



## EDITORIAL

'Who knows tomorrow' is not only an oft-cited wise saying, but it also provided the title of an art project in Berlin this summer that hosted a number of internationally acclaimed African artists. Their works addressed the connections and correlations between Africa and Europe and revealed once more that the westerners' claim to a universal value judgement towards the rest of the world is not only unjustified, but also impossible to maintain.

With this impression still fresh in my mind I traveled to Africa in September to participate in the first Barcamp in Ethiopia. The attempt to apply an event-program over there, that had originated under the sunny skies and in the software industry's palaces of California, seemed questionable to me at first. However, I soon discovered that it was more about the methodological issue of working and learning collaboratively. This, in turn, corresponded to my understanding of the complexity of the important concerns of our times: Our position within and towards the whole. Or, as I recently read: "From I to the intelligent We". And in this spirit I wish you an exiting and critical viewing of this short documentation.

# Berlin, November 2010



## THE MAKING OF **BARCAMP ETHIOPIA**

by Jörn Schultz

Ethiopian institutions of higher education are full of young people eager to advance and develop, to make something of themselves, for themselves and for their community. Under difficult conditions, they strive to recover lost ground and catch up with the global academic world. Ethiopia of today represents a complex environment – a society partly locked in structures, traditions and religious establishments that have existed and grown over thousands of years – a culture where everyone and everything has a predetermined position, where important things don't and shouldn't change. While on the other hand, new influences from abroad have seeped in gradually and ever more massively in the latest decades with concepts like "globalization", "economic growth" and "modern mass-communication" representing the current influential paradigm. Consequently, the reality in which students and teachers live and work today promises them a lot while at the same time holding them back.

## Background

Cradle of humanity, nation of three thousand years

Average Ethiopians of today live in simple mud-huts without access to electricity, good education or modern health services. They spend most of their waken time tending to cattle, cultivating small pieces of land or doing household family shores at home. Men know their role, women have their duties and children do as they are told. Well more than half of adult Ethiopians still don't know how to read or write and have seldom travelled beyond the nearest local town. This describes the majority of Ethiopian society today, as it has been for thousands of years. Meanwhile, Addis Ababa now hosts a

neighbourhood play-station centres and pre-paid card sellers at every street-corner. With a few year's delay, new developments spread from Addis to the regional capitals of the country and on to the smaller towns. Thirty years ago, Ethiopia's population measured 40 million, currently it has around 85 and will within the next decade well exceed 100 million persons, most of them young. Ethiopia is also among the world's largest recipients of foreign aid. The only opportunity for Ethiopia to advance and grow its economy beyond mere coffee export will be through developing its human capital. Therefore, lately the country has seen an important push for education. The rate of primary school attendance has risen from 30% in 1980 to 45% today and ever more students reach higher education maturity with the hope of continuing on to a University degree. In University though, academic staff earn an initial salary of 150€ per month provided they hold a Master's degree, with the prospective of earning up to around 300 € per month before retirement (administrative staff earn far less). This means that many University teachers need an additional job to be able to support themselves and their families. In general, they receive no or little pedagogical training, have poor access to reference materials and are assigned their courses when semester has already started, leaving them no time to prepare. Laboratories are poorly equipped and few know how to actually use the available equipment. Students live in dormitories on campus, four to a room, often without running water or functioning sanitary facilities close by. They are taught by teachers who often have no practical experience of what they are teaching and in many cases only recently achieved a bachelors degree themselves. Often, class is cancelled without previous

3D cinema, night clubs with modern

satellite TV, internet cafés, improvised

sound equipment playing interna-

tional pop-music, shopping-malls,

notice and power cuts are frequent. The amount of new students taken in is continuously increased at an enormous rate without facility and faculty development keeping pace. Now, how can students and teachers excel to develop their country under these difficult conditions? How can be prevented that they after a few years not simply give up emotionally and become a part of the problem instead of contributing with solutions? How to prevent that they not just leave and try their luck in a different environment? Why should a teacher or a student or anyone else care about anything but his or her personal short-term benefit? These questions are basic when trying to improve education in Ethiopian Universities and they formed a large part of the background to Barcamp Ethiopia.

