SUPSI

lettera **27**

Mobile A2K: Resources, Interfaces and Contents on Urban Transformations
Conference Proceedings

MOBILE A2K

ACCESS TO KNOWLEDGE

RESOURCES, INTERFACES, CONTENTS
ON URBAN TRANSFORMATION

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Cover image by Valeria Vernizzi,
Mobile A2K at Festivaletteratura,
Mantua, September 2010.
Courtesy of lettera27 Foundation.

1. Summary of the conference proceedings

1.1. Abstract

Mobile A2K: Resources, Interfaces and Contents on Urban Transformations is the title of an international meeting focused on African urban transformations, technology and education held at the Rockefeller Foundation Bellagio Center in October 2009.

Mobile A2K aimed at developing a format for an itinerant, modular and ever-changing exhibition. Participation is the key to recording and accessing knowledge. Mobile A2K relies on existing resources to familiarize schools, libraries and cultural institutions with new interfaces that can help tracking and communicating urban transformations. Scholars, intellectuals and managers in the field of cognitive studies, media, education, architecture and art were invited to connect and think creatively about the opportunities provided by exhibition design, mobile phones, open platforms, copyleft and user-generated contents in the fields of formal and informal education.

In order to develop the exhibition format, the meeting combined specific competencies and compared scenarios with the concrete experience of three organisations working in Douala, Dakar and Cape Town.

Resources, interfaces and contents on urban transformations both in Africa and elsewhere were at the core of group interviews, discussions and workshops during the meeting. A particular emphasis was placed on developing ideas that might empower existing projects.

1.2. Key points and insights

Starting from the position papers by the co-curators Iolanda Pensa and Roberto Casati, the meeting focused on the experience of three already existing organisations, partners of lettera27 foundation, operating within the African context to raise a brainstorming on new formats for exhibiting and communicating contents on urban transformations.

Doual'art organises conferences, such as Ars & Urbis, to enact a change in the way citizens percept and live the city of Douala (Cameroun) through the arts, i.e. by commissioning works of art in distinctive spots of the city in order to produce landmarks, since a cartography of Douala, around 5 millions inhabitants, is not yet available.

Kër Thiossane is an association based in Dakar (Senegal) aiming at developing a center for digital creativity. They organise Afropixel, an event gathering digital artists in the African continent for the dissemination and experimentations of new practices and hardware, such as Freeduino. They received fundings for the European Commission for their next edition, May 2010.

Chimurenga Library operates in Cape Town as a cultural organisation, editing a magazine, organising conferences and exhibitions. They operate in the context of cultural institutions of Cape Town suggesting new and provocative views of Black/White culture in literature and the visual arts.

During the three days of the meeting the participants were involved in group discussions aiming at producing a one or two pages report on the issues and questions raised by the discussants of the 5 morning sessions. Thus, we developed concepts and formats which received benefits from the scholars and the other partners of the foundation, such as Wikimedia Foundation, Orange, the African Center for Cities, Moleskine, Compas Group.

1.3.   Outcomes

As stated in the project, we expected outcomes in three steps: short-, mid- and long-term.

On the short-term (by 2009), we are ready to develop an exhibition format on urban transformations for formal/informal education, focusing on the three final concepts described in the reports. These concepts will be further developed within three existing projects promoted by Doual'art, Kër Thiossane and Chimurenga. The three concepts/directions of Mobile A2K have been provisionally labeled as 'producing and distorting maps', 'the exhibition as a text-book', and 'the pedagogical suitcase'.

On the mid-term (by 2010) lettera27 foundation will foster the implementation of the concepts developed at the meeting in two exhibitions in Dakar (Afropixel, May 2010) and Douala (Salon Urbain de Douala, Fall 2010). Moreover, we decided to devote a series of meetings on the issues and concepts concerning A2K at the literary fair in Mantua (Italy, September 2010). Festivaletteratura is one of the top cultural events in Italy, and gathers around 50.000 visitors and a number of writers, intellectuals, artists, including Nobel Prize winners (see 4). The concepts will be implemented in Dakar and Douala also as a way to reinforce the communication and fundraising strategy of the organisations involved in the meeting. Chiara Somajini, Ntone Edjabe, and Dario Taraborelli will be involved in the Experts Committee of lettera27 foundation starting from next January 2010.

On the long-term (by 2011) we will develop further the concepts in order to implement them in Cape Town and possibly in Paris and New York. These cities will host an ever-changing replication of the exhibition and the projects developed during meeting gathering in two new contexts.

2. Position papers, discussion papers and final reports

2.1. How can we rethink textbooks? The project Mobile A2K: Resources, Interfaces and Contents on Urban Transformations [position paper]

by Iolanda Pensa

How can we rethink textbooks? How can we conceive new tools for education without simply electrifying the old ones? The international meeting Mobile A2K brings together a think tank to design a new concept of textbook, conceived as an exhibition. Thinking of exhibitions instead of textbooks has some great advantages. An exhibition provides a meeting space, links between analogical and digital contents and an aesthetic approach to knowledge.

Thinking of a textbook as of a modular, itinerant and ever-changing exhibition opens new scenarios, and it allows to concentrate on a wide range of high and low tech interfaces. An exhibition can facilitate A2K-access to knowledge, but also user-generated contents. User-generated contents are the new literary genre. Today pupils need to learn how to write an essay and a report, but also – for example – a Wikipedia article. Knowing how to contribute to online knowledge means knowing how that knowledge is produced and it means gaining the skills for analyzing contents and de-codifying templates. It implies a full understanding of the textbook and of the textbook writing process. Through this international meeting (Rockefeller Foundation Bellagio Center, 5-9 October 2009) and a three-year project (2009-2011), Mobile A2K builds a modular, itinerant and ever-changing exhibition format, focused on urban transformations. The format will combine resources, interfaces (in particular mobile phones technology) and contents, and it will be firstly implemented in Dakar/Senegal (May 2010), Douala/Cameroon (December 2010), Cape Town/South Africa, Milan/Italy, New York/USA and Paris/France. In particular Mobile A2K focuses on the current projects of three organizations based in Dakar/Senegal, Douala/Cameroon and Cape Town/South Africa and connected to urban transformations: those organizations provide an exceptional work space to experiment ideas that educational systems all over the world can benefit from. The interest of Mobile A2K for urban transformations is related to the fact that contents on urban transformations address a wide range of potential users and producers, creating links to a broad range of themes, such as geography, culture, anthropology, sociology, social activism, and tourism. The Mobile A2K exhibition format will connect teachers with new resources, interfaces and contents on urban transformations, and it will provide them with a new 'textbook', they can replicate, modify and enrich in their own classes.

2.2. Learning beyond electrification: mobile technology offers opportunities for redesigning the teaching process [position paper]

by Roberto Casati

Abstract: We conceptually investigate the implications of redesigning teaching and learning around cell phones.

Consider what happened to the digital camera. Many amateur photographers worried, at the beginning of the third millennium, whether they would move from the old reflex to the new digital cameras; first buyers had an interesting choice between reflex and digital. Some discussions made it to specialized journals; defenders of the old reflex pointed out the large gap in resolution between analog and digital systems; defenders of the digital talked about easy storage and transfer, the possibility of editing, and so on. The whole controversy sounded perfectly academic once cell phones with camera capabilities landed on the market. Nowadays much more cameras are sold that are embedded in cell phones than are sold as standalone items. The original point of embedding was to tickle customers into sending mms; but customer only made and still make a marginal use of mms. (In 2008 in the UK were sent 78.9 billions sms, and just above 1/2 million mms. The theory is that sms are a way to communicate, whereas mms are event-driven. Source: The Mobile Data Association, http://www.themda.org/mda-pressreleases/ the-q4-2008-uk-mobile-trends-report.php; see also http://enterprisemobilityworld.blogspot.com/2009/03/mda-latest-mms-and-sms-figu-res.html)

So what happened? Taking pictures was, until 2000, mostly a ceremonial activity. Apart from professional photographers, people only took pictures on some fairly standard occasions: holidays, family events, and the like. No one was faced with the question, upon leaving home: 'Did you take your camera with you?' But at a certain point, with a camera in almost all cell phones, the question became moot. The standard question 'Did you take your cell phone with you?' received an answer that applied to the camera as well, by default. Now, one thing is planning to take a camera with you when you leave home; another is to having in your pocket all day, no matter what. At some point, you'll start using it to record whatever crosses your visual mind: an interesting shadow, people at a meeting so that you can later on check who attended, the poster of an exhibit you think you should visit, calculations on a

blackboard, the scene of an accident.

The camera-as-a-bodily-appendix reveals something about the camera that was concealed by the ceremonial camera: cameras are excellent visual note-takers. Remark that portability was not the distinguishing factor here. Digital camera and reflex were portable too. It was the constant presence of the camera in your pocket that made the crucial difference.

The camera story provides us with two important lessons. The first is that progress is not made when one looks at uses and then looks for the suitable technology for supporting or assisting them: one looks at the technology instead, and figures out new uses for it. As some have said (most notably, Jared Diamond in an important chapter of his Guns, Germs and Steel) invention is the mother of necessity. More generally, and this is the second lesson, there are nowadays more (technological) answers than questions; we should thus look for the good questions.

I call the use-first/then-look-for-technology pattern an electrification pattern. It has been with us in many occasions: the e-book, the e-whiteboard, and a sizable amount of educational software, are clear instances of electrification. It is as if one had looked at the old book or at the old blackboard and asked, what would it look like if I provided them with electricity, automated components, software and so on and so forth?

Intuitive and straightforward as it may be, electrification rarely provides interesting steps forward. This is not to deny that the augmented book and whiteboard are worthless. But one can think of many cases in which strict compliance with the electrification ambition would have produced curious monsters. Picture electro-acoustic music's goal as that of simply re-producing, imitating acoustic musical instruments, instead of delivering, new, literally unheard of sounds and rhythmic patterns. Or picture word processors as simply extended typewriters; true, at some point in history they were just that, but soon enough a massive computing storm invested the texts so produced – delivering, for instance, the magic of the find function.

Equipped with the lessons from these cases, let's have a look at promising and less promising avenues for mobile learning. I propose to do a little of concept-fixing first. What do I have in my pocket?

What can I do with it, that it can change my life and that of my learning community? We call these things mobile phones or cell phones, but they are nowadays small portable computers. Even if there is large variance in their capabilities, from high-end smart phones to simple cell phones with a few basic functions, the proper conceptualization respects the computer like nature of these artifacts. We should think of them as small computers that have interconnection capabilities, storage capabilities (for pictures and various types of documents), various types of interfaces with humans (from keyboards to pens to cameras to accelerometers) and nowadays GPS capabilities.

Some of these capabilities are interestingly related to the particular size of the object:

it makes a lot of sense to equip with an accelerometer something you can hold in your hand; much less so for a laptop, not to mention a desktop. A GPS makes some sense in a laptop, little sense in a desktop, and a lot of sense in a mobile phone or camera. There is something specific to size that invests the nature of the applications.

