

Where to With Community Co-Design?

Edwin Blake
edwin@acm.org

Overview

The following notes should be read together with the slides that are attached to this document as a summary of the input I gave to the Interact 2013 Workshop (2 Sep 2013, Cape Town) “Building Community Collaboration”. I thank the workshop facilitators, Anicia Peters, Darelle van Greunen, Heike Winschiers-Theophilus, Shilumbe Chivuno-Kuria, Kagonya Awori and Anirudha Joshi for the invitation to give the opening address.

1. Top Heavy Theory

And thus the native hue of resolution
Is sicklied o'er with the pale cast of thought,
And enterprises of great pith and moment
With this regard their currents turn awry,
And lose the name of action. (Shakespeare, Hamlet)

One can fill one's head with too many theories: so much stuff that there is no place for action. I do want to sketch a background of some ideas that *in retrospect* underpinned my actions. These cover, in order of formulation, notions of:

1. Action Research (Lewin, Tavistock Group)
2. Ubuntu
3. Pragmatism (Dewey)
4. Capabilities or Freedom underlying Development (Amartya Sen)

As one does with theories I tackle them backwards, top-down.

1.1 Development as Freedom

This is the title of the economist and philosopher Amartya Sen's well-known book where he says freedom is both the aim and the means of development. In his introduction he says (Sen, 1999, p. 4):

Freedom is central to the process of development for two distinct reasons.

- 1) *The evaluative reason*: assessment of progress has to be done primarily in terms of whether the freedoms that people have are enhanced;
- 2) *The effectiveness reason*: achievement of development is thoroughly dependent on the free agency of people.

... free and sustainable agency emerges as a major engine of development.

He summarizes this at the end of the chapter (A Concluding Remark) as “Freedoms are not only the primary ends of development, they are also among its principal means.” (Sen, 1999, p. 10). Consequently he views “Poverty as Capability Deprivation” (the title of Chapter 4 of the book).

As computer scientists we can view a capability as an *affordance*, as long as we understand that the same resource might have different functioning for a person as a result of their own mindsets and abilities.

He concludes:

Policy debates have indeed been distorted by over-emphasis on income poverty and income inequality, to the neglect of deprivations that relate to other variables, such as unemployment, ill health, lack of education, and social exclusion.

Now I come to my point:

The digital-divide is just another form of capability deprivation. So the aim of ICT for development is to contribute to increasing the *freedom, agency and capability* of people.

1.2 Epistemology of Effectiveness

Engineers previously understood “fit for purpose” in terms of the extent to which a system meets the needs of users. Once we accept that identifying such needs is very hard and once we include users as co-designers then discovering the practical purpose for which an artefact is designed is problematic. It is also possible that academic needs of the researchers to know and understand may conflict with the needs of the community.

Our “solution” to this is to conflate practice and knowing. Creating knowledge is inextricably intertwined with effective action. Knowledge that does not lead to effective action is not really knowledge and that failure to create effective system is equivalent to a failure of understanding. This is the position of Pragmatist epistemology; an epistemology which is compatible with action research. To quote Dewey (Dewey, 1929, p. 203):

But if man in knowing is a participator in the natural scene, a factor in generating things known, the fact that man participates as a factor in social affairs is no barrier to knowledge of them. On the contrary, a certain method of directed participation is a pre-condition of his having any genuine understanding. Human intervention for the sake of effecting ends is no interference, and it is a means of knowledge.

We have argued that a mediated design process or a user-needs analysis that includes a community as a co-designer will result in a more holistic approach to software design and engineering. The shift is a move from a closed system of expertise, with the researcher as the expert and research participants as subjects, to open collaboration and co-ownership of the research process. This requires challenging the traditional role of the researcher at a profound level. Instead of setting the agenda, deciding on the survey methodologies and post-processing research data using analytical tools, the emphasis would move to a shared learning approach. This fundamental shift results in the researcher giving up control and becoming a facilitator rather than a “principal investigator”. It also requires that the attitude of extracting information from a research subject becomes an engaging attitude that results in benefiting both the researcher and the community.

1.3 A Designer is a Designer through Community

In sub-Saharan communities the way of life is deeply rooted in a paradigm of “connectedness of all”, expressed in the aphorism “a person is a person through other people”¹. This is based on an African (Bantu) philosophy, identified by the term Ubuntu, which variously means, “humanity”, “humanness”, or even “humaneness”.

