

An approach to women empowerment and ICT projects

Reflections about Self and Social Change

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Abstract. After sketching the potential of women empowerment and ICT projects, Part 1 of this paper will endeavour to explain why a normative action research methodology infused with efforts to enhance researchers' gender awareness would be most appropriate for such projects. In part 2, two case studies, which were conducted according to this particular approach, will be described, illustrating the kind of social impact such an approach can bring to conversations around social and gender and ICT policy (nationally and internationally), gender and ICT studies and international development. The paper concludes with the suggestion that the concept of the self as intentional, dialogical and reflexively culturally inherent, holds potential for women empowerment and ICT projects beyond this specific normative action research methodology. Furthermore, in order for women empowerment and ICT to live up to its potential for social change and transformation and contribute to a country's efforts towards sustainable development, it would be good for policy makers to become aware of the gendered nature of women and men's lived realities. The self-concept explored in this paper would lend itself to such awareness enhancing efforts.

Keywords. Women empowerment and ICT; Normative Action Research Methodology; Gender Awareness; Sexism in Research; Sustainable Development

1 Introduction

In this paper the case will be made for concerted efforts to theorize the self in women empowerment and Information and Communication Technology (ICT) projects. Women empowering themselves through ICT and taking fully part in the Information Society holds great promise for their country's development and as such is important to efforts towards sustainable development. However, with the current emphasis on women's agency in international development and the high hopes that women empowerment will contribute to development, there is a risk that women's agency will be operationalised in a too technical and / or voluntarist way. Shallow conceptualization of women's options for intentional agency might contribute to projects' failure, human disappointment and loss of trust in development efforts not to speak of the financial losses. After sketching the potential of women empowerment and ICT projects, Part 1 of this paper will endeavour to explain why a normative action research methodology infused with efforts to enhance researchers' gender awareness would be a most appropriate approach for such projects. In part 2, two case studies, which were conducted according to this particular approach, will be described. The research process and the findings will illustrate the kind of social impact such an approach to women empowerment and ICT projects can bring to conversations around social and gender policy (nationally and internationally), gender and ICT studies and international development. The paper concludes with the suggestion that the concept of the self as intentional, dialogical and reflexively culturally inherent, holds potential for women empowerment and ICT projects beyond this specific normative action research methodology. Furthermore, in order for women empowerment and ICT to live up to its potential for social change and transformation and contribute to a country's efforts towards sustainable development, it would be good for policy makers to become aware of the gendered nature of women and men's lived realities. This particular self-concept would lend itself to such awareness enhancing efforts.

2 Women Empowerment and ICT

That it is pertinent to infuse Information and Communication Technology for Development (ICT4D) and cognate fields with notions of gender equality and women empowerment has been acknowledged widely (Bonder, G. 2011; Buskens, I. 2015a; Buskens, I. 2015b; Gurumurthy 2004; Hafkin, N. 2012; Huyer, S., Hafkin, N., Ertl, H., & Dryburgh, H. 2005, UN 2005). There are many reasons for this:

Although the field of international development often frames women of the global South mainly as receivers of aid and development programs, many of them have, unaided by policies, programs, or projects, taken the opportunities ICT offered to them and become participants and co-creators in the information society (Buskens, I. and Webb, A. 2009; Odame, H.H. 2005). Women are able and willing to take advantage of ICT once they have access, as is suggested by a study, which found that women in Africa and Latin America tend to use ICT more than men do (Hilbert, M. 2011).

Using Information Communication Technology (ICT) gives women more options in education, employment and entrepreneurship and enhances their professional capacities and opportunities (Buskens, I and Webb, A. 2014; Hafkin, J.N. and Huyer, S. 2006; Intel Report 2013; Yitamben, G. 2009; El-Neshawy, S. 2014). ICT offers women the opportunity to cope with the challenges that their triple burden of productive, reproductive and community work confronts them with (Sane, I. and Traore, M. B. 2009) and facilitates advocacy and political mobilization efforts (Abraham. K. B. 2009; Sane. I. 2014). Apart from all this being important for women and girls for intrinsic reasons, women empowerment is considered to be one of the major mediators of social and economic change, which makes women's access to and use of ICT thus important from a development perspective.