#### Time of Change

Leave way for the Cheeta Generation

Ethiopia's great tradition has been based on stability, continuity and political loyalty. Foreign invaders were countered by unified forces gathered from all parts of the nation. Likewise, any local innovator has always been working against a majority striving to maintain the status quo. Stability and continuity have well served Ethiopia as an independent nation, but have also kept the country behind in international competition. Today, Ethiopia is no longer independent from the rest of the world and can no longer ignore its pace of development. To tackle challenges, to develop sustainably and to participate in today's global knowledge and service economy, Ethiopia needs a different approach: It needs to foster innovative entrepreneurs - individuals who take risks, assume responsibility and adapt their strategies by continuously updating their knowledge and skills. Therefore, young Ethiopians who are still curious and have a vision need encouragement and inspiration to develop. They need to enjoy the personal experience of actually

ate context and to influence their long term destiny. A person can be told this, but will not understand it until he or she has the opportunity of first hand experience. Digital media and tools carry a huge potential to help bring about this change in higher education. By applying ICT in the right way, many developmental stages can be skipped and large costs can be saved. Some keywords being: Open educational resources, localized content, mobile & around the hour access to learning, interactivity, online simulation, networking and online publication. Yet it is far from easy to reap the benefits of ICT, especially in a context like Ethiopia: You need a continuously functioning basic ICT infrastructure, ICT literate teachers and students, a changed pedagogical approach, new systems of incentives and assessment. And, most of all, you need the motivated contribution of every stakeholder within the University, which implies that they know what is to be gained in the first place. The end result can mean active, student centred and practically relevant learning. But what motivation is technology alone to someone who doesn't understand how to use it or of what use it can be? Barcamp represents a method for informally gathering people around a common topic of interest for collaborative learning and experience sharing. It assumes that we can learn best from each other in an unstructured, non-hierarchical, active and immediate environment. In a Barcamp, everyone is equally important and free to contribute to the extent and in the way that he or she wants. The final event is thus uniquely shaped by those individuals who decide to participate. While the concept of Barcamp is relatively new, it has already been implemented successfully thousands of times in different contexts throughout the world during the past half decade. Barcamp is the most basic and simple it can get: People joining

to some extent having the power to

take charge of their own immedi-

together to do stuff that is meaningful to them. It symbolises new pragmatic thinking and acting of this generation, based on the principles of open source and collaboration. Barcamp Ethiopia was to be a practical experiment targeted at letting young Ethiopians experience that they can develop better within their own country, community and institution if they voice their mind, collaborate, share and stay true to their convictions. It was also an attempt at demonstrating practically how ICT can be a useful tool for anyone who wants to achieve something and to show that learning should be active, engaging and fun!

## Preparing Barcamp Ethiopia

Out of an idea grew a community

Our Barcamp started out as an idea in a discussion between colleagues of the on.e | eCapacity Development Department in the Ethiopian Engineering Capacity Building Program (ECBP) sometime in march of 2010. It is not clear how many actually understood the concept at first, but based on the members' curiosity to try something new and their promises to contribute, we all decided to give it a go. The date was set to 17th–18th September, during summer break between the Ethiopian New Year and the Meskel holiday. As a venue, the campus of the newly inaugurated Ethiopian Institute of Architecture, Building Construction & City Development (EiABC) in Addis Ababa was selected, with quaranteed great support from their management and students. The next step was to activate more participants. As part of our trainings in different Universities across the country, we included short announcements and introductions to Barcamp and we created a virtual discussion group in our online community of practice, "eLearning Ethiopia" (elearningethiopia.ning.com). Step by step, tasks were distributed and performed, such as to create a logo, search for and contact sponsors, collect pro-formas for catering,

materials and entertainers, arrange accommodation and transport, design posters, banners and flyers and many more. No one was an expert in arranging or promoting events initially, most had never been involved in anything of the sort, but everyone learned by doing. A further point was to identify potential sessions-hosts. The amount of topics discussed beforehand was actually many times larger than the ones that ended up being hosted, while many of the final topics were still unknown to most of us beforehand. We agreed to focus the contributions to the event through an official motto: "New Learning, New Thinking, New Behavior", inspired by a citation of author Clay Shirky: "Revolution doesn't happen when society adopts new technology, it happens when society adopts new behaviors". While ANY topic was welcome, Barcamp Ethiopia was to host several ICT topics but focus on their social implications rather than on technical details. Slowly, a community started to form. Around a handful of very responsible and active planners and doers, others gathered, asking how they could contribute and what their role could be? The group of engaged participants eventually included students, teachers and IT-personnel from Universities, employees of NGOs, government institutions and civil service and private colleges, as well as members of the private sector. The Barcamp wiki site (barcamp. org/barcampethiopia) served as our collaborative platform for collecting and editing all information. Informally, participants, many for their first time, learned how to apply web based collaborative tools to achieve their objectives. For instance, well over a hundred persons managed to sign up for free accommodation by editing the wiki. A Facebook group was created and we promoted the event through our twitter-channel (twitter.com/Ethio eLearning). Poster and flyer designs were uploaded, discussed and improved online.

