

# State of the Art

Empowering women leaders at the local level: Translating descriptive representation to substantive representation through ICTs

Binitha V. Thampi and Aarti Kawlra
India

Coordinated by





The **Gender and Citizenship in the Information Society** (CITIGEN) research programme, launched in 2010, aims to explore the notion of marginalised women's citizenship as a normative project or an aspiration for equitable social membership contained in the promise of an emerging techno-social order. Six research partners from Sri Lanka, Philippines, China, Thailand/Taiwan, Bangladesh and India are studying various aspects of the terrain. Also eminent scholars of the field from Costa Rica, Pakistan, Germany, South Africa and Thailand, are writing think pieces delving into the research subject from their perspectives to further enrich the research process.

The **State of the Art** is an analysis of the current state of the field researched. It includes a literature review, based on the hypothesis developed in the research proposal.

#### **Authors**

**Binitha V Thampi** is teaching in the Department of Humanities and Social Sciences of the Indian Institute of Technology (Chennai, India). She has a multidisciplinary background with a PhD in Development Studies. Her research interests are in the areas of gender and development, decentralised planning and governance and poverty, social exclusion and marginalisation. She has several years of experience and has been involved in gender training, quantitative data management, qualitative field research, etc. Her interest in the present action research project is to build a digital community of women elected representatives of local governments in Kerala and to study its potential in furthering citizenship rights and engendering governance processes through providing necessary information, facilitating discussions and raising critical questions.

**Aarti Kawlra** is Associate Faculty and Project Consultant with the Department of Humanities and Social Sciences of the Indian Institute of Technology (Chennai,India) since 2007. She teaches courses on computer and society, globalisation and change along with ICTs and development. Her research interests include globalisation, culture and identity, ICT's and development, body and society, ethnographic research methods.

Empowering women leaders at the local level: Translating descriptive representation to substantive representation through ICTs - A state of the art analysis of India
Binitha V. Thampi and Aarti Kawlra
2011 Published by IT for Change, Bengaluru, India
CITIGEN Asia Research Programme 2010-2012
The programme is coordinated by IT for Change, Bengaluru, India ( <a href="www.ITforChange.net">www.ITforChange.net</a> ) and carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada ( <a href="http://publicwebsite.idrc.ca/EN/">http://publicwebsite.idrc.ca/EN/</a> )
CITIGEN Asia Research group outputs are licensed under a <u>Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License</u> .
More information on www.gender-IS-citizenship.net

# **Table of Contents**

Introduction and Summary	1
1.A brief review of selected literature	2
A)The policy context	2
B)The empowerment approach to gender and ICTD	4
C)Feminist appropriation of ICTs: The rights-based approach	5
D)ICTs mediated communities	
E)From appropriation to participatory design of ICTs	8
2.The project context	9
A)ICTs and gender in Kerala	9
B)The digital platform	12
3.Project trajectory	13
4.Concluding remarks	14
References	16
Appendix A	24
1.Information and communication foci	24
2.Portal feature highlights	24
3.Portal development and change history	25
4.Portal design brief and tasks outline	25
5.Online interface work flow	26
6.System feature details	26
Appendix B	28
1.ICTs initiatives in Kerala	28
A)E-Governance	28
B)Chief Minister's Sutharya Keralam	28
C)Citizen's Call Centre (155300)	28
D)E-mail for government employees	
E)Digitisation of government records	
F)Integrated Government Service Gateway (IGSG)	
G)Video conferencing - VC	
Appendix C	31

# **Introduction and Summary**

Ensuring effective engagement of women in the public sphere and thereby furthering their citizenship is an important question in the present context. It has been argued that digital inclusion of marginalised groups in various social and development programmes is far more effective precisely due to its potential for providing democratic space (Madon, 1991).

Nancy Fraser (2007) in her critique of 'the liberal model of bourgeois public sphere' points out the existence of multiple publics in stratified societies and calls for a radicalisation of such 'counterpublics' to ensure full access and real parity of participation to those whom that model excluded or marginalised: women, minorities and the poor. She maps the 'communication community' as one of the four communities in an inclusive public sphere in which common interests can be created / or discovered through open democratic communication.

The present study seeks to explore the possibility of developing such a community viz. 'the knowledge network of women elected representatives of local governments in Kerala' in which women serve both as contributors and end-users of knowledge pertaining to varied aspects of governance and their positioning within. This knowledge network could be used by them as a tool to challenge the patriarchal power and the resultant domination within the self-governing institutions and local political structures. The effort towards developing and engendering of knowledge networks opens up avenues for these women to freely articulate and share their experiences, concerns and knowledge with the possibilities of its further enrichment as the same pass through an array of network users, which might potentially be leading them to critically engage with wide-ranging arenas not only pertaining to governance processes, but also to wider public life. Hence, this project seeks to provide women leaders at the local level with opportunities and possibilities of personal transformation. This would fall well within the over all objectives of 'Gender and Citizenship in the Information Society' programme, under which the proposed work is being pursued.

The present report critically engages with literature on gender, Information and Communication Technologies (ICTs) and development and, following feminist advocacy in the field, questions the market-led access models of ICT for development to focus instead on the actual use of ICTs by local communities not only as 'tools' of enhancing capabilities but also, of individual and collective transformation. The literature examines the possibility of digital communities in providing spaces for women's voices which also have the potential to be 'transgressive' in nature. It is this potential for the feminist appropriation of

ICTs that this project of 'Empowering Women Leaders at the Local Level' aims to explore in the state of Kerala. The technical design of the platform (<a href="www.gramamukhya.in">www.gramamukhya.in</a>) envisaged for the creation of this interactive communication community is inspired by the approach of design-in-progress in tandem with its users, their skill levels and their dynamic requirements.

The report goes on to present the context of gender and local governance in Kerala, highlighting the State government's decision to increase the reserved seats for women to fifty per cent from the term starting in 2010. It goes on to note the dramatic shift in dominance from the Left Democratic Front (LDF) to United Democratic Front (UDF) thereby indicating a change in pattern heralding new entrants into local governance. Further, the report notes that an effort has been made in the State to structurally integrate gender priorities into the planning process by instituting the Women Component Plan (WCP) with ten per cent of the Plan funds being set apart exclusively for women's development projects. Our previous interactions with women *panchayat* leaders revealed that the knowledge regarding governance processes is an important tool in resisting patriarchal attitudes of both local politicians and officials. In our interviews, women leaders also complained that they had very few opportunities to congregate together, exchange ideas, and make plans for joint action across *panchayats*. Both these, it is hoped, will be addressed by the proposed platform.

The rationale behind the design of the features of the platform ensures not only that information pertaining to governance is shared and communicated amongst the women local leaders across districts, but also that they are in a position to actually discuss wider issues for a more critical and meaningful engagement in public life.

This is followed by the project's trajectory which tabulates the milestones achieved and points to the tasks ahead. The concluding remarks lay bare the challenges envisaged in the project's journey and also highlight some critical issues that require further reflection.

#### 1. A brief review of selected literature

#### *A) The policy context*

The decade long advocacy for gender inclusiveness in ICTs for development policy discourse and literature<sup>1</sup>, while pointing to the question of 'who benefits?' have, not only

For a comprehensive tracking of the debate in UN summit documents since the mid 1980's see Jensen's paper on "Women, Media and ICTs in UN Politics: Progress or Backlash?" in Part 1, Gender at WSIS in the document Gender in the Information Society: Emerging Issues. (Gurumurthy et. al. 2006). Jensen sketches the terrain in terms of "three landmark stages" - the World Conference on Women in Nairobi (1985) and its follow-up; the World Conference on Women in Beijing (1995) and its follow-up, and the WSIS (2003, 2005). A timeline of critical milestones is also available in Gurumurthy (2004: 13-14). For a

focused on the need for gender equality in policy but also, highlighted the potential role of ICTs in the economic and political empowerment of women. Practical suggestions include making the gender issue central to ICT policy and in 'mainstreaming gender' in the work of global civil society organisations for poverty reduction, in particular the Millennium Development Goals (MDGs), through a variety of strategies, initiatives, best practices and evaluation methodologies (Marcelle, 2000; Hafkin, Taggart, 2001; Nath, 2001; ICT policy review paper, 2002; Hafkin, Huyer, 2002; Primo, 2003; Huyer, Sikosa, 2003; Gurumurthy, 2003, 2004, 2006; Gurumurthy, 2004; Morgan, Heeks, Arun 2004; KIT, 2005; Hafkin, Huyer, 2008).

