Making ICTs do feminist work: the example of Women'sNet and LinuxChix Africa in Johannesburg¹

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Information and Communication Technologies (ICTs) and the Internet offer vast, new and unprecedented opportunities for human development and empowerment, in areas ranging from education and environment to health care and business. But they are also among the key contributing factors to social and economic disparities between different groups in society (Radloff 2005: 85; Emphasis added).

[A] just and inclusive feminist politics for the present needs to also have a vision for transformation and strategies for realizing this vision (Mohanty 2003: 3).

The utopian assumptions about the Internet and other allied Information and Communication Technologies (ICTs) as the harbingers of a world free of violent hierarchies have long since proved erroneous. Instead the initial idealism has been recognized as overzealous miscalculation in scholarship, software developer communities and economic development settings, alike. The initial optimism has been replaced by the stark recognition that technologies are not value-free but carry the political effects of their distributors, users and uses. As the first opening quotation of this paper, the extract from an essay by Jennifer Radloff, the co-ordinator of the Association for Progressive Communications' Women's Networking Support Programme (APC WNSP), above, suggests, the Internet and ICTs offer both solutions and challenges.

On the one hand, the proliferation of ICTs enable quicker and more efficient forms of knowledge and information transfer and exchange than ever before. On this plane, they have decreased the need for endless travel in order for the smooth running of private and financial needs. At our disposal are email, internet tools that allow us to bank, make applications and shop online, mobile phone technologies that enable us to send short messages across the globe in a few seconds, and satellite technologies that stream broadcasts from across the globe into our living rooms at the push of a button.

Under optimal conditions, with desired levels of anonymity and protection in place, the *newer* ICTs (computers, Internet, world wide web, mobile phones) are the ultimate enablers and information is at the users' fingertips, something which can theoretically apply regardless of the users' biographical information. This was the basis for the earlier predictions that the Internet would usher in an arena unaffected by racism, heteropatriarchy, xenophobia, class prejudice, physical limitations due to disability, and other oppressive systems. Indeed, some of the more innovative applications and software developments have proved beyond a

doubt that ICTs do have the potential to usher in more equitable exchange in line with the original structure of the Internet as a means to share information for greater human good.

On the other hand, ICTs rest on other societal and economic power plays in order to work effectively. Their implication in, and influence by, varied processes of globalization, "a process that takes place on unequal terms, and which often increases social and economic inequalities between and within countries", shape ICTs into more contradictory tools (Radloff 2005: 85).

Consequently, in the digital age unequal access to resources parallels the traditional routes of economic under-development: the digital divide. The "digital divide" or "digital exclusion" describes the reality where the more affluent classes and regions of the world have the widest choices as well as the cheapest and fastest connectivity while the more remotely located and/or poorer citizens of the globe are often encumbered with slower and lower connectivity and access accompanied by inflated proprietary software and infrastructural connectivity costs. In other words, it is easier and cheaper to get connected if you are a middle class resident of a country in western Europe or north America, than it is if you live in many countries in the global South.

The inhabitants of the "developing" world often pay the highest prices for software, due to the global dominance of capitalist proprietary models which require constant renewal and prohibitive license costs. Such models mean that these customers can only be consumers and never legally own the technology they pay for². Instead, proprietary models lock users into continuous dependence on the corporations that own the technological means of knowledge. Unable to legally alter and update the software they spend money on, users renew licenses and buy updates as older versions deteriorate. This unfreedom from proprietary software is *technically* true for the more affluent as well as the inhabitants of the North as well. However, the financial burden is not as profound on those with greater resources. Such relations of power hinder the enabling aspects of the "digital revolution".

In the South African context, while Cabinet is about to pass progressive policy on ICTs making free and open source software the de-facto government applications, and there are state supported structures which harness a wide range of soft- and hard-ware solutions that encourage innovation and access to government services, the monopoly of the fixed line operator undermines such efforts. As a result, one of the sad ironies of the South African e-government system, which tries to bring government to the people, is how the cost of hardware and connectivity have placed it outside the reach of those it was designed for. In other words, while much technological and policy work went into ensuring that e-government was in place, those citizens most desperately in need of its services, and more generally those who need to interface with government the most³ are least able to access it. Instead, poor residents of rural and peri-urban areas have to travel back and forth, at great cost, to access

government services, funds and opportunities. Middle class professional residents of urban areas can readily access the Internet, and therefore egovernment, usually from their places of employment, but they need not interface with government to the same extent as the poor and unemployed.

