1. Referred Papers

ID: 101
Refereed Papers
Topics: Practice, Community Media, ICTs for Development
Keywords: Good practices, community informatics, evaluation, webmedia, youth

What are good practices and how to evaluate them?

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(This is just some questions around the theme of my abstract to be developed in the next two weeks)

Good practices is a recurrent word in Community Informatics. Is it an ideal or the product of sound evaluation of concrete projects? The question would be better formulated if we depart with a series of goals to achieve before engaging in the initiation of e-inclusive projects. But what to do with projects that were initiated without very clear and measurable objectives?

The challenges of working with communities are as big as the rewards. The feeling of exploring and working with a new field are very exciting and the best strategy to the process is to apply the good old “try and fail” approach.

How to conduct experiences where the creative and laboratory approach harmonize with a stable knowledge building that empowers the community?

ID: 103
Refereed Papers
Topics: Theory
Keywords: Inclusion, exclusion, aporia, administrative burden, citizens

Rethinking Social Inclusion

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In this paper I would like to discuss four issues related to the notion of social inclusion. The first is that it is impossible to discuss merely of social inclusion/exclusion in term of digital divide without avoiding that this notion becomes an aporia. The second issue is that social e-inclusion maybe is not a universal aspiration that all the societies tend automatically to realize in the same measure, with the same speed, and in the same way. The third is that the debate on social inclusion/exclusion seems to lack not only of a robust sociological and political vision, but also of anthropological contributions which leaves wide gaps in our reading of cultural differences in this field. The fourth issue is that social inclusion should be related to the notion of “administrative burden”, which measures time and costs required to citizens in order to use government services. An increase of social inclusion implies in fact an increase
of administrative burden for citizens.

Drawn on nine case studies carried out in Italy inside the European funded project SIGIS “Strategies of Inclusion: Gender and the Information Society”, these reflections aim to revisit some important issues of the debate on social inclusion.

ID: 104  
Refereed Papers  
Topics: Socio-technical design, ICTs for Development  
Keywords: rural ict education, digital doorway, south africa, demographic, hci

Towards a more personalised user experience and better demographic data on the Digital Doorway public computer terminals

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The Digital Doorway project provides multi-terminal ruggedised computers to users in underprivileged rural communities, enabling them to teach themselves basic ICT skills, and provide a mechanism for educational content delivery. The paper highlights recent progress made towards personalizing user experience at the Digital Doorway terminals and increasing the accuracy of user demographics at each site. The following topics are addressed:

* Digital Doorway system architecture and software  
* Personalized and shared user spaces  
* A mechanism for users to transfer files from the Digital Doorway to a personal device  
* The collection and analysis of demographic data and application usage statistics

Current configuration is a 3-terminal set-up with a client/fileserver PC, and two diskless fat clients. A satellite downlink and GPRS return path provide a mechanism for content delivery and log file retrieval. A Bluetooth dongle and GUI application allow a user to save files from the Digital Doorway to a personal device. The operating system and content is open source.

Users have the ability to create their own user accounts and enter personal information such as age, gender and home language. This data, along with statistics on application usage is collected and transmitted to a central server. User desktops can be personalized using the built in web cam. This provides an incentive for users to create their own user logins , thus increasing the accuracy of the collected demographic data.

Results from the data collection process indicate a dominance of male users between the ages of ten and twenty-four years old. Despite the rural location of most sites and diverse cultural backgrounds, the language of choice for most users is English. The twenty most popular applications on the Digital Doorway are identified.

It is possible to visualize the data collected at each site and establish which sites are well used, as well as sites that are undergoing technical difficulties. Unsuccessful sites may require technical or social intervention, or even relocation. Improved network visualization mechanisms will contribute to speedier fault identification and greater system uptime, in turn providing a more meaningful ICT education tool.

ID: 105  
Refereed Papers  
Topics: Practice, Included/excluded communities, Sustainability  
Keywords: on-line learning, distance education, social inclusion, student engagement

Social inclusion issues. Challenges for schools and community

Alison Elliott

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This presentation explores some of the issues involved in using ICTs as a basis for building the skills and social capital that underpin social inclusion, the interplay between knowledge-ready skills (eg. literacy, higher order thinking skills, self-regulatory strategies, knowledge construction and teamwork) and academic outcomes and transferability, and social inclusion more broadly, and the challenges faced by educators to be both confident, creative and productive users of new technologies and promoters of real-world thinking and doing skills—such as reasoning, enquiry, planning, analysis, and self-regulation and evaluative that can be applied within and across social domains.

Over the past decade foci on equity and social inclusion issues in education have changed from 'digital divide' issues linked to hardware and broadband accessibility, to concerns about gaps in students' knowledge and communication skills and their negative impact on social inclusion, including employability. Today, pertinent educational questions relate not so much to the impact of ICTs on learning per se, as positive

As a case in point, despite nearly a quarter of a century of ICT use in Australian education, many students, especially from poorer or remote communities, have limited opportunities to engage with ICTs at school and in their homes and communities. Equity and inclusion issues are prominent in discussions about optimising learning for students and are at the forefront of new Australian government initiatives to improve ICT access and opportunities in schools. Effects are well accepted, but to the role of ICTs as scaffolding devices for literacy, higher order thinking and problem-solving—the backbones of equity and inclusion in an educational sense. Increasingly, it is recognized that ICT inequalities are linked to differential learning outcomes in schools and classrooms and are powerful drivers of employment opportunities and income differentiation.

ID: 107
Refereed Papers
Topics: Community Media
Keywords: virtual community, identity, negotiation

Virtual Ethnoscape: The Formation and Negotiation of Identity in an Online Diasporic Community

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Given the large population of Filipinos migrating in different countries, online communities serve as an integral venue where they could reconnect with their culture and their identity. Drawing on Appadurai’s Theory of Scapes and Hecht's Communication Identity Theory, the researchers shed light on the negotiation and formation of identity in the context of online diasporic community. Textual analysis and email interviews were employed in gathering the necessary data. A total of eight email interviews were conducted. Threads are also selected on the basis of the topics. The researcher specifically chose threads that focus on culture of Filipinos as well as social issues in the Philippines.

Findings reveal that a unique Filipino identity is formed through continuous interaction as well as shared history of the members. The negotiation of identity involves four layers—these are: personal, enactment, relational and communal layer. For the first layer, the researcher found that migrant Filipinos generally felt dissociated and experienced culture shock when they settled to an unfamiliar environment. Many of them took time adjusting and coping with the culture of the host country they immigrated in. That is why they seek ways to connect with the culture and people they are familiar with. This is the primary goal of the migrant Filipinos as to why they enter online diasporic communities like Filipino.ca.

The enactment layer involves the negotiation of identity within the online interaction. As migrant members participate in online threads and communicate with other members, they consequently negotiate their identity. Their negotiation of identity relies on the member’s intention and willingness to communicate with other migrant members. Migrant members
participate on threads that generally capture their interest. They also participate on threads that have certain connection on the members themselves. They form ‘virtual personas’ and make use of appropriate means to interact with other members like similar language and emoticons.

The researcher also found that relationships are formed as members gain and disclose information and continuously interact with other members. The manner that members interact and participate in the online threads as well as the relationships they establish forms a sense of who they are as a distinct community. All these factors contribute to the formation of a ‘scape’ that migrant members share with each other. The study has validated that a virtual ethnoscapes could emerge as the members form their distinct cultural identity.

ID: 108
Referred Papers
Topics: Community Media, Sustainability, ICTs for Development
Keywords: ICT accessibility, Isolated Populations, 5th screen, Anthropology of Communication

SOCIOLGY OF TRANSLATION AND ANTHROPOLOGICAL ANALYSIS OF COMMUNICATION FOR ICT SUSTAINABILITY - An « on-the-road communication » project in Ghana

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The general problematic of this communication shows how sustainability of ICTs and information accessibility in developing countries is linked to the specific process of building values and of translation stages (Latour, 2001) between the various actors, including the technology itself.

The general theme of the study will particularly consider the geographically and socially isolated populations within developing countries. This same analysis might also be valid and transposable for geographically and socially isolated populations of developed countries.

An information emergency programme for developing countries is about to be implemented by European Organisations, ONGs and United Nations Organisations through the use of the 5th screen (Skacan, 2007). The so called 5th screen unites: broadcasting on a wide screen by satellite access as well as mobile computerized abilities. The use of a 4x4 lorry provides access to geographically and socially isolated populations. All communications can be broadcast in the local languages by using an instantaneous dubbing system.

In Ghana, it is planned to provide information to the community on Risk Reduction of the Highly Pathogenic Avian Influenza (HPAI), the « on-the-road communication » project combines african movies and an information campaign concerning the HPAI. For local populations the combined event using audiovisual entertainment and information is very much appreciated and welcomed. This way human dignity is respected by the use of High Technology that, for once, is not only reserved for developed countries. Above all, using audiovisual transmission allows socially isolated people to receive information from an accessible communication means where many of them might be illiterate and on the other hand share the use of oral and collective cultural behaviours. Therefore, sharing together a cultural and informative event helps to present the project as a success.