Recommendations from Gurumurthy (2004:2), suggest the trajectory to be followed:

Far-reaching changes towards gender equality and women's empowerment in the ICT arena are needed at every level – international, national and programme. Engendering ICTs is not merely about greater use of ICTs by women. It is about transforming the ICT system. This involves:

- Governments building ICT policies with strong gender perspectives and engaging with civil society and gender and ICT experts on these areas.
- International fora such as the World Summit of the Information Society (WSIS) being used to challenge northern and corporate dominance of the ICT arena.
- Clear gender strategies being deployed through design, in the implementation and evaluation of ICT projects and programmes.
- Collecting information with sex-disaggregated statistics and gender indicators on access to, use of and content of ICTs, on employment and on education.
- Consideration of gender issues in: ICT/telecommunications policy; representation in telecommunications/ICT decision-making; and the differential impact of telecommunications/ICTs on men and women.

Questioning ICTs policy from within policy circles, as well as by feminist scholars of the information society has, over the years, sought to transform the digital divide<sup>2</sup> discourse into a more gender sensitive one. Suggestions for bridging this divide have evolved from

discussion on perspectives on the South and Feminist Advocacy in WSIS see Gurumurthy and Singh's paper in the same document.

<sup>&</sup>lt;sup>2</sup> According to Kenneth Kenniston "the digital divide" refers to four separate but related divides: Within nations this is the divide between the rich and the poor, the rural and the urban. The second divide is a linguistic and cultural divide between the English speaking, "Anglo-Saxon culture" and the rest of the world. The third is the differential access to information technology between rich and poor nations. And the fourth divide refers to the rise of what he calls "digerati", an affluent and technically highly skilled group of elite within nations (2003).

surmounting information poverty and inequality of access<sup>3</sup> towards ICT delivery<sup>4</sup> and adoption<sup>5</sup> as dictated by the neo-liberal dominant paradigm of ICTs for development, towards one that is responsive to the complexities involved in ensuring gender justice and equality of access to women in the South (Gurumurthy, Singh, 2008). Women's relationship to and perceptions of technology are moreover not the same as that of men and further point to access and skill as being insufficient conditions for women's appropriation of technology (Gajjala, 2002; Nair, 2002; Huyer, Sikoska, 2003; Arun, Heeks, Morgan, 2004; Best, Maier, 2007), and instead, constructive of new gender dynamics (Bijker *et al.*, 2000; Faulkner, 2001; Wajcam, 2010).

The gender and ICTs for development policy literature therefore stresses the need for recognising that not only is technology not value-neutral but also that "women themselves have multiple identities – for example of class, ethnicity, caste, race, age – and that these interplay with gender to define women's access to technology" (Gurumurthy, 2004:4-5). Furthermore, feminist advocacy questions the private sector 'push' models of market-led ICT access which pay only lip service to the specificities of women's empowerment, intensifying their structural marginalisation through reinforcement of existing gender biases and inequalities. Instead, they suggest the 'unpacking' of 'access' to ICTs in the context of its actual use and 'appropriation' within a developmental framework informed by the capabilities approach, and managed as a public good, for a more just strategy of harnessing the potential of ICTs for women's empowerment (Arun, Heeks, Morgan, 2004; Gurumurthy, Singh, Kovacs, 2008).

## B) The empowerment approach to gender and ICTD

In recognising the role of digital technologies as 'tools' for women's empowerment, the ICTD discourse makes a distinction between empowerment seen as "capacity building to cope" vs. its role in "capacity building to transform" (Huyer, Sikoska, 2003: 4). Feminist scholars view ICTs not as mere tools but as the basis for the construction of new social

Van Djik (1999) distinguishes four types of access and restrictive conditions that serve to exacerbate the digital divide – "mental access" due to lack of experience and anxiety of use of ICT's; "material access on account of their non availability; "skills access" on account of lack of education or adequate training and "usage access" or restrictions pertaining to opportunities to use digital technologies. While ICT policy has for long focused on issues of material access, it is the differential usage of the computer and the Internet that points to the emergence of what has been called a "usage gap" (Djik and Hacker 2003, 316).

<sup>&</sup>lt;sup>4</sup> For a discussion on the emergent paradigm on ICT diffusion to rural areas in the developing world, see James (2004). An important concern, even from outside the feminist critique of ICT's is the increasingly market mediated, "corporate" delivery model of ICT's (Schwittay 2008) and the development of internationally accepted standards (ISO) (Parthasarathy and Srinivasan 2008). These may facilitate the overall diffusion and adoption of ICT's in the neo-liberal paradigm but still leave open the question of who really benefits.

Scholars who have critically evaluated gender equality in the delivery of ICT's in Asia, and in particular in India, underscore the difference between the rhetoric and the reality on the ground pointing to the mere transfer of technology on the one hand and its actual adoption on the other (Sreekumar 2007; Sreekumar and Riviera 2008).

realities leading to considerable "shifts in local gender norms" and in that sense possessing significant transformative potential (Gurumurthy, 2008: 6; Gurumurthy, Singh, Kovacs, 2008). From a gender and development perspective then, empowerment refers to the altering and shifting of existing relations of power and social status defined by gender roles and in fact entails the "control over resources (physical, human, intellectual, intangible); control over ideology (beliefs, values, attitudes); and changes in the institutions and structures that support unequal power relations" (Rao, Kelleher, 2005: 62). This is amply made evident through an examination of case studies on gender focused ICT access and appropriation.

The case studies presented in the second volume of the series Information Society for the South (2008) contextualise the discussion of engendering ICTs and their potential for the empowerment of women in Asia, from three sub-regions - East Asia, West Asia and South Asia. Each of the studies point to the transformations that begin to take place when women gain access to ICTs, develop new skills, begin to use and control relevant information for self expression and representation, and effect changes in their individual and collective gender prescriptive roles (Gurumurthy, Singh, Kovacs, 2008).

The Asian studies address four key sets of research questions<sup>6</sup> in order to examine 'empowerment' in the sub-regions - identity; control and ownership of technology within emerging knowledge paradigms; collective action; and ICT-induced institutional transformation; which serve as useful guidelines for comprehending gender in ICT policy and practice. The analysis of the Asian experience reveals, for instance, that ICTs cannot only redefine women's "participation in governance through the creation of new spaces for their voice but also reshape democratic processes" (Gurumurthy, Singh, Kovacs 2008: 8). The emphasis in the empowerment approach to gender and ICTs therefore is on women, not as individual users but, as collective users of ICTs for social *and* political change (Huyer, Sikoska, 2003; Gurumurthy, 2008; Gurumurthy, Singh, Kovacs, 2008).

## *C) Feminist appropriation of ICTs: The rights-based approach*

In a paper written for the United Nations Global Alliance for ICT and Development (UN-GAID) and the 2008 Global Forum, Gurumurthy further develops this approach into what she calls a 'Rights-Based Approach' to gender equality through ICTs access and appropriation. Placed within a broader framework of development and human rights, the approach views technological infrastructure and connectivity as a basic civic right and public good through context specific solutions<sup>7</sup> and the active intervention and

<sup>&</sup>lt;sup>6</sup> These are reproduced here in Appendix A

Huyer and Sikoska (2003) have called "soft access" to those software applications and content that are context specific and gender inclusive such as those that support multi-lingual applications for gender

participation of the public sector in the empowerment of women and other marginalised groups (Gurumurthy, 2008). Access in this context does not imply the passive use and social adaptation of a local community to received technology packages, content and applications and instead involves "[...] enabling appropriation through processes that (re)position women and other marginalised groups from passive 'users' to active cocreators of the technology – creating new technology meanings and new technology uses [...] Essentially, the investment is for a process of acculturation: not of the acculturation of the community to the IS [Information Society] possibilities but rather, of making ICTs and the Internet relevant to their needs." (Gurumurthy, 2008:7)

The proposed rights-based model of community appropriation of ICTs comes against the backdrop of the dominant rural telecentre model of multi-purpose and shared ICTs access. Provisioned through a variety of 'revenue' models for services delivery in the spirit of development-through-entrepreneurship, the focus in this latter model is on the overall economic sustainability of the telecentre. In Kerala, India for instance, many studies on the state-led ICT for development initiative through Akshaya kiosks<sup>8</sup> have revealed the complex interplay and indeed tension, between the viability of telecentres, their sustained outreach to the community, the capabilities developed or enhanced (Madon, 2004; Kuriyan, Toyama & Ray, 2006; Kuriyan, Ray & Toyama 2008; Gurumurthy, 2008) and their assumed gender neutrality (Mukhopadhyay & Nandi, 2007). On the other hand, sustainability, within the rights-based approach, is not based on business profitability of the Internet kiosk but on the ICTs inclusiveness of the community using it and their own appropriation of the same for purposes determined by them (Gurumurthy, 2008:13). The emergent model of 'open ICTs', is characteristically participatory, and employs "progressive options that are open and collaborative within each layer of ICT ecology open source software, open content and open access community based connectivity models, and open across layers, like between connectivity and services layers" (Ibid.15) so critical to the feminist appropriation of ICTs for development.

