in the HSS of the period from the 1950s to the late 1980s remains unpublished as manuscripts or PhD and Master's theses gathering dust on shelves in the country and overseas.

In reference to online resources of arts, culture and heritage, Mzamane (2008) recognises that ICTs 'flight [...] a number of concepts of extreme importance

in knowledge production for social transformation'. The social commentary channelled through novels, poems and drama, but actively suppressed or marginalised during South Africa's colonial and apartheid eras, possesses latent transformative potential.

This article takes some of the themes of the 2002 *Alternation* edition as a starting point for exploring the impact of a new digital environment on theory and practice in the humanities and in education. To what extent have the assumptions expressed by the original contributors provided reliable pointers for subsequent understanding of the relationships between society and the digital world? We trace continuities between theories of cyberspace, optimisation and Connectivism in establishing a theoretical foundation within which the humanities and the information society may be considered. Online learning and the role of ICTs in social transformation are examined in the light of current proliferation of Internet-enabled mobile devices. What are the benefits and the threats inherent in becoming immersed in a networked digital world?

Digital technology is an ideal vehicle for reclamation scholarship, as for instance 'the need for a project to recover … lineages of knowledge production from the 1950s to the 1980s' (Sitas & Mosoetsa 2011:40). While the efforts of post-colonial writers like Achebe, Ngugi and Soyinka to effect social transformation through the re-centering of African literature and creative industries were attenuated by limited resources at home, South Africa, by contrast, boasts a robust and growing ICT infrastructure, on the back of which collaborative media, as a driver for humanities knowledge production, should be able to flourish. Internationally, examples abound of dedicated online social groupings exerting influence by mustering the assistance of large numbers of like-minded supporters via social media. The 'Here Comes Everybody' of Clay Shirky's notion of a connected world (Shirky 2008) refers to the power residing in the 'wisdom of crowds' (Surowiecki 2004) that can be tapped and curated through the use of technologies such as wikis and social media aggregators. Community related social networks, steeped in local culture have proliferated on the Web. Disruptive social media technologies have sparked social transformations in the Arab world, while Connectivism (Siemens 2005) has spawned the MOOCs (Massive Open Online Courses) phenomenon with its potential to transfigure education on a global scale.

The Meeting of Humanities and Technology

To what degree has the meeting of the humanities (and in particular, literature) and technology, however tentative, influenced social transformation? In this article, the lens of hindsight is applied to papers contributed to the 2002 *Alternation* number on Humanities Computing whose authors argued that the impact of technology on literature was already widely to be seen, and its effects on society likely to be various and profound.

A thematic strand linking the articles in the 2002 *Alternation* number on Humanities Computing was the assumption that new electronic communication networks would transform society in significant ways, and that the humanities would make a significant contribution to such change. The 2002 authors explored humanities forays into the digital realm – via literature, education and information science (amongst others). In retrospect, the articles can be seen to reflect two broad conceptual frameworks, one of which is articulated by Fanie de Beer (2002:12-34) and the other by Rembrandt Klopper (2002:277-299). De Beer proposes Cyberspace as a theoretical construct for his argument, drawing on Pierre Lévy's notion of 'collective intelligence', and Deleuze and Guattari's concept of the rhizome, while Klopper extends linguistic optimality theory into the era of electronic communication by proposing a new theory of the Optimisation of Human Communication.

De Beer's article 'Inventive Intellectual Adventures in Cyberspace', which opens the *Alternation* number on Humanities Computing presents a compelling - and prescient - argument for a theoretical framework appropriate for humanities computing within our current 'sociotechnical context' (Bell 2011:98), an enveloping network that has grown exponentially over the ensuing decade. De Beer explores the notion of 'cyberspace' - a term coined in the 1980s by science fiction author William Gibson (2012:45) - by postulating an ontology shaped by an increasingly ubiquitous Internet, which evolves as both repository and laboratory for a utopian collective intelligence. Drawing on Deleuze and Guattari, and Lévy, de Beer contemplates a theory of being in which inter-connectedness in the 'vast, unlimited field' of cyberspace (de Beer 2002: 19) creates a new culture ('Cyberculture' Lévy 1997) in which social relations are transformed within a world of digital networks. Cyberspace is characterised by what de Beer calls 'irreducible plurality' (de Beer 2002: 14) and he goes on to associate popular terms for

the Internet (the 'Net' or the 'Web') with Deleuze and Guattari's notion of the rhizome, where connections and relations and dimensions are re-configured; and the world, subject and object are defined in radically new ways.