Making the sometimes day-long return trip from remote areas such as Lusikisiki or Matatiele in the Eastern Cape and KwaZulu-Natal is necessary in order to apply for a green bar-coded Identity Document (ID) document, without which they cannot function as full citizens in South Africa. An ID establishes an individual's bureaucratic subjectivity⁴ and citizenship, since the ID number is required in order to institutionally interface with all spheres of government. IDs are essential for all forms of registration, for asserting eligibility for disability, unemployment grants and/or child grants as well as old age pensions. The same document is needed in order to open a bank account or post office savings account.

That many citizens are obliged to embark on lengthy trips in order to apply for an ID which allows them to interface with government, while e-government was set up to obviate such inconvenience points to the disjuncture between well-intentioned technological solutions, on the one hand, and available resource networks, on the other.

Here, "[t]he emphasis for poverty eradication was on reducing isolation and improving people's 'access' to goods and services" (Fernando and Porter 2002: 1), without the necessary evaluation of whether the infrastructure thus fashioned actually is able to deliver the planned outcomes. E-government cannot play a meaningful role in poverty-alleviation in the absence of universal connectivity, and services that can be accessed through mobile technology are limited. This situation illustrates that the best-intentioned infrastructural and policy considerations can be ineffective unless specific measures are instituted to ensure that mobility, access and equity will follow (Fernando and Porter 2002; GAP 2005). A more integrated state approach to the actual accessibility of ICTs beyond policy would go a long way to addressing some of the felt developmental needs of remote and peri-urban communities in South Africa.

In addition to cost and location, examples of the digital divide in South African context include the continued loss of biographical information in the form of old health and education paper records. The digitization of existing records can aid in curbing the loss which is an apartheid inheritance: careless handling of Black birth, health and education records, especially in townships, as well as the burning of apartheid state institutions of control by activists in the 1980s, when some of these also housed biographical information of those in the community. More extensive and co-ordinated use of ICTs in the public sector can address some of the information poverty evident in contemporary society.

At the same time, the South African NGO, community based organizations and the extra-governmental sectors have put ICTs to a more effectively innovative range of uses: from the use of sms as a political organizing tool and email for campaigns and petitions.

In recent years such technologies have been used widely by the left as well as the white right. For example, some within the Gauteng and Western Cape provinces lesbian, gay, bisexual, transgendered and intersex (LGBTi) movement have used mobile phone technologies to rally national support from many against acts of homophobic violence, specifically curative rapes⁵ of Black lesbians, in the service of the same sex marriage campaign and other initiatives. At the same time, the rightwing Boeremag⁶ is reported to have used mobile phone technology to synchronize the spate of attacks on townships in 2002 as well as to coordinate places of safety for those fleeing from the law, more recently. Paradoxically, it was undetected tapping into these forms of electronic correspondence that led law enforcement officers to apprehend the same fugitives in 2007.

ICTs and the city: virtual Johannesburg

Thus far I have discussed the national and international contexts within which ICTs work: the constraints posed by inoperability, incompatibility and uncoordinated attempts at ICT introduction. It is also clear that ICTs can be used with equal ease for transformative and rightwing uses as the queer and white supremacist examples demonstrate. They are not value or ideology free developmental tools but can be used to advance the causes or interests of those who own and control them.

One of the more obvious effects of ICTs has also been the reconfiguration of space since they minimize the effects of geographical distance on communication: virtual communities and exchanges are created obviating travel. Examples such as email, chat rooms, mixit, teleconferencing, video conferencing, blogs and blog rolls, among others, illustrate the range of community and communicative possibilities.

Furthermore, the internet café that can be found on the streets of a city such as Johannesburg, across class are sites of *social* work that are reconfiguring space and changing both the visual and identity landscape in the city. In many regards, they attempt to circumvent the high costs of connectivity in the global South. They can operate like the traditional community hall – as a hub of social, political and recreational networking that is not just ICT related – at the same time that they make room for entrepreneurial experimentation.