## D) ICTs mediated communities

Following the basic insight of community informatics (Gurstein, 2000; 2006) the rights-based approach sees ICTs as being used not by individuals but by communities of users

inclusiveness.

<sup>&</sup>lt;sup>8</sup> For a detailed examination of the Akshaya experiment as a more "inclusive", multi-stakeholder model of ICT access and delivery see Aruna Sundararajan's article in Gurumurthy et. al. 2006

The recent growing interest in employing mobiles for development (M4D) (Donner; ) must be seen with some circumspection as they are "by and large not open between the connectivity and services layers, meaning that unlike in the Internet model, the connectivity provider controls the services provided and does not allow open access to all content and service providers" (Gurumurthy, 2008: 16).

who are often linked together by a shared set of goals, and sometimes, even cultures and geographies, and focuses on the 'effective use' of ICTs as tools for change. Ownership and control of the means of information and communication by women in the local community are therefore the first steps in this direction with the potential for profound impact on their confidence and identity. There are cases of telecenters owned by women like the Mahiti Manthana<sup>10</sup> project in Karnataka, India for example, which provide collectives of socially marginalised, often excluded Dalit women, opportunities for social mobility from existing hierarchies that bind them. Telecenters such as these function as "'assets' reordering power relations" and allow women "to become new information nodes and intermediaries, and thus new loci of power in the community" (Gurumurthy, 2008:11).

There are other cases of ICTs mediated community networks serving a variety of social, economic and political empowerment goals for women (Martinez and Reilly, 2002; Zorn, 2004; Skalli, 2006; Ahmar, 2006; Pavarala, Malik & Cheeli, 2006; Sengupta *et al.*, 2007) through the creation of what Skalli (2006) has termed 'transgressive spaces' for them. The innovative 'virtual community'<sup>11</sup> of women co-creators, participants and users of ICTs services, in turn have the potential for not only building transparency and accountability in the services provided to them and their communities but also serve to give 'voice' to their own expression and even legitimise it.

Scholars of democracy in the information age have also examined a variety of digital media as potential 'public sphere' spaces, significantly expanding and even transforming civic engagement and citizenship (Fraser, 2001, 2007; Dahlberg, 2001; Pendakur and Harris, 2002; Wiklund, 2005; Elovaara & Mortberg, 2006; Moe, 2010; Poster, 1997). A gender focused democratic participation at the local level requires innovative strategies of building communities of interaction for representing women's articulations and knowledge in the emergent public sphere.

Prevalent feminist rights-based ICTs policies thus advocate the building of self motivated women's groups around the use of localised digital media to enable their mobilisation for transformative collective action. Existing literature on ICTs mediated communities have tended to focus on their dichotomous characterisations — virtual / real, online / offline, individual / collective, while denying the existence of a "continuum of communities, identities and networks" cutting across these oppositional categories (Wilson and Peterson, 2002: 456). Wilson and Peterson go on to suggest the importance of examining the notion

<sup>&</sup>lt;sup>10</sup> For a detailed account on the learnings from the Mahiti Manthana project of IT for Change in Karnataka see Gurumurthy, Singh, Kalley, Arakali & Thimmaiah, 2010.

<sup>&</sup>lt;sup>11</sup> See Turner (2005) for a historical discussion on the origins of the WELL (Whole Earth Electronic Link) and Virtual Community - technologically mediated social life, in the US.

of a "speech community", and its associated (and shared) "communicative practices, beliefs and norms" (ibid, 459) and to explore the wider socio-cultural, political and gender context within which the ICT mediated discourse takes place for understanding the dynamics of interaction among members of digital communities.

## *E*) *From appropriation to participatory design of ICTs*

So far we have seen that placing gender and ICTs within a framework of human rights and ascertainment and fulfilment of a community's needs, through the creative appropriation of technology-in-use, is a noteworthy alternative to the dominant model of delivery and diffusion of ICTs for development. Equally vital to using ICTs as tools of gender empowerment is the development of socio-technical networks of communication that are not only open, context specific, self-directed and self-reflective, offering genuine opportunities for socio-political change. It is towards this goal of participatory democracy and civic engagement that this paper suggests the introduction of community representation and participation at the level of the very *design* of ICTs.

Lessons from the history of personal computers<sup>12</sup> have shown us that technology has both unintended consequences and possibilities - sometimes conforming to the intentions of its designers and stakeholders and sometimes contradicting them thereby making invisible the social vision and contextual idiom that originally informed its technical features (Pfaffenberger, 1988; Latour, 1988). It is in the interest of reinstating intentionality into the innovation of open ICTs into de-historicised, and often sterile, technical platforms, that this paper seeks to view community media from within the participatory design of ICTs perspective.

It is crucial therefore to examine the actual procedure for the development and design of digital media that will serve to support the community interaction and enable meaningful sociability. As in advances in the development of software, iterative methodologies involving numerous loops of feedback from multiple stakeholders (Dittrich, Eriksen & Wessels, 2009; Kling, 2000) are critical to the building of ICTs mediated communities. Negotiations, transparency and constructive discourse between the various actors and agents are central to the design process as is its flexibility in the face of limitations and

<sup>&</sup>lt;sup>12</sup> In his article on "The Social Meaning of the Personal Computer: Or, Why the Personal Computer Revolution Was No Revolution" Bryan Pfaffenberger recalls how even though the PC was meant to democratise the use of computers it failed to express this political vision of its innovators: "Just as the agents of regularisations ought to build domination, patriarchy, and centralisation into computer systems, only to find that in many cases the technology backfired on them by providing new roles for skilled labor, so too did the agents of reconstitution-seeking, this time, freedom, autonomy, and decentralisation--find that the new technology they created was all too easily brought back within the framework of domination (Pfaffenberger 1988, 46).

challenges in diverse socio-cultural contexts (Dittrich *et al.*, 2003; Zorn, 2004; Oudshoorn *et.al.*, 2004; Chopella & Srivathsan, 2009). The ongoing co-developmental nature of digital platforms promoting citizenship present challenges that relate to "making visible and developing supportive infrastructures for, the continuing local adaptation" of the sociotechnical system thus created (Dittrich *et al.*, 2003).

If one is to see any technical platform as a design-in-progress in continuous development with its users, then, equally the approach to community media for development must also, following Ganesh and Barber, take a more dynamic, 'zones of silence' approach to ICTs and development that privileges what people say and in what context they are saying it over what people need (2009: 859).

The Project 'Empowering Women Leaders at the Local Level: Translating Descriptive Representation to Substantive Representation through ICTs is set against the backdrop of the above formulation of gender, ICTs and development. It seeks to build a 'communication community' of elected women heads in local self-government bodies in the state of Kerala, India as one of the four communities <sup>13</sup> in an inclusive public sphere in which common interests can be created / or discovered through open democratic communication (Fraser, 2007).

The approach explores the creation of new technologically mediated social spaces for women's empowerment in ways that transcend traditional barriers of patriarchal domination for a more actively democratic civic and political engagement at the local level. The employment of digital technologies such as the Internet is particularly relevant in this regard given that it "imposes a dematerialisation of communication and in many of its aspects a transformation of the subject position of the individual who engages with it" (Poster, 1997: 262) thereby re-configuring the relation between humans and technology in multilateral dimensions and multiple ways (Latour, 2005). We now go on to discuss the specific context of gender and ICTs in Kerala.

## 2. The project context

## *A) ICTs and gender in Kerala*

The creation of a digital community of women elected representatives within this project is set against the backdrop of the existing scenario of gender in ICTs interventions in local

<sup>&</sup>lt;sup>13</sup> According to Nancy Fraser (2007) these are:

<sup>1)</sup> The imagined community, or nation; 2) the political (or civic) community, or citizenry; 3) the communications community, or public; and 4) the community of fate, or the set of stakeholders affected by various developments (included here is "community of risk").

governance in Kerala, both its challenges as well as advantages. Here we deal with two specific aspects of the context i.e. local level ICTs interventions that have facilitated women's computer literacy and ease of use and gendering governance efforts since mid 90's.