In a society where masculinity is hegemonic and misogyny forms an integral part of mainstream culture, women will experience 'othering' of varying intensity at some points in their lives. Depending on the way in which they are capable of positioning themselves and adapting their behaviour in relation to accepted gender norms they will have certain measures of autonomy, agency and self-determination. However, a sense of lack of freedom and of the possibility to live the life one would have reason to value, will often prevail. It is thus not surprising that ICT, the Internet and social networking technologies have become important for women in their aspirations for personal growth, social emancipation and economic empowerment:

ICT can be used to construct the social space women need in order to explore more of what they aspire to be beyond culturally prescribed gendered ways of doing and being (Oweis, A. 2014), become aware of and voice their cultural critique (Quawas, R. 2014); grow their capacity for voice (Baboun, V. 2014); realise their aspirations of personal growth (Al Zaqqaf, Z. 2014; Foda, M and Webb, A. 2014) and further their sexual personal and social emancipation (Abraham 2014; Muller, J. 2014). In societies where limitations are placed on women's freedom of movement and relationship, ICT's can facilitate the inter-personal connections that women need (Ismail, R. and Shamsir Ali, R. 2014; Dada, J. and Comfort, K. 2014). Culturally sensitive or taboo topics can be discussed on social media because users can share pertinent perspectives whilst revealing as much of their identity as they feel comfortable with (Nour, I. 2014; Mahdi Ahmed Mahdi, E. and Buskens, I. 2014). ICT based spaces that are at once outside of society and yet an intricate and interwoven part of it, give women who gave birth to disabled children the opportunity to construct a more affirming identity than the stigmatized one that society has prescribed for them (Abdel Meguid, N. 2014). Communities that want to evolve and adapt customary family law because of its intrinsic gender injustice need a social forum and community radio seems to be able to function as an alternative 'community court' (Bakesha, S. 2014; Yitamben, G. 2014). The ways in which women use ICT to further their aspirations towards personal and social emancipation are many and they will probably proliferate further still.

Cyberspace, however, also mediates new ways of exploitation and degradation of those who are 'other'. Not only have human trafficking and pornography proliferated, according to the Cyber Violence Against Women and Girls Broadband Report "73% of women have already been exposed to or have experienced some form of online violence in what must still be considered a relatively new and growing technology" (UN Women 2015). Furthermore, management of networked space does not respond to democratically informed political oversight like the sort that would be the case in nation states; in cyberspace, platform owners can act autocratically, which would, given the reality of male cis-gender hetero-sexual hegemony, often by default mean

catering to and strengthening the accepted norms of misogyny, gender inequality and gender discrimination (Buskens 2016).

Finally, whilst women have been able to use ICT for personal and social development and empowerment, this does not mean that all women will always be able to use ICT optimally if at all. In certain contexts, women may not have the necessary funds and / or education in order to access and use ICT effectively. Sometimes they lack the sovereign authority to do so, on their own behalf and volition. And at times, women seem to embody a more intangible lack: lacking the self-love, self-confidence or self-esteem that would make use of ICT a simple act of self care and learning how to use it, an interesting challenge (Hibatulla, A. et al. 2014, Mubarak, A. 2014). All these forms of 'lack' need to be understood against the background of women's unequal gender position in society and their socialization in an environment that enforces male hegemony. When women, their lived realities, needs, aspirations and potentials are contested, diminished or made invisible in the home, classroom, workplace, society or a combination of those, women will not be able to make optimal use of ICT and related to that, not be able to make the contributions they could make (Ben Hassine, O.K. 2014; Omamo, S & Auoch 2014; Mbambo-Thata, B., Mlambo, E. & Mwatsyia, P. (2009); Mbambo Thata, B. and Moyo, S. 2014).

2.1 The promise of Normative Action Research Methodology

There is much to gain when women make more fully use of ICT and contribute more fully to their countries' development. It is thus imperative for women to appropriate ICT, to explore how its various platforms and modalities can become venues to relate, grow and expand especially where physical spaces are challenging because of gender discrimination; to create opportunities to challenge the status quo of male hegemony and fight the proliferation of ICT based sexism and gender discrimination; to enhance existing national and transnational feminist networks. But it also has become clear that quick technological fixes will not be able to address the external as well as internal barriers to women empowerment through ICT in a structural and sustainable fashion (UNRISD Gender Report 2005; Molyneux, M. and Razavi, S. 2006, Buskens, I. and Webb, A. 2009; Buskens, I. and Webb, A. 2014).

It is because of the potential for women empowerment through and in ICT and its considerable challenges, that projects focusing specifically on ICT and women empowerment can play a pivotal role in a country's development. And it is because of the deeply ingrained nature of both the internal and external barriers, that a dialogical and context sensitive methodology such as for instance normative action research would hold great promise (Baburogul, O. N. and I. Ravn 1992; Buskens 2014b).