In Johannesburg, for example, they can be seen in high mobility and density zones such as the city centre, Braamfontein, Yeoville and Hillbrow. Also notable is the vast difference in pricing structures between any of the internet cafés in Yeoville, on the one hand, and the same speed connection in an upper class Sandton mall.

While internet cafés offer a clearly needed service, they only offer connectivity in brief spurts and their benefits are unlike those provided to clients who have internet access in their homes.

Women's Net cybercafé offers free and unmonitored internet access to women. They explain it as one of their interventions into cost and access.

While the internet is often framed as that which collapses space and makes location completely irrelevant, it is nonetheless striking to note that many of the peculiarities described above, as well as the breadth of the work carried out by the two case studies analysed here, are enabled by their specific location in Johannesburg.

Johannesburg, like many other cities in South Africa and elsewhere, is a place of legislative, material and contemporary cultural diversity. There is the recognizable contestation for spaces of meaning, about who matters and who does not, who exists and who is denied recognition, that are characteristic of other urban locales. It also assumes the place of unofficial capital of South Africa: it is neither the legislative capital (Bloemfontein), parliamentary capital city (Cape Town), nor the official capital (Tshwane). Yet, Johannesburg is dominant commercially.

As I argue below, Women's Net and Linux Chix Africa activities intervene into commonplace understandings of voice, agency and visibility in the city, state and region. Both organizations are based in the geographical city, Johannesburg, yet their positioning in the ICT space complicates their range of influence to beyond the borders of the urban space. This further complicates their range of influence, and indeed the space of their location, probing questions about what notions of the city and urbanity can be discussed in a chapter that analyses their work.

Put differently, can critical discussions of such organizations that are at once indelibly shaped by an infrastructure and complicated system of expertise and other resource access available specifically in Johannesburg happen comfortably within existing ways of speaking about the city? How feasible is this, given that both organizations pursue work that challenges the very physical and material boundaries of the city and the boundedness that comes with the geographical mapping of the city?

If we recognize that the workshops run by LinuxChix Africa and the general activities of Women'sNet are at once very Johannesburg defined – by their locatedness in the cultural, academic and activist atmosphere of the Newton-Braamfontein-Yeoville precinct – and outward looking at the same time, what aspects of their work are city activity and which not?

Clearly, the resources, activities, pools of expertise and infrastructure that both organizations rely on are easy to access precisely because of an urban, and

specifically Johannesburg location within the South African ICT landscape. Yet their activities are often about making those very benefits of being well resourced available to audiences and users within and beyond Johannesburg.

contesting publics, changing directions

The preceding discussion shows that extra-governmental efforts have used ICTs in the interest of diverse goals. It is possible to provide further details of the innovative uses to which older ICTs (radio, television) as well as newer forms are used. However, as the remainder of the paper will show, the most insightful uses of ICTs in the non-governmental sector can be glimpsed in the work of select gender and feminist activists. Recognizing that since the vast majority of the global poor are women reminds us that most digitally impoverished subjects are women. Put differently,

[t]he gender divide is one of the most significant inequalities to be amplified by the digital revolution, and cuts across all social and income groups. Throughout the world, women face serious challenges – economic, social and cultural obstacles that limit or prevent their access to, use of, and benefit from ICTs (Radloff 2005: 86)

Avoiding a situation which sees gender and women's concerns seen once again as "add ons" to existing development and transformative movements (GAP 2005), the two initiatives analysed in this paper, the Johannesburg based NGO, Women'sNet and LinuxChix Africa workshops in the same city, took a pro-active approach to gender transformation and the value of ICTs. Both organizations recognized that women are often locked into marginality even in the midst of gender-progressive and enabling legislation, policy and other frameworks. The two are chosen here specifically from a range of other possible feminist innovative ICT projects in the South African landscape because they address themselves to gender transformation through varying ends. As will be shown both the differences and similarities in Women'sNet and LinuxChix Africa approaches are instructive, and reveal exciting ways in which ICTs can be used to subvert violent hierarchies and reconfigure subjectivities.