In Kerala the high literacy rate among women, together with its associated functionalities, is an enabling factor with regard to both ICTs access and use. The e-governance initiatives of the Kerala state have further ensured the presence of ICTs infrastructure like *Akshaya*, in all local governing institutions. A mapping of the existing ICTs initiatives in the state is provided in Annexure B. Moreover, our previous study among women elected heads of *panchayats* revealed that compared to other regions, women elected presidents from Kerala are much better educated with considerable experience in heading institutions such as schools and government offices.

Despite the general access and acceptance of ICTs in the State, the particularities of localities, the differences within – primarily of age and levels of income and education etc. do in fact lead to differential levels of ICTs acceptance and use. A significant challenge that we could foresee in the implementation of the project is the fact that local leaders constantly travel from one location to another within their constituencies, are extremely mobile in their daily work life and often unavailable in their offices. So the project's challenge is to encourage these women leaders to allocate time, despite constraints, in order to build a forum that will allow them to meaningfully and efficiently conduct their day to day activities. For instance, exchange of ideas, collective planning and informed opinions are some of the ways in which this platform can be effectively utilised in local governance.

The gender mainstreaming efforts in Kerala were initiated during the period of People's Planning Campaign<sup>14</sup> that evolved a set of prescriptions and associated guidelines to include women as a category within the local governance institutions of the State. The efforts to develop a women's inclusive governance plan entailed, among others, the mandatory provisioning of ten percent of the Plan's funds exclusively for women beneficiaries and termed the 'Women Component Plan' (WCP). This involves the consideration of practical and strategic gender needs to formulate projects under the WCP which, however, has not delivered on account of the fact that the State has virtually no

<sup>&</sup>lt;sup>14</sup> The implementation of 9th plan in Kerala started off with a campaign, namely, 'People's Planning Campaign' as the government decided to devolve 35-40 per cent of State budget to three tier local bodies. The campaign focused on developing a methodology for decentralised planning and governance, conducted mass training programmes, produced training materials and also drafted several government orders and circulars to institutionalise the process.

conceptualisation of WCP as an instrument of gender empowerment or of the related potential projects on the ground (Thampi, 2004).

Yet another attempt in gender mainstreaming in local governance in the State has been the representation of women in varied decision making forums for local level planning and governance. Fifty percent reservation of women in local bodies is the recent instance of policy measures in this regard. However, such polices assume 'automatic' transformation on the ground while at the same time are not cognisant of how the intervention interacts with existing power structures and relations at the local level. This has also been pointed out by critics who question the transformation potential for women through these policies (Williams *et al.*, 2010). Moreover, critical evaluation of the success of these women in local governance has revealed that, while they are competent in their role as managers of developmental programmes, they are far removed from local political institutions and associated power. Hence, the key question we address in this project is how to transform this existing descriptive representation to a more substantive one.

A gender appropriate intervention strategy would involve equipping women collectively at the local level to negotiate with the gendered power structures and relations through the creation of a women's constituency that enables them to resist, both explicit and hidden, patriarchal power on the one hand and, on the other, to exercise their citizenship rights. The project's proposed digital platform is envisioned as a technologically mediated social space facilitating precisely this effort, through building a community for knowledge sharing and interaction among women heads of *panchayats*. The project's intention in building the digital community, however, is not simply the instrumental goal of engendering governance, but rather their empowerment through a personal transformation which allows for further possibilities of the exercise of agency in multiple arenas.

Our previous study among women elected representatives in the State clearly revealed that knowledge of the Panchayat Raj Act and its associated rules was in fact an enabling factor in their effective negotiations with local party politicians and bureaucracy (Devika and Thampi, 2011). The study revealed that the women leaders who were elected in consecutive terms were precisely the ones who were able to employ this knowledge to wield power and gain local acceptance. Women interviewees from different districts pointed out the importance of being connected with other women in similar governance positions and felt the need to become privy to their counterparts' interpretations of the given rules and regulations, particularly when facing opposition from senior party leaders and bureaucrats.

It should also be noted here that in the Kerala context of local self governance, the existing communicative practices and norms of dominant governance structures, media and discourse, are not shared by the women leaders and moreover at variance with their specific issues and concerns (Ibid.). There is a need, therefore, for establishing a digital platform for women, keeping in mind their distinctive communicative ecologies and repertoires. Nevertheless, we understand that the online interactions of these women would be influenced by the social and cultural differences amongst them, which in turn will be reflected in their practices of communication. Hence, building an ICTs mediated community of women leaders in Kerala, in our view, would be a gradual process of inclusion into an evolving, shared space. The digital platform's design takes into consideration all these requirements.

## *B) The digital platform*

The platform aims to enable women elected leaders of *panchayats* to build a community which allows them to exchange information, share opinions and ideas, debate on common issues of concern, etc. and is accordingly named '*Gramamukhya*' (www.gramamukhiya.in).

Drawing from the literature on participatory design of ICTs, we are aware that a user-centric design must in fact not be pre-determined and instead evolve over time, together with its users, and customised and flexible enough to cater to their specific requirements. This has therefore been the underlying principle behind *Gramamukhya*'s design.

As discussed, the platform design is intended not only for matters of direct governance but also one that would enhance their social, political and cultural life. Of the features, the information sharing and support group of the platform deals with governance while the discussion forum and writer's blog are associated with a much wider, more personal, empowerment potential, and are mutually reinforcing. The platform is being developed in the local language (Malayalam) for ease of use but will support bi-lingual usage in the menus. The technical details and design process of the Platform are available in Annexure A.

The important design features of *Gramamukhya* are detailed below:

• Knowledge networking through the creation of an information sharing and support group: Even though government rules and regulations are available online in the local language, these need to be converted into documents that can easily be read and comprehended by all. One of the ambitions of the project is to facilitate this emergent digital community to revise and develop these documents which can

eventually inform policy making of the local self government department in Kerala. In addition, the project plans to form a support group of five to six women who have successfully headed *panchayats* during last two or three terms, but not currently in power who can provide their wisdom to serving leaders. This support group will in fact respond to the doubts placed by members and share their own experiences in similar situations.

- The **discussion forum** is not only intended to generate discussion on matters of governance but also on social and political issues of contemporary relevance and this we hope will eventually enable them to critically evaluate their own positioning within local governance structures and question their current role as mere 'development managers'. The efforts towards engendering governance, we believe, must come from collective discussions and sharing over such wider issues.
- The platform also provides, through a **writer's blog,** opportunities for the critical engagement with feminist literature in regional language, mediated by identified writers under the project. Women leaders will not only post their comments on this blog but also, it is hoped, start their own individual blogs and reflect a personal transformation. This will be particularly valuable once their official term is over and ensure their continued engagement with public life.

In the initial stage three districts have been selected — Trivandrum, Malappuram and Kannur and from which approximately 125 women leaders are expected to join the group. These districts not only represent south, central and north Kerala but also cover its political party variation — Trivandrum is more or less equal in LDF (Left Democratic Front) and UDF (United Democratic Front) composition, while Malappuram is predominantly UDF and Kannur, LDF. Malappuram, in spite of being a Muslim dominated district with low literacy rates in fact demonstrated a successful implementation of the Askhaya programme.

## 3. Project trajectory

S.No	Major Milestones Achieved	Specifics
1.	Project Appointments	Project Consultant : Dr. Aarti Kawlra Project Associate: Mr. Suresh K. S.
2.	Identification of Technical Development Team	Technical Consultants: Mr. Hareesh Mohan and Mr. Biju Philip
3.	Website Development	The backend functionalities have been developed and currently the web interface and layout is

		underway.
4.	Logo Design	Three concepts have been received and are under review.
5.	Content Development	Contents in local language are under preparation.
6.	Identification of Districts and women Panchayat leaders	Trivandrum, Malappuram and Kannur have been selected.
7.	State level interaction and rapport building with LSGD and other institutions for project support and implementation	Initial contact and meetings have been made.
8.	Development of Training Handbook for the Workshop	A training handbook that describes all the features and uses of the Platform is underway
9.	Mobilisation of support group	Some potential members of the Support Group have been identified and talks are ongoing to to seek their consent.
10	Initiation of the Writer's blog	Three feminist writers in regional language have been identified as mentors.
11.	Planning the Workshop	Initial planning for a state-level workshop during the second week of March is underway.
12.	Review of ICT for Development literature	The initial review has been incorporated in the SOA report.
13.	State of the Art Report on the Project	A comprehensive report has been prepared focussing on the project concept, goals, design and journey so far.

## 4. Concluding remarks

This project is an ambitious one, both in its concept and design. It involves continuous engagement with potential users who in fact are the co-creators of the digital platform and hence eventually the owners. We hope that by the end of the project period a transition and handing over takes place.