Following the anthropological analysis of communication (Ouvrard, 2005), this research tries to bring some issues to the fore, such as:

the need of partners, facilitators, locally-recognised leaders or respected individuals who can represent, translate and facilitate the local needs, uses, languages for down-up messages and the impact of the informative or the didactical contents for top-down messages (Akrich, Callon, Latour, 1988);

the part of the technical constraints, potentials and attraction;
the necessity or not of shared values between the involved communities such as: the target communities, local and international experts, national and international representations and organisations, national and international technicians taking into account that all these different communities have their own languages, cultures, ways of acting, thinking, behaving (Hymes, 1967)

the inclusion of direct grassroots based communication for social mobilisation and culturally appropriate empowering education based on confidence and trust generative process (Suchman, 2003) to reach sustainability and successful implementation (ecological balance, social progress, economical feasibility and cultural diversity).

To conclude, implementation and sustainability for socially or geographically isolated people probably requires the combination of permanent intention, action, retro-action to move human mind boundaries through ICTs as well as the use of a complex communicative process based on sociology of translation such as facilitation, technical mediation and situated action.

ID: 109
Refereed Papers
Topics: Socio-technical design, Theory, Policy
Keywords: eDemocracy, engagement, civil society

Getting engaged online: New technology. new democracy

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New digital technologies are transforming our community spaces, removing the barriers of space and time. Emergent online technologies, sometimes referred to as Web 2.0, and mobile communication have combined with a generational shift in attitude from the collective to the individual. All of this is magnified through processes of globalisation. Western society is now more individualistic and issues driven than ever before yet our democratic systems remain rooted in the collectivist agendas of the past.

Democratic engagement has traditionally been driven from the top down, yet the internet has demonstrated that this model is no longer effective and that new democratic spaces can emerge both from within government and from civil society. Where traditional democracy is monolithic, imposed and managed, eDemocracy becomes temporal, emergent and dynamic. The internet broadens the options for democratic engagement to encompass increased diversity and more deliberative tools. As such, it is often heralded as a way of overcoming the democratic deficit and the widespread disillusionment and distrust of politics and government. However, technology of itself will not achieve this and solutions must be developed that support the social and cultural milieu of citizens.

This paper contextualises societal shifts, including the emergence of a culture of individualism, the breaking down of traditional social barriers and the reaction (or lack thereof) of those who govern. The development of new online social and communication spaces is discussed through a review of the literature. The paper then goes on to explore the implementation of ICT as a tool for transforming the relationship between citizens, elected representatives and government. The paper draws on empirical evidence from a number of current eDemocracy research projects to develop both an environmental scan of good online engagement practices and a theoretical model for effective eDemocracy.

ID: 110
Refereed Papers
Topics: Small & Medium Enterprises/SMEs, Included/excluded communities, ICTs for Development
Keywords: ICTs and informal economy – West Africa - Forms of appropriation

The role played by the informal economy in the appropriation of ICTs in urban environments in West Africa?
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ICTs and "informal" economy in African cities

The "informal" economy concerns activities directly bound to the most contemporary evolutions. Those related with the insertion of the ICTs in territories are demonstrations of a "paradoxical invention of the modernity" [JF Bayart 1994] with regard to the universalist classic model of the modernization spread by the West. Having explained briefly what we understand by "informal" according to various disciplinary approaches, we shall show how the insertion and the appropriation of the ICTs in the African cities gives place to a proliferation of new activities of service which are embedded in the urban fabric, adapt themselves to the low level of income of the populations and generate more or less qualified jobs which recover totally or partially from informal practices. We shall wonder finally about the proliferation of this "other economy" expression of the globalization.

ID: 112
Refereed Papers
Topics: Practice, Policy, ICTs for Development
Keywords: ICT4D, impact, evaluation, development, digital inclusion

The Quest for Intangibles: understanding ICTs for Digital Inclusion beyond socio-economic impact

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Bringing together differences and overcoming inequities is one of the key challenges offered by the Information Society. In this paper we review early discussions of impact evaluation of ICT interventions for social and economic development, especially the experience of telecentres and other initiatives to offer public access to ICT. We problematize the attribution of ICT programs as causes of social and economic development, and at the same time we offer insight into understanding the intangible benefits of ICT for social inclusion. This approach is auspicious for researchers and practitioners who have been evaluating outcomes and impacts of ICT in development programs, and brings them closer to researchers and academics who have been exploring theoretical constructs about the new media landscape and social interactions made possible by technological innovations. A fruitful dialogue that offers new insight to the questions surrounding social inclusion via public access to ICT.

ID: 113
Refereed Papers
Topics: Community Business, Included/excluded communities, Policy
Keywords: knowledge mobilization, community networks, community intelligence, broadband networks

Community Informatics and Knowledge Mobilization: New Roles for Communities, Governments, and Universities

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Knowledge mobilization refers to the processes and practices of making knowledge accessible to broad audiences – and thereby useful to individuals and groups in society. Knowledge mobilization involves developing ways for groups to work together to produce and share knowledge. The term has been in use for some decades, often in counterposition to knowledge management, which involves developing systems for managing the organization
and transfer of expert and strategic knowledge by corporate and governmental institutions. Regional and national programs of broadband connectivity in rural and remote communities in North America are providing researchers with an opportunity to examine the role of community members and others in shaping the social and organizational uses of these technologies. This paper will address the question of the relationship of community informatics to knowledge mobilization, particularly in relation to the practices and processes of community intelligence, a key concept within the community informatics paradigm. Knowledge mobilization can problematize the question of what counts as knowledge in the first place, thereby opening up the possibility of validating a variety of non-normative realms of expertise, including for example, Aboriginal ways of knowing. Similarly, knowledge mobilization raises the questions of how different spheres of knowledge can be communicated across different spheres of discourse and of how researchers can and should involve themselves in the emergence of the community network. The presenters will describe their experience in major national research and development projects in Canada, examining the Alberta SuperNet and its relationship to the development of community networks. The authors will arrange for an electronic presentation of their material as part of the discussion, allowing for interaction and discussion with the audience.

ID: 114
Refereed Papers
Topics: ICTs for Development
Keywords: e-skills, employability, ICT skills gap, Central and Eastern European

Bridging the e-skills gap in Central and Eastern Europe: The growth of e-skills and employability Initiatives in the Newly Expanded European Union

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With its recent admission of ten Central and East European countries, while simultaneously facing a labor gap that threatens its goal of becoming the world leader in the knowledge economy, the European Union is grappling with significant challenges to social inclusion and economic modernization. Research on the EU workforce and its ICT skills gap has begun to emerge, as well as research on underserved communities in need of ICT training programs that allows them to become active participants of this modernization. What is missing is the connection between the two: how do the newly trained workers in Central and Eastern Europe contribute to the emerging EU ICT workforce? In what ways does this contribution succeed both for the individuals, and for the needs of the broader EU? And who are the actors that are working to make the EU e-inclusion agenda a reality? This study examines the relationship between basic ICT or e-skills and employability, focusing on several NGO projects in each of five countries forming a cross-section of Central and Eastern Europe: Bulgaria, the Czech Republic, Latvia, Poland and Romania. The study explores whether these ICT training programs form a patchwork effort, or if there is a successful trend underway to build e-skills for underserved populations in the region. It further examines the extent to which the new e-skills contribute to employment, resilient employability, or higher productivity for those who are already employed, and in turn addressing the both needs of the European Union workforce, and the socio-economic needs of the at-risk populations targeted by the programs. Finally, if the programs do succeed, what are the key elements that can be replicated in future programs to continue these successes?

One of the most challenging aspects of doing research with e-skills and employability programs is the existence of multiple definitions and goals of “employability”. It is not possible or desirable to look at employability programs through the same lens – it is the diversity of lenses that brings the variety of local contexts and needs into life, each lens carrying its own advantages and its own challenges. For this reason, the research includes analysis of programs that target people who are unemployed; people currently employed but who need additional skills to adapt to new demands in their job and achieve higher productivity (civil servants, farmers, micro entrepreneurs, etc.); people who need to build their job experience before venturing into the labor market (young people); and people who, although no longer economically active, still need basic e-skills in order to become part of the European information society (elderly and pensioners).
Economic benefits of social Inclusion and the role of ICT in Knowledge Management

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Although the use of ICT has been widely highlighted in different facets of economic and social realms and in poverty alleviation in general, little focus has been placed on how the information exchange is effectively used and how such gains can be measured. The ICT in conjunction with other technologies, in general can provide a vast means of both social inclusions as was empowerment the community for economic growth. In this paper we consider the ideas of how ICT can be used effectively. The issues which are dealt with in this paper are knowledge management in a heterogeneous interfaced system. The issues that hinder the transfer of knowledge between different communities based on different cultural backgrounds. Models are considered which can be used to insure interoperability and therefore enhance accessibility of information to different social groups. Having such a means is not the end of it but rather the requirement of any information acquisition, which logically takes us to the next phase of how to effectively interpret and acquire the knowledge as intended by the source of such. The challenges of verification process necessary to evaluate the knowledge transfer are highlighted in the article. It is with the understanding that, without sound knowledge management verification process, the information may suffer from ambiguity. The feedback mechanism is a well known concept, but how such mechanism is organized in a heterogamous scenario can be different. I therefore finally present one possible framework that can be utilized in different social groups for effective social inclusion based on application of such to sound knowledge transfer. ICT can play a vital role in knowledge management and therefore economic benefits through social inclusion.