De Beer's sense of the deeply altered relationship between the subject and information in the digital realm is addressed from a different angle by Klopper, another contributor to the 2002 *Alternation* number on Humanities Computing. Like de Beer, Klopper (2002:279) proposes an integrated theory of communication, in this case a convergence of the 'code systems used in nonverbal, verbal, written and electronic communication'.

Both De Beer's notion of hypermedia and collective intelligence, and Klopper's theory of cultural evolution through enhanced person-machine interaction find a common thread in the more recent Connectivist theory (Siemens 2005), which is gaining influence in today's pervasive online digital environment in which MOOCs (Massive Open Online Courses) are connecting huge groups of people around learning activities that in turn generate new communities who then collaborate in building new knowledge. Connectivism views knowledge as 'residing in networks of humans and non-human appliances, whilst leaving space for human agency.' (Bell 2011:100).

De Beer and Klopper anticipate Siemens in several key respects. For instance, de Beer envisages new technologies ' … like 'knowledge trees', provid[ing] us a means by which to share knowledge with others and meet them in democratic cyberspace' (de Beer 2002:24). Like Siemens, de Beer is optimistic about the disposition of the new cyberspace – what we might call Web 2.0 or social media today. His 'democratic cyberspace' anticipates Surowiecki's notion of the 'wisdom of crowds' (Surowiecki 2004) underpinning significant social constructs as diverse as the Arab Spring and Wikipedia. Klopper, however, strikes a warning note in his references to 'panopticism' (2002:292), the capability, inherent in the Internet, to see anything, anywhere and at any time. Recalling Foucault's use of the term as an image of modern society's impulse to regulate and normalise (Foucault 1977), Klopper raises the prospect of a dystopian technocracy, equipped with Owellian 'big brother' -like surveillance and control. Chilling corroboration of Klopper's unease can be seen in the extensive secret state eavesdropping and data mining activities revealed by Edward Snowden in 2013 (Greenwald & MacAskill 2013: 1).

Like de Beer, Siemens expects communication technologies to bring

about changes not only in degree (more information, more connections) but changes in kind (a completely new relationship between subject and object). In her article 'The Space(s) of Hypertext Fiction' (2002:36), Rita Wilson reminds us of Marshall McLuhan's injunction to avoid the 'numb stance of the technological idiot' (McLuhan 1964:18) by recognising how the distinctive *medium* of new communication technologies (rather than the content) has the power to reshape human consciousness. Wilson pursues this line of thinking by extending to the 'technologized word' (2002:37) of the Internet Walter Ong's (1988) observation that the shift to a literate culture in the 5th century had profoundly changed human communication. To live and understand fully, according to Ong, humans need proximity as well as distance: Wilson regards the Internet as fulfilling this need both in its form and its function (2002:37). Clay Shirky, commenting on new digital communication networks and their influence on society, identifies a similarly deep-seated change inherent in the growth of social media: 'The social urge to share information is not new […] The improvement is there, but it is an improvement so profound that it creates new effects' (Shirky 2008:148).

The 'new effects' referred to by Shirky are to be felt throughout society, and education is no exception. The educational ecosystem is changing. In his chapter 'In Praise of Scribes', Shirky (2008:66-67) points out that in the 15th century, the revolution in thinking during the Protestant Reformation in Europe was not directly caused by the invention of printing. Yet without that new technology and its dramatic impact on the wide and rapid distribution of the written word, the shift in the European intellectual landscape would not have been possible. To understand social change brought about by new technological capabilities, Shirky suggests, we need to hold those two thoughts in our head at the same time. The social consequences of technological change are slower and less visible than the tangible technological artefacts themselves, but equally profound.