This has been expressed by one of the first writers on the topic, (Mbiti, 1990, p. 106) as: “I am, because we are; and since we are, therefore I am”. While Mbiti never used the term Ubuntu itself, he insists that it is the cardinal point in understanding the African view of humanity. In that sense Ubuntu reflects a critical discourse because it includes the voice of all participants and the building of consensus. In fact that sense of community is much wider than normally regarded in Western societies (it also includes the ancestors). As Mbiti puts it:

“In traditional life, the individual does not and cannot exist alone except corporately. He owes his existence to other people, including those of past generations and his contemporaries. He is simply part of the whole. The community must therefore make, create or produce the individual; for the individual depends on the corporate group”.

In local rural African communities 'participation' is a long term established practice, observable in daily life; thus, the focus of methods for participation differ from those formalized by Participatory Design. Emphasis is no longer on facilitating a joint design activity which brings individuals together

¹ In Zulu it is “umuntu ngumuntu ngabantu”, in Sotho we have “Motho ke motho ka batho babang” while in Otjherero it can be rendered as “omundu omundu okuza movandu varue”.

but rather guiding a closed group towards a design output. Thus again we find ourselves asking what is the appropriate role of the outside design practitioner or researcher in relation to the closed community during the joint design interactions.

These values support looking for a community based approach to ICT participation. Muwange-Zake (Muwanga-Zake, 2009) points out that ubuntu: “implies empowering participants in research ... and emphasises unity or consensus in decision-making, and the processes that lead to decisions.” It “advocates collaboration with the participants and community humanely, with respect to their spirituality, values, needs, norms, and mores. Therefore, Ubuntu ameliorates tensions in research discourse and brings the researcher to the level of the participants”.

After all, following the Ubuntu principle would suggest:

“I am not just a researcher/developer but part of a wider community encompassing the users and together we derive a communal existence and within that communal existence, I am”.

1.4 Practice Comes First

Action research aims at transformation, “how can we improve things?”. It comes from a personal driving force, an individual commitment. I have always felt that I first did the stuff and then realized that, wow, it is called “action research”. It feels instinctively right! Now one could ask, if one were cynical, so what then is the point of the theory? Well firstly there is a tremendous sense of validation and homecoming: thank goodness I am in a lineage and other people have also come up with this. Then of course you discover all the ways things can be done better than you were doing before, and why something makes sense, and why something’s are necessary. So in the survey the authors of the handbook did amongst practitioners (Wicks, et al., 2008):

What struck us as particularly significant was the degree to which our colleagues underscored:

- the importance of *practice* and *life experiences* and these as integrated with — and often preceding — philosophical, political, and intellectual underpinnings;
- the *web* of relationships, events, influences, role models, and experiences which underpins action researchers’ practice (and which has done so over time).

In fact when it comes to “action research” I am sometimes embarrassed to admit but feel vindicated by the authors of the handbook on action research that (Reason & Bradbury, 2008):

We also realize that some of the most significant action research has taken place over a long timespan: it is not so much a project or a programme but a social movement which has developed sometimes over decades.

1.5 The First Question

The philosopher Paul Feyerabend has appealed to me ever since I dropped organic chemistry in favour of meta-physics because he embraces *epistemological anarchism*. I have also felt that “... an abstract analysis of the relation between action [shows] The only principle that does not inhibit progress is: anything goes” (Feyerabend, 1975, p. 23).

I prefer calling it an eclectic methodology, and action research accommodates this since it is less a methodology than a research framework, or perhaps better, it is a method that does not presuppose a specific epistemology.

**If what is true is what works
— and vice versa, what works is what is true
— then do we ditch theory and adopt epistemological anarchism??**

2. Progress

Cell phones in Africa are a clear example of leap frogging. In middle 90’s Thabo Mbeki (SA) pointed out: There are more phone lines in Manhattan than in all sub-Saharan Africa (or some such).

On the other hand Canon Mbiti pointed out (Mbiti, 1990, p. 23)

The notion of a messianic hope, or a final destruction of the world, has no place in traditional concept of history. So African peoples have no 'belief in progress', the idea that the development of human activities and achievements move from a low to a higher degree.

3. Can we Accept Equality?

In 1947 at the start of the formulation of Action Research as a method, Elliott Jaques in an article entitled "Social Therapy: Technocracy or Collaboration?" pointed out (Jaques, 1947):

ambivalent attitudes on the part of the community to the very process of solving its own problems. On the one hand, there is the desire for improvement, for resolution of tension, for the development of new techniques, and, on the other hand, there is the fear that treatment is likely to be more painful than the problem. Exposing the complexity of problems, with the inevitability of creating new roles for which the individuals concerned do not yet feel adequate, excites the desire to hang on to old modes of behaviour. Though the old modes are troublesome, until they are relinquished one can avoid facing up squarely to the fact that perhaps not all is as well as it might be.