Another striking aspect of both initiatives is the attention to marrying identified needs and the identified technological tools. They avoid falling into the trap of the "washing machine and the river" syndrome by adopting pro-active and multi-layered approaches that draw much from the successes and lessons of women and feminist movements globally, as well as carefully considering possible pitfalls ushered in by the complications of location and access, by moving beyond the economic and developmental jargon so common in discussions of ICTs and gender needs (Appleton 1998; Evert 1998; Heeks 2001).

washing machines and rivers: a cautionary tale

Nnenna Nwakanma, the chairperson of the Free and Open Source Software Foundation for Africa (FOSSFA), often tells a cautionary tale. It stresses the importance of ensuring that the relationship between felt needs, gender and technological interventions are transformative rather than developmental aidstyled and additive. The tale outlines the case of developmental workers who are moved to action when they encounter village women who travel long distances to the river in order to do the laundry. Washing machines are the proposed solution: these would lighten the women's load and free them up to embark on other activities. A few months later, the arrival of the brand new washing machines is greeted with much ceremonial pomp and uninhibited expressions of gratitude.

However, when the well-intentioned developmental aid workers return on a follow-up visit, they notice the "strange" use to which the donated washing machines have been put. Moved to the banks of the river, the machines are used as replacements for the stones on which women historically hit wet cloth as part of the laundry process. The stones required excessive bending and therefore proved strenuous on the back, whereas the washing machines allow the washer women to go about their duties in standing position.

Although the women seemed mildly impressed with the spinal relief, the developmental workers agreed among themselves that the washing machines were certainly not being put to their desired use. In retrospect, it may have struck the development workers that the absence of running water and electricity would have made the intended use for washing machines impractical and therefore unlikely.

At the same time, however, a more rigorous feminist analysis might uncover that the washing machines, were, in fact put to successful use. They were never intended to be transformative in the service of equity, but rather to ensure more efficient and quicker domestication of the washer women – freeing up their time for more efficient (domestic) duties.

Nnwakanma uses this story to illustrate the dangers of technological "solutions" that are not directly informed by specific stated goals, and that are therefore technically sophisticated but politically naïve. When ICT solutions are crafted and instituted with more attention to the needs of the users, it becomes clear that technology is simply a tool meant to enable better living conditions and more enjoyment of a meaningful quality of life.

How, then, can ICTs be used as tools responsive to women's needs, rather than continue to function as politically naïve? The key is working around women's routines and patterns rather than imposing new ones. If the solutions permit multi-tasking, this is preferable since it may offer a more useful solution.

In Nnwakanma's tale, it is important to ask what else the washerwomen used their time at the river for – in addition to the laundry. Perhaps privatized domesticity in the form of each household using its own washing machine – while still patriarchal, like the naturalized washerwomen role – undercuts potential social and communal benefits of the regular meeting space at the river.

The experiences of E-Knowledge for Women in Southern Africa (EKOWISA) has been particularly instructive in this regard. EKOWISA has noted that, in situations of technological introduction and knowledge-transfer, it helps to ensure that the instructor for a group of ICTs is herself a woman. This is experience borne out by research (Henson 2002; Margolis & Fischer 2002) and echoed by LinuxChix Africa's example discussed below.

Women's Net and the gender of ICTs

Founded in 1998, the NGO has gone through various stages as it strengthens its role in bringing ICTs to women and making them work in the interest of gender-transformative. Women'sNet has various faces due to the multi-layered approach it has taken to making ICTs do feminist work.

Its web presence includes functioning as a centralized information point, by offering an extensive and frequently updated directory of women's activities locally and internationally. It posts job announcements in the women and gender academic and activist sectors, information on events (campaigns, workshops, conferences), highlights newsworthy developments through a gendered lens, advertises funding opportunities, works as a feminist watch-dog and monitoring agent, and offers networking possibilities. In other words it develops local content and re-circulates allied gender-progressive information.

Women'sNet is significantly more than an electronic information booth, however, as vital as such a service is. It structures, sources funding for, and offers a variety of training courses for women and girls in the use of ICTs for gender-transformation. It is in this area of skills-transfer and interactive work in the gender and ICT field that Women'sNet's work is most visionary and interventionist.