> The entire basis on which scribes earned their keep vanished not when reading and writing vanished, but when reading and writing became ubiquitous. […] The spread of literacy after the invention of movable type ensured not the success of the scribal profession but its end (Shirky 2008:79).

In 2013, the educational word of the year was an acronym: MOOCs. The

technology that drives Massive Open Online Courses is every bit as revolutionary as movable type was in the mid-1400s, and as with the printing press, the social effects may sometimes be imperceptible, but are nevertheless inexorable. As early as the 1970s, the first effects of ICTs on society could be seen in a rise in unemployment caused by the rapid collapse of hot metal typesetting and its replacement by computer-based photo-compositing processes. In the last few years, professional photography along with one of its iconic founding companies – Kodak - failed to adapt to the change to digital and have similarly been rendered obsolete. While in 2003 digital cameras were still considered a rarity, a decade later they are components in almost every mobile phone. Behind the immediate social effects such as job losses loom the larger unanticipated consequences such as wider publicity for dissent and protest, more widespread and intrusive surveillance assisted by the popularity of social media (see comments on the 'panopticon' above) and the emergence of internet bullying. MOOCs are a sign that ICTs have suddenly caught up with Higher Education (or more accurately, HE Institutions) in the same way that the established music industry was first challenged in 2000 by the revolutionary peer-to-peer file sharing system introduced by Napster. Although Napster collapsed after a legal onslaught by record companies, those same companies have themselves now almost completely given way to a new, distributed business model through digital distribution platforms like iTunes and Spotify. In the last few years, print and broadcast media have also had to adapt to the proliferation of social networking. As a result of such pressures, universities have had to devise organisational strategies to embrace online learning in response to students and employers who expect online tuition, and courses that will address proficiency in technology applications and information literacy. Moreover, the pedagogical principles underlying new developments in e-learning speak to student-centredness, especially the development self-directed and life-long learning (see the discussion of Siemens' Connectivist theory, below).

There is an established body of research in online learning, and the recent excitement over MOOCs should not eclipse the valuable findings of e-learning developers and practitioners over the last decade. At a recent conference on MOOCs held at MIT, one of the keynote speakers, e-learning educationalist and one-time Vice-Chancellor of the UK Open University, Sir John Daniel, showed a graph entitled 'Hype Cycle for Online Learning?' (Daniel 2013:31-32) depicting a steep rise in the curve over the last year. Of

course the key to the point he was making is in the word 'hype'. The recent frenzy over MOOCs, he pointed out, ignored the excellent development work in e-learning over the last fifteen years. He argued forcefully that the valuable findings of e-learning developers and practitioners should not be overlooked when rolling out the new MOOC offerings to vast audiences (the word 'tsunami' was often used in describing the effect of the MOOC movement on HE education worldwide). George Siemens underscores Daniel's view:

> MOOCs have much to learn from literature in online learning. Online learning researchers have an opportunity to engage with new research methods (analytics) and new datasets to test existing theories and improve design/teaching/learning practices (Siemens 2013:21).

While Daniel's point of view is understandable for those who have been accustomed to designing and using virtual classrooms in their teaching and research, caution about some of the claims made for MOOCs may be tempered by the upsurge of interest in online pedagogy that has resulted. Increased interest in MOOCs is a response to the lack of experience most educational institutions have had in digital learning. It has very suddenly brought to the attention of universities worldwide the implications for the enhancement of educational practice that the ICT revolution can offer. Many longer-term effects of the rise of MOOCs have yet to be realised, but it is already possible for students anywhere in the world to follow courses offered by some of the world's top educators based at MIT, Harvard and Berkley amongst others. According to Nancy Pappano in *The New York Times* (2013:1) student MOOC registrations number 4.7 million for Coursera, and 1.25 million for edX. These are only two of the major platforms. Undoubtedly, the current institutional fondness for MOOCs is being driven by powerful economic motives, and the threat to educational quality has long been recognised. In her article in the 2002 *Alternation*, Susan Spearey touches on just this issue:

> … university administrators tend to view the virtual classroom as a potential vehicle for increasing revenues and extending student populations beyond the reaches of geographic catchment areas, often at the cost of depersonalising and dehumanising the learning experience … (Spearey 2002:57).