Let me talk a little bit about these two interfaces, the accelerometer and the GPS locator. We thought of the cell phone as of something that connects to your mouth, ear, eye, and fingers. But with the accelerometer you find out that it connects to your moving arm as well. More or less funny applications poured in: the picture of a glass of beer (iBeer) appears on the display of your phone, you turn the phone, the appropriate noise of liquid flowing out of the glass is made. But these are gadgets. More interestingly, someone noticed that as you can write with your fingers (through a keyboard or a pen) you can also write with your arm (the way you do when you write on a blackboard). Developers thus modified the input interface of the phone, Phonepoint Pen, taking advantage of an accelerometer that designers did not dream of using for that purpose (Agrawal et al. 2009). It is as if you were tracing words in mid-air, retrieving them on the screen of your phone (or on any relevant peripheral: external screen, printer.)

The second point concerns the embedding of GPS in handheld devices. It's hard to overestimate the creative disruption that awaits us. People ask why they should care about GPS in cell phones; they see an obvious use for them in cars and boats, where they are essential to navigation and way-finding; aren't other uses just gadgets? To my ears these doubts sound like doubts people may have had about the first mass-produced wristwatches. Back then people worried: wouldn't public clocks and the siren marking beginnings and ends of shifts at the workplace suffice? What use mass timekeeping? Clocks give your position in time, GPSs your position in space; what is to be gained by an accurate knowledge of one's position? Well, as David Landes has powerfully argued in his Revolution in time, putting a clock in each pocket has changed forever the shape of society. Clocks turned out to be not only about timekeeping; they are about synchronizing complex, distributed social activities at a fine-grained level. Analogously, GPS are only partly about way-finding. On top of the intrinsic interest of information about one's place, it is the integration of GPS and other peripherals that will provide major changes. When connected to a camera, a GPS provides pictures with a place-stamp on top of the usual time-stamp. Documents in general can be organized according to their place-stamps, something you may find convenient if you have to attend a large number of meetings at different locations, visit different schools, for instance. On top of organizing your folders by filename, date, size, etc., you would have an organization by place – maybe through a map. Track-keeping of locations would generate a straightforward construction of narratives: literally, journeys through one's life. Data mining on records of one's movements can provide insight about how to optimize traffic, improve driving safety. (Clearly, the problems posed by making location

data accessible to third parties require a lot of societal care; we cannot address this complex issue here.)

The third moral, then, is that major changes may occur in areas that are not directly invested by the new technologies. To put it vividly, consider how rendez-vous etiquette has changed because of cell phones: Cedric is late at his meeting with Magda, but it is Magda who takes the blame because she did not carry her cell phone with her. Cedric: 'I tried to call you, but you were nowhere to be found!'; if not the final word, this is at least a Good Excuse for Cedric. Sure enough, one should just expect that as a consequence of mass introducing certain items in people's lives, existing practices change or disappear, and other practices are born. What is generally frustrating, but I find potentially exciting, is that it is pretty hard to see what the changes will be, no matter how they appear trivial in hindsight. This difficulty is, in my mind, the main drive behind the electrification temptation. It was easy to predict that television would disrupt a huge number of practices, from the way one buys to interest in sports and so on. All this is pretty trivial. Wasn't there an interesting promise of television about education? It turns out that the major educational effects of television appear to have been on the linguistic side (De Mauro 1973); some communities are linguistically more cohesive because of the standardization of a regional idiom. On the other hand, we do not have more biologists or literary scholars or a better workforce because of educational television programs.

There are quite a few reasons suggesting that mobile computing has the potential for disrupting teaching and learning practices. But computing and learning have so far been uneasy bedfellows. Their relationship can be aptly synthesized in the idea of the electrification of the classroom. I'd like to show one of the countless pictures available on the web that proudly document the facilities at this or other institution.

Where is the innovation? What I see here is just an old classroom, with chairs and desks, turned towards the teacher's pulpit; screens and keyboards replace paper and pen, and a larger screen replaces the blackboard. ëReplacement' means that in the functional architecture of this environment some pre-given roles are still there; there has been no thought about new roles. The old school has been electrified. Of course, many schools around the world would be happy to be able to provide their pupils with just that. I am not claiming that it is wrong to so equip school. I just claim that it is profoundly unexciting. Everything in this picture bespeaks a missed opportunity.

The missed opportunity is now patent in view of the portability of computing items. It appears to make little sense, even to be a bit grotesque, to offer a version of the above picture in which smartphones replace laptops. Why should one nail smartphones on desks? At the same time it is easy to fall into another electrification trap; for instance, by dreaming of a 'diffuse' classroom in which pupils connect from home with a teacher who appears on the screen of their cell phones, teaching an old, ordinary lesson.

(This connects to one of the risks we were aware of when we designed the Interdisciplines process and interface: we were actually asked to create a 'virtual conference' in which people would interact from home on some sort of reproduced, virtual theater. We sensed that we were missing out many opportunities.)

In a high end scenario, thinking beyond electrification may simply mean abolishing the desk populated classroom without having to abolish the school: people can meet in a variety of spaces, each adapted to a different function, carrying along their suitably refurbished cell phone. New academic spaces like Gehry Stata Building at MIT (Campbell 2007) are tailor suit for this particular type of mobile connectivity. The high end scenario is not to be ruled out from the onset. In countries like China internet connections through smartphones are on the path to outnumber those through desktops or laptops (Source: The meek shall inherit the web; The Economist, Sep 4th 2008).

I am not suggesting that portability per se makes the crucial difference. There may be other aspects, such as the interoperability of applications, or GPS localization, that count. Focussing on the cell phone, we ought to realize that there is plenty of room for intervening on many aspects of the teaching/learning process.

Here is a small list:

– optimizing one-to-one relationships that are hard to implement in the classroom because of space and time constraints (see the DrMath service);

– enhancing the expression of shy pupils;

– reaching out to families, who may be the owners of cell phones in some cases because of the age of pupils, and design educational processes that involve them;

– creating competition among variously aggregated teams of pupils, thereby enhancing intra-team cooperation that straddle the boundaries of classrooms;

– taking advantage of the possibility of intensive repetition;

– augmented reality (visiting places, museums, any area) and getting information about it;

– competing against the cell-phone as a form of intensive training;

– homework reminders; scheduling reminders;

– pod-casting;

– classroom quizzes during class time as a way to synchronize attention and check content acquisition by pupils.

When looking for interesting scenarios, we should keep in mind two background aspects. First, it is not clear that high-end computing power has delivered significant improvements in teaching (unless, of course, one needed to learn computer related subject-matters); second, it is not clear that low-end computing power was so unsuccessful as to be in need of improvement, redesign, electrification or replacement.

I expect some parameters to play a key role in discussions to come. We will be confron-

ted in particular with the issue of what is localized and what is portable in the knowledge acquisition process. Lessons from other sectors will become relevant here. The rechargeable phone card has been used to provide micro-banking facilities (http://www.wizzit.co.za/). Your monetary identity becomes physically portable; you have a bank in your pocket. In thinking about education, we should give thought to the portability:

–   of thesaurus knowledge (the easy part, in a sense);
–   of interactions (cf. the Phonepoint project);
–   of algorithmic complexity (breaking down a process into subprocesses, carrying on each of of them locally, then centralizing them);
–   of hierarchical roles (e.g. Authorship roles in Wikis).

Each of these parameters, set on specific values, ought to require independent study.

I'd like to close on a couple of warnings. I think we should beware of excessive electronic optimism. A case I discussed elsewhere is that of e-voting. In the case of overt voting it is possible to carbon-copy the manual procedure into an electronic system (such as Doodle: www.doodle.com); electrification is here a viable option; but in the case of non-overt voting the manual procedure has irreplaceable properties of transparency for lay people; they are irreplaceable because in order to understand how an electronic voting system works, it is necessary, for most people, to defer to an expert. Another case is that of the e-whiteboard. The old blackboard had no memory, but there may be the need, in the learning process, of phases in which you can delete everything – a wrong calculation, for instance. Pupils may need this possibility in order to trust the system. Not all practices can be replaced; and indeed, the replacement notion, as we hare seen, is pointless.

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2.2.1. Phonotes [discussion paper]

by Elena Pasquinelli

Mobile phones are exceptional note takers.

Imagine the following scenario: Mary wants to learn French; she goes to Paris in order to attend a traditional course, but she also brings with her her iphone (or whatever smartphone). While walking in the street she sees a shop called ëLa tuile à loup', she peeps inside and she does not see any ëloup' - wolf, but only traditional pottery. So what is the meaning of ëLa tuile à loup'? She opens her iphone and googles, but she finds nothing. She hence decides to take a picture of the shop and she sends it to her colleagues. Nobody answers. When home, she opens her iphone and she transfers the picture and the note on her computer, with a long list of words she has not understood, including the recording of the voice on the bus reading the names of the bus stations (she wants to check them on the RATP map for finding the written word of the station). She will ask tomorrow to her teacher. And she will bring her recordings with her, as a record of her living experience of French language and life.

Imagine the following scenario. John lives in South Africa and wants to learn English. He follows a course, but he has so many questions that he cannot ask because the teacher is overwhelmed by the number of attendants to the course. He has his phone, a very basic one, and he knows that he can send messages to a service for English learning, on a MXit-like platform. He walks in the street and notes all the things he would like to be able to say in English. Basic phrases, words that could be useful. He notes them as SMS messages to be sent. At home he chooses the questions he wants to ask, and send them to the MXit service. For those who are interested in literature about mobile learning and annotation, see the papers of Agnes Kukulska-Hulme, such as Kukulska-Hulme, A. (2009). *Will Mobile Learning Change Language Learning?* ReCALL 21(2): 157-165. PDF

2.2.2. Cameras, standalone and embedded. A model for the evolution of Portable Phones [discussion paper]

by Elena Pasquinelli

Digital cameras and embedded cameras (embedded in a portable phone) are not an alternative to reflex cameras, but only to analogic mini-cameras. Simplifying, the opposition is between analogic and digital (reflex analogic vs. reflex digital, mini analogic vs. mini digital). Once the 2G phones arrive, with embedded camera, more and more close in functionality to standalone mini digitals the market of the mini digital standalone knows its crisis. No crisis for reflex camera, digital of course. Let us draw a parallel. Computers are like reflex digital cameras: full of applications, and specialized uses. They are not really threatened by small digital cameras, or phones that act like a computer (3G generation) but have not the same uses. So, take different pictures with a computer or with a phone, even a very smart one, as you take different pictures with your reflex and your mini, embedded or not. At least for the moment. But it is true that the phone has annihilated the mini standalone, and has become a complementary tool to be used in integration and not in substitution with the computer. At least when this is possible. Since take regions where home computers are so rare (but internet cafés might be present). There you might think to use the phone as the only digital device. What happens then to the phone? what do you loose, what do you earn (in terms of new ides for using the mobile phone)?

2.3. Inclusion, exclusion and transformation – connecting technologies and the urban in South Africa [position paper]

by Jane Battersby

In order to consider an exhibition on urban transformations incorporating mobile phone technologies and open platforms, it is vitally important to have a sense of both what these ever changing technologies can do for user groups and what they can do to user groups and their relationships with the urban spaces they inhabit. Furthermore, any discussions should engage with the economic, educational, spatial and cultural factors shaping usage.