When normative action research is conducted by insider researchers who are invested both in the purpose of social change and in the environment the research aims to impact, - because this is their own lived reality -, such research can be particularly fruitful and advantageous: the research purposes and research questions will reflect a country's priorities and concerns; the insider knowledge such researchers bring to the process can be turned into valuable research data; their networks will open up powerful avenues for information and advocacy (Abraham, K.B 2014; Mahdi Ahmed Mahdi, E. and Buskens, I. 2014; Mbamba-Thata, B. and Moyo, S. 2014). Because of the fact that the researchers are an integral part of the country's networks and know how to negotiate the terms of recognition for their findings, such projects can become unique social experiments where hitherto silenced voices and hidden issues can come to the fore and become part of the national conversations and inform a country's policy not only theoretically but also practically (Abdel Meguid, N. 2014; Nour, I. 2014).

2.2 The imperative to integrate Gender awareness

Because of the fact that male hegemony is the norm in most cultures, it is almost impossible for researchers to extract themselves from the thinking, feeling, doing and being that perpetuate such male hegemony. As Margrit Eichler states: "...none of us has ever lived in a nonsexist society: Moving toward nonsexist scholarship is comparable to trying to comprehend a dimension that we have not materially experienced. We can describe it in theoretical terms, but we cannot fully appreciate its nature until we are able to lift ourselves out of our current confining parameters. (Eichler, M. 1988, p. 3)." Researcher sexism will however come with a loss in validity, reliability and overall research quality. It thus stands to reason that preventing sexism in research would have to be integrated in the overall strategy of a project's striving towards research quality. To

this end, Eichler has compiled a sexism checklist for researchers (Eichler, M. 1988), which has been suggested to the field of Gender and ICT (Buskens, I. 2014a).

Unfortunately and ironically, the threat to research quality formed by researcher sexism is particularly pertinent for insider researchers, who work in their own cultural space. All research projects, anywhere, are at risk of being blind to sexism in terms of design, choice of methods and researcher attitudes, but researchers who work within the mental space of their own cultures are particularly challenged. Lack of appropriate gender awareness in research has even been identified in research that was intended to empower women, with potentially disastrous effects, not only for the research context in question but for the field of research of women empowerment as such (Buskens, I. 2014a, O’Laughlin, B. 2008). An alternative (and possible complementary) modality to Eichler’s checklist in the efforts insider researchers to prevent researcher sexism, would be to integrate consciously a kind of ‘outsider’ perspective when they observe themselves at work. Heightening their critical self-directed awareness would mean in this context to focus particularly on their own gendered perspectives and prejudices and allow their research project to reveal their sexism to them (Buskens, I. 2015a; Buskens, I. 2014a).

Normative action research methodology does facilitate researchers becoming aware of their perspectives and prejudices, because of the emphasis on dialogue and on researchers’ commitment to grow in self-awareness. Theoretically this would mean that researchers could become self-reflective enough to see their own gender perspectives and attitudes. If researchers would be able to become this self aware, the rewards would be great. If it would be possible for researchers to become this gender aware, they could turn their own gendered being and doing into valuable research data which would enable them to get more insight into the gendered structure of their societies and how such gendering has formed and is forming gendered identities. In this way, researcher gender perspectives and sexism can be turned into research opportunities enhancing the quality of data construction, analysis and interpretation.

However, gender identities are intricately interwoven into human thinking, feeling, relating and knowing and most of this would not even be immediately available to ones consciousness. For normative action research to fulfill its promise in the field of women empowerment and ICT, researchers would need extra support in becoming self-aware and such support would have to be woven into the research methods and into the research education methodology.

2.3 A self-concept for Women empowerment and ICT projects

Such a tool was developed within the context of a particular women empowerment and ICT project and this was the concept of the researcher and research participant self. Originally developed in the context of normative participatory action research in health research, this self-concept was adapted for this specific women empowerment and ICT research project and was used in the processes of self-clarification, data gathering, data collection and process facilitation (Buskens 2014b).

This self-concept is grounded in the acknowledgment of intentional human agency and at the same time, makes visible the power of internal and external barriers to personal and social change. It is multi-layered, heterogeneous and capable of fluid agency. It makes visible how human beings can adapt to certain concepts, practices and behaviour that challenge cultural hegemony, just as they conserve and conform to ideas, emotions and values that are inherently part of their cultural ambit. The various parts of the self are in dialogue with each other and with society, the dialogue is multi-dimensional and ongoing. Most important for this particular project, it can make visible how women living in a male dominated world are able to conform to male hegemony in its many expressions, live it, strengthen it, defend it as their own identity and yet also are capable of reforming it and transforming it. All their acts may be agentic acts and of their own volition.