The GLOOBAL Internet portal experience

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The GLOOBAL Internet cooperation portal (http://www.gloobal.net) was created by the Spanish organization IEPALA (Institute of Studies for Latin America and Africa) in 2005. GLOOBAL is an integrated system of information and communication whose aim is being a strategic resource at the service of development and social inclusion. The portal’s main aim is to create an independent and innovative space for exchange and mutual support among organizations, networks and social movements of the North and of the South of the world dealing with themes such as sustainable development, cooperation, gender equality, environment, human rights. GLOOBAL is a huge on line database in which everyday many organizations around the world enter different kinds of information related to the themes mentioned above. The information can be created _ad hoc_ (a description of an event, a guide about a particular issue) or a link can be created to a place on line which has this information (it can be a link to a pdf document or to an Internet site and so on). I worked for IEPALA from September 2005 to July 2006. We created a team called “GLOOBAL 2.0” whose aim was to re-think GLOOBAL both at a technological and at a conceptual level. We investigated the problems and the challenges of the portal and we finally build up an online “wiki-forum” in which people could express their ideas about the portal and give us suggestions to improve it.
In this paper I analyze the process of re-conceptualization and redesign of the GLOOBAL portal. This analysis shed light on some important issues related to social inclusion and to how NGOs understand ICTs: the close relation between the technological and the conceptual in the construction of Internet sites aimed at inclusion; the underestimation of the users’ feedback and the difficulty to provide up to date tools and resources that people really use.

ID: 123
Refereed Papers
Topics: Included/excluded communities, Sustainability, ICTs for Development
Keywords: videoconferencing, remote, rural, broadband, indigenous

Videoconferencing and Sustainable Development for Remote and Rural First Nations in Canada

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Videoconferencing can be used to connect remote and rural First Nation communities to work together on sustainable development priorities. This paper presents two case studies of videoconferencing events. In both cases, a real-time high-bandwidth connection provided rich visual and audio data to be exchanged among communities separated by vast distances. The host communities for these videoconference events are small First Nations with traditional lifestyles connected to the land. Despite their remoteness and traditional cultures, these communities have the capacity to use advanced high-bandwidth technologies in innovative ways to contribute to sustainable development of their communities.

ID: 125
Refereed Papers
Topics: Included/excluded communities, ICTs for Development, Gender, Sexuality
Keywords: Information and Communication Technology, Latin America, Feminism; Women

Gender and technological literacy: some necessarily considerations

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In this paper we present the importance of Information and Communication Technology (ICT) for women in general, with emphasis on puertorrican women. There is an agreement among scholars, feminists, community leaders and political activists that societies - specifically those stigmatized/ labeled as “third world countries” or “under developed societies”- should fight technology gap. ICT should be available as a tool to increase social, political, cultural and economical development in these countries. Even though there is an agreement regarding this, less has been said about the complexity of such societies, and the differences among their members (gender, age, class or group, and geographical position, among others). This presentation explores the relationship between women experiences and their position as digitally gap or computer illiterates, which seems to be a pattern in Latin America and the Caribbean. Particularly, we will explore the educational, technological and social situation of women in Puerto Rico. The emphasis will be on adult women with little or none technological knowledge. Finally, based on a recent research where two different approaches to technology training were tested, we will explore some crucial aspects regarding technology training in order to develop technological skills in this social sector and its relation to technology acceptance.

ID: 126
Refereed Papers
Topics: Included/excluded communities, ICTs for Development
The effectiveness of information and communication technology (ICT) interventions is notoriously difficult to measure. Intended beneficiaries face interconnected challenges that defy simple causality models and fragmented solutions. In the most compelling examples, ICT programs reinforce and complement, sometimes in very subtle ways, a variety of services. In underserved communities that require many inputs to improve the socio-economic landscape, how can the impact of ICT be appraised? What is the best way to discover and describe what is actually going on? Further, can a body of research be assembled that can illuminate deeper, unrecognized patterns? How does the design of research shape and impose a reality onto the “stuff” that’s happening on the ground?

Evidence narratives are a storytelling methodology we develop that profiles people that have benefited from ICT, based on a multi-year longitudinal research project. The stories pay careful attention to relevant, hyper-local detail of the people, organizations and communities in which ICT programs are embedded in order to reveal more general lessons. The goal is to describe the impact of ICT training on “typical” trainees, rather than a “poster-child” who would have succeeded without ICT training. An evidence narrative should capture the rhetorical and explanatory power of an in-depth, concrete, and contextualized case within a framework that is conscious of representativeness and generalizability.

This research attempts to understand wider ICT program lessons by exploring individual cases in great detail. We want to find examples of success and interrogate them from the perspective of “evidence.” The project presumes that the important elements of any “success” story hinge on the individuals, programs and communities and the chaotic interaction between the many variables that affect success. Understanding ICT interventions is best be achieved by careful observation, intentional questioning and coherent storytelling that folds in new, unanticipated data. While the stories rhetorically feature individual beneficiaries, they are useful because they analyze program design choices and community dynamics. They are case studies of programs and communities as much as they are of individuals.

By explicitly orienting success stories toward representativeness, evidence narratives humanize beneficiaries and bring to life richly detailed, concrete lessons for practitioners, researchers and donors. Everybody remembers and responds to heartwarming stories. But for those committed to understanding and affecting social change, heartwarming stories are valuable to the degree their lessons can be applied and acted upon.

ID: 133

Refereed Papers

Topics: Socio-technical design, Practice, ICTs for Development
Keywords: Information and communication technologies, development, traditional carpet industry, socio-technical model, India

Analysis of ICT4D Projects as Socio-Technological Models of Development: A Case Study of Adoption of Computer Aided Designing for Carpet Weaving in Rajasthan, India.

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The extensive use of information and communication technologies (ICTs) for developmental purpose has evoked mixed response in the field of international development literature. Most conventional wisdom in this domain articulates a general feeling of optimism regarding the ability of ICTs to transfer people’s life by socially, politically and economically empowering them. However, critical studies have pointed out to the contextual nature of success of such projects. In this paper we attempt to understand one of the major ICT for development
(ICT4D) initiatives in the traditional manufacturing sector in Rajasthan, India, namely the carpet weaving industry. An ICT4D project introduced Computer Aided Designing (CAD) technology a decade ago with an objective of reviving the rural carpet industry inflicted by general retardation and decline. Not surprisingly, the CAD project was driven by developmental conceptions that focus on increasing the overall output and revenues from the industry which is then believed to ultimately benefit all the stakeholders through trickle down effect.

This paper first discusses the idea of development underlying the design and content of ICT4D project in general and CAD technology in particular. Second, it tries to understand how far the underlying idea of development is in consonance with the larger socio-economic context of its implementation. Further, an attempt is made to evaluate the differential impact of the project implementation on various intended beneficiaries - exporters, designers and carpet weavers. The paper criticizes the techno-scientific approach to ICT4D projects and instead emphasizes a need for socio-technological approach in the conceptualization such projects for rural Indian settings. Contrary to the technoutopic assumption, the paper proposes an alternate contextualist approach for studying the impact of ICT4D projects on different stakeholders emphasizing the influence of socio-economic context in determining the realization of development ambitions to actual delivery.

ID: 134
Refereed Papers
Topics: Practice, Included/excluded communities, Ethnicity/Race
Keywords: Puerto Rico, Libraries, Archives, Exhibitions, Humboldt Park

Speaking to and through the Archive: An Exhibition of Puerto Rican Materials at the Newberry Library Curated by Students from the Dr. Pedro Albizu Campos High School in Chicago

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At its very core, community informatics (CI) is about enabling communities to more effectively use information while studying how this can be achieved most effectively to best meet community needs. But how can information be used within a community when it is held within the walls of a non-circulating library? Libraries have proven to be an important locus of activity as CI has emerged as a field of study and practice. This paper examines an exhibition curated by students from the Dr. Pedro Albizu Campos High School in Chicago’s Humboldt Park neighborhood. The exhibition of Puerto Rican materials held by the Newberry Library, an independent research library in Chicago, was initially conceived as a vehicle for both cultural exploration and the teaching of research skills. However, the exhibition would serve as a participatory model for combining both digital tools and sixteenth century books as information and communication technologies used to promote social inclusion and explore the persisting legacy of imperialism and colonization. The project had multiple outcomes, some of them unexpected. Held in an established public forum, the exhibit served as a means for the students to speak back to history rather than be determined by it. The students also began writing their own histories with their own legacies in mind, and helped lay the groundwork for a continued relationship between the library, their high school, and their community.

ID: 137
Refereed Papers
Topics: Web 2.0, Mobile technologies, Other technologies
Keywords: service-oriented computing, wi-fi, location-based services

Toward a Service-Oriented Computing Environment for Public Service Delivery in Municipal Broadband Wireless Networks

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This paper provides an overview of a new investigation of serviced-oriented computing for the delivery of public services within municipal broadband wireless networks (MBWN). This research is part of a broad program to identify ways in which information and communication technologies (ICT) can contribute to the fostering of communities which are: healthy, safe, collaborative, learning, and sustainable. Research results from the design and experimentation with a Wi-Fi-based Bus Locator service will be discussed.