Drawing on Latour's Actor Network Theory work (e.g. Latour 1993) and Haraway's discussions of blended human-technological cyborgs (e.g. Haraway 1991), it is vital to recognize the place of such technologies as part of wider socio-political environments. Nigel Thrift has expressed this idea as follows: 'no technology is ever found working in splendid isolation as though it is the central node in the social universe. It is linked - by the social purposes to which it is put - to humans and other technologies of different kinds. It is linked to a chain of different activities involving other technologies. And it is heavily contextualised. Thus the telephone, say, at someone's place of work had (and has) different meanings from the telephone in, say, their bedroom, and is often used in quite different ways.' (Thrift 1996, 1468 in Graham 1998, 178). This paper, therefore considers four broad themes: Current technological capacity in Cape Town; The potential uses of mobile technologies and open learning platforms of urban transformation; The potential uses of mobile technologies and open learning for transforming social relations; and, The use of these technologies to frame, report on, display and create platforms for discussing and presenting urban transformations. The paper will focus on research conducted in Cape Town, drawing on the African Centre for Cities academic networks at the University of Cape Town.

Current technological capacity in Cape Town
During the 1990s there were widespread concerns about the impact of new information and communication technologies on those unable to access these technologies, those unable to bridge the digital divide. The 1999 UNDP Human Development Report noted that at the time, only 2% of the world's population had access to the internet, of which 80% lived

in OECD nations. Users were overwhelmingly relatively wealthy and predominantly male (UNDP 1999). It appeared that access to the internet would have remained limited for the poor, that it would have enhanced the economic, social, political, cultural and spatial exclusions. Technologies such as the internet were seen as incorporating a tendency 'deepen the relative advantages of the transnational corporate classes and socioeconomically affluent groups' (Graham 2001, 340).

In many ways, this was true. According to recent research by Research ICT Africa, only 15% of all households in South Africa had a working computer, and only 5% reported having ëa working internet connection' (RIA 2009 in Kreutzer 2009, 2). As it would be expected the distribution of access is closely related to race. In a 2003 survey, 2% of Black, Coloured and Indian households had household access to a computer, compared to 46% of white households (South Africa Info 2003 in Chigona et al 2009a, 5-6). Given the funding models in South African education, few schools outside the economic elite schools had access to computer facilities, and even less with viable internet connections. Prinsloo and Walton (2009 in Kreutzer 2009, 2) conclude that even where sub-elite schools have received computers and internet access, their usage remains behind their potential. From personal research experience, computer facilities in such schools are often poorly maintained and reserved for staff use. When pupils do have access, they are taught by staff who are limited in their own understanding of the technology.

For those households that do have access to the internet, the cost of the internet is still high compared to other countrie, and bandwidth remains limited. This week, in an attempt to highlight the slow speed of South African internet connections, a pigeon is being sent carrying 4MB data from Howick to Gillets in KwaZulu Natal(a distance of around 70km) at the same time an email containing the same data was sent from a user in Howick to a user in Hillcrest and bets were raging as to which will win. The pigeon won (Tolsi 2009). Three years ago a local newspaper ran a story saying that it would be cheaper for a South African to fly to Hong Kong and collect a 100GB datafile, than to download it via a South African internet provider (Chibba 2005). The digital divide does exist within South Africa and between South Africa and elsewhere in the world. These are limitations which any exhibition must consider.

However, South Africa has one of the highest mobile phone take-up rates in the world – thanks to a large part by the failure of the current and previous governments to invest in landlines. Cell phone ownership for those over the age of 16 in South Africa is currently 60%, up from 18% in 2000 (RIA 2009 and ITU 2001 in Kreutzer 2009, 1). By contrast, just 28% of India's population were mobile subscribers in 2008 (Donner & Gitau 2009). Access to cell phone technology has provided potential internet access to vast numbers of people excluded from computer based, fixed line connection. Currently there are 9.5 million mobile internet users in South Africa (20% of the total population, compared to 4.7

fixed internet users (10% of the total population) (Donner & Gitau 2009). It appears that mobile technologies are the preferred/only means of access to the internet for many South Africans. Kreutzer's 2008 survey of high school pupils in poor areas of Cape Town found that 77% owned their own phone, 18% used other people's phones, 4% owned a sim card, but used other people's phones to use it, and just 1% did not use a phone or had recently had one stolen (Kreutzer 2009, 10). Intent usage amongst these young people was high, with 93% having ever used the internet on cell phones and 83% having ever used the internet on a computer. Cell phones were clearly the preferred means of internet access though, with 68% using their phones for internet access on a typical day, opposed to 39% using computers (Kreutzer 2009, 12).

While there is high internet take up through cell phones, it cannot be assumed that user patterns will be similar to those of computer based internet users. Kreutzer's survey indicated that pupils used their cell phones predominantly for mobile instant messaging (MIM) services, namely MXit, and for downloading songs, pictures and ringtones. Pupils were more likely to use computer-based internet for research for school work, looking for medical information and YouTube (the benefits of a larger screen perhaps) than their cell phones (Kreutzer 2009, 16). Within the South African context, one of the most interesting mobile phenomena is MXit, the most popular MIM system. If a phone has GPRS capabilities, the MXit programme can be downloaded and used. This allows users to chat individually or in chat rooms with the only charge being the cost of the data sent, making it far cheaper to send messages via MXit than SMS (around 2c per message, compared to 70c per message) (Chigona et al 2009b, 3). There are over seven million MXit users in South Africa and a further 9000 are added to this per day (Chigona et al 2009b, 2). While there have been moral panics associated with MXit, and attitude that seems to 16 re-emerge with every new technology, there is a growing body of work suggesting the value of MXit for M-learning (e.g. Dourando et al 2007 and Butgreit 2007).

Mobile internet technologies have significant benefits over computer-based, fixed line internet technologies. The most obvious amongst these are that they are lower cost and require fewer infrastructure investment. These have led to the massive take up in these technologies in the past decade. Cell phones are perceived as less complicated than computers, users believe that only limited technological knowledge is required to begin using the internet capabilities of a cell phone. A further advantage of this is that they are mobile. Not only does their mobility ensure flexibility and constant availability, but it also prevents the technology of being hampered by culturally inappropriate spaces. Warschauer (2003 in Chigona 2009b) conducted research in Egypt and found that despite the presence of hardware and software for a computer laboratory, the laboratory remained under-exploited because the social environment was not appropriate for the users. The mobility of cell phones enables users to create the appropriate spaces for use.

However, while mobile internet connectivity seems at a first glance to address many of the challenges of the digital divide, it is not itself without challenges. The massive take up in cell phone usage within the last decade has been driven by the availability of pre-paid accounts and cheap handsets. These cheap handsets tend to have bad access to the internet, if they have it at all. Bottom end users cannot therefore take full advantage of the possibilities of the web on phones. In addition, users often don't to have the spending capacity to use the internet beyond instant messages, the popularity of which can largely be attributed to its economic efficiency compared to SMS. Furthermore, while users state that the internet is easy to use on a cell phone, research demonstrates the many users have only limited understanding of the full capabilities of their phones and have no means by which to learn further (Chigona et al 2009b, 7). Finally, as with the internet more broadly, access and utilization is strongly dependent on literacy and language skills. Both international and local technology and content are predominantly English language (Chigona et al 2009b, 9). In addition, the communities of practice within user groups can exclude on the basis of language. In Deumert and Masinyana's 2008 study of bilingual students it was found that in a sample of emails sent by IsiXhosa-English bilingual students, over 60% were sent in English, and less than 20% in IsiXhosa (Deumert 2009). Even when communication informally with peers from the same language groups, users defer to the English language. What does this mean for processes of inclusion and exclusion, for language and culture and for the development of the exhibition we're thinking of? How can and should these technologies be utilized for an exhibition on urban transformations?

The potential uses of mobile technologies and open learning platforms of urban transformation
The proposed exhibition is on urban transformations. However, I believe it is important to consider the role that mobile technologies and open learning platforms can play in urban transformations themselves. Cell phone technologies (mobile internet or SMS or photography) have a wide range of potential and real uses in urban transformations. From a land surveying and planning perspective it is possible to use SMSs on cell phones as a mean of keeping a record of property transfers and to use cell phone GPS capacity as a mean of mapping valuable community places for participatory urban planning. The Programme in Urban Food Security at UCT is 17 realized in partnership with a social entrepreneur who wants to use cell phones in addressing the cost gap between supermarkets and spaza shops by establishing a wholesale network for spaza shops which uses small mobile computers and cell phones as a way to communicate automatically sales to the wholesaler to ensure stock replacement. The application of SMS technology to send health screening and medicine reminders is well established (c.f. Kaplan 2006). The City of Cape Town has a Smart City initiative which aims to give all citizens access to internet facilities through libraries and trucks offering mobile access. The aim of this is to 'improve the efficiency of service delivery and the administration

of the City, to better communicate with and deliver services to citizens and businesses, and to bring about social and economic development' (City of Cape Town undated).

Through these applications the physical, infrastructural, economic, and health profiles of our cities can be transformed. There is a danger that in our enthusiasm for the cultural, we may miss the material and the everyday and the connections between the material and cultural transformations of our city. I would like to suggest that one way in which urban transformations can be affected by such technologies is through the display and discussion of cell phone photography. Kindberg et al (2005) examined the subject matter and purpose of cell phone photos, recognizing their role as information sources, knowledge distributors and community developers. Johnson et al (2008) have used autophotography as a way of understanding the use of space and experiences of spatial exclusion by the invisible and excluded.

The potential uses of mobile technologies and open learning for transforming social relations
Mobile technologies are not just tools to reflect social transformations, but are also agents of change. MXit and SMS have transformed communication norms. Deumert and Masinyana (2009) have highlighted how SMSs are generating new forms of linguistic code switching and language norms. Given the strong linkages between language and identity, the role these technologies in cultural change must be acknowledge and reflected in the exhibition. In addition, the role of these technologies in time-space distanciation (see Giddens 1984) is important to note, as remote interactions (e.g. phone calls or SMSs) become increasingly important in social and economic interactions. Mobile technologies enable individuals to engage in real time with people and processes physically removed from them, thus reshaping spatial and social relationships. How can the transformative power of these technologies be reflected upon in the exhibition?

The use of these technologies to frame, report on, display and create platforms for discussing and presenting urban transformations
Kreutzer states, '[W]e know more or less how many South Africans have access to mobile phones, and what kind of things researchers and activists think they should be doing with the phones for developmental purposes. In contrast, we know very little about how South Africans actually choose to use mobile phones to access information or entertainment media or to create and distribute their own media' (Kreutzer 2009, 4). It is important not to ascribe uses on the basis of abstract assumptions of usage abilities in the context of this project. The exhibition on urban transformations needs to be able to draw on available technologies to democratize the exhibition. However, in order to do this effectively it will be vital to draw on local knowledge about how 18 mobile technologies are being used and interpreted by local users. It will be important to consider the inclusionary and exclusionary characteristics of these technologies in the planning of the exhibition.

In conclusion, I return to my opening comments. The relationship between technologies and urban transformations are complex and multi-directional. These complexities must be addressed within the exhibition. The work of Latour and Haraway may provide a theoretical entry point to help improving the discussion. The exhibition must be aware of both what these emerging technologies can do for citizens, as well as what they actually do to these citizens and the communities and spaces they occupy.