The popular (s)he-bytes project housed on the radio exchange website allows community radios to download gender content for broadcasting from the Internet. The content is composed of short sound bites, developed as part of an earlier Women'sNet gender-training programme with the community radio sector, which can be used to generate discussion and information. The (s)he-bytes are licensed under a creative commons license that allows non-restrictive circulation of the material.

The web-based audio archive is used extensively as seed programming by community radio stations which have very wide reach but are often financially

under-resourced. The Women'sNet discussion generators are often broadcast at the beginning of radio talk-shows on topics including gender taboos, gender based violence, sexual choice and health as discussion generators. They have also been broadcast repeatedly in the service of awareness raising during special occasions such as the annual "16 Days of Activism against Violence against Women and Children Campaign", throughout South African women's month (August), to mark international days associated with gender and sexuality, as well as during high profile incidents and cases such as the recent former national vice-president Jacob Zuma's rape trial.

The extensive use to which (s)he-bytes are used on air is testimony to the significant void that Women'sNet has correctly identified and filled. They have successfully positioned themselves as a valued resource for community radio stations, but accessible to other broadcast media as well, and contribute dramatically to locally generated ICT content under progressive terms of information sharing. At the same time, they lessen the burden to develop relevant broadcast content on cash strapped stations.

Additionally. Women'sNet (s)he-bytes offer perspectives which explicitly and implicitly challenge some of the usual "women's programming" broadcasts which circulate stereotypical content about domestic affairs and patriarchal femininity. Community radios are heavily relied on across the most remote areas of the country, and are sometimes the preferred stations even in some urban areas. The enormous popularity of Bush Radio in Cape Town is one such example. Such popularity stems from community radios' tendencies to address the more immediate concerns of the audiences they broadcast, to a greater extent than larger nation-wide and regional stations.

It is no secret that,

[p]atriarchal attitudes and relationships present distinct obstacles. Traditions of silencing women, of rendering invisible their reproductive labour and restricting their participation in spheres of public decision-making have led to firm beliefs that only men's contributions and masculine values and attitudes are valuable in public life (GAP 2005: 7).

The provision of material that challenges how patriarchy works at micro-levels, often specifically geared to the pressing gender concerns of audiences plays a key role in clearing space to re-imagine gender identities and subjectivity. (S)hebytes directly confront the symbolic and material ways in which women's subordination and homophobia are naturalized in small communities.

The training programme as well as the audio archive which form (s)he-bytes were attentive of the fact that

[f]or communities physically distant from centres of decision making, the repeated lobbying required to obtain assistance is usually quite difficult and the travelling alone is a heavy burden. Poor rural women are particularly

disadvantaged because of their poverty, their lack of education, their limited access to information and, most important, their lack of political power (Fernando and Porter 2002: 11)

Political power is intimately linked to the ability to access and shape public space. When poor rural women's perspectives and conditions are the subject of discussion, and the speakers on these themes are themselves predominantly women, the meaning and textures of the public domain are re-configured. The position of authority and notions of appropriate public conversation are indelibly affected. The ongoing flighting of footage that questions dominant understandings and performances of masculinities and femininities participates in the necessary transformation of the how gender means and works in the South African landscape both rural and urban.

Another, equally remarkable, Women'sNet venture is the Digital Stories project. Women'sNet raised money and canvassed resources to enable a group of previously technologically challenged young women from the Johannesburg area, to make fifteen minute films about a variety of topics in gender based violence. The first time film-makers used digital recorders and computers loaded with Free/Libre and Open Source Software (FLOSS) to structure and edit the films which were then replicated and distributed by Women'sNet free of charge to organizations and individuals engaged in education and human rights awareness work in South Africa.

As with the (s)he-bytes project, the Digital Stories work on multiple planes within the gender and ICTs sector. Some of the first-time young Blackwomen film-makers have gone on to explore other filmic endeavours. One has made three more films from independent fundraising efforts; two more are enrolled in formal film schools. The project played a role in the transfer of skills, in as much as it embarked on the crucial work of demystifying technological tools by coupling feminist politics with technological use. The women already worked in the gender and LGBTi sectors in voluntary or paid capacity, but though this project were able to access training and resources they might not have otherwise been able or willing to. Women'sNet's intervention, then, was most felt in the area of demystifying ICTs, transferring skills and creating local content, a significant amount of which is in South African languages.