Spearey's pedagogical practice, as she goes on to elaborate in her article, is designed precisely to subvert the negative potential of educational technology to which she alludes – the tendency to distance the learner and mechanise the process of teaching and learning. By contrast, Spearey's course in South African literature is built around online student interaction through social media tools. Her course features discussion assignments and promotes student engagement in online seminars, facilitates participation, and exploits the archiving features of the virtual classroom to encourage the creation of a rich resource consisting of seminar write-ups that students may refer to later when undertaking assignments. The social media features that promote connections amongst students both within specific learning platforms and in the wider Internet environment (Facebook, Twitter, etc.) are key to the ultimate success of MOOCs and online education in general. Spearey's design foreshadows the essential characteristics of a MOOC:

> Internet-based teaching programs designed to handle thousands of students simultaneously, in part using the tactics of social-networking websites. To supplement video lectures, much of the learning comes from online comments, questions and discussions. Participants even mark one another's tests (Waldrop 2013:1).

George Siemens, an early pioneer of MOOCs, proposes his theory of Connectivism as an advance on three established learning theories: behaviourism, cognitivism, and constructivism. Siemens finds these frameworks inadequate to address learning within the context of technology. Connectivism suggests that the relationship between the individual and society, and, in turn, between the humanities preoccupations with literature, learning and the archive have been fundamentally shifted by changes in communication technology. For the purposes of the present discussion, Siemens' Connectivism (Siemens, 2005) provides a convenient conceptual framework to evaluate from a current perspective the range of articles that make up the *Alternation* number on Humanities Computing nearly a decade ago, and explore the question: To what extent has the meeting of literature and technology influenced social transformation? As has been argued above, the notions of collective consciousness (de Beer), and the enhancement of human optimality through technology (Klopper) may be viewed as leading to a more unified notion of human and social relationships in a digital age. The

thread from Deleuze and Guattari, through de Beer and Lévy to the current Constructivist thinking of Siemens and Downes makes a persuasive argument for regarding Connectivism (Bell, Siemens, etc) as the most promising theoretical model for contemporary digital humanities with its blend of learning theories, technology and society. Recent educational theory, including Connectivism, demonstrates the value of theory that looks beyond the classroom in order to embrace change in society at large. Siemens argues the essential link between Connectivism and society thus:

> Connectivism sets up a framework against which education (and by extension, society) must face the deluge of information that the digital age confronts us with, with the necessary intellectual tools to produce a cohesive narrative. The fragmentation of information needs a high level of making well-considered connections – this is the task of education, and to change education is to change society (Siemens 2011).

Siemens has argued elsewhere:

> … on many levels the challenges that society faces center around education - and the ability to create people of ethical character is an educational concern. In fact we've dropped so much on the education process it's amazing that it functions as well as it does. If we have a problem with teenage behavior it's an educational problem. If we have some other country that's doing a really good job with math scores and we haven't - that's our educational problem. So education is the first whipping post for everything that goes wrong within the societal structure … (Siemens 2010).