We are well aware of the fact that this technological platform may have unanticipated consequences which may or may not make it a successful intervention. However, we believe, that prolonged engagement with the emergent digital community will provide us valuable insights into the process of building virtual communities as well as local articulations of cyber democracy. We hope this will further our academic interests in the same.

In its implementation we foresee that given that Kerala State elections are due in the month of April, the project take-off is expected to be only post elections though the training workshops, manual and platform testing will proceed as planned. Moreover, given the nature of the project, the present time period is definitely a constraint for effective appropriation of ICTs by the community.

## References

- Ahmar T. (2006), 'Local media and women's identity articulation' in Gurumurthy
  A., Singh P. J., Mundkur A. and Swamy M. (eds.), *Gender in the information* society. Emerging issues, New Delhi: UNDP-APDIP ICT4D Series and Elsevier,
   pp. 87-95. Retrieved from <a href="http://www.apdip.net/news/genderis">http://www.apdip.net/news/genderis</a>, January 2011.
- Arun S., Heeks R., Morgan S. (2004), ICT initiatives, women and work in developing countries: Reinforcing or changing gender inequalities in South India?.
   Project of the Institute for Development Policy and Management, University of Manchester.
- Best M.L., Maier, S.G. (2007), 'Gender, culture and ICT use in rural South India', in *Gender, technology and development*, 11 (2), pp.137-155.
- Bijker W., Bijsterveld, K. (2000), 'Women walking through plans technology, democracy, and gender identity.' in *Technology and culture*, 41, pp. 485-515.
- Burrell J., Toyama K. (2009), 'What constitutes good ICTD research?' in *Information technologies and international development*, 5 (3), pp. 82-94.
- Chopella V., Srivathsan K.R. (2009), 'Fostering community interaction through the Trivandrum city police portal', in 3<sup>rd</sup> ACM International conference on the Theory and practice of e-governance, Bogota, pp 365–368. Retrieved from <a href="http://www.iiit.ac.in/~choppell/biblio/choppella-srivathsan-icegov-2009">http://www.iiit.ac.in/~choppell/biblio/choppella-srivathsan-icegov-2009</a>. January 2011.
- Coward T., Fathers J. (2005), 'A critique of design methodologies appropriate to private-sector activity in development', in *Development in practice*, 15 (3/4), pp.451-462.
- Dahlberg L. (2001), 'The Internet and democratic discourse: Exploring the prospects of online deliberative forums extending the public sphere', in *Information, communication & society*, 4 (4), pp. 615–633.
- Dahlberg L. (2007), 'Rethinking the fragmentation of the cyber public: From consensus to contestation', in *New Media & Society*, 9 (5), pp.827-847.
- Devika J., Thampi B.V. (2011, forthcoming), *New lamps for old: Gender paradoxes of political decentralization in Kerala*, Zubaan: New Delhi.
- Dittrich Y., Eriksen S., Wessels B. (2009), From knowledge transfer to situated innovation: Cultivating spaces for cooperation in innovation and design between academics, user groups and ICT providers. Technical report 2009, 1, Ronneby:

- Blekinge Institute of Technology. Retrieved from <a href="https://www.bth.se/fou/Forskinfo.nsf/.../\$FILE/innovati.pdf">https://www.bth.se/fou/Forskinfo.nsf/.../\$FILE/innovati.pdf</a>, January 2011.
- Elovaara P., Mortberg C. (2006), Design of digital democracies Staging and performing citizenship, gender and information technology. Paper presented at the Conference "Gender Studies and TechnoMedSciences", Berlin. Retrieved from <a href="http://www.bth.se/fou/forskinfo.nsf/all/2e9b092ba005b388c1257336002d0eac">http://www.bth.se/fou/forskinfo.nsf/all/2e9b092ba005b388c1257336002d0eac</a>, January 2011.
- Faulkner W. (2001), 'The technology question in feminism: A view from feminist technology studies, in Women's studies international forum, 24 (1), pp. 79–95
- Fraser N. (2001), 'Social justice in the knowledge society: Redistribution, recognition, and participation'. Paper presented at the Conference of the Heinrich-Boell Foundation, Humboldt University, Berlin. Retrieved from <a href="http://www.wissensgesellschaft.org/themen/orientierung/socialjustice.pdf">http://www.wissensgesellschaft.org/themen/orientierung/socialjustice.pdf</a>, January 2011.
- Fraser N. (2007), 'Transnationalising the public sphere: On the legitimacy and efficacy of public opinion in a post-Westphalian world,' in *Theory*, *culture and society*, 24 (4), pp. 7-30.
- Gajjala R. (2002), *Cyberfeminist technological practices: Exploring possibilities* for a women-centred design of technological environments. UN/INSTRAW Virtual seminar series on gender and ICTs. Retrieved from <a href="http://www.uninstraw.org/docs/gender">http://www.uninstraw.org/docs/gender</a> and ict/Gajjala.pdf, 28 April 2004.
- Ganesh S., Barber K.F., (2009), 'The silent community: Organizing zones in the digital divide', in *Human relations*, 62 (6), pp. 851-874. Retrieved from <a href="http://hum.sagepub.com/content/62/6/851.full.pdf">http://hum.sagepub.com/content/62/6/851.full.pdf</a>, January 2011.
- Gurstein M. (2000), *Community informatics: Enabling communities with Information and Communications Technologies*, Hershey: Idea Group Publishing.
- Gurstein M. (2006), 'Editorial: Enabling the local as a fundamental development strategy', in *Journal of community informatics*, 2 (2). Retrieved from <a href="http://ci-journal.net/index.php/ciej/article/viewArticle/346/252">http://ci-journal.net/index.php/ciej/article/viewArticle/346/252</a>, January 2011.
- Gurumurthy A. (2004), Gender and ICTs. Cutting edge pack, Brighton: BRIDGE IDS. Retrieved from <a href="http://www.bridge.ids.ac.uk/reports">http://www.bridge.ids.ac.uk/reports</a> gend CEP.html, December 2010.

- Gurumurthy A. (2006), 'Promoting gender equality? Some development-related uses of ICTs by women', in *Development in practice*, 16 (6), pp. 611-616. Retrieved from <a href="http://www.jstor.org/stable/4029917">http://www.jstor.org/stable/4029917</a>, 12 November 2010.
- Gurumurthy A. (2008), 'Gender equality through ICT access and appropriation:
   Taking a rights-based approach'. IT for Change Occasional paper. Bangalore: IT for Change.
   Retrieved from <a href="http://idl-bnc.idrc.ca/dspace/bitstream/10625/41793/1/129461.pdf">http://idl-bnc.idrc.ca/dspace/bitstream/10625/41793/1/129461.pdf</a>, November 2010.
- Gurumurthy A., Singh P. J., Mundkur A. and Swamy M. (eds.), *Gender in the information society. Emerging issues*, New Delhi: UNDP-APDIP ICT4D Series and Elsevier. Retrieved from <a href="http://www.apdip.net/news/genderis">http://www.apdip.net/news/genderis</a>, January 2011.
- Gurumurthy A., Singh P.J., Kalley A., Arakali C., Thimmaiah K. (2010), *Digitising a feminist stratagem What* Mahiti Manthana *has taught us about women's empowerment*, Bangalore: IT for Change. Retrieved from <a href="http://www.itforchange.net/Digitising Feminist Strategem">http://www.itforchange.net/Digitising Feminist Strategem</a>, January 2011.
- Hacker, K., van Dijk, J. (2000), Digital democracy, issues of theory and practice,
   Michigan: Sage.
- Hafkin N., Huyer S. (2002), Lessons on gender in ICT applications: Case studies
   of infoDev projects. Working paper, 18. Retrieved from
   http://www.infodev.org/en/Publication.539.html, December 2010)
- Hafkin N., Huyer, S. (2007), 'Women and gender in ICT statistics and indicators for development', in *Information technology and international development*, 4 (2), pp. 25-41. Retrieved from <a href="http://itidjournal.org/itid/article/viewFile/254/124">http://itidjournal.org/itid/article/viewFile/254/124</a>, December 2010.
- Hafkin N., Taggart N. (2001), *Gender, information technology, and developing countries: An analytic study*, Washington: Office of Women in Development. Retrieved from <a href="http://www.usaid.gov/wid/pubs/hafnoph.pdf">http://www.usaid.gov/wid/pubs/hafnoph.pdf</a>, December 2010.
- Hafkin N.J. (2002), Are ICTs gender-neutral? A gender analysis of six case studies
  of multi-donor ICT projects. UN/INSTRAW Virtual seminar series on gender and
  ICTs. Retrieved from <a href="www.uninstraw.org/docs/gender">www.uninstraw.org/docs/gender</a> and ict/Hafkin.pdf,
  December 2010.
- Haraway D. (1985), 'A manifesto for cyborgs: Science, technology, and socialist feminism in the 1980s', in *Socialist Review*, 80, pp.65–108.