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2.3.1.   da MOBY curiculm [discussion paper]

by Stacy Hardy

iz impos 2 b logicl bout DIS $hit so letz b ID-logicl

iz nu skool: duz 4 eduKshun wot miles did 4 jaz. mAkz TXTs elctriK. elctriK-fys Frntz Fan-on: 'i asckryb a basic NB 2 da fenomina of langwij. dats y i fnd it NB 2 Bgin w/ dis subjct, wch shld provyd us w/ 1 of da Lemints in da colRD mans comprhnshun of da dimenshin of da othR. Fr its mplct dat 2 spk is 2 xist absolUtly 4 da othR.'

iz transl8n: a trAta, it transl‰ts xistin txtz, display-sing orignL mEng & streSN d commongrwNdz Btwen gnr8ns

iz ill-itrit: it invNtz a hole nu lngwij 2 Xplain eduKshun. it ofas Nuttin less thN a vocab 4 d ways we wiL discuS d SYSz of lerNin n d futR.

iz Iscamto: spOkn off d cuff, it REfuz 2 b pidgin-holD. Rejcts d n8tN lngwij of d mstr dis-cors. rubishz colonEL subSERVnce dat BlEvz camras & fonez onlE spk eng

iz UZZ-genr8D: an actoN rada thN a givN. is a shard Discuvry of wot We hav & alredi knO. Truht not delusion. lakin in skoolin'. yet prodUcin TXT-b‰ks.

iz h&-RitN: scriblD n ink. a pidgin-toD knky sc-

rypt. distributD on d bak of startR paks.

iz comunil: tosD into the coMUne. Solo-duo-gr℅p kreAshun. it cLebr8z frndship. replAcng analog w dia-log, refusZng d 1 authR // distnt omnisCnt Tcha.

iz lo-fi: it tels MICRO-soft 2 stik iz $100 Lap-top up iz f@ (_!_)!!!

iz BADly BhAvd: it dlts seleCD letRz. rejcts m-td vs. it rebls. sets nu precidnts. letz klevanz XcEd Dcent levLz.

iz site-(sp)ciphic: it opr8z @ micro-lvls. cs city as skool. uzz GPS 2 pin. yor Xact loxion.

iz coneKtiv: gitz U coNectd: invisBl war-chalkin d IDs open Wi-Fi nOds n yor area.

iz rO-mng: RitN 4 ppl on d muv. it Tchas U how 2 thum lfts & ctch taxEz. a gyd 2 MigrAshun & incur-SHUN, it rndrs bOWndrEzies & bordrs soft & Elas-tic. it gitz U past HeethRO bordr gods & Thru d Kruga park.

iz Xtra-curikula: it hapns AFta hrs. Fitez insti-tushunL/iced silNC & theory-tyrny w pRT musi.

iz X-plicit: a drk mrk (mrx-ist?) that blkbols oldsk℅l an(n)al & trcts. it grbs yr (.)(.) & wanks yr shaft.

iz disRUPtV: intaruptz oficial clasZ. a lowd ring-toN dat poloots banl pblic spAc w //ing-eG musi

iz stOln: boroD, filmD & msmD frm lekCHA hlls rownd d wrld.

iz Xplosiv: spoke n d gun & rifl toN. AnsD n d lngwij of stOn. iz a wordbomb dat de-tone-ates mEng & a b(.)(.)by-trapD FAQ 4 bILdN ceL fone bombs & mob D-tone-atas. 20

iz a stalka: it apErz uninvitd & wont Leav U aloN iz polyfonic: it turnz d [abc] in2 a thumb-piano, a b℅m bawx/ boogy amplifiya of sen/say/shuns.

iz Dsell-erAtD: Dbugz da NsaniT mediM of da hypareal mob-mentaliT by sloin dwn tym to 140 ca-ractRs per rEdng.

iz ill-EgL: a blk-lstD criminL verbl dis-charJ. it Tcha U how lift H&setz, reconeKt eLECtrcty, brAk in2 cars.

More here: http://docs.google.com/present/view?id=d4qd9fb_178c8zjgqgh

2.3.2. Understanding sms – local vs global [discussion paper]

by Roberto Casati

It would be interesting to study the geographic boundedness of sms understanding. Learning to read is learning to map shape to sound (visual represen-tations to phonetic representations), and learning to read in a new language is at times blocked by existing mappings (e.g. it is easier for me to speak English wi-thout reading a text because when I read an English text my previously acquired knowledge of written Ita-lian strongly interferes). Sms shortenings introduce a further level, it seems to me: 'it apErz uninvitd & wont Leav U aloN' will have different effects on firstlanguage and second-language speakers/readers, respectively.

2.3.3. MXIT as a case study: educational purposes colonize non-educational practices, and technologies [discussion paper]

by Elena Pasquinelli

There is a huge debate in education, in particular when we come to developing countries suffering of digital divide, as to which is the best technology for reducing the technological divide, and for fostering literacy. Is it the computer – portable, light, low cost computers as the one of the OLPC project –, or is it the portable pho-ne? Of course, the portable phone is not a computer, it doesn't offer the same performances (not yet, but soon says someone as Marc Prensky). But when a compu-ter is bought in a developing country, it is often locked into a cupboard, to protect it from being stolen, or bro-ken. And in any case, you must get convinced to buy it, and use it. Let see on the side of portable phones: they are there, spread and used for a quantity of uses (money transfer, business management, call for a job,

safety, ... chatting) they are growing in capacities, including internet access (not for the poorest), and they are then taken in a network of practices.

Let us come to MXit. It is a service for chatting, very popular in South Africa, mainly amongst teens, because chatting at distance and sharing images is really low cost. So, we have the spread of a practice for a diffused technology: the portable phone. Reaction of parents and teachers: the phone is confiscated, because teens misbehave at home, they are too taken by their MXit and get bad notes at school; the phone is forbidden at school, for the same reasons. But Mrs. Butgereit arrives and invents a service for MXit: maths for MXit. A tutoring service that students can call, after school, for getting help with their maths homework. Unfortunately we cannot easily judge if this invention has really become an innovation (if it has translated into diffused and efficient practices). Because no measures have been made concerning the efficiency of the service in making better students in maths. We know that the service has spread, and that other applications 21 have seen the light, such as mobile books (1 for the moment) and other tutoring services called Imfundo Yami Imfundo Yethu (maths again) and Angel (health, AIDS, drugs).

This is an example of colonization: rather than installing brand new technologies, exploit existing technologies and practices, and get in with educational purposes, or whatever application that answers to a real need.

And a good case study: will it have more or less success than the introduction of brand new tools?

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2.3.4. What kind of cyborgs? [discussion paper]
by Gloria Origgi

I'd like to understand better Jane's suggestion of considering Latour's Action-Network Theory and Harraway's Cyborg's Manifesto for the present purposes.

If I remember well, both theories try to broaden our view of our social interactions by embodying them in a richer network of semiotic relations, often mediated by technology. Ok, but what is the specific cyborg, or the specific semiotic network that a mobile technology may create? Once we acknowledge the complexity of the thick social network that humans + environment + symbolic exchanges + technology make possible, then what we can infer about the specificity of the new, mobile, cheaply-connected cyborg?

Are there specific ways to tackle the issue of mobile technology adoption that by apply Latour's or Harraway's framework in order to have more than just a sociological analysis of the new practices of adoption fo this technology, but a thicker description of the new individuals and their networks that this technology produces?

2.3.5. A hidden, ubiquitous divide. [discussion paper]
by Roberto Casati

The digital divide seems to be ubiquitous when it comes to schools. Within indistrialized countries, schools are often equipped with an insufficient number of PCs (at times, one per classroom), with hardware and software of the penultimate generation; teachers are not trained to specifically address the use of the computer. It may even happen that children are more advanced than the schooling system, in the sense that at home they have more up to date computer facilities, and use them more than they do at school. Of course, the divide may not be so large as in the situations described in the article. I just wanted to indicate that given many societal inertiae (by governmental programs, possibly due to a scarce consideration for schooling by society at large) the classroom is ubiquitously lagging behind.

2.4. OLPC and Sugar: mobility through the community [position paper]

by Bastien Guerry

Three years ago, OLPC (One Laptop Per Child) invented the first mobile computer fully dedicated to learning. And it did more than that: it spread a spirit of free knowledge, the same spirit that sustains the Free Software movement. The XO device is not only a mobile device that children can carry around to learn in and out of the schools, it is also an open tool that they are encouraged to explore. And the purpose of the OLPC community is not only to bring small laptops to children, it is to let software (Sugar[1]) freely flow among them, to make ideas and knowledge more mobile.

Philosophers like to question language
When I think about 'mobility', my mind turns into a TV screen with this advertisement: a beautiful girl on a boat, updating her twitter status from her android-based smartphone. No wire. No keyboard. No sitting. The ad goes on and says: 'Connected from everywhere, with everyone.' Now, when I think of what 'mobility' could have meant for Alan Turing, I guess it would have referred to the mobility of the various parts of the computing machine, as described in his 1937 paper[2]. The Turing machine contains a read-write head which moves around the cells of a tape, scans them and updates them according to a set of rules.

What changed within the last 70 years? Machines are smaller and they let people connect to each other through the Internet, which means that 'computers' (smartphone, laptops and ordinary computers) are used as communication devices, not computation devices. When the mobility was that of the machine itself, it had to happen in a protected environment, with a group of programmers taking care of it. Now that you can hold this 'protected environment' in your hand, mobility is yours, and it allows users to be part of a community.

Hackers[3] like to question technology
Lets consider machines and the technosystem that they are part of. We have at least three layers: hardware (physics), software (logics), usage (habits). The software layer itself is at least twosided: the data and the interfaces.

The separation between those layers is not only an abstract one, it's a real one. All hardware elements are not compatible. You cannot run all operating systems on every machines. You cannot run all applications on every operating systems. Some data are locked down behind specific interfaces. Moreover, our habits tightly depend on the interfaces, on

the software they run on, on the hardware that supports them.

But it's not as bad as it looks like, and some forces bring fluidity in this technosystem. The first force is the outside community: people communicating through the devices to access content. The more people communicating and willing to access content on the Internet, the higher the pressure to reach some homogeneity at the data/interface level.

The second force is the inside community, hackers who try to make the inside parts of the machines (and those of the whole technosystem) more 'mobile', able to talk to each other in a fluid way. At the hardware level, mobility is compatibility; at the software level, mobility is interoperability; from a user point of view, I would define mobility as the 'genericity' of habits[4], i.e. the fact that it is not hard to migrate from one device to another.

Children like to question themselves

So maybe the question is not 'why mobility is great for teachers' but rather: 'what mobility is important for learners?'

The outside mobility is important for practical reasons. It's nice to carry around smartphones and laptops, just as it is nice to carry around books (content) and phones (communication). But this mobility needs to be sustained by the inside mobility - the openness of the technology.

An open technological environment lets children explore it. Moreover, it can function as a 'crumple zone': when something goes wrong in the interaction between the child and the device, this interaction doesn't need to break, it can turn into an opportunity to learn something[5]. Opening the technological environment also promotes a 'deep digital literacy', one that doesn't stay on the surface of habits but reaches the core technological concepts, those that lets users reflect on their habits. Finally, an open environment is important because compatibilty and interoperability enforce genericity, and genericity is what matters the most to teachers and learners: when developing/using an educational program, you don't want to be impeded by interfaces, you want to use them to interact with powerful ideas[6] transparently.

If education aims at letting children develop their own freedom, let's make technology something they can question, especially the technology that we use to help them learn. By questioning it, children really question themselves.

OLPC: mobility trough the community

The One Laptop Per Child foundation helps developing countries to let their children use laptops as learning devices. It encourages learners to collaborate through the Sugar free software[6] platform. It helps teachers work together on computer-based lessons and imagine new interfaces. It encourages developers to open Sugar activities and contribute to them. It lets hackers to open the hardware. It encourages anyone to see himself both as a learner and

as a teacher. In general, OLPC creates new opportunities for learning communities : communities of hackers, developers, educationalists, and communities bringing all these people together.