ID: 138
Refereed Papers
Topics: Included/excluded communities, Policy, ICTs for Development
Keywords: electronic government, digital civism, e-participation, Ibero-American Charter, Latin America


Roxana Goldstein


This paper aims to show the links between the electronic government and the Community Informatics, through: (1) the introduction of a conceptual framework that connects the citizens’ democracy, the three dimension of the State, the citizen-center electronic government paradigm, and the Digital Civism; and (2) the outline and the analysis of some innovative strategies - both citizen-led and government-led ones - , that shows the presence of social forces and political will within the region, that can create a favorable scenery for the re-shaping of e-government public policies in Latin America, and for the starting up of a virtuous circle oriented in favor of a citizens’ democracy in the region.

ID: 139
Refereed Papers
Topics: Mobile technologies, Community Media, Sustainability
Keywords: Mobile Phone, Metadata, Storytelling, Meaning, Web

Forgotten Stories – Pathways to inclusion.

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The idea of social inclusion as both a descriptor and policy objective has and is becoming an important issue within social democratic states and development literature. In particular, significant work has been undertaken in the United Kingdom, The European Union and more recently Australia. This work has described in some detail the elements that can lead to exclusion such as poor health, disability, poor infrastructure and lack of transport. Social exclusion is clearly understood as a complex set of interactions rather than simple cause and effect. It is within this complexity that the day to day stories of people and their communities as well as the meanings they ascribe to their lives in relation to the many excluding elements is overlooked. This paper will explore how mobile phone technology using mapping, tagging, text as well as image and audio can be used to enhance the policy debate and planning of sustainable and inclusive communities. This paper argues that the documentation of exclusion and social change using a different range of media, including photography is not new, for example the mass observation movement during the 1930’s in the UK and the Farm Security Administration Photography Program in the USA during the 1933 depression. The authors argue that the advent of cheap and easily web enabled devices such as mobile phones offer enormous potential for people within excluded communities to observe and document their lives easily and readily. Most importantly, these observations can be easily aggregated to develop a pool of information and knowledge which could be used in the development and maintenance of sustainable communities. The authors will present finding of a research
Re-assessing Australia’s digital divide policy: an examination of the relevance and value of a social inclusion framework

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While a whole host of social, cultural and economic benefits of information and communication technology (ICT) access were often imagined within early digital divide policies, without high levels of ICT dispersion and with limited access quality, these benefits tended to be futuristic or based on the experiences of internet ‘early adopters’: an elite minority. With 75 percent of Australians now using the internet (ABS 2007) and 97 mobile phone subscribers per 100 residents (ITU 2006) and a variety of new digital platforms emerging that support citizen’s to participate in the networked society in diverse ways (Castells 2000; OECD 2007) Australia’s digital divide policy aspirations need to be re-assessed. The key question for policy is: how can the social benefits of ICT use be understood and harnessed?

The new Australian Rudd government has recently announced a portfolio for social inclusion and there are plenty of indications that this concept will be used to establish a new direction for social policy (see ALP 2007). In this light, this paper examines the way in which a social inclusion framework can be used to measure the social benefits of ICT use in an Australian context. It is argued that this measurement should be used to develop digital inclusion policies that are targeted, specific and accountable.

References


A FRAMEWORK TO INVESTIGATE DIGITAL LITERACY IN COMMUNITY TECHNOLOGY CENTRES: AN EXPLORATORY STUDY IN BRAZILIAN’S TELECENTRES

Daniela de Carvalho Matielo
The present paper aims to contribute to the growing field of research about how to investigate digital literacy, specifically among telecentre users, through the development and application of an experimental methodology and framework of analysis that could be replicated in similar projects without too many physical and monetary resources needed, as is the case of most of these kind of initiatives in developing countries.

At first, the main concern of telecentres was to provide physical access to computers and the web, which reflected the superficial understanding that we had about Internet and social and economic changes (Warschauer 2003). Nowadays, however, according to Hargittai (2003) it is essential to regard access to ICTs not only as a binary divide of haves and have-nots, since there are “factors beyond mere connectivity that need to be considered when discussing the potential implications of the Internet for inequality”, such as equipment, autonomy, abilities, support and scope of use. In this context, it becomes relevant to investigate the uses, needs and competences of the users becoming Information Society citizens from a telecentre.

Our study has followed the online activities of 8 new telecentre users for one month through diaries where they described everything they did, or wanted to do but did not accomplish. In not defining tasks or goals, we intended to avoid the imposition of values to the users, in order to observe their strategies according to their own needs and interests. Diaries were analyzed and a framework of categories was defined to classify the collected information. Results suggest that some unexpected difficulties of the users can be identified through the proposed methodology and that development of the framework may provide useful information and insights for both researchers and policy makers in search of a better understanding about the actual competences of technology use in CTCs.

CITED REFERENCES:


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Abstract

In this paper I describe a project that proposes to place relatively simple communications technologies in public places, to create an 'always-on', real-time visual and aural connection through which individuals and the publics of each place may communicate, play, and perform, with one another, and for one another, in whatever ways emerge, for indeterminate purposes.

Rather than carrying art, entertainment product, news, advertising or private communications as such, and rather than working from a foundation of networked mobility and individuation, the project seeks to enliven public space, draw attention to place in a global context, and provide spectacle to create publics in public places, through communicating the improvised social interactions of people in the same place, to another place.

After describing the concept and its three suggested modes of operation, the paper discusses the project’s underlying concerns with forms of spontaneous sociality; the construction of a
public present to itself; the significance of public space and of play and performance in the
public sphere; of the interest in seeing ‘my place’ and ‘your place’ in the same context.

The discussion concludes with a comparison of the proposed system to three others that in
different ways share similar concerns – Lozano-Hemmer’s Body Movies, i3’s Satellite, and the
Telectroscope – and the paper concludes with a discussion of the role of public screens in
mediating a public sociality.

ID: 145
Refereed Papers
Topics: Socio-technical design, Theory, ICTs for Development
Keywords: program evaluation, digital divide, development informatics

Planning to evaluate a large social justice project: Digital Doorways, South Africa
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This paper is a descriptive, analytical, and theoretical account of a week-long consultation with
the Meraka Institute (African Advanced Institute for Information and Communications
Technology, Council for Scientific and Industrial Research) South Africa, where an evaluation
process for the Digital Doorway project was developed, using a number of different program
evaluation frameworks. The Digital Doorway is a major project of the South African
government to promote digital inclusion in the most needy and isolated communities in that
country.

The author has been a strong advocate of the application of program evaluation to community
informatics, and this is the first time he has been able to work, in depth, with colleagues to
develop a structured approach to the evaluation of a community informatics project in a
developing country. Questions of articulating the social context of technology as an adjunct of
social intervention and the creation of a program logic chart to guide further research were
dealt with in the week. Additionally, an emphasis was put upon developing mechanisms and
for participatory community engagement in the evaluation process.

The model as a guide to action that has been developed will be of interest to those interested
in effective and rigorous planning, monitoring, and evaluation of community informatics
initiatives.

ID: 146
Refereed Papers
Topics: Policy, ICTs for Development
Keywords: Development policy, e-governance, public sector reform, development informatics

The Promotion of E-Governance in Developing Countries: E-Government Implementation in
Two Asia-Pacific Countries
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The Promotion of E-Governance in Developing Countries:
E-Government Implementation in Two Asia-Pacific Countries
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Abstract

The adoption of the Millennium Development Goals (MDGs) has turned the spotlight onto wider goals than that of economic growth, even though this remains the basic tenet of the development effort. It is now recognised that equitable growth, poverty reduction, universal access to health and education, peace and stability are also key targets. The public management function is one of the main vehicles through which the relationship between the state, civil society and the private sector is realised. It is therefore a vital means towards achieving these higher-order development goals.

This paper is constructed on the premise that good governance is important. Improving efficiency in public sector management, reducing costs and eradicating corruption releases resources that can be directed towards the MDGs and ensures that scare resources are not mis-directed away. Increasing transparency and accountability in public sector institutions closes the democratic and political gaps highlighted in the Millennium Declaration and improving reponsiveness to citizens' needs promotes the sustainability of MDG achievements.

Any public administration reform programme will typically include ICTs as being central to the performance improvement effort. E-government impacts on governance and e-governance can indeed contribute to the achievement of the MDGs – but this need not necessarily be the case. Good governance is not just about the way the executive branch of government (the public administration) goes about the business of governing. It is about political parties, parliament, the judiciary, the media, the private sector and civil society – and, in developing countries, the way that international financing institutions relate to national government. Government, in terms of its overall responsibility for national development, is dependent on the governance qualities of the other institutional actors as well as on its own integrity.

There is no universally acknowledged governance policy for public sector management. Each country needs to decide its own economic and social priorities and the best people to hold government to account are those who live in the country and are most affected by its decisions. Government agendas that include the MDGs’ focus on reducing inequalities and ensuring that support reaches those who need it most must be judged with the relevant information to hand. The means by which these governance processes are being managed and how these are being supported by ICT are examined with reference to two countries in the Asia-Pacific region with which the authors have some familiarity.

