

“Young” Researchers’ Workshop at ICTD2009
Friday 17 April 2009

in conjunction with
3rd IEEE/ACM International Conference on Information and Communication
Technologies and Development (ICTD2009)
17 – 19 April 2009
Doha, Qatar

Position paper: **Contextual analysis and social networking mapping**

ICTs being so transversal and so pervasive in almost all domains of human activity, they call for a widely interdisciplinary approach, even beyond the three-legged model ICT4D 2.0 advocated by Richard Heeks (Heeks, 2008, p. 83): computer science, information systems and development studies are not enough to address the complex issues ICTs arise, especially in the so-called developing countries. What is missing then? At least 2 things, in my opinion:

1. a wider and more thorough contextual analysis;
2. a closer look at the relationships among the individual actors involved in such projects.

I believe that way too often both these aspects are disregarded or underestimated, while they are crucial in determining the success or failure of any ICT4D project.

It is no news to say that every researcher is naturally and inevitably « biased » in the way s/he frames the phenomenon under study by her/his background and disciplinary culture. But, as Popper said:

“We are not students of subject matters, but students of problems” (Popper, 1963).

So the big challenge in any interdisciplinary research endeavor is precisely to be able to zoom out and shift the perspective in order to embrace others' views and mindsets.

Roughly said, with all the limits of any generalization, computer scientists tend to be focusing too much on technology, information systems stress information flows and dynamics neglecting other important layers of interaction, and development studies tend to uncover the power dynamics underlying any development project, ICT4Ds included, in an often nomothetic manner.

Rarely, to my knowledge, the researcher pushes her/himself to the finer analysis of the interpersonal relationships linking the actors involved. And yet these relationships are often the key factor in determining whether a certain ICT4D project will succeed or not.

Why is it so?

Well, I believe one plausible reason is that such relationships are hard to see, hard to grasp, hard to visualize, hard to classify, hard to treat « scientifically ». The more we push an idiographic approach further, the less it is generalizable and therefore informative and useful for the future endeavors. This might be a common researcher's 'fear' when you come from a discipline with a strong objectivist tradition and neopositivist epistemology, like computer science and

information systems. It is humanly hard to successfully grow as a researcher in such a « theoretically charged environment » and yet develop a constructionist approach, an epistemology based on « volatile things » such as the *negotiation of meanings, interpretations, the social construction of reality*.

Similarly, it is also difficult and rare to build one's own scholar identity within a theoretical environment supportive of such a constructionist epistemology and then accept to deal with such things as *hard facts, 0s and 1s, mechanistic causes and effects*.

I'm a psychologist by formal education, so I've been dealing with this epistemological tension all the way up to my degree, and I still do. One of the brightest professor I had, once jokingly defined psychologists as engineers who don't like machines.

I've found in human geography a similar tension, the same that is common in many other social sciences (sociology, pedagogy, etc.).

Be careful though, I am not sliding into the old quantitative vs qualitative debate: in fact, I endorse Michael Crotty's position when he says:

« What store are we asking people to set by our research findings? After all we may be presenting our findings as objective truths, claiming validity, perhaps generalisability, on their behalf. In that case, we are calling upon people to accept our finding as established fact or at least as close to established fact as our research has enabled us to reach. On the other hand, we may be offering our findings as interpretation. It is a certain spin we have put on the data. In that case we are inviting people to weigh our interpretation, judge whether it has been soundly arrived at and is plausible (convincing, even?) and decide whether it has application to their interests and concerns.

*In other words, we may be **presenting** our research in positivist terms on non-positivist terms. Let us say it again: it is a matter of positivism vs non-positivism, not a matter of quantitative vs qualitative. It is possible for a quantitative piece of work to be offered in a non-positivist form. On the other hand there is plenty of scope for qualitative research to be understood positivistically or situated in an overall positivist setting, and therefore, for even self-professed qualitative researchers to be quite positivist in orientation and purpose. » (Crotty, 1998: p. 41 – bold mine)*

I stressed the word «presenting» because it marks a shift in the focus from the research itself towards the relationship between the researcher and its audience, and the degree of persuasiveness that this presentation aims to reach. Coherently with the tradition of social studies of science, from Kuhn (1967) to Latour and Woolgar (1971), and with the ethnomethodological school (Coulon, 1987; Garfinkel et al. 1981), the researcher then becomes a self-aware member of a specific human community – the scientific meta-community – by the rules of which s/he has to play in order to be credible and have her/his bit contribute to nourish the ongoing conversation in the smoky, noisy and exclusive *club of science*.