2.4 The Dialogical, intentional self in purposeful alignment with a dream

Because this self is known in movement, in alignment with a desired dream, the graphic representations are known as the Personal Trajectory Map 1 and 2.

Personal Trajectory Map 1

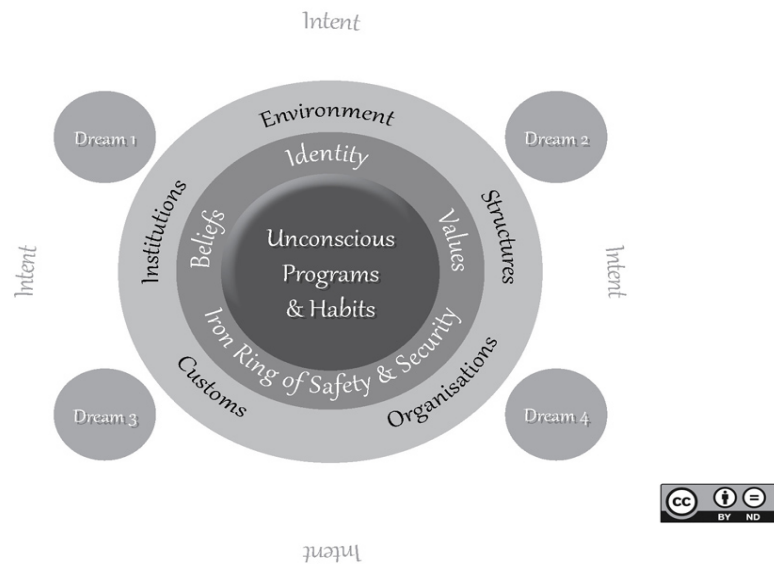


Figure 1. Here

The graphic represents the various parts that 'make up' this concept of the self. The centre houses unconscious programmes and habits. The ring immediately around the centre, the 'iron ring of safety and security', represents the part of the self where one holds one's sense of identity: beliefs and value systems. In the ring around that, the environment is pictured with its institutions, rules, regulations, structures and so on. When intent is understood as vectored will that can embody itself in any of the other four elements of self, we can speak of intent as eliding with one's dreams, one's identity or one's environment, or one's unconscious programmes and habits. Taking intent as one of the elements of self, this map thus portrays five elements of our mental capacity, of 'how we know ourselves'. Intent and therefore intentional agency are not understood as only actively embodied when the self acts, thinks, relates and emotes in direct alignment with the dream. Strengthening one's identity and its known, culturally accepted values, projects and thoughts is also exercising agency. Supporting one's environment by endorsing it or challenging it, can both be agentic acts.

By creating these graphic representations one can make visible for oneself the emotions, thoughts and experiences that can be understood as internal barriers as well as the challenges within one's environment. Also the strengths and the resources, both internal and external come to awareness. When intent is not consciously focused on any of the three knowable (or known) aspects of self, the vectored will and thus one's intent can elide with one's reservoir of unconscious fears and desires. This may evoke unexpected behaviour, which or may not have anything to do with the project.