ID: 147
Refereed Papers
Topics: Practice, Community Business
Keywords: non-profit organisations, social networks

Barriers to the effective use of Web technologies by community sector organisations

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This paper presents the results of a recent cross-cultural study of rural and regional community sector organisations in Australia and Italy. The study was qualitative in nature, involving a series of in-depth case studies in both countries. It was designed to improve the understanding of the ways in which such organisations manage new technologies, specifically websites and online services, and the potential barriers they face in adopting those technologies. Based on insights derived from social network analysis, and theories relating to the diffusion of innovation, the study examined the support networks that provide the ideas and resources - strategic advice, professional and technical support, funding, training etc - that enable them to implement and sustain new technology. The approach was designed to assist in the identification of any intrinsic weaknesses in organisational environments that must be overcome before the full potential of such new technologies can be realised.
In terms of outcomes, the research was intended to be practically oriented. The focus on community organisations was seen as important not only because of a need to improve their exploitation of technology, but also because research suggests that such organisations reflect local needs and are capable of providing the access to external expertise and the resources best able to meet local needs (Gibb and Adhikary 2000, Arley 2003). Thus, the research should also contribute to the debate on policy formulation and resource allocation.


**ID: 151**
**Refereed Papers**
**Topics: Socio-technical design, Theory, Practice**
**Keywords: design, practice, roles**

Making technology happen: the people in the story

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If we think of technological artefacts and associated practices as sociotechnical networks, our attention is drawn to the roles that people adopt to make such networks function. For example, terms such as ‘web author’ and ‘web master’ (sic) summarise widely recognised relationships that some people have with building and operating web sites. While we still frequently refer, loosely, to ‘users’ of information and communication technologies, the distinction between the designers and users of ICT is becoming less clear cut. In some cases, for example, some may influence others’ use of online conferences by a range of social, organisational and technological means in processes of technology use mediation (Orlikowski et al, 1994).

While there are many accounts of the design and use of ICT in such contexts, agency in this sense is curiously under-considered. This paper examines accounts of the design and use of ICT in social action settings, drawing out several recurring themes relating to the management of roles and associated practices including:

* entrepreneurship, best understood here as the innovation combination and recombination of resources and ideas (for example, as ‘movement entrepreneurs’, ‘cultural entrepreneurs’ or ‘organisational entrepreneurs’);
* mediation, in a sense close to Orlikowski et al’s technology use mediation, as a form of simultaneous design and use;
* researchers as designers;
* boundaries, such as market relations mediating relationships between social action practitioners and technologists, and between technology designer/users and social adversaries where technology is enrolled in social conflicts.

We consider the implications of these issues for the wider practice of technology design in social action. These ideas are also informing empirical work in to the design and use of technology and social action currently being carried out as part of the Practical Design for Social Action Project, as part of the wider Designing for the 21st Century programme of the UK Arts and Humanities Research Council and the Engineering and Physical Sciences Research Council.

Steve Walker

Centre for Social Innovation
Telehealth Attitudes of Traditional Healers in South Africa

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This research investigated the viability of a mobile communication system to stimulate the sharing among traditional healers (TH) and between TH and western-oriented healthcare providers (WOHP) of patient treatment information in South Africa (SA). Currently hardly any communication (mobile or otherwise) between TH and WOHP due to a deep sense of mutual mistrust, cultural differences, differences in treatment methods and materials. The government of SA has shown an increasing interest in integrating these widely different healthcare practices as a means of improving the overall quality of healthcare in the nation. Because of the low penetration of fixed line communications infrastructure but the high adoption of cell phone technologies, a mobile communications-based information system offers a possible opportunity, but in a nation where many are illiterate and unfamiliar with technology concepts, introducing any technology represents a tremendous challenge.

We report on an qualitative analysis of in-depth interviews with TH, WOHP and TH Association leaders who are active in the Khayselitsha township in Cape Town. Some of the key findings relate to their attitude with respect to government regulations, their perceptions of the power relations between TH and WOHP, the extent to which they trust and respect each other, and their attitude towards technology adoption. However, it was also clear that no universal attitudes can be ascribed to the ‘Traditional Healers’ as a homogenous group; this turned out to be a very fragmented community with a number of distinct sub-groups.

It is hoped that the findings of this research may contribute towards formulating a public health policy in developing countries which will be more inclusive of traditional healers. This is also one of the first studies to look at the ICT attitudes and potential in a community which has traditionally shunned ‘Western’ technologies.

What does community informatics mean for participants in a project?

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What does community informatics mean for participants?

Project ENLACE is an initiative of the Graduate School of Information Science and Technologies of the University of Puerto Rico. The project is conceptually based on the socio technical point of view of community informatics. Community informatics is a concept that is many times misconstrued as plainly introducing information technologies in communities. At times, the concept is difficult to grasp and explain to participants. However, we feel participants develop their own sense of this powerful concept from their own experience and perspective. Since in Puerto Rico many efforts are being made to develop Infocentros (public community telecenters) with different purposes and conceptual frameworks, meaningful definitions of community informatics as developed by participants in ENLACE could be useful.
when designing new projects. The research reported wanted also to determine if the project purposes were being met from the participants’ perspective. It is not an evaluative approach of the project, rather we want to listen to the voices of those engaged in the project as they tell their own stories and experiences in it.

Project ENLACE is run by volunteers, students and faculty engaged in efforts to transform the urban center of Rio Piedras through the active interaction with its residents and under the umbrella of project CAUCE (Centro de Acción Urbana Comunitaria y Empresarial). Through ENLACE, the GSIST is currently engaging participants who are receiving technological and information literacy instruction as a way to promote self sufficiency. As part of the reflective process which is part of our design, we try to encourage participants to build their own understanding of the project and express what it means to their lives. Interviews were conducted with participants to capture this meaning in their own words. It is our intention to document their vision of the project and what impact it has in their lives. We have also included interviews with the student volunteers who are teaching and supporting the project so that they also identify from their own perspective, the benefits and implementation difficulties they encounter throughout their participation. The voices of participants are the center of the research as we also try to develop meaning and understanding of community informatics in a very concrete way.

ID: 155
Refereed Papers
Topics: Included/excluded communities, Sustainability, ICTs for Development
Keywords: Affordable infrastructure, Community-driven innovation, Social inclusion, Living Lab, Sustainability

Designing an inclusive future for the community of Elandsdoorn

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The ‘digital divide’ in South Africa affects people communicating with others. Not being able to reach each other and not being understood makes people feel isolated. It's likely that solutions to solve miscommunications and bridge the perceived distance between people are welcomed by a large and broad audience. It is beyond questioning that innovative technologies offer a wealth of communication opportunities, however in reality many rural areas have very little or no access to public and social services and only too often no basic communication infrastructure is at hand.

One such uncovered area is the township of Elandsdoorn in the Limpopo Province. A recent study to understand its rural context showed how community members envisioned their future [1]. They, for example, indicated that they feel lonely as their families are disrupted after losing relatives due to death or having to leave the community for work far away, and that they have little access to information and education. However, the study also showed a strong community feeling and that people are willing to explore their skills. Therefore, an initiative was launched aiming at establishing an affordable information and communication infrastructure to enable access to information, education, and healthcare that contributes to social cohesion as well.

In light of the limited information and communications technology (ICT) coverage in rural Africa, rollout of WiFi networks provides great potential to stimulate further ICT connectivity. This is due to its relatively low costs, which enables community based, or bottom up, deployment. While at the national level social objectives inform ICT policy and regulation such as universal access strategies, the current regulatory framework in Southern Africa poses significant challenges to deployment of Community Owned Networks.

In order to start designing such an inclusive future a Living Lab approach [2] will be conducted. This approach was developed in Europe as a way to deal with community-driven innovation. Bringing the ‘Ndlovu Living Lab’ to the community of Elandsdoorn enables understanding the impact of community-driven innovation and social interaction. The
proposed article will report the baseline study addressing the current communication patterns
in the Elandsdoorn community and elaborate upon the first steps taken to offer an affordable
wireless infrastructure in the community that aims to provide sustainable well-being and
communication for all.

Velthausz, D. (under review). Real-world innovation in rural South Africa. Manuscript under
submission.


ID: 160
Refereed Papers
Topics: Theory, Included/excluded communities, ICTs for Development
Keywords: development informatics, theory

A critical analysis of social inclusion

Jacques Steyn

Monash South Africa, South Africa

The notion of social inclusion is value-laden, and its definition reflects a particular ideological
stance. The word pair “inclusion” and “exclusion” needs to be clarified – from what is a
community excluded? Who determines the “what” of exclusion? These are socio-political
questions that determine the nature of an ICT project. In addition to the nature of the ICT
project, the role of ICT is itself ideologically and philosophically defined. Technological
determinism seems to be the present dominant assumption: that ICT is the solution for social
problems. Apart from ideological clarification, the notion of social inclusion also needs a moral
investigation. What right does ICT implementors have to impose their solutions onto
communities? Is ICT a neutral tool? Should it be? And if not, what are the implications? Into
what do we want to include certain communities? What is the content of the inclusion? This
paper poses some serious questions that need to be answered by Development Informatics
theoreticians and practitioners.