Clearly, once you adopt this epistemological stance you are shifting the focus of your lens one layer up, from « reality » to the collective social interaction that constructs it.

I think this is good exercise, if not even a strongly recommendable one when it

comes to ICT4D. In fact, ICT4D is a research frontier where these 2 traditions, the positivist and non-positivist, inevitably meet, and often clash, sometimes leading to ICT4D project failures.

Nowadays, I suspect that the neopositivist tradition is still dominant (reading the titles of the selected papers for this conference is enough to prove it, I think), but hopefully social sciences are increasingly participating in the investigation of this fascinating field of research.

When working in the field, this kind of *zooming out* would be most beneficial, as it will allow to target the whole communicative ecosystem as the research « object ». In fact, according to Bateson, there is a hierarchy which is hardly escapable, which is that context drives the relationships in it and the relationships drive the content, say the actions that are carried out. In other words, what you say and do, depends on whom are you talking to, and whom you are talking to, depends on what game you are in (Watzlawick et al., 1967). Ignoring this hierarchy while implementing ICT4D projects is risking to struggle in vain. I call upon researchers to be the ones who point out this hierarchy and make it visible to the practitioners in the field, helping them to zoom out.

How then?

A useful tool that I've used and I would like to present in this workshop is a social network analysis kit called Net-map (<http://netmap.wordpress.com>).

This technique allows to visualize in a very effective way the stakeholders, their relationships, their respective influence and their respective agendas, both public and hidden, allowing people to build a shared understanding of their ecosystem, and consequently intervene in the critical points.

This can be applied to any development project, but turns out to be particularly appropriate when dealing with ICT4D projects, as it helps preventing to narrow down the scope of the analysis to the technological aspects, neglecting the social dynamics they inevitably perturb.

Paolo Brunello

(Ph.D. candidate in Geography at Royal Holloway University of London)

Bibliography

- Coulon, A. (1987) *L'ethnométhodologie*, Presses Universitaires de France, Paris
- Crotty, M. (1998) *The Foundations of Social Research*, Sage, London.
- Garfinkel, H., Lynch, M., Livingston E. (1981) *The Work of a Discovering Science Construed With Materials From the Optically Discovered Pulsar*. *Philosophy of the social sciences* 11:131-158.
- Heeks, R., (2008) ICTD 2.0: The Next Phase of Applying ICT for International Development. *Computer*, 6(June 2008), 8.
- Latour, B., Woolgar, S. (1979) *Laboratory Life: the construction of scientific facts*, Sage, Beverly Hills.
- Kuhn, T.S. (1962) *The structure of scientific revolutions*, 2nd Ed. *International Encyclopedia of Unified Science*, vol. 2, n. 2, Chicago, The University of Chicago Press.
- Popper, K. R. (1963) *Conjectures and Refutations: The Growth of Scientific*

Knowledge, Routledge, London and New York.
Watzlawick, P., Beavin, J.H., Jackson, D.D. (1967) Pragmatics of human communication, Norton, New York

Short Bio

October 2008 -

Project leader for the AESTP project (Belgian Technical Cooperation) installing 12 PC labs in Burundian public secondary schools, and training the local teachers to administer them.

September 2008

Enrollment as a Ph.D. candidate at Royal Holloway University of London

September 2007 – May 2008

System Administration and ICT trainer at the French School in Bujumbura, Burundi.

VSAT installer and OpenSky sales representative in East Africa.

2004 - August 2007

WITAR's Project Leader in Burundi, manager of the e-learning program between the Italian A. Rossi Technical Institute and the Lycée Technique A. Rossi de Ngozi, Burundi

2005

Post-graduate online course “E-learning and integrated training” on e-learning management - University of Padova

Participation to the WSIS in Tunis, where I presented our project at the Italian Pavillion and at the “Past Present and Future of Research in the Information Society” international conference

2002

Post-graduate course on International Cooperation and Development - University of Padova

2001

Laurea (≈Masters Degree) in Work and Organization Psychology, University of Padova.

1999-2000

Scholarship at the University of California, San Diego. Internship in a San Diego translation agency. This setting was used in my ethnographic thesis “*To Collaborate Without Seeing Each Other: Telework in a Transnational Virtual Organization*”