Personal Trajectory Map 2

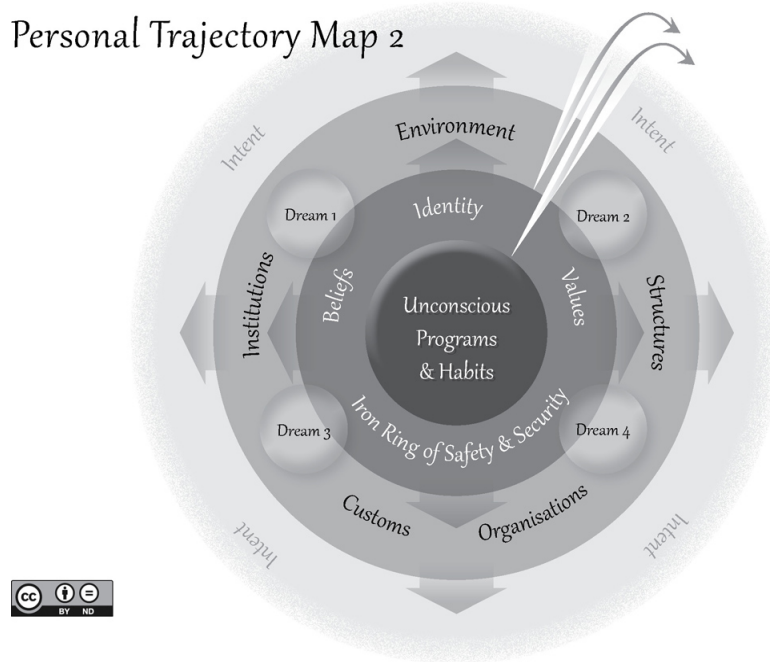


Figure 2. Here

During the period where the self has become more embedded in the dream but still inhabits part of the old self, and thus resonates with two different selves: a future self and a present self, the self may experience unease or even anxiety. The part of the identity self that was known as familiar may feel 'broken into' or even 'falling apart'. In the process of expanding to new experiences and a new 'self', one may also become aware of some unconscious habits and programmes. The moment one starts to change and occupies a new self; one has a better perspective on what the old self 'was'. When the self makes what was the dream now part of daily reality and adds a new dimension to the identity ring, the self will feel expanded and may also simultaneously feel the excitement of this expanded state, and start adding new experiences and habits to its actions, thoughts and emotions. And so a newer, more expanded self emerges, with a new daily reality, a new sense of identity and a new environment (Buskens 2014b).

2.5 Theorizing a Self-Concept for Women Empowerment and ICT

Theoretically this understanding of the self endeavours to stride across many disciplinary boundaries and the various dimensions and parts of this self-concept resonate with reflections by feminist philosophers (Willet, C., Anderson, E. and Meyers, D. 2015; McNay, L. 2000), psychologists (Hermans, H.J.M. 2015; Hermans, H.J.M. 2015), educationalists (Huitt, W. and S. Cain 2005; Pratim Das, P. 2015) and phenomenologists (Moddel (2009). McNay's efforts focus on restoring a positive dimension to the concept of agency in feminist theory so that the creative aspect in action can be more fully understood (McNay 2000). The dimension of intentional agency is described as conation (Huitt and Cain 2015), purposeful action and will-power (Campbell 1999), intent (Moddel 2009; Buskens 2010, 2011, 2014a, 2014) and (volitional) agency (Sen 1999, 2004).

An important resonance for the understanding of self in the context of women empowerment and ICT projects is the 'capacity to aspire' a concept developed by Arjun Appadurai (Appadurai 2004). Whilst he focuses on the poor, his reflections are also relevant for the context of women empowerment and ICT projects. Framing the posture of "voice," as the capacity to debate, contest, inquire, and participate critically' (2004: 70), he brings the 'capacity to aspire' into dialogue with Sen's concept of capability (Sen, A.K. 1999) and Hirschman's concept of voice (Hirschman, A. O. 1970). The capacity to engage social, political and economic issues in terms of the ideologies, doctrines and norms that are widely shared, is reflexively related to the capacity to aspire: 'It is through the exercise of voice that the sinews of aspiration as a cultural capacity are built and strengthened, and conversely, it is through exercising the capacity to aspire that the exercise of voice by the poor will be extended' (2004: 83). In treating the capacity to

aspire as a cultural meta-capacity, this capacity can be brought into relationship with Sen's concept of critical agency (Sen. A.K. 2001) and at the same time with the more psychological concept of conation.

What is important for the context of women empowerment and ICT projects, is that the capacity to aspire, whilst a function of cultural learning and environment, can be strengthened by purposeful action towards change and transformation. As conation is linked to intrinsic motivation and the capacity to exercise will, ones conative capacity is thus linked to and an expression of one's values, beliefs and desires to accomplish meaningful and purposeful action (Campbell 1990). In allowing for conation to be acknowledged next to cognition and affect as part of the human tripartite mental capacity (Militello et al. 2006: 240), this self-concept makes visible how much it will take for women in a male dominated world to develop their will power and use it.

3 Two case studies

In the following, two case studies will be discussed. These studies took place in the context of a research network focusing on women empowerment and ICT. Both the researchers and their research participants would bring their dialogical, intentional selves in purposeful alignment with a dream they had themselves formulated, which inspired both the research purpose and the research question. The studies were undertaken in the period 2009-2010 by researchers who lived and worked in their research environments and are still living and working there. The exploration of the case studies will be followed by a discussion, in terms of the content: for the countries policies and the process: and in terms of the approach and the learning that could be transferable to other contexts. Given that it is more difficult to argue for the positive than the negative...