Steven Downes also makes explicit the association between learning and developing society

> In connectivism, there is no real concept of transferring knowledge, making knowledge, or building knowledge. Rather, the activities we undertake when we conduct practices in order to learn are more like growing or developing ourselves and our society in certain (connected) ways (Downes 2007:1)

We have seen the extent to which de Beer's notion of connected cyberspace and 'collective intelligence' has proved to be a convincing framework for re-thinking relationships between knowledge, society and technology. There is an echo in Kerckhove's observation '[the Internet] … will bring new forms of consciousness and will put pressure on the educational systems in order to make them deal with the changes' (Kerckhove 1997:90 in Resende 2002:147). This article set out to re-evaluate some of the themes raised in the 2002 edition and trace their subsequent evolution by examining – against the backdrop of Connectivism – the relationship between social transformation and digital technology. The benefit of hindsight has allowed us to recognise themes that continue to be significant against the backdrop of an environment characterised by rapid change.

The fictions of Jorge Luis Borges have long been favoured by those working in the field of digital humanities. Borges' evocations of the relative and the interconnected, intersections of regularity and chaos, order and ambiguity have a special affinity to users of the digital networks that are becoming the new ecosystem within which the humanities operate. Sitting at a recent conference attending to the speaker at the podium, the present author had a momentary Borgesian sense of unease and disassociation as part of an audience subjected to a scrolling projection of Twitter feeds on one screen, while multimedia clips illustrating the talk appeared simultaneously on another. Writing of our tendency to overlook the more pervasive and enduring effects of technology change, William Gibson says that where postwar science fiction often featured the 'rocket ship' and the 'electronic brain', '…in retrospect [they] got it most broadly wrong: All eyes were on the rocket ship, relatively few on the electronic brain. We all know, today, which one's had the greatest impact' (Gibson 2012: 246). Gibson goes on: 'There's my cybernetic organism: the Internet. If you accept that 'physical' isn't only the things we can touch, it's the largest man-made object on the planet […] And we who participate in it are physically a part of it' (Ibid 253).

Klopper's prediction that improved Internet access would have a profound impact on South Africa's brick and mortar universities has taken some time to materialise, but the current surge in research and comment on MOOCs underscores his foresight. By 2010 in the United States, almost one third of post-school students were studying at least one course online and evidence of similar trend can be seen in South Africa ('UNISA is changing …: Undergraduate students must do a compulsory online course;

postgraduate coursework is now largely online'. UNISA 2013). While Klopper applauds the prospect of the 'democratisation of knowledge acquisition' for South Africans, he adds a caveat that this process depends on the improvement of the country's electronic network services. The persistence of the digital divide that effectively shuts off the majority of South Africans from the Internet continues to retard progress towards that ideal. Internet World Statistics reveal that in 2012, Africa had 7% of world Internet users (de Argaez 2013). Within Africa, at 17.4% penetration of total its total population, South Africa lags behind Kenya and Nigeria (both at 28%). Despite the infrastructural obstacles, there are notable examples of transformational digital humanities practices. The rapid growth of mobile connectivity in developing countries, particular in Africa is the subject of widespread interest in the context of development and social transformation (Greyling & McNulty 2011; Donner 2010). Donner comments on the ubiquity of the cell phone 'even in many small villages, and in the poorest neighborhoods of the megacities of the Global South, the mobile device has become more commonplace than extraordinary' (2010:2). Immediate benefits to developing communities through access to mobile phone communication range from improved health and medical information to microloans and systems that send alerts to signal danger from natural disasters or political turmoil. Donner frames his notion of M4D 'mobile telephony for socioeconomic development' (2010: 1) within the wider scope of research into ICT4D (Information and Communication Technologies and Development). Han (2012) challenges the narrative of optimism that tends to characterise M4D endeavours. He argues that the communities identified as the beneficiaries of mobile technology are often not consulted on development initiatives, and their voices not heard in the discussion around such projects. The generally positive attitude towards mobile technology reflects a specious 'myth of infinite benefit' discourse around the role of technology in development. Han refers to a survey of mobile-in-development literature by Qiu (2007) who identified two dominant themes:

> (a) techno-determinist studies that emphasize the revolutionary potential of mobiles; and (b) strong social-shaping studies that see mobile phones fitting into existing social structures (Han 2012:2062).