sound-equipment, promotional

#### Barcamp Ethiopia: The Event

New learning, new thinking, new behavior

The event finally counted around 350 participants on each of the two full days of sessions that ran in parallel in five rooms, including international visitors from Sudan, Europe, Russia and the USA, with an opening party the night before and a closing party on each of the two session days. To give anyone the chance to attend, even a poor student from a remote town, the whole event - including transport, accommodation, food, equipment and printed materials – was financed by sponsors and had no attendance fee. Many participants got little sleep during the last week and final preparations were still ongoing as people started to arrive from everywhere and the first band began playing at opening night. The whole event developed as a constructive chaos in which many decisions had to be made ad-hoc by whomever was faced with a problem. How can we accommodate participants in dorms that are still being renovated? When, where and to whom do we hand out meal-tickets? How do we find enough space for more popular sessions? How do we effectively announce the frequent changes of schedule? Sessions featured a wide range of topics from programming and eLearning to community planning and yoga, with a live skypepresentation from Holland and an evening campfire meeting outdoors. Barcamp Ethiopia had airtime before and during the event in all major Ethiopian radio-stations & TV, as well as promotion in the national newspapers and magazines. Because a main purpose of Barcamp Ethiopia was to provide participants a space to network, entertainment and fun were important ingredients throughout the event. Starting with socializing during the planning phase, then the opening party, coffee breaks, lunches and dinners together, an art exhibition and bands playing into the night.

It is impossible to account for all positive effects that sprung out of Barcamp Ethiopia. To mention just a few concrete examples:

- « Student council members and other active students from different Universities have now started exchanging experiences and working together to improve their studying conditions, including delegations visiting each other's Universities.
- « Inspired by sessions and networking around the topics "female role-models" and "peer-pressure", a girls-club has been established by students at EiABC to promote female stakes in education.
- « Collaboration between Universities and an NGO around inclusive education and adaptive technologies for the Blind has been strengthened.
- « All participants learned a great amount about the application of different digital technologies, as well as new methods of learning, planning and developing together.
- « Many students and faculty gained a clearer picture of what is happening in Universities other than their own, nationally as well as abroad, which helps them to better evaluate, compare and help develop their own educational context.

For all of us, Barcamp Ethiopia, its preparation and the event itself, was an exciting, inspirational and memorable experience that stirred up many new ideas and gave us new acquaintances and friends.

### Jörn Schultz & Oliver Petzoldt

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### **WORKSHOPS**

How does a turbine work? How do you illustrate the flow behavior of water through valves or explain cashless payment?

E-learning content improves in quality when it offers explanatory images, animations or interactive graphics in the right places. In order to improve this visualization know-how of the e-learning teams at Ethiopian universities, the on.e team organized a series of training courses in Ethiopia. They also asked the team of the Usability Engineering Center (UEC) of the OHM University of Applied Sciences Nuremberg and the St.Petersburg Academy of Arts to conduct two workshops following the Barcamp Ethiopia.

Together they identified topics and treated them in small groups. This resulted in sketches, interactive storyboards, logos, graphics, posters and animations. An important consideration was to give the participants a better understanding of the planning process of such a project, and show that the technical resources offer helpful assistance using their own specifications.

To begin with, they consciously drew on paper and whiteboards in order to plan every detail and to highlight the conceptual necessities before working with the computer. This was accompanied by lively discussions on which types of visualization were useful, since not all content needs a sophisticated interactive animation. Furthermore, there was a requirement for cross-cultural communication, because imagery and sign systems of the respective other culture may also require different solutions.





#### IT IS TIME 2 GO!

#### by Márton Kocsev

Originally I was planning to write about the current state of Information and Communication Technologies for Development (ICT4D); however there are already many essays, position papers, articles, monographs, and books published on the issue of ICT4D, which provide a much better summary than would a brief note on two A4 sheets. Moreover, I came to realise that there is much more at stake here than pure technology: indeed, it is time to question whether our concept of ICT4D is still relevant. The term has still not found its way to the developmental mainstream and lingers only in academic halls or in the hands of a technobureaucratic developmental elite. Indeed, many of the readers – who are with great certainty members of an educated, mobile and global social strata – will probably not know what ICT4D even stands for! The same holds for the great majority of the population of the developing world.