ID: 161
Refereed Papers
Topics: Community Media, Community Business, ICTs for Development
Keywords: economic development, digital storytelling, digital literacy, pedagogy, social
entrepreneurship

The Story Economy: Digital Storytelling in Economic and Community Development

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It is difficult to underestimate the importance of storytelling to humanity. In every community,
local or global, physical or virtual, it is one of the fundamental building blocks of meaning. As
such, poor, repressed, exploited, and underdeveloped communities may find that they have
little besides their own stories. Indeed, such dire circumstances can only be the result of tragic
narrative.

In the context of a proliferating high-tech, global information economy, however, we find that
the story gains a renewed place of power. In the information economy, the story is a
knowledge asset, a source of qualitative data, and a currency for social capital. The authors
argue that disempowered communities, often relegated to informal economies by industrial
society, may in fact be able to leverage their unique knowledge assets for participation in the
mainstream digital economy. Digital storytelling allows a community to learn and practice
valuable media production skills, skills that in turn provide greater economic mobility and social visibility.

Digital storytelling simultaneously offers a potential solution to the pedagogical problems created by technology dissemination initiatives such as the One Laptop Per Child program. Such programs are often criticized because they focus on hardware distribution to the exclusion of proper integration into the societies they aim to help. With an accompanying collaborative, local, digital storytelling curriculum, such distribution programs can utilize the unique knowledge assets of a community to more successfully approach the challenges of technology integration. Hardware, software and knowledge are instead articulated through the child’s environment in order to develop her potential abilities, dealing with real and local issues. The expression of individual and collective identities would be part of a broad cultural recognition process, seen as a fundamental tool for effective citizenship.

ID: 162
Refereed Papers
Topics: Sustainability, ICTs for Development
Keywords: Planning, Implementation, ICT Initiatives.

Going beyond Diagnostics and Planning in ICT Initiatives: limitations in the context of Malawi.

Chipo Kanjo
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ICT initiatives that help bridge the digital gap are introduced at different levels in Malawi; at national, organisational and departmental level. However, the introduction of these initiatives does not always yield the desired solutions. Although the ICT benefits and outcomes are clearly diagnosed, visualised and planned, very little is actually implemented and new challenges emerge as the gap between the knowledge and practice widens. This paper uses two cases to analyse the type of limitations that ultimately deter ICT initiatives from proceeding beyond the ‘diagnostics and planning’ stage. The two examples were chosen to demonstrate the contrasting limitations between a needs-driven and a donor-driven ICT initiative. The paper concludes that there is need to have a more balanced hybrid-approach to ensure that ICT initiatives make it to implementation.

ID: 165
Refereed Papers
Topics: Socio-technical design, Included/excluded communities, ICTs for Development
Keywords: reasoning community, group coalescing, social inclusion

Frameworks to Advance Deliberative Democracy

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Developments in ICT have put the possibility of direct democracy on the agenda, at least on a technical level. Deliberative democracy combines elements of representative democracy with direct democracy by advocating some public deliberation about issues in decision-making debates. Its aim is to facilitate both wide and deep participation in reasoning about issues. This paper outlines the part that socio-technical frameworks such as the notion of a reasoning community of Yearwood and Stranieri can play in supporting deliberative democracy. In particular it draws attention to the importance of a collaborative approach to group coalescing of reasoning in the reasoning community framework and how this can enable and support social inclusion principles. The key elements that provide for inclusion are collaborative building of reasoning structures that individuals agree on before taking positions on the issue.

ID: 166
Refereed Papers
The State Of E-Community Adoption Among The Malaysian Government-Led Rural Communities

Mardziah Hashim, Nor Laila Md. Noor and Ahmad Sallehin Khalid
MARA University of Technology, Malaysia

The Malaysian government has identified the Information and Communication Technology (ICT) as an important tool that can contribute to the reduction of poverty among the people in the rural areas of Malaysia. It is hoped to reduce the digital divide and create digital opportunities by providing the rural communities with affordable, reasonable, as well as quality access to ICT. Fundamental to community use of technology is access. Community telecenters in Malaysian rural areas were developed as early as 1997. To date, there are about 1670 community telecenters developed in this country by the government with collaboration of corporate agencies. They are well known as Rural Internet Desa (RIC), Medan InfoDesa (MID), Community Services and Knowledge Center (CSKC) besides other relevant Malaysian based rural community such as e-Bario.

There are common website templates built for these telecentres by the agencies, and the community champions are responsible to input and update these websites. The web presence and the information and activities posted on these websites indicates the extensiveness of the community adoption of ICT. This paper reports on a research attempt to describe the stage of e-community adoption among the government-led Malaysian rural communities. A three stage e-community adoption model – information, interactivity and enabler - has been developed to describe the stage of e-community adoption. An evaluation mechanism was developed and used to determine the stage of the adoption. The Malaysian rural communities are still low in the adoption of ICT with a only a handful which has reached the enabler stage.

ID: 171
Refereed Papers
Topics: Web 2.0, Included/excluded communities, Policy
Keywords: collaboration, school communities, inclusive communities

Breaking down institutional walls with ICTs

Barbara Craig
Victoria University of Wellington, New Zealand

The paper develops a set of concepts in terms of linking educational institutions virturally, so that students can work between schools and learning levels with the aim of a seamless learning community. Ideally, the goal is for personalized learning. However, the concept of collaboration via Web 2.0 tools for educational inclusion via technology has not been closely examined.

The many potential challenges to such a networking project for the community is not unfamiliar to community informatics. In this case, the relationship between key individuals working from different professional perspectives (Information Systems, Education) is help the drive the project.

The project in New Zealand aims to foster school community 'loops'. The 'loops' have arisen out of grass-roots action around resource sharing in country which is constantly challenged by its geographic isolation and fragile economy.

Government is now thinking about creating a 'super loop' to link all local loops into a high speed educational network which then links out into the world. Ideally, no matter where a child, teacher or parent sits, there is the opportunity to link into the world.

In this paper, one case study of an inner-city initiative in its first months of operation is
examined. Technical and social challenges are examined. Institutional barriers and competitiveness are examined as real dimension that affect networking. All schools will be required to move to Moodle but many have other preferred content management systems.

How are staff to be brought through a culture and learning change, legal issues, and other challenges to skills and information sharing? How are technical specialists to become sensitised to the particular social and eductional philosophies and viewpoints that characterise school culture? Furthermore, schools are not alike: for example one school dealing with young truants will be put back into contact with schools where students were previously students. Additionally, parents will be able to see student records, but here are major privacy implications.

ID: 176
Refereed Papers
Topics: Theory, Web 2.0, Included/excluded communities
Keywords: Communities, Cyberprotest, Cyberspace, Social Inequalities, Web 2.0

Facebook for Global Protest: The Potential and Limits of Social Software for Grassroots Activism

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ICT&S Center, University of Salzburg, Austria

The aim of this presentation is to discuss the role of Social Software and networked political protest. We demonstrate grassroots activism on current examples such as the anti-FARC-rallys in Colombia (“A Million Voices against the FARC”) and the protest against the regime in Myanmar (“Support the Monks’ Protest”). Both found their origin in the social networking site Facebook.

Our findings are based on four concepts that we state as characteristics of information and communication technologies in general, and of cyberactivism in particular: [1] the foundation for community building, [2] the interrelation of the real and the virtual space, [3] digital divide and social inequalities and [4] the influence of globalisation on local communities and their contribution to the global public sphere. In our presentation we want to discuss prevailing theoretical approaches by explaining them on current examples and assess their potential political impact.

[1] focuses on communities as a group with common bases, a purpose in terms of a shared meaning or a specific intention of the members. Social Software with its heterarchical, decentralised and likewise open architecture provides the potential for virtual communities, new social movements and cyberprotest to emerge. [2] integrates the expression of societal structures that are to some extent transferred to the virtual space, and vice versa. The virtual space forms a common basis for identity formation and self-representation as well as for political activism or participation. [3] stresses that social inequalities on a local and a global scale have an impact on cyberactivism, since social inequalities in real world are to some extent transferred to cyberspace. [4] makes clear that the virtual sphere is not restricted to local, e.g. geographical constraints. The global architecture of the Internet and the network character of Social Software enable a local conflict to trespass national boundaries and to be carried out globally by new forms of (online) communities.

We argue that Social Software has the potential to foster grassroots activism, political inclusion and community building that decrease exclusive, oppressive or elitist forms of political decision-making. At the same time an exclusive character of Social Software can be observed, especially (but not only) in developing countries where an enormous social gap is predominant. By analysing the role of Social Software for political protest we show new possibilities but also limits of this kind of grassroots activism.

ID: 179
Refereed Papers
Topics: ICTs for Development
This paper is based on a comparative study that maps the landscape of venues providing public access to information and communication technologies (ICT) in 25 countries. We study key venues providing public access to information in order to understand how diverse populations can and do access and use ICT to improve their lives along with factors influencing the availability and use of ICT.

In partnership with local research partner teams we engage in comparative analysis focusing on factors such as physical access to technology, affordability of the technology, human capacity and training available for the use this technology, socio-cultural factors, local economic and political environment, and the legal and regulatory framework of each country.

Our study is unique in that we focus on two categories of venues – ones where information is a core function, such as libraries, whether or not they provide public access to ICT; and other venues that provide public access to ICT but where information does not form the core function, e.g. telecentres, cybercafés. Through such comparative analysis we aim to arrive at a detailed landscape of the ICT in these 25 countries, as well as at recommendations to strengthen institutions that provide public access to ICT.