Instances of development initiatives that resist the techno-determinist ap-

proach highlighted by Han tend to incorporate development design principles that proceed from community needs, and embed the voice of the beneficiaries in the planning and ownership of projects.

One such example is the Ulwazi project that exemplifies the use of technology for both cultural and social advancement while literally incorporating the voices of the community in which it operates. The Ulwazi project (Greyling & McNulty 2011) promotes the generation of online indigenous knowledge databases by members of local communities. Operating within the eThekwini Library system, libraries perform an 'anchor role as custodian of the knowledge resource' (Greyling & McNulty 2011:258). Learning, development and historical narratives converge in this project, based on the municipality's policy of community participation in knowledge production and the necessity of projects being shaped by needs analyses conducted in the community:

> We were made aware of the needs in the communities; their lack of digital literacy, their lack of empowerment, the lack of digital skills, their lack of knowledge of their own communities, the fact that their indigenous knowledge was getting lost at an alarming rate (Greyling in McNulty 2012:52).

Recognising that a dearth of African content on the World Wide Web disadvantages Africans in participating in the growing knowledge economy, thereby constraining their potential contribution to social transformation, the Ulwazi project aimed to build the ICT skills of members of the local community, so that they could, in turn, use the new technology to record interviews with community members on local history and culture. By adding to an online database of user-generated content, the community could begin to reclaim and preserve indigenous knowledge that may otherwise have been lost. The growing importance of the M4D movement is that web technologies are now more accessible as mobile devices and networks spread. If communities are able to appropriate digital technologies, they are more likely to harness them for their own purposes:

> Urban migration has disrupted how information has historically been passed down the generations …. As mobile devices become ubiquitous in Africa, the need for this type of regional and language-

specific content, and the tangible link it provides between communities and their multiple pasts, becomes all the more important (McNulty in Firth 2012:21).

Another project that put technology in the hands of an impoverished community to develop information gathering techniques is the M-Ubuntu schools project. By equipping teachers with the training and the means to set up digital libraries in their classrooms, pupils were able to use mobile phones to access existing learning materials and create their own. Haagen and Lindzer (2010:1) noted improved teacher morale as a result of mastering a wider range of teaching techniques. There were also improvements in student motivation, but lesser gains in literacy. In a related project, Ridder (2010:2) encouraged Mamelodi primary school pupils to use their phones to compose a story about their memories of their time at the school (100 word story - 'These Are My Memories') (Ridder 2010:2). Pupils then recorded interviews with their classmates and teachers, and added photographs of the school and the people they interviewed. By centering learner activity around the pupils' own experiences and community, project leaders relegated the technology to a subordinate role. Learners were able to extend their compositional and research capabilities by using the multimedia tools (built-in cameras, audio and video) to collect data, document field trips and generate content like multimedia stories and reports.

Other noteworthy mobile development projects include Dr Math, the cell-phone mathematics tutoring programme that runs on the instant messaging system, MXit, and MobilEd, launched in 2006 which enables learners to SMS a search term via their phones to the service, which then calls them back and 'reads' information accessed from Wikipedia (CSIR 2009). An experiment in gauging the appeal of an online novel using a cell phone device was *Kontax: a teen m-novel*, part of project entitled 'm-Novels for Africa: A South African Case Study' (Vosloo 2009). Vosloo first published *Kontax* (in English and isiXhosa) on a cross-platfrom Mobi site that could be accessed via GPRS-enabled phones or computer browser and later on MXit. Feedback by Vosloo's readers included the following animated comments:

> Kontax is the most exciting thing that i've ever experianced i mean im not holding heavy book anymore its me and my phone … I think

> this is the nxt best thng since sliced bread, cnt wait 4 the next
> chapter.its rly interestn, i cnt stand readn a novel bt this is diffrnt coz
> its jst lyk facebook (Vosloo 2009:22).