Furthermore, since the films are distributed free of charge by Women'sNet provided they will be used for education, training and activist work within the human rights space, the stories and perspectives of these young women achieve greater reach than would otherwise be possible. In the current climate within which extensive gender-progressive legislation and state machinery co-exist with endemic levels of gender based violence and alarming levels of curative rapes against Black lesbians, a project that centers young women with feminist politics and varied positions within the LGBTi and heterosexual continuum is necessarily subversive. The far-reaching dissemination of these narratives in a single DVD makes significant inroads into invisibilised subjectivities and lives.

Completing her doctoral study on the lives of Black lesbians in South Africa, almost a decade ago, Cheryl-Ann Potgieter returned to her research subjects and asked them what they would like her to do with the information she has gathered, in addition to working with it in fulfillment of the requirements of the first – and to date only – full length study on the lives of Black lesbians, the respondents suggested:

"Take the findings to the government and let them see there are many of us (but not our names"

"Write a book that tells people about us, an easy book"

"Write a play about black lesbians and put it on in the community and for schools so that people get educated"

"Do workshops – like the racism workshops that many people know about"

"Talk on TV about what you have found, from our talks"

"Make a film on black women who love other black women" (Potgieter 1997: 240)

As the title, *Black, South African, Lesbian: Discourses of Invisible Lives,* suggests, may of the women she interviewed whether individually or as part of focus groups expressed a sense of invisibilisation. They articulated a split subjectivity which offered the possibility of freedom as Black people in a new democracy, at the same time that the meanings and spaces of their sexuality were erased. At that point, they spoke less about the express attacks now commonly recognized as curative rapes, and more of their sense of alienation and invisibility. As some of the responses cited above show, they wanted their existence registered and recognized widely as part of what constitutes South African citizenry.

While Potgieter could not take up all of the suggestions made by members of her sample, one of the consequences of the *Digital Stories* endeavour is that the subjectivity and existence of varied lived realities and experiences of sexual identity acquire larger circulation than would otherwise be possible in a largely hostile public. It also gives the identities "survivor", "lesbian", "transgender person" a human, and more significantly *local African* face, and possible validation to viewers who may live the kinds of lives Potgieter wrote about over a decade ago.

In a context where it is not just the nature of the Internet that is dominated by content from white Northern men, but the position of authority is still widely considered to be the same, these Women's Net initiatives offer their audiences a different sense of the face and voice of authority, at the same time as continually contributing the development and growth of local content. These narratives offer a very different sense of the national and urban landscape and the meanings

which can be ascribed to who exists and matters within all public space and who may theorise and speak her truth. Importantly, the narratives steer clear of addressing only pathology and violence in the lives of the women who are the subjects of the films. In the end, the audience is left with an opening up of possibilities of identities as well as with a strong sense of agency variously expressed, rather than an overwhelming communication of victimhood.

From an analysis of the above projects, Women'sNet's identified goals of supporting women and girls through ICTs at the same time as building these groups' capacity to use ICTs as tools for a range of effects continue to be met. That the NGO continues to branch into other areas which combine feminist interventions through the use of ICTs in public spaces, thereby destabilizing hegemonic ways of being at the same time as affirming divergent progressive masculinities and femininities.

LinuxChix Africa

LinuxChix Africa was co-founded by Anna Badimo and Muthoni Gathari as the African continental arm of the global LinuxChix movement. The not-for profit organization uses Free/Libre and Open Source Software (FLOSS) for both political and practical reasons. FLOSS allows innovation, experimentation, play and ownership of technological tools to knowledge in ways foreclosed by proprietary software. At the same time the ethical possibilities of using technology that cannot be owned was troubling for software developers like Badimo and Gathari.