2. Non-refereed papers

ID: 156
Non-refereed papers
Topics: Theory, Community Media, Included/excluded communities
Keywords: Digital-Inclusion, Design, Learner-generated, Participative-Media, Informal

Designing Digital Resources for Social Inclusion; Lessons and Issues

Fred Garnett
London Knowledge Lab, United Kingdom

This paper looks at the issues to be addressed in designing digital resources for social inclusion and to what extent they have been achieved.

The underpinning model is twofold;

1. The Community Development Model of Learning; which argues that socially inclusive learning starts by addressing individual and community needs and can then be broadened out to address specific learning needs. This is based and is based on research on how people learn in UK online centres and the Metadata for Community Content Project work on “Digital Divide Content”. This model was used to design content creation tools for building learning resources for www.aclearn.net

2. The Participatory Design of media resources for citizen journalism by "mediacitizens" and the Learner-Generated Contexts Research Group which examines processes for co-designing learning processes and learning tools

The two projects we will review are The Peckham Participatory Archives and the school-based citizen journalism project “YouDoo”, both developed by "mediacitizens" and currently running in the London Borough of Southwark

The paper will discuss the elements of the Community Development Model of Learning and how it can be used in designing digital resources. It will pose questions for discussion by the audience about “modelling” learning for social inclusion.
The media projects are based on the citizen journalist principles of genre and narrative as well as an understanding of editorial roles and responsibilities. “mediacitizens” projects are designed to both create useful digital resources that enable communities to tell stories and also to develop the necessary professional and ethical skills to support users telling stories about their communities. They have been used in Peckham in London in part to address issues raised by gun crime.

The paper proposes that in Designing for Digital Inclusion we need to draw together:

a) a community based model for evaluating learning outcomes

b) the development and use of new media tools specifically designed for socially inclusive purposes

c) a partnership-based participatory model of designing and developing context relevant digital tools

d) a new model of trust between professionals and citizens based on creating shared socially useful outcomes.

It will then discuss to what extent this has been achieved in the projects under review and what factors need to be in place for this to be achieved.

Practical Design for Social Inclusion

Steve Thompson

University of Teesside, United Kingdom

How can we use ICT and digital media in a way that support and enhance social inclusion? I've been working with a group of Academics and Practitioners known as PraDSA (Practical Design for Social Action) and have taken from them ideas that I have applied back on my home ground in Teesside. In return I've taken some ideas from Teesside back to the PraDSA table. I’ve learned that free and open source software along with a smattering of Web 2.0 can be great and effective tools for social inclusion. That is, provided they meet the participant group's needs. There can be no one size fits all and one has to adopt a fluid approach and go with the flow. For the past two years I have been delivering on a project called Social Inclusion Demonstrators (SID) one of only 20 in the UK. I'll talk about this project and I'll conclude by sharing the conclusion of the project with you.

I will tell how a group of quite disadvantaged young people mounted an exhibition called “Dreams Hopes and Wishes” and then rose to the occasion and grew into the space that had been made available to them. These young people became someone other than what their background and environment might have modelled them to be. Even their vocabulary became different. Even their teachers talked about a possible new approach to teaching I was so mesmerised by this that I almost forgot to record it. Luckily I recovered long enough to record a few video clips which I will share with you.

PhD Colloquium

ID: 111
PhD Colloquium
Brittany is the westernmost European peninsula. Rich from information and communications technologies inventions, e.g. the Minitel in 1979, the Regional Council launched from 1995 onwards computing programs in order to sustain information superhighway and users skills in computing and the Internet on his territory. In the meantime, the Regional Council became owner of fiber-optic fragments.

In 2006, in the report entitled 'Bretagne 2.0, an ambition for a digital Brittany ' the technical infrastructures were massively subsidized (Dominique Boullier) in order to reduce the 'digital divide'.

All theses public policies were designed with the traditional features of territories. In the same time, the Regional Council sustains a few social innovative actions on community informatics. For instance, 'BZHNetwork' a private initiative launched on the Internet by a Breton from Tokyo in the end of 2005. To date, this network counts more than 3000 Bretons from the diaspora (i.e. 20 countries) and from the territory on various technical devices (internet websites and communications tools).

However, this computer-based community remains autonomous and develops herself without any strategical or predictable behavior. The network’s recruiting sphere exceeds the Brittany's territorial frontiers. Investing in such technical devices, the public actors are not able to control the uses made by the community. Considering these factors, how a territorial policy is able to manage informal networks. And, how are actions in this community informatics able to take part in located and territorialized policies ?

For the purpose of understanding 'BZHnetwork' we used the 'Actor Network Theory' of Michel Callon and Bruno Latour and the 'public justification principles' of Boltanski and Thévenot . We principally analysed the group dynamics from the inscriptions and writing sentences let by the users (e.g. chat rooms, documents, etc.). We also present a writing discourse analysis and semi-directive interviews on Breton policies to confront the imaginary of these technologies for the public actors (L. Sfez , P. Musso ) to a concrete experimentation.

1. 'BZH' means 'Breizh' in Breton language, which can translate by 'Brittany '
2. « Bretagne 2.0 . L‘ambition pour une Bretagne numérique »
Institute of Policy Studies of Sri Lanka, Sri Lanka

The digital divide is a global phenomenon. More and more scholars agree that it is a social problem which is linked to social systems and communication technologies. A significant number of ICT for Development (ICT4D) initiatives are in existence that try to build digital opportunities for marginalized communities. However, expand accessibility to ICTs only will not allow disadvantage communities to gain real benefits from its use. The most critical challenge face by these ICT4D initiatives, especially ‘Telecentres’ is how to provide services that are applicable and suitable for local communities information needs. As majority of beneficiaries of telecentres are not familiar with English, the language represents as a great barrier for them to use information. Besides, the content available on the Internet often does not match with the needs of targeted users of telecentres. Thus, local development content and delivering it through user friendly mechanism is vital.

In this context, the study aims to address two major issues namely: (a) Access and (b) Relevance. The study seeks to ascertain: what are the different access models? Why are alternative access models needed for the developing world? How have they been set-up? What is the nature of the social, economic, political and technological context within which the Telecentres operate? What factors affect access and use of telecentres? How relevant (i.e., useful and appropriate) are the content and services offered or available at the Telecentres to community members and how well they meet community needs? What is local content and its relation to access models? How do communities engage with new ICTs and how relevant do they seem to their lives? The overall aim of the study is to investigate whether the ‘local development content’ enables the disadvantage communities to have ‘appropriate and meaningful’ access to information and whether it enhances the capabilities of disadvantage communities to achieve better lifestyles.

The study will be qualitative and exploratory and will be the first in-depth study on Sri Lankan telecentres that examines telecentres from a community-centred perspective. For this study two cases will be studied in-depth. Two telecentres which were established under ‘1000 Telecentre Development Programme’ of e-Sri Lanka Initiative will be purposively selected from two different locations. A non-control study will be conducted in the first phase and studied as it is in both locations. The study will be controlled in the second phase and local content development strategies will be introduced to one centre. The central tent of the study will be to discover how local content co-relates with functionalities of the community.

ID: 117
PhD Colloquium
Keywords: civil society, NGOs, public sphere, democracy, websites, Internet functionality

Philippine NGO Websites, Usage Patterns, and Implications to State-Civil Society Relations

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The internet's strong democratic capabilities is a widely held notion, due to the opportunities it supposedly brings for deliberation and interaction. In this light, communication scholars have anticipated the Internet to be a critical resource for civil society communication and interaction with the broader public, but such studies on the breadth and level of use remain limited and focused on a few exceptional cases. Through an analysis of the websites of 193 non-government organizations in the Philippines, the paper explores how non-government and non-profit organizations actually use the Internet across a spectrum of uses: from serving as a platform for information dissemination and advocacy, creating an arena for discussion and dialogue, strengthening organizational capacity, online service-delivery, to mobilizing action. Attention is made on differentiating Internet use by accredited and non-accredited NGOs, and on how different types of organizations (i.e. environmental, human rights, women, political) use the Internet for particular purposes. The study is critical as it provides a much-needed empirical/baseline research for supporting internet use/efficacy theory-building, particularly with the civil society as the user-context. The study is important, particularly in the Philippine context where both the civil society and ICTs are anticipated to facilitate relevant social change.
PROLIFERATION AND SOCIAL EFFECTS OF VIDEO SURVEILLANCE SYSTEMS

Manuela Farinosi
University of Udine, Italy

My Ph.D. research seeks to reflect upon the impact of new information and communication technologies (ICTs) on the private sphere. It explores the meaning and significance of the term privacy in the light of the intensive and sustained development of the digital infrastructures of modern societies. Particularly it analyses the rapid introduction and diffusion of Closed-Circuit Television (CCTV) surveillance systems in public places.