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Questions for Community Co-Design

Edwin Blake

edwin@acm.org

VICT4D



And thus the native hue of resolution
Is sicklied o'er with the pale cast of thought,
And enterprises of great pith and moment
With this regard their currents turn awry,
And lose the name of action.

(from Shakespeare, Hamlet, Act III, Scene I ...
towards the end of "to be or not to be")

The digital-divide is just another form of capability deprivation. So the aim of ICT for development is to contribute to increasing the *freedom, agency and capability* of people.

1. Question 1

If what is true is what works

— and vice versa, what works is what is true

— then do we ditch theory and adopt epistemological anarchism?

2. Develop! Progress! Transform! Leap-Frog!



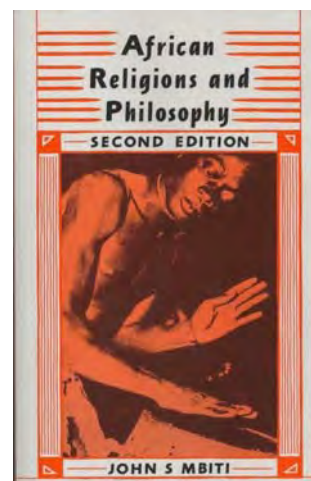
<http://www.ecopolis.org/wp-content/uploads/2007/10/ox.jpg>

¹ Image: en.wikipedia.org/wiki/Phrenology (Public Domain)

3. Mbiti's "African Concept of Time"²

In traditional African thought, there is no concept of history moving 'forward' towards a future climax, or towards an end of the world.

The notion of a messianic hope, or a final destruction of the world, has no place in traditional concept of history. So African peoples have no 'belief in progress', the idea that the development of human activities and achievements move from a low to a higher degree.



4. Ethics: Ubuntu Action

Ethics can only be born out of honesty about ourselves and the community in which we operate.

A long-term intimate involvement with a community raises important ethical issues which are fundamentally concerns of reciprocity.

- ¿ **Concretely:** do you pay people for their time?

Justifying and explaining your role to the community

- ¿ Explaining what research is?
- ¿ Avoiding outsider/halo effects: is using local researchers necessary?
- ¿ **Informed consent?**

5. Can we accept?

The community might be very ambivalent to change since it upsets cherished notions and values and they might even be used to "comfortable dysfunction".³

- ¿ Who decides?

6. Can we really face equality?

The community reluctance to accept the "beneficial" solutions proposed by the ICT developer might force the developers to give up their cherished notions of progress.

It is the democratic right of a society to filter new products through their cultural and social requirements.

The right or wrong of the new application depends on the situated creation of meaning by the community

² John S Mbiti (1990) African Religions and Philosophy (2nd ed). Heinemann (First edition 1969) p 23

³ Jaques, E. 1947. Social Therapy: Technocracy or Collaboration? Journal of Social Issues; 3 (2), 59–66
 "ambivalent attitudes on the part of the community to the very process of solving its own problems. On the one hand, there is the desire for improvement, for resolution of tension, for the development of new techniques, and, on the other hand, there is the fear that treatment is likely to be more painful than the problem. Exposing the complexity of problems, with the inevitability of creating new roles for which the individuals concerned do not yet feel adequate, excites the desire to hang on to old modes of behaviour. Though the old modes are troublesome, until they are relinquished one can avoid facing up squarely to the fact that perhaps not all is as well as it might be."

7. Design for whom and by whom?

If we move to co-design, then:

- ¿ Can we envision a flexibility in ourselves to *redesign ourselves* as much as we design artefacts outside?
- ¿ Are our methods and beliefs as much up for grabs as the *cherished values* of the community that we are trying to transform with our technology?
- ¿ Is it not probable, once we accept the community as co-designers that we might not even have *the last word in design*?

8. Some Final Issues

More detailed considerations

9. How do we teach this to Computer Scientists?

Part of a strategy to address the failure rate of ICT4D projects must be to train a new generation of practitioners in better methods of design and development.

This must necessarily involve field work.

- ¿ How does one do this?
- ¿ ≡ how do we convert geeks?

10. Which participatory methods work? Which don't?

Paper prototyping is a bad idea.

Technology probes rock.

- ¿ Is this true?
- ¿ What else can we add?

11. Transferability of Results

How extensible are the results from one community to another?

Hint: quantitative results don't generalize either.

12. Indebtedness

I am indebted to so many different people — too many to mention — students, colleagues, community members.

My participation at this (very expensive) conference is funded by the South African National Research Foundation.