3.1 Case Study 1: ICT and Pre-marital sex in Sudan

Introduction. This study started as an exploration of the role of ICT in premarital sexual relationships in Khartoum, the capital of Sudan – officially the Republic of the Sudan. Discussing sex in this traditional Muslim country is a social taboo and young men and women do not receive sexual education; neither are they permitted to meet unsupervised. This silence around sex is grounded in the belief that talking openly about sex will encourage unmarried youth to engage in premarital sex and this is forbidden. In this context, exposure to Western TV programmes and the use of mobile phones could create a social revolution: suddenly information about sexuality became available outside of the traditional ambit of parental authority and responsibility; mobile telephony made communication between the sexes possible in a way that would have been unthinkable before: in secret and unfettered. In quite a few cases such mobile phone conversations led to romantic meetings, sexual encounters and pregnancies. Sudan is a patriarchal society where men decide on the punishment of their female relatives. If an unmarried girl or woman is accused of having illicit sexual relations or is found to be pregnant, she will be killed by the father, brother or other male relatives as such punishment is considered within their rights. In extreme cases, this situation resulted in young women dying of illegal abortions or suicide and their unwanted children being killed or thrown away. A center that takes care of these babies reported a more than 100% increase in the period between 2004 and 2008, which is a significantly higher increase than would be expected on the grounds of the increase in population due to the migration of people from the South, East and West of Sudan because of the drought and war. In 2008 the number of babies accepted for shelter at the The Mygoma Orphanage rose from about 400 babies per year to a thousand.

Is ICT to blame for the increase in throwaway babies. At that time, certain parties in Sudan were convinced that Information Communication Technology contributed directly to the rising immorality and the increasing divorce rate in Sudan. The researchers however realized that ICT would have to become part of the solution since young people in Sudan were making more and more extensive use of the technologies. They therefore designed a two-phase research project with the exploratory first phase asking the questions: "Is ICT contributing to the increase in pre-

marital pregnancies and how?” and the second, intervention phase geared to answer the question: “How can ICT be used to empower young women in their decision-making pertaining to sexual engagement and reproductive health?” On the basis of the research results of the exploratory phase (grounded in survey findings, informal interviews and participant observation in the shelter), the team concluded that there was indeed a causal link between the use of ICT and the increase in premarital pregnancies.

The first radio talk show about sex in Sudan. A national workshop was organized in which the research results were presented and experts and religious leaders were invited to speak. Grounded in a deeper understanding of the issues at stake, the team designed a multi-layered and internally coherent intervention with radio as the main medium and the principal researcher started a Facebook page and a blog. After establishing which radio shows were popular amongst young people, the team approached a well-known radio host to present the show. The radio series was called “Shame and Culture” and it was the first of its kind in Sudan. The programme was very well received; it sparked a lot of telephone calls from the audience asking for more information and discussion. The public’s general consensus was that lack of sex education and awareness are the main problems that led to the current sexual and moral crisis. The Facebook page also proved to be highly successful, especially amongst young people because they could participate anonymously. Having no trusted adult to turn to regarding these matters, and fearing harsh punishment in those cases where they had engaged in sexual experimentation, the Facebook page became a space of information, discussion and learning about taking responsibility for oneself and one’s actions.

Changing Society...The way forward for Sudan as a society in the light of this research would seem to be to break the culture of shame and silence that is so tightly woven around sex, and enlighten and educate the youth on these matters. However, sex education without a concerted effort to change the gender relations, will not change the double standard where the shame and the blame is put on the girl or woman and where the boy or man can escape the situation unscathed. Placing all the responsibility for sexual behavior including its unintended results such as pregnancies and unwanted children on young women’s shoulders, who actually are the most disempowered and vulnerable group in this society, is neither realistic nor fair.

Since it was the constellation of cultural gender beliefs, values and assumption (i.e. that women can bring shame on their families - especially on their male relatives and community members - through their behaviour; that men have the right to kill their female relatives when they feel it to be necessary) that created the environment in which the lack of sex education could bring such harm to young women and their unwanted children, the research team realized that sex education would have to involve questioning of this underlying gender ideology. Giving young women merely technical reproductive and sexual health information would not necessarily empower them to stand up for their rights. Sex education would have to be grounded in a questioning of the values, assumptions and implicit rules which support (and are supported by) the core set of gender beliefs, customs and practices in Sudan. As such, this ICT and women empowerment action research project was understood to be part of a wider national movement towards more gender equality and respect for women and girls (Nour Ibrahim, I. 2014).