- Huyer S. (2005), *Women, ICT and the information society: Global perspectives and initiatives*. Paper presented at the Proceedings of the international symposium on Women and ICT: Creating global transformation.
- Huyer S., Sikoska T. (2003), Overcoming the gender digital divide: Understanding ICT's and their potential for the empowerment of women. Synthesis paper, Santo Domingo: UN INSTRAW. Retrieved from <a href="http://www.un-instraw.org/pdf/oth-Synthesis Paper.pdf">http://www.un-instraw.org/pdf/oth-Synthesis Paper.pdf</a>, December 2010.
- James J. (2004), Information technologies and development. A new paradigm for delivering the Internet to rural areas in developing countries. UK/USA:Routledge.
- Jensen, H. (2006), Women, media and ICTs in UN politics: Progress or backlash?, in Gurumurthy A., Singh P. J., Mundkur A. and Swamy M. (eds.), Gender in the information society. Emerging issues, New Delhi: UNDP-APDIP ICT4D Series and Elsevier, pp. 3-14. Retrieved from <a href="http://www.apdip.net/news/genderis">http://www.apdip.net/news/genderis</a>, January 2011.
- Johanna E.A., George O. (2008), *Lack of equal access to ICTs by women: An e-governance issue*. Paper presented at the Proceedings of the 2<sup>nd</sup> international conference on Theory and practice of electronic governance, Cairo.
- Junghee L., Hyunjoo, L. (2010), 'The computer-mediated communication network:
   Exploring the linkage between the online community and social capital' in *New media & society*, 12 (5), pp. 711-727. Retrieved from <a href="http://nms.sagepub.com/content/12/5/711.abstract">http://nms.sagepub.com/content/12/5/711.abstract</a>, January 2011.
- Kenniston K., Kumar D. (2003), *The four digital divide*, Delhi: Sage.
- Kling R. (2000), 'Learning about information technologies and social change: the contribution of social informatics', in *The information society*, 16 (3), pp. 217-23.
- Kuriyan R., Ray I., Toyama. K. (2008), 'Information and Communication Technologies for Development: The bottom of the pyramid model in practice', in *The information society*, 24, pp. 93-104.
- Kuriyan R., Toyama K., Ray I. (2006), 'Integrating social development and financial sustainability: The challenges of rural computer kiosks in Kerala', in *Proceedings of Conference of ICTD 2006*. Retrieved from <a href="http://www.ictregulationtoolkit.org/en/Publication.3541.html">http://www.ictregulationtoolkit.org/en/Publication.3541.html</a>, January 2011.
- Latour B. (2005), *Reassembling the social*. *An introduction to actor-network-theory*, Oxford/New York: OUP.
- Latour, B. (1988), Science in action, Cambridge: Harvard University Press.

- Mabrouki O., Chibani A., Amirat Y., de la Cruz M.N. and Fernandez M.V. (2010), 'Context-aware collaborative platform in rural living labs', in Albani A., Dietz J.L.G. (eds.), *Advances in enterprise engineering*: Springer Berlin: Heidelberg, pp. 65-76. Retrieved from http://www.ubicc.org/files/pdf/UBICC Mabrouki Olfa 476.pdf, January 2011.
- Madon S. (2005), 'Governance lessons from the experience of telecentres in Kerala', in *European journal of information systems*, 14 (4), pp. 401-416.
- Marcelle G.M. (2000), Transforming Information and Communications
  Technologies for gender equality. Gender in development monograph series #9,
  New York: UNDP. Retrieved from
  <a href="http://www.onlinewomeninpolitics.org/beijing12/mono9-ICT.pdf">http://www.onlinewomeninpolitics.org/beijing12/mono9-ICT.pdf</a>, December 2010.
- Martinez J., Reilly K. (2002), Looking behind the Internet: empowering women for public policy advocacy in Central America. UN/INSTRAW Virtual seminar series on gender and ICTs. Retrieved from <a href="http://www.uninstraw.org/docs/gender">http://www.uninstraw.org/docs/gender</a> and ict/Martinez.pdf, December 2010.
- Menon N. (1998), 'State/gender/community: Citizenship in contemporary India', in *Economic and political weekly*, 33 (5), pp. PE3-PE10.
- Morgan S., Heeks R., Arun S. (2004), Researching ICT-based enterprise for women in developing countries: A gender perspective. Retrieved from <a href="http://www.cab.org.in/ICTPortal/Lists/Knowledge">http://www.cab.org.in/ICTPortal/Lists/Knowledge</a>
   %20Bank/Attachments/42/GenderResearch 21 12 2007.pdf, December 2010.
- Mukhopadhyay S., Nandi R. (2007), 'Unpacking the assumption of gender neutrality', in *Gender, technology and development*, 11(1), pp. 75-95.
- Nair P. (2002), 'Moulding ICT to their needs: Kerala's women overcome their misgivings', in *Women in action*, 2, pp. 16-19.
- Nath V. (2001), 'Empowerment and governance through Information and Communication Technologies: Women's perspective,' in *International information & library review*, 33, pp. 317-339.
- Oudshoorn N., Rommes E., Stienstra M. (2004), 'Configuring the user as everybody: Gender and design cultures in Information and Communication Technologies', in *Science*, *technology* & *human values*, *29* (1), pp. 30-63.
- Parthasarathy B., Srinivasan J. (2008), 'How the development of ICTs affects ICTs for development', in *Science*, *technology & society*, 13 (2), pp. 279-301.

- Pavarala V., Kanchan K.M. (2007), *Other voices: The struggle for community radio in India*, New Delhi: Sage.
- Pavarala V., Malik, K.K., Cheeli J.R. (2006), 'Community media and women: Transforming silence into speech,' in Gurumurthy A., Singh P. J., Mundkur A. and Swamy M. (eds.), *Gender in the information society. Emerging issues*, New Delhi: UNDP-APDIP ICT4D Series and Elsevier, pp. 96-109. Retrieved from <a href="http://www.apdip.net/news/genderis">http://www.apdip.net/news/genderis</a>, January 2011.
- Pendakur, M., Harris R. (eds.) (2002), *Citizenship and participation in the information age*, London: Garamond Press.
- Pfaffenberger B. (1988), 'The social meaning of the personal computer: or, Why the personal computer revolution was no revolution,' in *Anthropological quarterly* 61 (1), pp. 39-47.
- Pfaffenberger B. (1992), 'Technological dramas', in *Science*, *technology*, & *human values*, 17 (3), pp. 282-312.
- Poster M. (1997), 'Cyber democracy: The Internet and the public sphere', in David Porter (ed.), *Internet culture*, New York/London: Routledge, pp. 201-18.
- Primo N. (2003), *Gender issues in the information society*. Publications for the World Summit on the Information Society, Paris: UNESCO. Retrieved from <a href="http://portal.unesco.org/ci/en/file\_download.php/">http://portal.unesco.org/ci/en/file\_download.php/</a>, January 2011.
- Puri S K., Sahay S., Lewis J. (2009), 'Building participatory HIS networks: A case study from Kerala, India', in *Information and Organization*, 19 (2), pp. 63-83.
- Rajalekshmi K.G. (2007), 'E-governance services through tele-centers: The role of human intermediary and issues of trust', in *Information technologies and international development*, 4 (1), pp.19-35.
- Rao A., Kelleher D. (2005), 'Is there life after gender mainstreaming?', in *Gender and development*, 13 (2), pp. 57-69.
- Schwittay A. (2008), 'A living lab' corporate delivery of ICTs in rural India', in *Science technology & society*, 13 (2), pp. 175-209.
- Sengupta A., Long E. G., Singhal A., Shefner-Rogers C.L. (2007), 'The sada says 'We women have our rights', in *International communication gazette*, 69 (4), pp. 335-353.
- Sharma G., Sturges P. (2007), 'Using ICT to help the poor access public services: an action research programme', in *Information development*, 23 (1), pp. 15-24.