However, while FLOSS offered many freeing possibilities, like many women software developers and other members of the IT community, Badimo and Gathari were fatigued by the masculinist culture of both the IT professional and general geek fraternity (Henson 2002; Margolis & Fischer 2002). Studies such as the MERIT one from the University of Amsterdam detail the specific manifestations of patriarchy, and misogyny more specifically within the FLOSS developer community. This remains true in direct contradiction of the freedom ethics often spouted by leaders of the FLOSS movement such as Richard Stallman, Linus Torvalds and and John "Maddog" Hall. Indeed, although the "free" in FLOSS suggests freedom (to view, play and alter source code and therefore the means of knowledge) rather than automatically cost-free packages, even a cursory glance at the FLOSS language and iconography of core locations such as GNU, Freshmeat and so forth betrays a blatant hypermasculinist culture.

Like the global LinuxChix community, LinuxChix Africa has both an online presence and off-line activities. To affirm the need for such an organization from an otherwise little tapped community of women developers, LinuxChix Africa has grown from a handful of people in South Africa and Kenya to membership in

more than forty African countries in under three years. The co-founders continue to measure what they have described as phenomenal growth.

Pointing to some of the ways in which the FLOSS movement specifically, and the ICTs for transformation/development sector more broadly, can maximize its potential, the Executive Director of Women'sNet, Natasha Primo (2007) recently commented that both would do well to learn from the lessons and tools crafted in the women's movement.

Such movements, like other radical movements for human rights, are familiar with the ways in which safe spaces can be sources of growth, conscientisation, re-grouping and strength. LinuxChix Africa draws on this recognition in both its organization as well as in its activities.

One of the tasks undertaken by LinuxChix Africa is to ensure the ongoing transfer and upgrading of women's skills in computer skills. Badimo, for example, runs workshops for women in Gauteng that offer her "students" hands on experience in working with Linux. Although participants pay a fee for attendance, the payment structure is such that women without the financial means are not excluded since they can be sponsored by other participants or take part for free.

Badimo, who has completed doctoral work in Computer Science, offers these classes without financial reward since the fee is calculated to cover the renting out of the equipment needed for the workshops. While women often volunteer their services and this can be a double edged sword, such workshops nonetheless rely on old models of collaboration and the creation of stress and intimidation-free environment. The further equipping of women from outside the Computer Science and broad IT sector with otherwise mystified and intimidating tools translates into tangible empowerment for the participants. They resonate with the experiences of EKOWISA referenced earlier in this chapter.

Furthermore, that she runs these labs at one of the University of the Witwatersrand's Computer Science labs lends the occasion credibility and implied institutional backing. Badimo's own institutional affiliation with the same institution, her high standing in the Linux developer community, as well as her professional expertise in teaching university level Computer Science bestows symbolic and actual status to these workshops.

Through them she is able to harness value from different sites: the historic South African activist attachment to the workshop format with the epistemic prestige of her status and location. This combination has led to growing popularity of these workshops, and Badimo has had to structure them according to constituencies, such as women in local government, in order to keep their sizes manageable.

Nonetheless, Badimo's workshop, proceeding as they do along the same lines as other LinuxChix Africa workshops in other geographies, bring FLOSS skills to

women who would otherwise not acquire expertise beyond basic user ability. They also position the organization as one equally interested in creating a home for accomplished women developers as well as transforming the FLOSS landscape by broadening the kinds of uses to which women put Linux tools. Another key role that LinuxChix Africa has adopted is the annual hosting of the Software Freedom Day activities (SFD). SFD is key in the international FLOSS calendar, but had been historically haphazardly commemorated by the African FLOSS movement, prior to LinuxChix Africa decision to host it on an annual basis. Because the event is significant to the overall movement, LinuxChix Africa's hosting of it locates the organization in a strategic position of power and visibility within the movement. Without taking the event over, and indexing the collaborative models of the FLOSS movement, it has meant that those interested in participating in explicit ways have had to approach LinuxChix Africa for cohosting possibility.

The symbolic meanings of this move hint at the organisation's repositioning from the margins to increased visibility and prominence within the movement. In the South African context, several people who contributed to the drafting process of what is soon to be the government's ICT policy which seeks to make open hardware and FLOSS default government technologies were LinuxChix Africa members, including the key writer of the policy.

weaving the strands together

In the second quotation on which I started this essay, Chandra Talpade Mohanty reminds her readers of the importance of aligning transformative visions with clear tools and strategies. She has also highlighted how a task we face as feminist knowledge makers,

is that of historicizing and denaturalizing the ideas, beliefs, and values of global capital such that underlying exploitative social relations and structures are made visible (Mohanty 2003: 124).