This is possible because 'outside' and 'inside' mobility go together: our body needs freedom of movement, but so does our mind. The laptops can follow the children everywhere, thus opening the doors of the classrooms; and the children can open the doors of the laptops, making it a natural home for their ideas, a home they can share with others.

Endnotes

[1] Sugar is the free learning platform developed by the Sugar Labs community.

[2] Turing, A.M., 1936-7, 'On Computable Numbers, With an Application to the Entscheidungsproblem,' *Proceedings of the London Mathematical Society*, s2-42: 230–265; correction ibid., s2-43 (1936): 544–546 (1937).

[3] A hacker is not a pirate, it is someone passionate about technology: http://en.wikipedia.org/wiki/Hacker

[4] A versatile software is useful in many areas. An universal software is usable to everyone. I suggest to use 'universatility' to refer to the combination of universality and versatility: good software is that which is useful to many people in many different ways. This kind of software is the one that is more likely to promote a high level of genericity of users' habits.

[5] Cf. this interview of Walter Bender, executive director of Sugar Labs. Also remember Alan Kay: 'The computer interface should be a learning interface.'

[6] The expression comes from Alan Kay. In this conference, he explains and demonstrates what he means by this expression.

2.5. The Curriculum is Everything [position paper]

by Stacy M. Hardy

> *Airport sounds from a distance, blurred, incomprehensible, then suddenly loud and clear. 'Flight sixty-nine has been...' Static ... fades into the distance ... 'Flight...' Standing to one side of the desk are three men, grinning with joy at their prospective destinations. When I present myself at the desk, the woman says: 'You haven't had your education yet.'*
> William Burroughs, *My Education: A Book of Dreams*

> *Who be teacher, I go let you know...*
> Fela Anikulapo Kuti, *Teacher Don't Teach Me Nonsense*

Here are some recent projects at Chimurenga
Chimurenga Magazine: www.chimurenga.co.za
Chimurenga Library: www.chimurengalibrary.co.za
Chimurenga Library Exhibition: www.chimurengalibrary.co.za/ctlibrary_about.php
Chimurenga Library Exhibition photos: www.chimurengalibrary.co.za/ctlibrary_photographs.php

The curriculum teaches you what's going on, how to think and feel about what's going on, what used to go on and what could go on.
It teaches you who to be afraid of and who to aim to conquer.
It teaches you what you can do and what you can't.
It teaches you how to make people love you and how to sit properly in company.
It teaches you how to see and how to hear.
The curriculum is everything.
The curriculum is everything, and everything is in the curriculum.
It's hard to design a curriculum without reference to what you went through yourself at school.
Harder still if you've also been a teacher.

So, as a starting point, perhaps agree on a few familiar landmarks:
students organised in groups or working alone, moving from stage to stage in learning processes, encountering bodies of knowledge and skills that increase their ability to do something, or be 27 something. All of these landmarks can be demolished; but they would have to be replaced by others that also function creatively for the student.

Perhaps agree on a few familiar bodies of knowledge and skills:

languages, literatures, visual and musical arts, dance, computer science, carpentry, cookery, mathematics, history, natural sciences.

All of these can be demolished, etc.

Perhaps choose a model of learning structured in terms of the old craft mastery system; or one defined by values such as spontaneity, happiness, implicate order.

And a model of what is worth knowing and doing, with whom and for whom.

Perhaps name some favourite states of being that the curriculum should aim to make possible: kindness, bravery, stillness, agility, irony, curiosity...

And think about how the curriculum and the student will find each other:

face-to-face, skype-to-skype, by sms and jpg, by walking and flying,

through networks and paper, under trees and in shopping malls, in libraries and bedrooms.

In the end, start simply by asking what could the curriculum be

if it was different from the one that exists now?

if it was designed by the students who have to follow it?

if it was designed by the people who dropped out of school so that they could breathe?

2.5.1. Three components of the curriculum; and how to change them [discussion paper]

by Daniel Andler

What 'curriculum' seems to mean in Stacy's text covers three kinds of things to be learned: (a) explicit topics, listed in official programs (eg. trigonometry, literature classics, grammar...) or which should or might be (folk or home economics, searching the Web, etc.); (b) skills, knowhow, frames of mind, comportments such as speaking in turn, gaining respect, forming alliances, observing and breaking rules, which are acquired in school, whether by tacit or explicit means, or as effects of the very set-up which makes certain things do-able or think-able and others not; (c) commonsense and attitudes regarding the natural and man-made world, which are gained mostly outside school, but which interact with the formal and informal learning taking place at school.

At present, it seems to me, we have quite a bit of experiential knowledge regarding the three kinds of learning processes corresponding to these three sets of abilities, but very sparse theoretical understanding. The task of designing a whole new 'curriculum', in Stacy's extended sense, adapted to and taking full advantage of mobile devices, seems quite daunting. Shouldn't we rather devise an experimental process by which we try to deliberately teach X and Y in a given technological set-up and see what happens, what the skills and capacities other than X and Y thereby develop or fail to develop, and so gradually modify, enrich or simplify the (explicit) curriculum, as well as the technology ? The hard part would be to 'end' the experiment: When do we conclude, what do we conclude, how do we aggregate the lessons learned? Ideally we would eventually reach a stable state in which the curriculum which Stacy invites us to think (dream?)

about would turn out to be acquired by the children. We should expect the unexpected regarding the distribution of the curriculum as (a), (b) and (c) items: just like they do now, children are bound to learn a lot beyond what figures in the (strict, explicit) curriculum.

2.5.2. Curricula – things we really need. [discussion paper]
by Roberto Casati

In the '70s I underwent Latin and trigonometry, among other curriculary oddities, for reasons that have deep roots in Italian history. Trigonometry was supposed to help train prospective surveyors (fifty years earlier Italy was a mostly agricultural society). Latin was part and parcel of the education of any person of some distinction. I think that rationalizing or optimizing the curriculum is a difficult enterprise: societal forces will always intervene and eat up precious educational time. Still, I do see interesting room for improvement at the primary and secondary level; some little taught subjects may be worth giving a creative try. I think of statistics, mapmaking, and home economy (the basics about loans, interest rates, etc.) In particular, I think that the fact that these subjects are now missing or underdeveloped should open a useful space for creative approaches centered on mobile devices. Example: Class goes to a certain place, say, a dangerous intersection, a vote (1 to 5) is requested on the way authorities have dealt with the danger, votes are simple sms to a central 'statistical phone number' with a code related to the place, data is analysed in the classroom, plotted on a map, etc.

2.5.3. Natural domains for mobile learning? [discussion paper]
by Daniel Andler

Roberto has a good point, in fact, 3 good points:

1. We were taught material which in retrospect seems futile (or at least overrated);

2. We have an opportunity to put forward new areas/skills as candidates for school curricula;

3. The more in tune with the new media, the better the chances for new contents to be accepted.

His example shows the way. But, let's face it, it is a bit contrived (though ingenious, no doubt about it). The challenge then is this: Can we find robust, 'natural' domains (such as trigonometry or latin) which (a) have been ignored; (b) would be useful, fun, enlightening, character-building or otherwise beneficial for school-age kids; (c) lend themselves to mobile technology to a degree such that even conservative education policy-makers or administrators would be willing to give them a try? I can think of a pretty obvious one: photography. There must be others.

2.6. Mobile Learning for Rural Education [position paper]

by Tonny Omwansa

Introduction
As part of the Mobile and Immersive Learning for Literacy in Emerging Economies (MILLEE), this project aims to enhance access to literacy among children of school-going age in the developing world. Poor literacy remains a barrier to economic empowerment in the developing world. English learning is widely seen as a key to socioeconomic success. Fluency in English can almost be equated with membership in the middle and upper classes. More broadly, the literature, conversations conducted by the MILLEE team with development professionals in Africa, East Asia and South Asia, and further experiences in the field indicate that a large proportion of lowincome populations in these places desire to improve their command of an appropriate 'world language.' English is certainly one of these, as is Mandarin Chinese and Spanish. But even in countries where such a language is an official 'national language,' many speakers (inevitably the least empowered) have a different native language, and many regional languages (let alone dialects) are often spoken. 'World language' fluency opens the door to further education, a larger regional (or world) marketplace, to 'new economy' outsourced jobs, and often improves access to government, health and legal services.

Problem Statement and Proposed Solution
Unfortunately, government schools in developing regions face difficulties, especially with ESL (English as a Second Language). From the literature and MILLEE project fieldwork in the poorest state of India, two significant factors stand out: non-regular attendance in schools owing to the need for students to work in the fields, homes, etc., and disinterest in schoolwork owing to the perceived costs or lack of benefits of formal schooling. Another factor is the qualifications of local ESL teachers, who were often unable to communicate with us in English without interpreters.

M-Learning in Kenya
Based on this background, we have initiated research and game development and education for the Kenyan market. We are currently working to pilot with one rural school before we roll out a scaled up project with several other partners.

2.6.1. Consolidating the experience and knowledge of different groups? [discussion paper]

by Daniel Andler

This is very close indeed to projects which Dan Wagner and his International Literacy Institute at the University of Pennsylvania (www.literacy.org) have been doing in India and elsewhere, as Dan himself explained to our group (Compas: http://www.groupe-compas.net/). I think it is intellectually and pragmatically satisfying that several groups are independently moving in the same direction, coming from the same assessment of the present situation and needs. My question however is this: Shouldn't there be a procedure by which these various groups learn from one another and speed up the process by leaning on one another's experience? (Maybe there is, I just don't know). And, on the cognitive side, how can we use the experience of these different groups to try and get a deeper grasp of the processes at work and of the obstacles to overcome?

2.7. What is an exhibition? [final report]

by Ntone Edjabe, Marilyn Douala Bell, Andrea Wiarda, Katia Anguelova, Davide Fornari, Francesco Franceschi, Iolanda Pensa, Tonny Omwansa, Chiara Somajni, Marco Belpoliti, Simon Njami

We decided to use the next edition of SUD in Douala as a case study. We have tried to define the different components or ingredients that would help the event to be shaped according to the producer expectations. A couple of questions were immediately raised in order to try to draw the main lines around which to organize the reflection. On of the first statement was that the exhibition in Douala is a pretext to raise the level of awareness in the audience/ community on two levels: that of the contemporary practices and that of their environment and history. A useless exhibition would have no reason in Douala. A global definition of what an exhibition could be was proposed: a show conceived by 'specialists' with an outreach towards the larger audience regardless the social conditions. In a more theoretical level, there is a parallel between conceiving an exhibition and building archives. There are three major steps: gathering of contents, production and translation (education, display, adding value).

The gathering of contents, in the case of Doual'art, does not only consist in selecting artists but thinking globally the context, the audience and the display at the same time. There are two levels of addressing the issues involved: on a macro-level or on a micro-level. The first step of the process could, therefore, consist in using the archives as a departure point. But that process cannot be implemented randomly. It needs the mediation of a 'disc-jockey' who would provide a 'play list' that could be used by the artists and all the producers involved in the process. The archives could also help to edit a textbook that would become an educational tool. The textbook could be imagined not as a tourist guide, but as an anthropological item (Livingstone). The Livingston element leads to the necessity to think about the project as an interactive tool that could be played on different modes (tricks, cheats and play). The explanatory process should be avoided.