- Skalli L.H. (2006), 'Communicating gender in the public sphere: Women and information technologies in the Mena', in *Journal of Middle East women's studies*, 2 (2), pp. 35-59.
- Skjeie H., Siim B. (2000), 'Scandinavian feminist debates on citizenship', in *International political science review/Revue internationale de science politique*, 21 (4), pp. 345-360.
- Sreekumar T.T. (2007), 'Cyber kiosks and dilemmas of social inclusion in rural India', in *Media*, *culture* & *society*, 29 (6), pp. 869-889.
- Sreekumar T.T., Rivera-Sanchez M. (2008), 'ICTs and development', in *Science technology & society*, 13 (2), pp. 159-174.
- Swamy M. (2008), 'ICTs and women's empowerment: Findings from South Asia", in Gurumurthy A., Singh P.J., Kovacs A. (eds.), *An empowerment approach to gender equality in the information society Regional analyses from Asia*, Bangalore: IT for Change. Retrieved from <a href="http://idl-bnc.idrc.ca/dspace/handle/123456789/41796">http://idl-bnc.idrc.ca/dspace/handle/123456789/41796</a>, November 2010.
- Thampi B.V. (2004), 'Decentralised planning and economic empowerment of women', in *Labour and development*, 10 (2).
- Van Djik J., Hacker, K. (2003), 'The digital divide as a complex and dynamic phenomenon', in *The information society*, 19, pp. 315–326. Retrieved from <a href="http://www.indiana.edu/~tisj/19/4/ab-vandijk.htm">http://www.indiana.edu/~tisj/19/4/ab-vandijk.htm</a>, January 2011.
- Vikram P., Gert G., Ashis J.P., David K. (2009), *Tangible user interface for increasing social interaction among rural women*. Paper presented at the Proceedings of the 3<sup>rd</sup> International Conference on Tangible and Embedded Interaction.
- Wajcam J. (2010), 'Feminist theories of technologies', in *Cambridge journal of economics*, 34, pp. 143-152. Retrieved from <a href="http://www.philosophy.ed.ac.uk/events/documents/WajcmanFeministtheoriesoftechnology.pdf">http://www.philosophy.ed.ac.uk/events/documents/WajcmanFeministtheoriesoftechnology.pdf</a>, January 2011.
- Wiklund H. (2005), 'A Habermasian analysis of the deliberative democratic potential of ICT-enabled services in Swedish municipalities', in *New media society*, 7, pp. 701-723.
- Williams G., Thampi B.V., Narayana D., Nandigama S., Bhattacharyya D. (forthcoming), 'Performing participatory citizenship Politics and power in Kerala's Kudumbashree programme', in *Journal of development studies*.

- Wilson, S.M., Peterson, L.C. (2002), 'The anthropology of online communities' in *Annual review of anthropology*, 31, pp. 449–67. Retrieved from <a href="http://jrichardstevens.com/articles/wilson\_peterson.pdf">http://jrichardstevens.com/articles/wilson\_peterson.pdf</a>, March 2011.
- World Bank (2004), 'Engendering Information and Communication Technologies: Challenges and opportunities for gender-equitable development', Washington, DC: World Bank.
- Zorn I. (2004), 'Vifu: Virtual community building for networking among women', in *Gender, technology and development*, 8 (1), pp. 75-95.

# Appendix A

## **Design Process of Gramamukhya.in**

A knowledge network and interactive web portal in Malayalam for women elected heads of panchayats in Kerala

The Portal is a *collective space* for knowledge networking and interaction among women *Panchayat* leaders in Kerala. In the initial phase, due to the operational convenience, three districts viz. Thiruvanathapuram, Malappuram and Kannur are chosen. It is a vertical portal that aims to be both an information gateway as well as a communication forum for the critical engagement of its users at three levels:

- Knowledge networking through the creation of an information and support group.
- Self representation and sharing of views and experiences through restricted access
   blogging for cross-district learning.
- Deliberative participation enabled through a **discussion platform** to further ecitizenship in the State.

#### 1. Information and communication foci

User Type	Portal Provides	
Guest User	Single point information access	
Authorised user	Information access, blog reading and posting, online chatting, discussion forum, email etc.	
Administrator	Content management – content uploading, posting and approvals, queries etc.; System management; Other?	

## 2. Portal feature highlights

- Name: Gramamukhya.in
- Logo: not finalised
- User Registration and Authentication (log in and password)
- Content in Malayalam with information structure based on user-generated *(or centric or based)* categories.
- Personalised navigation, e.g. 'quick links' to frequently accessed information pages.
- Community-building tools: Discussion forum, live chat room, bulletin board, emailing list, newsletter, etc.

- Resources & downloads official documents as well as Image and Video gallery.
- User Queries and Feedback
- Report Generation & Poll

# 3. Portal development and change history

Version No.	Date	Technical Contributor	Description
V1.0	25/01/11	Biju Philip	Specifications & Workflow diagrams – Initial draft version created
V1.1	10/02/11	Biju Philip	Features – Intial Phase
V1.2	15/02/11	Hareesh Mohan	Web Features and Site Design
VI.3	28/02/11	Hareesh Mohan	Improving the Site Design and complete the work

## 4. Portal design brief and tasks outline

## Phase I

- Requirement study (in different phases)
- Template design
- Website development
- Content migration
- Site name and logo
- Testing with primary contents
- Demonstration
- Domain name and web space registration
- Site hosting
- Training & support

## Phase II

- Facility for Malayalam contents
- Easy content updation and management
- Effective categorisation of contents
- User registration and user login
- User roles and privilege settings
- Facility to add news, press releases etc.
- Events and calendar
- Blogging facility for registered users and separate user blog area
- Discussion forums
- Online chat facility

- Monthly newsletter
- Contact forms
- Image and possible video gallery
- Online polls
- User comments
- Downloads
- Mailing List
- Questionnaires or Survey Forms
- Support Forum for registered users
- Report generation
- Content mailing facility
- Pdf generation
- Book marking etc.

## 5. Online interface work flow

Online Portal
(Home)

User Operation

Login

Login

Login

Wy Blog

User maintenance

Content
Management

Discussion Room

Report Generation

## 6. System feature details

# I Home page

## Information by Categories

Information will be displayed based on its categories. Administrator/Content Creator will add or edit content into the WebPages. It has an option to submit information by registered users, but this will be published only after approved by the admin.

## Advertisements - optional

This portion can be used for displaying advertisements

## ○ Poll – optional

We can include a poll, based on any present topic. This option will be opened for all.

#### Calendar

Events can be highlighted in the calendar

#### Discussion Forum

Forum will be again an option for sharing knowledge

#### News letters

Users can subscribe newsletters by mail.

## II Login page

To Register

Username & password will be provided and the same can be used for other purposes such as blogging or chat.

## o Login for already registered

Enter a valid username and password for login, which will then enable registered users to chat or blog etc.

## III My Blog

o Log in to my blog using the same login details.

This feature will be enabled when users are logged into the system.

## Write a blog

This will help them to start to write a blog and able to receive comments from others.

After submitting this blog it will wait for the administrator's approval for publishing it into the webpage.

#### IV Chat Room

#### o Live Chat

This will help users to do live chatting with others who are available in the system. This will be an online chat room for sharing.

#### V Discussion Forum

It will be a space for discussion on matters that members wish to restrict for themselves

# Appendix B

#### 1. ICTs initiatives in Kerala

In recent years, Kerala has become one of the leading states with regard to accessibility of technology in India. Kerala's advantages like total literacy and high tele-density make it a fertile ground for ICTs to thrive. Kerala has made significant strides in information and communication technology (ICT) as an instrument for the State's overall development. The State has also made a paradigm shift from the use of proprietary software based applications in e-governance initiatives with the involvement of free software based activities.

Kerala declared its first IT policy in 1997 emphasising industry and private sector participation for the expansion of ICT infrastructure centred on technology parks. This policy also aimed to extend citizen services through its local bodies computerisation programme and to use ICTs for empowerment of the people in order to fulfil the right to information of the community at large. Since the declaration of its first policy, the Government of Kerala has launched various initiatives for ICTs applications which could bring in tangible benefits to a majority of the people through the creation of replicable, high impact and high visibility implementations at the grass roots level.

Kerala has implemented a number of innovative projects aimed at bridging the emergent digital divide between rural areas and cities in the State as well as addressing the issues of ICTs access for the masses. Brief descriptions of some notable initiatives are provided below:

#### *A) E-Governance*

The National e-Governance Plan (NeGP) has enabled the Kerala State to be at the forefront in implementing ICTs projects. The infrastructure that has already been built up like the State Data Centre, KSWAN etc. provide the perfect platform for the State to take its functioning to the next higher level of Governance.