Nowadays the technology of visual surveillance is relatively cheap and accessible to a broad segment of consumers. CCTV cameras are becoming an increasing feature of our daily lives. They can be found in most urban street, town squares, banks, schools, universities, hospitals, shopping centres, stores and offices, as well as in many car parks, in public transport systems, in railway stations and airports. CCTV are deployed for a variety of risk management purposes and are used in both public and private settings. They are considered as an important tool in deterring burglary, vandalism, assault, car theft and in combating anti-social behaviour, such as littering, unauthorised access, urinating in public, traffic violations, obstruction, and drunkenness.

The lives of ordinary people are becoming increasingly transparent but, unfortunately, there are very few studies about the consequences of surveillance cameras. The rapid spatial and social expansion of CCTV makes the analysis of their implications for public space very important.

My Ph.D. project, based on a qualitative study, aims at understanding the social effects of CCTV. It explore what people know about CCTV, how they experience CCTV in relation to their everyday life, and how they feel about the impacts CCTV may have on their own behaviour.
Situated at the intersection of local community life, democratic practices and discourse, and new information infrastructures, this project extends existing research in important ways. The choice of a local community forum shifts analysis from overtly political topics (e.g. presidential candidates) that dominate national blogs, towards a perspective that emphasizes a less neatly-described politics of everyday living. By analyzing the nature of the discourse on the site, my investigation builds on democratic discourse theory to understand the political functions of what might seem to be “messy” online communications. And in focusing on the actual uses of emerging information spaces, this research seeks to avoid both the utopian and dystopian rhetoric that colors many studies of Internet communication, asking instead what is happening within the framework of existing technology. Ultimately, Phillyblog is important because of what it may reveal about how contemporary communities come together to identify, frame, and understand common problems, as well as how public issues continue to be defined by geography, even in cyberspace.

Measuring online political discussion

Barry Saunders
Queensland University of Technology, Australia

While there is much academic writing about citizen journalism, bloggers, the decline of journalism and the democratic potential of new media, there has been little quantitative work done in measuring and understanding what is happening online. Textual analyses and ethnographic research certainly have a part to play in understanding the motivations and understandings of major participants and producers of online content, but these methods do not scale well to be of use in engaging with massively distributed discourses that take place online.

The topology of online discussion differs greatly to that of the mainstream media. Where in broadcast and print journalism the main voices are relatively stable and conform to a regular news cycle, discussion online takes place in a distributed space where the major players change position over time and by issue.

Understanding the shape of this new discursive space is necessary if we wish to understand how political discussion is happening. A move from a Habermasian ‘public sphere’ to a networked public sphere or even ‘public spherules’ means a change in the way we consider our political sphere.

Understanding the shape of online discussion entails using a combination of automated content analysis, datamining and network analysis. My research involves developing a methodology for mapping these discursive spaces that is replicable and scalable, utilizing the automated content analysis tool Leximancer, network mapping software Issuecrawler and VOSUN and custom written blog-scraping software. My first case study (which I will present at Prato) is an analysis of the blogging around the Australian election in 2007.

Critical Evaluation of Telecentres in Pakistan

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University of Brighton UK, United Kingdom

Abstract:
The world communities are passing through a series of divides, one of the most distinctive being the Digital Divide, which in itself has given birth to other economic and social divides. The world leaders agreed during Tunis and Geneva summits on information societies (WSIS) that the majority of people are suffering, while less is capable to take advantage from the effective use of information and communication technologies (ICTs) in their education, health, business, economy, governance, and other sectors.

Telecentres are service centres and places of social interaction as telecentres generate latest knowledge, learning and patterns of behaviour. These Public Access Centres have proved to be instrumental in bridging the digital divide and in extension of better economic opportunity to rural populations in several developing countries. The Government of Pakistan in collaboration with other organizations and agencies is considering initiating different level of projects for establishing rural telecentres in Pakistan, which will connect less privileged rural areas through various technologies.

My proposed PhD research study will focus on the evaluation of status of telecentres initiatives in Pakistan and the prime purposes and objectives these centres. We will conduct a selective baseline research to determine the different telecentres initiatives in Pakistan and conduct an analysis of their success or failure mechanisms. Our particular focus would be to evaluate factors of access, sustainability of delivery model and its effectiveness. Furthermore, we plan to examine the issues and problems in setting up Telecentres in Rural Areas of Pakistan.

ID: 167
PhD Colloquium
Keywords: ICT in developing countries, Development cooperation, Participation of target groups, Software Support, Open Source

Sustainability Factors for Information Systems in Developing Countries

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Introduction

The Ph. D. thesis shall investigate ways to develop and implement Information Systems in a sustainable way in the context of scarce resources, typically found in developing economies. The goal is to identify success parameters and come up with a methodology which describes how to deal different values of these parameters.

The focus is on the “outside” view of the system, i. e. on organizational, managerial aspects as well as technical aspects as far as the manageability and acceptance of the system is concerned.

The environment in volatile contexts is characterized by scarce infrastructure resources and scarce human resources, as well as unclear and quickly changing policies which are major hurdles to a stable and reliable Information System and the organizations supporting it.

In order to implement information systems in a sustainable way the challenge is in the area of establishing the right environment in which the information system and the people who are using, managing and developing it, find themselves and receive guidance to live up to their respective expectations.

Research Objectives

The research is guided by the following specific objectives:

1. Methodology to develop and implement information systems in scarce resource contexts
2. Setup for an organizational support structure
3. Show how to populate the support structure

4. Proof of concept

5. Sustainability of the information system

6. Setup structure for putting IS in Open Source tradition

Scope

The research will be about a framework for information system development under resource scarcity within development cooperation projects.

In particular, the research will be in the context of the development of an Academic Registry and Information System (ARIS) within the Higher Education context in Mozambique.

ID: 169
PhD Colloquium
Keywords: development informatics, mobile telephony, community technology centres, Bangladesh

Initial development of the doctoral research on "The use and appropriation of the mobile telephony technologies by the rural Bangladeshi farmers"

Bidit Dey
Queen's University Belfast, United Kingdom

This paper is based on my initial understandings gained from the first half of my doctoral research, that investigates how the mobile telephony technologies can be used and appropriated by the rural Bangladeshi farmers and what could be the potential impacts of such interaction. The research tries to find a relation between the issues raised by the ICT for development literatures and the theoretical underpinnings gained from information systems and marketing. This paper has been developed right after the completion of the four month long doctoral fieldwork. An action research approach was undertaken through an intervention by providing the farmers' groups with mobile telephones. The fieldwork project also provides a model for community based use of the mobile ICTs which can connect the rural farmers among themselves and with the local community based technology centres that have internet connectivity. The farmers' perceptions about the mobile telephony technology before and after the intervention were collected through interviews and focus group discussions. Ethnographic tool in the form of diary notes describing researcher's personal observations about the culture and social structure was used to complement the interviews and discussions. The paper provides a snapshot of the theoretical underpinning for the research and a description of the fieldwork. The paper expects the Ph.D. students from different academic backgrounds to provide suggestions which would be instrumental for the further development of my doctoral studies.

ID: 174
PhD Colloquium
Keywords: Community of practice, governance, transaction cost, social capital, participation, internet

Building the DLIST Community of Practice: a case study of governance and technology in Southern Africa

Rean van der Merwe
Open University, United Kingdom

This paper reviews DLIST-Benguela, a donor funded project that sought to promote
information sharing between stakeholders in the western coastal areas of South Africa, Namibia and Angola and so address what had been described as the single biggest obstacle to sustainable development in the region. The project attempted a web enabled, bottom-up approach to participation and governance focused not only on socially inclusive interaction of citizens with government, but also, significantly, on citizen to citizen networking, capacity building and knowledge sharing.

DLIST-Benguela, was launched in 2002 and is still active. The initiative combines significant off-line activities, including e.g. workshops and youth outreach campaigns, with a web-based platform that forms the hub of the DLIST community. This paper analyses the DLIST project as an attempt to build an on-line community of practice, supported by ad-hoc offline interaction. A key concern from project inception was that of building and then maintaining sustained member participation in the on-line context - but in a way that went beyond simply overcoming physical, economic or technical barriers to access.

A preliminary study of member activity in 2005 pointed to familiar patterns of behaviour such as asymmetrical contribution, 'lurking' and member attrition. In reviews of similar projects, these behaviours have often been presented as problems or even as fatal flaws. In contrast, this paper seeks to examine such behaviours in a way that that doesn't assume a priori that the behaviour patterns are problematic. The paper draws on a later empirical study of member activity, using both quantitative and qualitative data to evaluate these behaviours in the context of the natural dynamics of a community of practice. It further evaluates the way in which the underpinning communications technologies either promoted or obstructed the effectiveness of the DLIST community 'in practice'. The analytical standpoints taken draw upon the concepts of Transaction Cost Analysis, Social Capital and Habermas's Theory of Communicative Action. In conclusion, the paper suggests further research which could form the basis of work towards a PhD.

**Keynotes**

D: 172
Keynote

Title:---
Peter Day

University of Brighton, United Kingdom

ID: 173
Keynote

The nature of inclusion: consumption, production and the appropriation of new media in Peru.

Eduardo Villanueva

Pontificia Universidad Católica del Perú, Peru

ID: 181
Keynote

From a Rural Village to a High Tech Urban Environment

Gunilla Bradley

Royal Institute of Technology, Sweden

**Workshops**
Evaluating Community and Development Informatics Projects: A workshop
Larry Stillman CCNR, Australia