The exhibition is a moment in time, but it has to be considered in its full dimension which requires a 'before' and an 'after'. The notion of continuity, as well as that of repetition (the return of the same in different forms), is a key to learning process. The attention span is really important: concerning Douala or Dakar, we must 'design' the participation of people to the exhibition. Individuals, small groups, organisations (classes, associations) must be the result of a choice. Are we talking to the avant-garde or to the crowd? The exhibition is to be conveyor of knowledge and discussion. It has to occupy the public spaces and to address a

non-initiated audience. The question of digital data, not only as a tool but also as an element of display may be problematic (some people may prefer a video of a sculpture rather than a sculpture itself, but it is not enough).

The knowledge is a key element in the process. How is it produces and how is it disseminated? Knowledge is both a form a storage and a form of performance. The example of the conveyor belt could apply but there are a couple of problems in the form of transmission that it supposes. How to communicate knowledge through an exhibition in a one to one relationship? One solution could be to play with concept and metaphor (create a kind of a black market of knowledge), but, considering the targeted audience, this would not work, because that audience is in need of formal knowledge through classical tools. The also need to experience a certain level of togetherness in order to avoid passive attitudes. The exhibition should be a problem posed to everyone and to be solved. Should raise issues without necessarily giving an answer. That is where the audience can contribute in finding solutions (crowd sourcing). A playful element should be integrated.

An exhibition is always conceived and built around an audience. In Douala or Dakar, It is fundamental to include the audience as an actor and the exhibition as a process that evolves through the participation of both the producer and the viewer in a one to one relationship. The audience must not be considered like a uniform entity, but rather addressed in small groups. People will have to dedicate a moment of their life to attend the exhibition, not as passive voyeur, but as active parts of the process. Therefore we must not consider the audience as a generic crowd but as a sum of particular interest. Therefore, the audience must become a kind of a translator, because translation is in itself a learning experience and an example of knowledge acquisition.

Examples of tools that could be used:

– a quiz that would be designed for the public with a result that could be used in the process or exhibited as an element of the 'exhibition'

– electronic boards that would be displayed in the city and on which people could send messages concerning the 'exhibition' and issues raised

– a radio station (to record and display voices/witness); the example of the 'Listening Post' by artists Mark Hansen and Ben Rubin at the Whitney Museum was evoked, as or Paul de Marinis 'Rain Dance' are experiences to reflect on) with

– mapping of the invisible (the water in the city)

– recorded memories and experiences linked to water in Douala

– one platform could be the curriculum that one produces, what one has learned over a period of time ('The CV is everything').

2.8. Mobility in a suitcase [final report]

by Stacy Hardy ('The Self-Replicating case II' and the conclusion), Bastien Guerry, Roberto Casati, Sara Crouse, Tania Gianesin, Sara Annoni, Marion Louisgrand, Daniel Andler.

An approach to mobile knowledge can start from a very simple metaphor. In our group we explored the potentialities of the suitcase metaphor. Suitcases are the very symbol of mobility. The first portable typewrites were fitted into suitcases. Starting from the basic metaphor, we propose some scenarios for suitcases that could be used as instruments of mobile knowledge and learning.

The basis for the metaphor is a description of the suitcase. The suitcase is a container, it can contain ideas, objects, processes, thoughts and histories. It allows these things to travel. The suitcase is individual. Everyone packs it differently. It is contextual. What it contains depends on where you're going. It is indispensable [just ask Tonny.] The suitcase is small enough to transport. It can contain infinite possibilities. It allows for multiple narratives. So there is more than one case scenario. Here are some:

The No Man's Pursuit-Case
The story starts with an empty transparent suitcase and an empty book inside. Alice writes down an idea on the book and gives the suitcase to Bob. Bob has to (1) add something (2) explain how it helps to achieve the idea. 'Something' can be anything: a manual, a memory stick full of data, a cellphone, a magic wand, a stethoscope, a borgesian list of things, a laptop, an idea. Explanations have to be clear and concise.

At some point, either the case is full of things or the original 'wish' is fulfilled. In both cases, people come with their own transparent suitcase, gather around the original case and (1) modify the original idea, (2) grab 1-3 objects from the original case.

And the game goes on like this forever.

The self-replicating case I
The self-replicating, itinerant suitcase comes with an instruction booklet that indicates how to produce another Copy, a clone of the suitcase. The copy will then further travel and clone itself. At some point some suitcase will get back to the origin.

The project is skill-based, not conveyor-belt based (it's about producing new abilities, not about 'transmitting knowledge'). Someone should be able to instruct the new builder. the instruction is likely to happen in small groups, possibly in 1-to-1 settings. Practical knowled-

ge is circulated. An advantage of this is that each suitcase can remain in the possession of each further instructor. At some point in the process there can be an exhibit of all suitcases that get back to the original point: how much do they differ from the originals? What stories do they tell? (The instruction booklet would contain some indication of the starting point/ ending point of the process, an address.)

The project presents some challenges. Where can one find materials for the clones? (The challenge can become an essential part of the project.) The Suitcase is not expected to be a mini-object. Although many of its functionalities can be packed into an item the size of a Smartphone, it is important to consider the dramatic impact of a large object that can be displayed and manipulated. Scenographic effects are to be taken into account.

The self-replicating case II
The self replicating Suitcase is self replicating. Teaches you to make a suitcase.
It demands you develop hard skills and patience
It teaches imitation as the first step towards creation (nothing is created in a vacuum)
It comes with a history but provokes individualization
It allows you to imagine other Case scenarios
To make the Suitcase you need and want
It teaches you to identify your needs and wants
Self replicating suitcase belongs to the gift economy
It insists you pass it on
It provokes new friendships and builds a suitcase community
It can be given to artists it is a starting point for an exhibition
It comes with a narrative
It invites you to share your own story
It teaches you the narrative possibilities of inanimate objects
It opens up economic opportunities allows you to open a suitcase business

What I Know Is Africa
A traveling yet permanent exhibition around schools in Africa. It fits into a suitcase. The existing content for the exhibition (at its launch) is media-rich content on the cities that we have discussed. This requires a person to transport it (this could be someone's very job, or it could be done by a volunteer network of teachers, based on trust/good will of people who carry it). The student is both a learner and a participant. He/she has the ability to shape the interaction between the elements of the exhibition and change them for the next learner/ participant who can choose how they wish to participate depending on whether or not there is connectivity. The suitcase contains devices that send and receive: a laptop, a notebook, a pen, a recording device, a camera. The student can participate by using the devices to simply

record something they learned in school, that they feel might be informative and educational for others to know. The student can start something new (i.e. an article) or add to something already existing. The suitcase carrier is then responsible for digitizing or uploading any content that has not been added online.

We register some keywords/phrases that oriented our reflection:
Discovery / The product of many authors / Not tied to financial gain / Collaborative / Educational / Provider / Accepting feedback and participatory / Iterative / Distributable / Can be localized / Customizable / Can be disseminated at-large / Can be adopted / Translatable into different contexts / Cross-cultural.

The Wikit
The content of the case:
  1. a mobile phone
  2. a music player
  3. one recipe of your favorite food and drink
  4. the scent of the town (the city smell)
  5. one map of the town (might be on the mobile)
The shape of the case: it's a bodycase that has to be wearable.
The material of the case: textile or fibers of the place, sustainable and recyclable.

Urban Transformations in Dakar (exhibition)
A suitcase for children, two types:

A suitcase for visit

Child action	Object
Be comfortable	Socks (No shoes, but socks)
Ask questions, give answers	A "why space" (1)
Create events	Interactive floor map / Kit for creating a map
Leave a trace	Materials for drawing
Be surprised, arise / possess magical objects	Magic kit (2)

(1) white wall to write on it; mobile phone number for sending free SMS (a screen will display the SMS immediately).

(2) magic wand, laser pointer, instruments for interacting with the exhibit's interface, pen for drawing on touch table.

A Suitcase for going out and back

Child action	Object
Make questions, give answers	A "why card"
To search (catch the world)	Searcher kit
...	...

(3) cell phone (it's not in the kit, but every child have one mobile phone to recorder urban images and sounds), box and plastic mini-bag to take "urban archeological objects", sheets to catch textures.

Art and community

The suitcase contains: a pen, a notebook, a XO laptop, sensors (temperature, light, humidity), a microphone, a movie camera, a projector, a radio broadcasting system. The first project is a workshop letting autistic children use a XO to express themselves through various media: drawing (by hand and through the Paint activity on Sugar), recording their voices, playing music, taking pictures, shooting small videos (either with the XO or the movie camera).

The second project would be about using sensors as a way to create either a performance or an installation in a public space, e.g. An artistic and pedagogical exhibition about water: the sensors 35 would track people's movements (by temperature, visual moves, noises) and computers would send visual or auditive feedback.

The third project, taking place in a rural context with illiterate people, would use the suitcase to let adults from two villages aware of the risks upon oceanic environment (like mangrove plantations). The suitcase will be used to record testimonies of people, collect scientific data, project pictures, and record interventions from the final conference.

Scenario Exquisite

The pedagogical suitcase (PS) contains a fixed part, a semi-fixed part, and a variable part:
– the fixed part comprises a set of technological tools, some fairly state-of-the-art and possibly costly, such as [see Bastien's list]
– the semi-fixed part comprises a set of software, databases and low-tech devices, suited for the needs of the user
– the variable part is the complex chronicle of the use of the suitcase: the initial instructions, modified and augmented by the user; the recording of the major events in which the suitcase was used; the logbook; the musings of the user(s) about future uses, significance etc. of the suitcase – technically speaking, it is a multimedia memory, with the usual displaying, indexing and search apparatus.

Each PS is an individual object with an internal self-representation.

A number of new-born identical PSs are produced and distributed at the beginning : PS1, PS2, ..., PS50 (let's say). Users 1, 2, ... 50 get a hold of their respective baby and customize it by determining the semi-fixed part of the baby. Each user then deploys her individual PS, whose memory is loaded with the experience; it may also occur that the semi-fixed part gets modified along the way: useless stuff is discarded, some stuff is added, some is updated or replaced by something better.

At the end of a predetermined period (eg: 1 year), each PS is handed on to the next user on the list: PS1 goes to user 2, etc., PS50 goes to user 1. The modifications and enrichments of the semifixed and variable parts do not aim at preserving the past, so that user 2 may well discard or overwrite stuff passed on by user 1. So that each user can keep a record of their experience, a full description of her machine at the moment she passes it on is uploaded in a Central Archive.

As a refinement of the procedure, one could clone a PS at the end of a period, and hand on each clone to 2 (or more) different users. PS1, for example, would give rise to PS1', PS1 would then go to user X and PS1' to user X'.

On top of this, we could have a process of Darwinian selection (blind or reflective): relatively uninteresting PSs would be eliminated (in fact, rebooted or re-initialized). The most successful PSs would be cloned. Even better: instead of plain cloning, we could have reproduction with (blind or guided) modification.

Conclusions
One can object that laptops resemble suitcases, so why not use laptops instead? Or even smartphones? The answer is that the suitcase allows for some visual and manipulation modularity. You can take objects out of it. A much too compact suitcase may be a problem. You may want to have different objects at hand, not a single iPhone-like object.

Pick the case you want from the luggage rack.