Nevertheless, I do not aim to lament about the shortcomings of a concept, but rather to propose a straight move forward! In this essay I argue that ICT4D has steadily lost its relevance in a world increasingly dominated by youth and is in dire need of a conceptual rejuvenation A few statistical accounts will help me start exploring the argument and explain why those involved in bringing ICTs to the developing world should immediately start the quest for the elixir of youth.

Today around 52% of the world's population is under the age of 30 and the waste majority of them lives in Asia, South America and Africa. Approximately 40% of them live under 2 \$ a day. However, no matter where it is or the level of income, this generation is desperately building an increasingly interconnected, assertive, entrepreneurial and mobile community. This is 'Generation Y',

the generation what the famous Ghanian economist, Geroge Ayittey, has termed as the cheetah generation of Africa. It encompasses those born after 1980; its earliest members reached adulthood around the Millennium. Not only is this is the first generation which truly grew up in or grew into – a digital era, it has also had a completely different political experience. Think of this generation as the one which first reached school-age when the Cold War came to an end, the generation who have rarely experienced direct colonial suppression, and who were too young to actively participate in any of the big identity or nation-building discourses of the late 20th century. Instead, it was during the 1990s, deeply enthralled and influenced by the notion of globalisation, when Generation Y became active members of their society. The notion of globalisation is of course highly debated, and one can argue either in favour or against it. The positive and negative impact of the newest wave of globalisation to hit the world shaped the entire decade, particularly as telecommunications and information management began to be transformed. Through this globalising change Generation Y acquired a different set of horizons, goals and ideas from previous generations. The young adults of today reached adolescence in a exponentially more interconnected and networked global world. This generation is therefore not only more connected, but is more collaborative, entrepreneurial, assertive and mobile. It is the global generation of the "To Go".

The all of a sudden globally conscious environment of the 90's suggested that the world might be able to re-focus its resources from warfare to welfare. In fulfilling this promise Information and Communication Technologies supposed to play a key role. Certainly, ICTs became the de facto representation of modernity. This status meant an acceptance of the importance of ICT4D actions and a huge growth in scale, budget and

political influence. However, looking back at the last two decades of ICT4D actions the question arises whether they have lived up to expectations. How many lives have they improved across the developing world? What kind of ICT4D innovations have made the most difference?

Statistical data suggests thus that the majority of Generation Y even in developing countries grew up as global citizens, but is bound to their locality, either living in rural areas or in the shanty towns of contemporary metro- and megalopolises. Due to the lack of appropriate and affordable technologies, which would connect and enable those left out, they are left behind. The question we face today is whether we keep on addressing this generation with the technology of their parents, which by its nature was big and expensive or start accepting the nature of Generation Y's interconnected and mobile culture. Even though there are no statistical data available on how much of the ICT4D resources are spent on financing macro level projects (e.g. broadband cables, but why not mention issues as basic as electrification), but I suggest that this figure vastly surpasses that invested in connecting the rural and the declassified urban population. The crux of the issue is how to bring in low-cost technologies which connect ideas, plans, businesses and enable grassroots participation in sustaining communities.

Therefore I plead here for a mind shift from ICT4D to T2G: Technology to Go. Going mobile at an affordable rate is not just an alternative, but an imperative. So far we have all too often paid only lip service to rolling out easily accessible and affordable technological solutions but done too little with too few. Learning, doing business, collaboration and exchange should move away from fixed (copper) lines and (walled) spaces. Small, viable and affordable technologies should enable the ubiquitous praxis and experience of any of the

above mentioned. Providing localised and interactive educational content for mobiles phones, e.g. collaborative learning environments through sms, the provision of lectures in small sound files, or radio based learning programs (for radio enabled phones) increases both the access and the mobility factor for students. Moreover, banking services (e.g. M-PESA in Kenya), transport and logistical services (e.g. ticket booking via mobile for Lake Victoria ferries) on mobile platforms enable entrepreneurs. Additionally, the provision of weather and price information, direct communication with traders (e.g. ZUFU 4455 in Zambia) greately enhance the viability of smallholder farming.

This might sound rather idealistic or maybe naive, but as sociologists and economists of the day remind us, massive youth unemployment is a ticking bomb. And in order not to be misunderstood: investment in ICT4D should keep on pouring in, but the technologies and the models of ICT-enabled development should focus on helping people to catch-up and network. The German Technical Cooperation (GTZ) in Ethiopia summarises it as "helping Ethiopian students and entrepreneurs to access, create and share digital information and knowledge" and in 2010 has worked with these young people to bring about Barcamp Ethiopia! It is Time 2 Go!

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