Euphoria about the possible future development trajectory of mobile technology is, however, tempered by serious constraints relating to access. At present, despite predictions of cheaper and more available wireless networks, the continuing high cost of mobile data has severely impeded the sustainability of the two M4D projects described here. Neither state nor private sector provision has alleviated inadequate Internet access (or addressed unaffordable mobile connection costs). There is a body of opinion that is suspicious of an over-emphasis on market values and business models in ICT development. Han's research (2012:2063) points to the important distinction to be made in the South African context between 'ubiquity' and 'affordability' in assessing the effective use of mobile technology in development. Han quotes the leader of an NGO assisting street children, expressing her frustration about the cost of cell phone use: ''It's too expensive. It's extortion. It's disgusting because … they're just exploiting people.'' (Han, 2012:2063). Gurumurthy and Singh (2005:7) have questioned the value of the ready-made solutions approach advocated by developed countries for developing nations in the ICT arena. The enthusiastic promotion of ICTs as solutions to abolishing poverty and speeding up development in the South 'came from the new ICT-fascinated technocrats as well as from some more informed social and political thinkers' (Gurumurthy & Singh 2005:7). It is well to bear in mind this as yet unresolved tension in considering future ICT and mobile projects that purport to empower impoverished communities.

The element of social conscience in Humanities knowledge production is articulated by Dale Peters in her article in the 2002 *Alternation* number on Humanities Computing:

> To meet the demand for knowledge, seen as a key to prosperity, the
> goal of higher education is to provide opportunities for lifelong
> learning, to create second chances. To achieve the goal of this social
> contract, the collaborative effort of all those involved in Humanities
> research is aimed at high quality education and information access to

all people, regardless of social class, the ability to pay, or their location (Peters 2002:109).

Conclusions

A digital knowledge society must serve a democratic, inclusive and empowerment agenda. In the words of George Orwell in *Why I Write* (1946):

> Political purpose. — Using the word 'political' in the widest possible sense. Desire to push the world in a certain direction, to alter other peoples' idea of the kind of society that they should strive after.

This paper has argued that the effects of today's ubiquitous mobile communications confirm the accuracy of some of the theoretical positions of the contributors to *Alternation* in 2002, especially those predicting the transformation of social relations in a networked digital environment. It has been shown that advances in information technology since 2002 provide the humanities with tools for unprecedented access to collaboration and new knowledge production that in turn have profound implications for social transformation. The literary and cultural projects described here were selected because they exemplify best practice in embracing social networking to ensure community participation and collaborative design. Projects such as Ulwazi and M-Ubuntu (see above) illustrate Connectivist principles by using technology to shape creative work and to help develop a knowledge society. On the downside, there are clear signs that covert state-sponsored digital surveillance and data mining threaten to subvert the networked communities of a new 'democratic cyberspace'. Equally harmful to social advancement are the commercial and political factors that deny adequate Internet access to the citizens of developing nations.

Humanities scholars are – sometimes justifiably - suspicious of technology-driven influences in education, libraries and publishing, often characterised by task orientated, instrumental approaches that reflect the forces of commercialisation and commodification of higher education. Yet there is growing evidence that the vast expansion in electronic networks is altering the power relations between communities, large corporations, and the State. While the MOOCs phenomenon has been driven by wealthy United

States universities and foundations aimed, amongst other things, at ensuring their own competiveness in the longer term, MOOCs can equally be regarded from the perspective of a developing country, as proof-of-concept exercises in how access to undergraduate education could be increased to meet urgent educational needs. Rafael Reif, President of the Massachusetts Institute of Technology (and a major stakeholder in the edX MOOC) believes economies of scale will not harm the quality of education:

> I strongly believe that by capitalizing on the strengths of online learning, we will make education more accessible, more effective and more affordable for more human beings than ever before (Reif 2013:45).

Research on the state of technology in influencing humanities knowledge production and social transformation in Africa, and South Africa in particular, would benefit from a survey of development projects in the region that combine ICTs and the humanities. Such a survey would be an important first step in setting a research agenda that could promote wider acceptance of digital and social media as essential humanities research tools.

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