The foregoing discussion of the work of Women'sNet and LinuxChix Africa, based in Johannesburg, South Africa analyses initiatives that proactively harness the tools made available through the digital "revolution" in the interest of gender-transformation. Both examples have been of organizations based in the same city, although their work is far reaching, as work within the ICT sector tends to resist geographical boundaries. In the case of the organizations under analysis, the boundary-crossing has been both an inheritance of the technologies as well as a conscious goal built into the very design and targets of the groups.

Focusing on the programmes and approaches adopted by these two organizations, and recognising that their explicit gender-transformation shapes their approach and ICTs, rather than the other way round, is illuminating. It has

suggested an explanation for why so many well-intentioned ICT strategies to bridge the digital divide fail. Both cases analysed have also lent credibility to Primo's (2007) insistence that the most effective work in the ICT transformative space will only be possible if it adopts strategies from revolutionary movements. Failure to do so will lead to the proliferation of "washing machine and the river" scenarios.

Given other discourses and performances of gender through enforcing heteropatriarchy, transmitted through various media in the ICT space, and elsewhere, the two cases analysed here perform urgent work in contesting meanings of belonging: who can acquire, control and marshal technology in her service and use it to her preference, who can speak and shape public perceptions and behaviours and who can theorise ways of navigating citizenship. They assert powerfully subversive and imaginative routes to inhabiting digital and other material identities in the city, the nation, cyberspace and all space. The Internet and www has allowed both organizations to reach audiences at unprecedent levels. At the same time, both have recognized the value of other, older, ICTs in the service of gender-transformation.

They also suggest that technological tools can be used to widen the language of transformation and equity in the face of attempts to close down spaces of dialogue. Given the ever-evolving forms of the onslaught against South African women, and especially against Black lesbians, strategies need to be re-crafted and targeted on as many fronts and media as are available.

After we recognize that ICTs and the Internet can be used with equal ease for equitable or right-wing work, and that the introduction of technologies unmoored from the needs of their users amounts to waste, the interrogation of unclear ICT "development" agendas becomes urgent.

Having recognized the very many ways in which older and newer media collude with patriarchal global capital to keep women marginal, feminist ICT organizations are refusing to surrender the terrain, but instead explore the possibilities opened up by strategic uses of ICTs. Women'sNet and LinuxChixAfrica have focused on ways in which feminist knowledge making and strategies can make ICTs perform progressive gender work. Both organizations have also opened up the lessons from their experiences to further contribute to collaborative models and ground-breaking approaches to undoing harmful gender and sexual mythologies within the city and beyond.

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Notes

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¹ This paper was first written and conceptualised while I worked at the Meraka Advanced African Institute for Information and Communication Technologies.

² Many users come up with illegal ways to circumvent these limitations, and these activities include making and distributing pirated copies, hacking the source code and altering the software, and/or making imitations of the proprietary copies.

³ Dr Ntsika Msimang, personal correspondence, 15 April 2006.

⁴ I am indebted to Prof Isabel Hofmeyr for this apt turn of phrase.

⁵ Curative rapes describe the deliberate rapes of (suspected) lesbians with the stated aim of 'curing' them of their sexual orientation and making them heterosexual. As a hate crime, it is both

violently homophobic and misogynist, since it casts sexualities alternative to heterosex as illness, and casts the penetration as curative.

⁶ Boeremag literally translates into 'farmer-power' in Afrikaans. However, it plays on the slippage in using "boer" (lit. farmer) to also mean Afrikaner. Boeremag, therefore means Afrikanerpower, and the name has been adopted by a rightwing paramilitary group that targets Black residential and social environments for bombings and other acts of terror.

⁷Geographically, both organizations are based in Johannesburg. The *Digital Stories* were made by women from the Johannesburg and Tshwane cities, the projected Gauteng city metro that takes up the entirety of the province that these two cities currently dominate. At a literal level some of this activity can be seen as altering forms of belonging in the city. However, this is a limited reading of the ways in which Women'sNet and LinuxChix Africa continue to influence understandings of subjectivity and agency beyond the geographical landscape.