2.9. Time-Warped Maps: Mapping the mental image of a city through travel distances [final report]

by Jane Battersby, Yann Kandelman, Dario Taraborelli (based on contributions by: Maria Emanuela Adinolfi, Jessica Colaço, Daniel Kayiwa, Chiara Somajni)

Introduction to the map

This position paper emerged from discussions around the challenge of mapping a mapless city. Given a blank slate on which to draw, how does one create a map which serves the need of the local population? What is the most appropriate means to make the city readable? Working with unmapped spaces provides a scope for thinking differently about how to represent the city. A traditional street map is useful for creating a ërational' view of a space and is the most common form of mapping. However, the reality is that people do not experience the space in true geometry. The functional mental map the people carry with them is determined by both their experience of place and the visual representations on which they draw (Lynch 1960). The present proposal intends to draw both the experience of individuals in the city to produce the map, and to use the map to produce a more readable city. The actual physical layout of a city or the geographic distance between landmarks may be irrelevant to capture the properties of the shared mental map of a city, that is shaped by a variety of social factors (Vertesi 2008). The ways in which people negotiate space is mediated by time, which is fundamentally shaped by mode of transport. Janelle (1968) noted how advances in transportation technologies had altered the times and costs of travelling, effectively bringing places closer together as travel time between these places was reduced. This time-space convergence model provides an entry point for examining how people actually use and understand the urban spaces that they occupy. This project aims to provide a representation of 'real' distances in the city according to different modes of transport. Using fixed reference points and collected travel times of journeys we can create a time-dependent map of a city for display in the exhibit. The map within the exhibit will be interactive and will distort according to travel times across the city using different modes of travel. This project has two outcomes with two distinct objectives and target groups.

The map as an exhibit

The map itself will function as an interactive resource that distorts according to travel times between points using different modes of transport at different times of the day and from

different starting points. It is also possible that snapshots from the distorted map may be used as a poster for the exhibition to draw attention to the themes of mobility, urban transformations and technologies.

Within the exhibit the map will be used to draw attention to the differential access to urban spaces in the city, by demonstrating the distorting effect of mode of transport of experience of distance, drawing on Hagerstrand (1976)'s ideas of 'Time Geography'. Time should be seen in this light as a resource that people draw on, but also as a resource whose access is mediated by authority and a variety of social constraints. This is particularly important in societies characterized by social inequalities, as in these societies the choice of transport modes (and their effects on time as a resource) is likely to be determined by social position. The present proposal aims at understanding how the mental image of a city changes as a function of travel distance time and how this in turn is affected by a number of social phenomena. This demonstration of differential access may ultimately change citizens perception about the relationship between places and the meta-geography of the city.

The map as an artefact
After the exhibit, versions of the map will be produced as hard copies that can be used by citizens to direct the most efficient routes through the city according to their transportation capacities. It is also possible that an electronic version may be available, which would allow people to submit their starting point and destination and receive guidance on the best route via their mobile phone.

Making the map
In order to map a city with limited formal cartographical materials available and with focus on travel distances, this project proposes to use crowd-sourced data generated through cell-phone technology. Google Earth will provide a base map that we can use to trace key routes from which to run the distortion exercise. The distorted map itself will be produced from crowd-sourced data generated by research participants who will identify/tag places and submit travel time data.

Tagging places
The first prerequisite to implement this project is to assign unique identifiers to locations who are perceived by users as relevant landmarks for travelling purposes. We propose that this task should be crowdsourced by allowing users to visit a location and request to a central server a unique identifier for this location. The next challenge is for each unique identifier to be shared and easily accessible to other participants.

Submitting travel time data

Each time participants travel across the city they will submit to the central server information about their travel, i.e. the departure location and time, the arrival location and time and the transport means (bus, minibus taxi, bicycle, walk, private care).

Recruitment of participants

Recruitment strategies need to be developed in order to reach a critical mass of participants needed for identifying/tagging place and submitting travel time data. It will be necessary to create awareness of the project and incentivise participation. We therefore propose a promotion campaign to be launched using local community radio (e.g. Bush Radio in Cape Town - www.bushradio.co.za), local commercial radio stations, local print media and through local higher education institutes. Where possible Facebook and Mobile Instant Message (e.g. chat rooms in MXit) will be used. We aim to encourage participation through framing the project as a social game (e.g. a Facebook application or MXit game) in order to support viral diffusion among potential participants.

Once participants have been recruited it will also be essential to incentivize data generation. These may be tangible benefits such as free bus transport, free airtime credits, food vouchers etc. There may also be social rewards, such as publishing rankings of top contributors. This would both incentivize continued involvement and would draw attention to the project.

If participation is incentivized through both tangible and intangible benefits, it will be essential to develop means to maintain the integrity of the data. There is a danger that people may submit partial or false data to qualify for benefits, thus leading to poor and misleading data.

Technical aspects

Participants will generate and submit data via cell phone technology. Once the Points of Interest (POIs) have been identified and tagged with unique IDs, participants will be able to travel via various routes and send the data for collection to a central server. The participants will send an SMS (or MXit message) to a short code with their first POI ID and their mode of transport. On reaching their second POI they would send a second message with the POI's ID. Given that messages are automatically time stamped, the server will be able to compute the travel time and produce data for the map.

For those with higher technological capacity it will be possible to have a GPS-based version of the data collection exercise. This will involve some basic training for participants on geo-coding techniques using Open Street Maps and Google Map Maker. The GPS enabled phones are able to geo-code locations and transmit this information using GPRS/EDGE/3G. A custom mobile application for a smart phone could then be created to collect data on depar-

ture and arrival positions, mode of transport and server time-stamps on departure and arrival.

The actual production of the map will be based on the grid-based cartogram approach used by the WorldMapper website (Henning et al 2009).

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3. List of participants

3.1.   Participants

Tuesday October 6th 2009
Presentations – Roberto Casati, Marilyn Douala Bell, Simon Njami, Iolanda Pensa
Discussants – Maria Emanuela Adinolfi, Daniel Andler, Jane Battersby, Jessica Colaço, Sara Crouse, Davide Fornari, Francesco Franceschi, Tania Gianesin, Bastien Guerry, Stacy Hardy, Yann Kandelman, Marion Louisgrand, Tonny Omwansa, Chiara Somajni, Dario Taraborelli.

Wednesday October 7th 2009
Presentations – Daniel Andler, Sara Crouse, Ntone Edjabe, Stacy Hardy, Marion Louisgrand
Discussants – Sara Annoni, Jane Battersby, Roberto Casati, Jessica Colaço, Roberto Di Puma, Marilyn Douala Bell, Davide Fornari, Francesco Franceschi, Tania Gianesin, Bastien Guerry, Yann Kandelman, Daniel Kayiwa, Lucio Lazzara, Simon Njami, Tonny Omwansa, Iolanda Pensa, Chiara Somajni, Dario Taraborelli.

Thursday October 8th 2009
Presentations – Jane Battersby, Marco Belpoliti, Bastien Guerry, Dario Taraborelli
Discussants – Daniel Andler, Katia Anguelova, Sara Annoni, Roberto Casati, Jessica Colaço, Sara Crouse, Marilyn Douala Bell, Ntone Edjabe, Davide Fornari, Francesco Franceschi,Tania Gianesin, Marco Guadagnino, Stacy Hardy, Yann Kandelman, Daniel Kayiwa, Marion Louisgrand, Simon Njami, Tonny Omwansa, Iolanda Pensa, Chiara Somajni, Andrea Wiarda.

3.2. Biographies

Maria Emanuela Adinolfi
Title: Fund Raiser & Marketing Manager; Affiliation: lettera27 Foundation

Maria Emanuela Adinolfi has directed entrepreneurial projects in the art, publishing and training sectors. She is communication consultant for political campaigns and politicians. She has collaborated with: l'Espresso, where she dealt with the conception and organisation of convention on training; Class Editore, dealing with editorial marketing; Giunti of Florence, where she directed an online editorial project on art; Federico Motta, where she was responsible for foreign editions; some Milan art galleries and Hill&Knowlton. She is a specialist in corporate communication and marketing, politics and art.

Daniel Andler
Title: Philosopher, University Professor; Affiliation: Ecole Normale Supérieure (ENS)

Daniel Andler is Professor of Philosophy at the University of Paris-Sorbonne (Paris IV), a member of the Centre Cavaillès at the Ecole Normale Supérieure in Paris (ENS) and the former director of the newly founded Department of Cognitive Studies of the ENS.

Katia Anguelova
Title: Independent curator and writer; Affiliation: lettera27 Foundation

Katia Anguelova has a degree in History and Theory of Culture at the University of Sofia and afterwards moved to Paris, where she attended DEA and the first part of a Ph.D. at EHESS. In 2003-2004, she attended the Curatorial Training Programme at Magasin-CRAC, Grenoble, France. She has been working as assistant-curator for Manifesta7 in Trento, Italy. Currently she is working as associated curator at Isola Art Center in Milan and as curator for WikiAfricaArt for the lettera27 Foundation, Italy. She is also working on the opening of Kunstverein, an art initiative in Milan. Katia Anguelova has curated and co-curated various international projects.

Sara Annoni
Title: Communication and partnerships expert; Affiliation: lettera27 Foundation

Sara Annoni collaborates with lettera27 for facilitating the Mobile A2K communication and partnerships. Multimedia designer and project manager, after graduating in Multimedia Communication at the Politecnico in Milan, Sara Annoni joined the Bondardo Comunicazione, an agency of marketing and cultural communication, where she worked from 2002 to 2006. Here she specialized in strategic communication and partnership between companies and cultural institutions, special projects and media relationships for culture.

Jane Battersby
Title: Lecturer in Urban Geography; Affiliation: African Center for Cities

Jane Battersby is the lecturer in Urban Geography at the Department of Environmental and Geographical Science at the University and is associated with the African Centre for Cities, Cape Town. As an urban social and cultural geographer her main area of interest is the linkage between spatial and identity transformations in post-apartheid urban areas. She has approached this theme through the lenses of youth popular culture, education and land restitution.

As the Cape Town coordinator for the African Food Security Urban Network, she has an interest in food insecurity in urban areas and the role of urban governance in enhancing food security. A final area of interest is the extent to which Southern research experiences and practices can inform Northern research, conceptually and politically.

Marco Belpoliti
Title: University professor and writer; Affiliation: University of Bergamo, Riga

Since 2000, he has been a professor of Sociology of Literature at the University of Bergamo. He edited the Complete Works of Primo Levi for Einaudi (1997). He is a contributor to various newspapers and magazines including the culture supplement to 'Il Manifesto', 'Alias', 'La Stampa' and 'L'Espresso'. Belpoliti has published short stories and novels and has taught at the State Institute of Art in Monza. In 1991, he founded the journal 'Riga', and is still its co-editor, with Elio Grazioli. Marco Belpoliti is member of lettera27 Founders Committee.

Roberto Casati
Title: Senior researcher; Affiliation: Centre National de la Recherche Scientifique (CNRS), Ecole Normale Supérieure (ENS)

Roberto Casati is co-curator of Mobile A2K. He is a tenured senior researcher with the French CNRS at the Ecole Normale Supérieure in Paris. He has taught at several universities in Europe and US. He is the co-author of Holes (MIT Press) and the author of Shadows (Vintage), translated in eight languages. He is working, with psychologist Vittorio Girotto, on a book on Creative solutions, and is one of the participants in the Liquid Publications project. Roberto Casati is member of lettera27 Committee of Experts.