## B) Chief Minister's Sutharya Keralam

*Sutharyakeralam*, the innovative initiative of the Government of Kerala, helps to bring complaints and grievances of citizens directly to the notice of the Chief Minister, thereby ensuring transparency and efficiency in the functions of the Government. This is achieved through the automation of Chief Minister's Grievance Redressal Cell and convergence of all the available forms of communication to redress the grievances of citizens.

http://www.itmission.kerala.gov.in/ksitm-e-governance-projects/273-chief-ministers-sutharya-keralam.html

## C) Citizen's Call Centre (155300)

The Citizen's Call Centre (CCC) is a Government to Citizen (G2C) single window interface, IT enabled facility that enables citizens and Government to interact effectively. The Call Centre enables quick delivery of critical information, which is otherwise either

inaccessible or difficult for the citizens to trace. In the context of increased focus on e-Governance and with the implementation of the Right to Information Act The Government/Public Call Centre is more important for providing information to the citizens in a user-friendly manner.

The Citizen's Call Center located at Thiruvananthapuram provides, over telephone, provides information and complaint registry services for the benefit of the common man.

The information provided includes,

- **1.** Details of schemes, programs, entitlements, welfare benefits etc. Details of popular services such as ration card, driving license, building permit, employment registration etc.
- **2.** Modalities of accessing such entitlements/benefits Procedures for accessing various kinds of certificates such as nativity, caste, transfer of residence etc.

Details of various Departments, including Civil Supplies Department, Revenue, General Education, Kerala State Electricity Board, Kerala Water Authority, Motor Vehicles Department, Local Self Government Department, Kerala University, Registration Department, SC Department, ST Department, Kerala Women's Commission, NORKA, MG University, Electrical Inspectorate, Employment and Training Department, Industrial Training Department, Cooperation Department, Parliamentary Affairs Department, Taxes Department (e-filing) are available through the Call Centre. Besides, details of Government projects such as National portal of India, Malayalam Computing, INSIGHT, File/Petition tracking etc are also available from the Citizen Call centre.

http://www.itmission.kerala.gov.in/ksitm-e-governance-projects/76-citizen-call-centre-155300.html

## *D) E-mail for government employees*

The Email for government employee project envisages e-mail as one of the media for official communication among Kerala government employees. E-mail provides speedy communication with multi platform support solutions that can also be implemented in a short span. The security features available with email ensures the integrity of this communication. This project aims to transmute the present Government communication to a higher more competent level.

The project commenced in 2009. Considering the advantages of use of e mail and the legal obligations associated with it, a set of rules and policies regarding managing e mails were also approved by the Government. C-DIT is the implementing agency of the project.

http://www.itmission.kerala.gov.in/ksitm-e-governance-projects/79-email-to-all-employees.html

## *E*) *Digitisation of government records*

Recognising the advantage of digitisation of records towards promoting good governance, the Government of Kerala has encouraged digitisation of records in various departments. Once the data is digitised, processing of files becomes easier and faster compared to the

manual system. Access to background data and keyword-based search is possible with digitisation. Furthermore, digitisation enables access at multiple points at the same time, thus reducing delay in processing files. Users can also save these files to the system or any other media for future reference.

The digitised files, available through Intranet are useful in speeding up routine activities of employees. This project has enabled the creation of a valuable repository and back-up mechanism for Secretariat documents like GOs, Memo files etc.

At present this database is available in the Secretariat Intranet and any department in the Secretariat can access the scanned copies of the file through the computer network in domain name <a href="http://records.kerala-gov.in">http://records.kerala-gov.in</a> (available only at Government Secretariat Intranet). Access to the database of records is restricted as per the privileges of the particular official. Scanning of files started in 2005 after the development and acceptance of application software and work flow software.

http://www.itmission.kerala.gov.in/ksitm-e-governance-projects/95-digitization-of-government-records.html

## *F)* Integrated Government Service Gateway (IGSG)

Integrated Government Service Gateway (IGSG) is a FOSS based geographical information portal, which serves as a ready reckoner of all the Government offices, tourist destinations, and other places of historical significance in Kerala. It provides details of location, how to reach and the services offered, etc. to the citizens. It helps the public to easily gather information through this Web based GIS Application without any time delay. As a pilot implementation, the geographical details of the Trivandrum District have been digitised and are made available right now and are in the process of updating this WebGIS with relevant information about the state of Kerala as a Wiki-model.

Presently available are maps with the data of State boundary, *Panchayat*, Block, District boundaries, all Kerala road map, and the details of the main places. The facility for adding the suggestion button is useful for adding new data in to the map. The new data may be a place, office, or a tourist location and an administrator will authorise the added data, after this the authorisation the data will be the part of the map.

http://maps.kerala.gov.in/

http://www.itmission.kerala.gov.in/ksitm-e-governance-projects/83-integrated-govt-service-gateway-igsg.html

## *G) Video conferencing - VC*

The Video Conferencing (VC) Project, started by KSITM in 2004 and commissioned in December 2005. The project has been developed with the purpose of creating an easy and convenient means for Government Departments to improve their functioning through location-independent and real-time communication access. The Project has made it possible to achieve linkages amongst Kerala State IT Mission, all District Collectorates, North Committee Room - Government Secretariat, Public Office, Vikas Bhavan, Kerala

House, New Delhi and Advocate General's Office, Ernakulam. The setting up of VC room at Kasargod Collectorate is in progress.

The availability of this service has helped in organising immediate online conferences and discussions even while minimising strain to participants besides saving time and expenses. The provision of recording provides an avenue for future reference.

 $\underline{http://www.itmission.kerala.gov.in/ksitm-e-governance-projects/98-video-conferencing-vc.html}\\$ 

H) Efforts of agencies / institutions / departments employing ICTs for various purposes

Sl. no.	Name	Service
1	Vanitha Commission	Complaint Registration System and details of KWC officials
2	Sabarimala Alerts	Sabarimala daily programs on mobile
3	MVD	Application status , Vehicle Details on Mobile, Fancy Number availability
4	KWA	Bill and payment details
5	Bluetooth Kiosk	Advertisement medium for Tourism Dept.
6	Lottery	Lottery Results on Mobile
7	Entrance Examination	Entrance Examination results / Valuation stages via SMS
8	Health	H1N1 and HIV Awareness Campaigns
9	Forest	Timber Auction alerts
10	Kerala Pareeksha Bhavan	File Tracking System
11	Higher Education Council	Scholarship Alerts
12	KFC	Details of loans
13	KSFDC	Movie Ticket Reservation through Mobile
14	I&PRD	SMS Alerts to press/SMS complaint registration status – Sutharyakeralam
15	KSRTC	Schedule of Long route buses & Telephone numbers of Important stations
16	e-SMS	Bulk SMS Service for all departments
17	Higher Education Department	Scholarship Alerts
18	Green Kerala Express	m - voting SMS Voting
19	Dr.SMS	Details of Health Services

20	DAM Alerts	Water Level
21	KSFE	KSFE Branch details,
22	Kerala State Open School	Admission status
23	Law Department	File Tracking System
24	Fisheries	Vessel Tracking, Weather alerts to fishermen
25	Kerala agricultural University	Alerts to Farmers
26	Sabari Mala Alerts	Q Status, Parking Status and Help for Pilgrims

# **Appendix C**

A broad analytical framework that investigates the inter-relationship between gender and ICTs (adapted from BRIDGE (2004) document). The Project might employ some of them during its journey.

## Identity in the information society:

- How do ICTs enable/constrain women's ability to maintain control over their bodies and sexuality?
- How can ICTs enable/constrain women's ability to challenge stereotypes and social and religious norms that confine their choices?
- How are new technologies redefining, if indeed they are, women's identities (self-perception and social status)?
- How do ICTs perpetuate/challenge existing stereotypes of 'women's work' and in the process restrict/enhance opportunities available to them?
- How can women be enabled to feel more comfortable in availing and optimising opportunities that become available through ICTs in widening spaces of engagement and for individual agency?

## Control and ownership of technology within emerging knowledge paradigms:

- Do new technologies in their very design alienate women? How can women shape the design and nature of ICTs (and create new technologies) to suit their needs?
- How can ICTs enable/constrain women's ability to impart and secure knowledge?
- Do existing technology paradigms allow for an equitable information society? How do alternate paradigms Creative Commons licenses, open content and open access paradigms further women's interests?

#### Collective action in the information society:

- What role do ICTs play in women's ability to organise and engage in collective action towards the realisation of their rights?
- How do ICTs enable/constrain women's ability to be represented/participate in decision making bodies and influence decisions that affect their lives?

## ICT-induced institutional transformation:

- What are the gender dimensions of ICT-induced institutional transformation around us in work and business as well as in governance, health, education, media, social organisation, etc? For instance, why and how do citizen's media allow for more equitable inputs from women, how and under what circumstances do ICTs contribute to the productive potential of women in their work spaces?.
- How can such change be directed towards engendering institutions in ways that empower women? For instance, how can e-governance bring the interface between public authorities and the community closer to the community?

(Bridge 2004: 4-5)