Process, Findings and Social Impact. The principal researcher chose this topic because she personally cared about the plight of young women. She is a well-known and respected veterinarian, specializing in camel health and she plays a leading role in Sudan and the wider African region. She had never conducted social research and was not an expert in sex or education, but she leads a research institute at the University of Khartoum and is a good teacher. She was also the first female veterinarian in Sudan and a trailblazer.

What proved essential in the success of this study is that she was able to communicate with all the parties that had a stake in this process, which appeared to be, not surprisingly, all of Sudanese society. With the persons that were taking on the plight of the young women (which made them controversial in Sudanese society) she shared compassion for the young women and took on co-responsibility to make their lives better; with the Islamic religious leaders she shared their concern that the moral values of respect and modesty needed to be upheld. In her relationships with the young women who had engaged in pre-marital sex and were either

pregnant of mother, she was neither judgmental nor matronising, but compassionate, respectful and understanding. Focused on a way forward that would include all voices and allow for people to discuss their differences, their aspirations and their fears, she opened up the way for Sudan as a country to breach the taboo on conversations about sex education and got 'discussing sex' accepted as a necessary step forward. More important therefore than expertise in terms of sex and or health education and social science research methodology, were her focus, determination, compassion and respect for both her culture and for the victims of the imbalanced culturally informed gender relations. Having found her own position in relation to society, religion, gender and ICT, and using the respect she commands in Sudan as a female scholar, she was able to initiate and facilitate the ICT-based interventions this dilemma needed to be taken to the next level. A year after her work was published she was invited to share her experiences at a conference on ICT and Sexual Health Education in Egypt, which indicated that her research writing had effectively rendered her learning transferable to other contexts (this description is grounded in frequent personal contact with the principal researcher during the research period and afterwards).

3.2 Case Study 2

Introduction. When women inherit land in Egypt, their inheritance comes as part of a collective property rights' package, which they share with other relatives: 'shuyu'. Whilst women inherit half of a man's rightful share, they also often feel compelled to allow the part they do inherit to be 'managed' by their male relatives, even when they are very capable of this themselves. Through this unquestioned and seemingly 'unquestionable' succumbing to male authority women farmers miss out on the self-empowerment that comes with effective management of one's land but also on personal income, food security and public status in their communities. Ninety seven percent of female landowners do not manage their own land in Egypt, despite encouragement from the government.

ICT and participatory agricultural extension. The study set out to investigate whether and how the use of ICTs, in the form of a web-based agricultural extension programme, could support women in claiming the right to manage their own land. The training programme was designed in consultation with female landowners themselves and evolved over the course of an action process with cycles of learning, implementation, sharing and reflecting. Both women landowners who were already managing their own land, as well as women who were not doing so were included in this group. This was done on purpose to create the opportunity to understand this phenomenon from a deeper perspective. Together with the women landowners, the principal researcher set out to discover whether mastering this web-based agricultural extension programme had enhanced their agricultural knowledge and marketing opportunities. More importantly however, was finding out how these women could enhance their self-confidence and self-determination as female farmers. Deference to men and male authority is deeply ingrained in women's consciousness in Egypt. Having the capacity to manage ones land might thus, whilst important, not be sufficient for women to 'break this male authority spell' that their culture has woven so tightly into the fabric of their personal and cultural identities.

Behaviour change. The following changes happened: the percentage of women actively using computers rose from 30% to 75% in the study group. These women experienced heightened self-confidence and increased access to knowledge, agricultural as well as personal. Furthermore, 40% of the research participants reported an increase in revenue because of the enhanced access to marketing opportunities, which the web-based programme made possible. It was evident that participation in this ICT based agricultural extension programme enabled women to enhance their decision-making power and acquire more autonomy and capacity for self-determination. They had learnt to trust themselves and to value their own opinions. As the training process was documented in detailed form, this intervention can be scaled up and rolled out to other rural areas in Egypt and beyond.

A dual empowerment process. In this study, a dual empowerment process took place: For the Principal Researcher this research process became an important moment of personal transformation. Whilst the research participants were gaining new knowledge, new access to knowledge, more confidence in and because of this knowledge and more authority and independence in hitherto male fields such as buying and selling, the principal researcher's process of empowerment was different yet related. She had chosen this particular area as her research environment because she knew it well: she owned land here. Having inherited this land from her father 30 years ago, she had however let a male relative manage the land for her, despite the fact that she herself was an agricultural scientist whilst her cousin had not received any formal agricultural training. Now, under the aegis of her research project, which was respected by her family as part of her scientific career, she had for the first time the opportunity to (using her words), "put her own hands on her own land". Being an internationally acknowledged scholar in post-harvest pathology, and a passionate agricultural innovator had apparently not been enough for her and her family to come to the logical conclusion that she was not only entitled to her land but also the perfect farmer for it.