Jessica Colaço
Title: Researcher and Mobile Technology Evangelist; Affiliation: SRCC - Strathmore Research and Consultancy Centre

Jessica Colaço currently works as survey manager and technology consultant at the NGO Assessment and Mapping Studies and as principal researcher and mobile technology evangelist at Strathmore Research and Consultancy Centre. In the past she has been working as survey manager at WOCCU-World Council of Credit Unions and as program coordinator at Nairobi Facebook Developer Garage.

Sara Crouse
Title: Head of Partnership and Foundation Relations; Affiliation: Wikimedia

Foundation Sara Crouse is the Head of Partnerships and Foundation Relations (since July 2008). Sara has several years of fundraising experience. She spent the last 5 years in various positions with Cambridge in America: the most recent as Associate Director of Research. In that role, she identified and researched donor prospects, worked on cultivation strategy and worked with volunteer leadership and supporters to advance Major Gifts efforts. Prior to Cambridge in America, Sara worked for RKO Pictures and TransPerfect Translations. Sara also worked in special events for the Guggenheim Museum in New York. She holds an M.A. from New York University and a B.A. from Georgetown University.

Roberto Di Puma
Title: VP Special Editions; Affiliation: Moleskine

Roberto Di Puma is vice president of the special editions and publishing of Moleskine, a communication society dedicated to the development of the Moleskine products. He has provided consultancy assistance and management expertise to several areas: tour and travel merchandising, publishing. He is fundraiser and treasurer of the lettera27 Foundation.

Marilyn Douala Bell
Title: President of Doual'art; Affiliation: Doual'art

Socio-economist, Marilyn Douala Bell Schaub is co-founder and President of Doual'art, a cultural organisation based in Douala, Cameroon. Since 2000 she has been in charge 43 of urban participatory development policies for the decentralised co-operation of the French Alsace Region; since

1994 she has been collaborating as an international expert in urban and rural development with the Swiss co-operation (DDC), the World Bank (GREA), the European Commission (PPDR-FED) and the German co-operation (EED, GTZ).

Ntone Edjabe
Title: Journalist; Affiliation: Chimurenga magazine

Ntone Edjabe is a deejay, writer and founder of Chimurenga, a journal of writing, art and politics. Also member of the Heliocentrics scheming duo and co-curator of the Pan African Space Station (with Neo Muyanga); co-editor of the African Cities Reader (with Edgar Pieterse); co-founder of the Fong Kong Bantu Soundsystem.

Davide Fornari
Title: Researcher and executive director Mobile A2K; Affiliation: lettera27 Foundation and SUPSI

Davide Fornari is the executive director of Mobile A2K. He is a researcher at SUPSI, University of Applied Sciences and Arts of Southern Switzerland in Lugano. He is a PhD candidate of the Design Sciences programme at University Iuav of Venice, with a thesis on humanoid interfaces. Honour degree in Architecture, master of Art and Culture Management, he studied at University Iuav of Venice,

ETSA of Barcelona and Museo di arte moderna e contemporanea di Rovereto. He is a junior member of AIAP, the Italian Association for Visual Communication Design, and a member of LISAV, the International Semiotic Laboratory in Venice.

Francesco Franceschi
Title: Entrepreneur; Affiliation: lettera27 Foundation

As entrepreneur and publisher of Moleskine, he conceived and developed a cultural project, specializing in transferring elements of identity-based narrative onto objects of everyday consumption, transforming them into innovative instruments of communication. He is now taking on the challenge of transforming the experience of a for-profit social network into a non-profit channel of solidarity. He is the chairman of the lettera27 Foundation.

Tania Gianesin
Title: Consultant and project manager; Affiliation: lettera27 Foundation

Tania Gianesin is coordinator, project manager and board member of lettera27 Foundation. She will coordinate the gathering and guarantee its preparatory work, its proper implementation and its follow up.

Marco Guadagnino
Title: Teacher and researcher; Affiliation: University of Rome Sapienza and lettera27 Foundation

Marco Guadagnino teaches and carries out research on ICT, International Development and Migrations at the University of Rome Sapienza. He is also a Ph.D. candidate in African Studies at the University of Naples 'L'Orientale' conducting research on 'The role of new technologies in transnational migrations from sub-Saharian Africa'. He has worked for several years in the field of development cooperation, mainly in the area of education, public health and new technologies in Europe, Africa and Latin America. He is project manager of the project Confini (Borders), supported by lettera27 Foundation.

Bastien Guerry
Title: Ph.D. candidate; Affiliation: Ecole Normale Supérieure (ENS)

Bastien has graduated in cognitive science. He worked for the One Laptop Per Child foundation, helping with the deployment of the '100quot', laptops in Haïti back in 2008. He co-founded OLPC France, a french NGO dedicated to help France and french-speaking countries use these ICT resources the best way possible. He is also active in Sugar Labs, the foundation developing the free software Sugar,

a learning platform for primary school.

Stacy Hardy
Title: Artist and writer; Affiliation: Chimurenga magazine

Stacy Hardy is writer and artist based in Cape Town. She is a contributing editor and researcher at Chimurenga magazine. Her writing has appeared in various publications and journals including Chimurenga, Donga, Sweet magazine, Litnet, Pocko Times, Art South Africa and Ctheory. Her short stories have been included in numerous anthologies, books and catalogues, including Pieter Hugo's Messina/ Musina (Punctum Editions, 2007), One Million and Forty-Four Years (SMAC Publishing 2007) and in World One Minutes Video & Literature (One Minute Foundation, 2008). Her short film, I Love You Jet Li, created in collaboration with Jaco Bouwer was part of the transmediale.06: video selection, Berlin and was awarded Best Experimental Film at the Festival Chileno Internacional del Cortometraje de Santiago 2006. She has just completed a new opera libretto in collaboration with Soweto-based poet Lesego Rampolokeng.

Yann Kandelman
Title: Audience Partnership Director; Affiliation: Orange

Yann Kandelman has been marketing director at Warner Music, product manager at EMI Music and member of the e-business team at Philips. He is currently working as audience partnership director at Orange and as audience business developer at France Telecom.

Daniel Kayiwa
Title: Software Developer; Affiliation: Makerere University

Daniel Kayiwa is a software developer in the Department of Innovations and Software Development under the Faculty of Computing and IT in Makerere University, based in Kampala, Uganda. He has been part of the development of a number of open source projects including: Mobile HRS: A PDA based solution for collecting data in Demographic Surveillance Sites; EpiHandy: PDA and Cell phone based data collection and analysis set of tools for any kind of data. www. openxdata.org; OpenMRS Mobile: Cell phone data based collection tool for OpenMRS using the OpenMRS Xforms module. www. openmrs.org; PurcAI Mobile: Mobile application for teachers to record student marks using their cell phones, and querying students' processed results using SMS; OMEVAC: Mobile data collection set of tools for clinical trials which is supposed to link with OpenClinica.

Lucio Lazzara
Title: Graphic Designer; Affiliation: Zetalab

He is a graphic designer, founder of Zetalab, Milano, a group that develops projects on brand design, communication design, video, arts and teaching. He is also promoter of the cultural organisation Ministero della Grafica.

Marion Louisgrand
Title: Director; Affiliation: Kër Thiossane

Marion Louisgrand is the director of Kër Thiossane, a media art centre with an artist-residency programme, based in Dakar since 2003. The aim of Kër Thiossane is the integration of multimedia in artistic practices (music, dance, theatre and visual arts) and the culture of open access, numeric creation through computer science and communication technologies. She coordinated also AfroPixel, the first African Digital Art Festival, during the Dakar Arts Biennale in May 2008.

Simon Njami
Title: Writer and independent curator; Affiliation: Artistic Director of the SUD-Salon Urbain de Douala 2010

Simon Njami is an independent lecturer, art critic, novelist and essayist. He is co-founder of

the cultural magazine Revue Noire and his publications include essays in the catalogue for the Sydney Biennale and other exhibition catalogues. Njami has been the artistic director of the Bamako Photography Biennial and he was co-curator with Fernando Alvim of the first African pavilion at the 52nd Venice Biennial, in 2007. He has curated numerous exhibitions of African art and photography, including Africa Remix and the first African Art Fair, held in Johannesburg in 2008; he is the artistic director of the SUD-Salon Urbain de Douala planned in Douala, Cameroon in December 2010 and promoted by Doual'art.

Tonny Omwansa
Title: Lecturer; Affiliation: Strathmore University

Tonny Kerage Omwansa lecturers at the Faculty of Information Technology at Strathmore University in Nairobi, Kenya. He holds a B.Sc. in Computer Science from Nairobi, Kenya and M.Sc. in Computer Science from Kansas, USA. Besides consultancy in technology issues, he has conducted extensive research in Mobile Transactions in Africa and published various reports including use of airtime transfers, mobile banking, virtual currencies as well as regulation of mobile transactions. His research interests are in mobile transactions, socio-economic impacts of 46 information technologies in emerging economies and the role of technology in regulation. Mr. Omwansa is currently pursuing a Ph.D. emphasizing the economics of technology with a bias in technology for regulation and the socio-economic impacts of technology in developing countries.

Iolanda Pensa
Title: Art critic and researcher; Affiliation: lettera27 Foundation

Iolanda Pensa is the curator of Mobile A2K. Art critic, researcher and cultural producer, she is scientific director of WikiAfrica for lettera27 Foundation. Founding and board member of iStrike Foundation, she worked as a freelance consultant for Doual'art and the Africa Centre; she collaborated with EHESS, Multiplicity and several Italian and international magazines.

Chiara Somajni
Title: Journalist; Affiliation: Il Sole 24 Ore

Chiara Somajni is an Italian journalist living in Milan. She works for the daily news paper Il Sole 24 Ore and its culture and lifestyle monthly magazine Ventiquattro, with a special interest for the creative and social use of digital technology. She has taught arts and technology at Bocconi University, and has edited two books by Matteo Motterlini on neurosciences and economics (Economia emotiva and Trappole Mentali, 2008). She is involved in ActionAid International, for which she is the chair of the Italian board.

Dario Taraborelli
Title: Post-doctoral Research Fellow; Affiliation: CRESS, University of Surrey

Dario Taraborelli is a postdoctoral fellow at the Centre for Research in Social Simulation, University of Surrey, with a background in philosophy and cognitive science. The focus of his current research is on processes driving Web-based knowledge acquisition, belief formation and trust as well as on factors that determine the viability of online communities, in particular online social networks. He has a broad interest in several aspects of human cognition. He has been working in particular on cognitive modularity, visual perception and on the relation between action and perception.

Andrea Wiarda
Title: Editor; Affiliation: A Prior Magazine, Kunstverein

Andrea Wiarda studied History of Art at the University of Am-

sterdam and Visual Arts Administration at the Royal College of Art, London. Since 1999 Andrea Wiarda is editor of A Prior Magazine, a series of publications of Contemporary Art published in Belgium. She was curator of Looking Glass, an alternative exhibition space in Brussels and has curated exhibitions in Belgium (Fractals, Tielt, 2002), The Netherlands (Wunderland Unframed, Stedelijk Museum Bureau Amsterdam, 2004) and recently in Milan, Italy (Suitcase Illuminated#6 Effetto Tunnel, Jos de Gruyter & Harald Thys, Kaleidoscope, Milan, 2009). Andrea Wiarda is currently collaborating on establishing Kunstverein, a new arts initiative in Milan.