Becoming aware of ones intentionality. Whilst this researcher thus started to bond with her land and became familiar with herself as a farmer in and through her research with her female-farmer participants, she started to acknowledge towards herself what her intention really was and she started to own it. She knew she wanted her land but she also realized that she did not want to antagonize her relatives; she realized that they might see her as an educated, well-off urban woman with no need of her land and perhaps even as not deserving the land and its produce. She also realized that in Egypt's particular gendered environment, her cousin might lose status and social respect when he would hand over the land to her. Her journey thus became one of deep introspection and contemplation, of making dream drawings, picturing her dream vividly, of writing poetry about her love for the earth, for farming and her land. Feeling the desire 'to put her hands in the soil and on her land' very keenly, she realized that her first obstacle was her own inner adherence to male authority. She felt how much her culture's norm that his male authority far outweighed the value of her knowledge, expertise and inherited right to the land. Whilst her respondents thus enhanced their computer literacy and became quite adept at sourcing information and learning to negotiate themselves with buyers and suppliers, she created a website describing what the project was about and how this training program could enhance female farmers' capacity and confidence everywhere. In her own words: "The project website promotes my name and reputation as scientist in agriculture among a limitless virtual community". Could it be that she needed confirmation from the widest possible social environment before she could muster the courage and the capacity to transform her own inner circle?

Transformation-in-connection. As she went about her action research with the female landowners, she embarked on paving the road towards her dream: with patience, passion and perseverance she engaged and kept engaging her male relative. Visiting him frequently and sharing with him how much she loved farming and how much it meant for her, she brought him new crops from the land, novelties which she had grown herself. Although he did not want to listen to her stories, she kept the relation open. When she was ready to start the official registration process, he kept procrastinating and did not want to collaborate. She pursued and when it came to the point of fencing off her land from his, he consented. He wanted to do the fencing himself however, because as he explained: he did not want her present because he did not want it to be known by neighbors and friends that it was his sister that had taken the land from him. (El Neshawy, S. 2014).

Social Impact of a Personal Change. Having become a farmer of her own land, has enhanced her prestige amongst female farmers, has increased her insights and effectiveness as an agricultural scientist, and her example set a precedence apparently many women had been waiting for. Many of her friends and relatives have started to reclaim their land rights and it seems that this is only the beginning of a wider development. The change in attitude and behavior of these female

landowners, the principal researcher included, which inspired them to overcome their 'normal' deference to male authority, will have wide spread ripple effects. As access to land is such an important issue, the effects of these personal and social transformation processes will undoubtedly affect the status of gender relations and the acceptance of women's human rights in rural Egypt and beyond.

4 Conclusion and recommendations

In both these case studies, dialogue was central to the research and intervention process and the role of ICT was crucial in this. Respecting both the cultural norms and the people adhering to or deviating from these norms, created a non-judgmental space where people could share and debate various and conflicting perspectives. In both cases, social connections were not severed but transformed. ICT has created new personal-social spaces which facilitate the integration of thoughts, projects, experiences, which resonate with the self's aspirations, even when such (dating the other sex pre-marriage in Sudan and building up the self confidence to challenge male authority in Egypt) are not available in ones physical, immediate, social world.

Changing 'the way how people talk together about something' has created the social space for people to change their minds and their behavior. Conation, affect and cognition worked beautifully together in these projects and both cases illustrate how the personal and the social are inextricably intertwined, but that change is only possible when the self in all its various parts, has aligned itself with the purpose and is prepared to see its values, projects and thoughts be informed and transformed by the dreams its wants to see become reality.

It is easier to disprove a thesis than to argue for the acceptance of one. Whilst these two case studies can make feasible how this particular approach to normative action methodology process, enhanced as it is with a dialogical, intentional, culturally reflexively inherent self-concept, made the desired personal and social changes possible, this cannot be established in an absolute way. However, even when a causal link between the methodology and the outcome of these projects cannot be uncritically accepted, it can be argued that the self-concept as a data gathering tool will generate in-depth insight into the internal and external barriers that women have to overcome on their journeys towards personal and social transformation and empowerment. This would in and of itself be essential information for policy makers in their efforts towards sustainable development through women empowerment and ICT projects.

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