

## PhD projects in eParticipation

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## Abstract catalogue



Ver. 1.1

2006-10-30

## Demonet and the eParticipation PhD student network

DEMO-net is a Network of Excellence project funded under the European Commission's sixth framework programme: Information Society Technologies IST (FP6-2004-27219). The project started 1 January 2006, will be funded for 4 years and has a detailed work plan for the first 18 months. (see [www.demonet.org](http://www.demonet.org)) The PhD student network is an activity of Demo-net Work Package 2, "Educational and Student Exchange Programme".

The first arrangement of the PhD network was the PhD student colloquium, September 3-4<sup>th</sup> 2006 which was held in conjunction with the EGOV 06 conference in Krakow, Poland.

Students were invited to submit their PhD projects and thesis proposals which were reviewed and discussed by other PhD students and senior eGov researchers. The overall aim of the PhD colloquium was to bring PhD students who are scattered across countries and disciplines more together.

35 students submitted papers to the colloquium. 32 students participated in reviewing activities. 25 senior researchers from The Demo-net WP2 participated in the reviewing process. Each paper was reviewed by 1-2 senior researchers and 2-3 peer PhD students.

*Group leaders (Senior eGov researchers)* during the colloquium were: Professor Ann Macintosh, Napier University, Professor Kim Viborg Andersen, Copenhagen Business School, Univ-Doz Dr Maria Wimmer, University of Koblenz and Professor Åke Grönlund, Örebro University

23 students participated at the colloquium. Papers were presented in four groups over the two days, covering eParticipation and eGovernment issues

The students were primarily grouped according to the eParticipation key words:

Collaborative Environments - <i>includes groupware and CSCW</i>	ICT Design Issues - <i>includes technology design, HCI and accessibility</i>
Campaigning - <i>protest, lobbying, activism, petitioning</i>	Inclusion/Exclusion - <i>digital, gender, linguistic, demographic, socio-economic status and disability divides</i>
Community Informatics - <i>support for collaboration and informal networks</i>	Information Provision - <i>includes information architecture, content design and content management</i>
Consultation - <i>top down initiatives as opposed to bottom up</i>	Journalism - <i>includes online editorial content and user generated content</i>
Cultural Politics - <i>understanding new online spaces which touch on power, but are not traditionally political</i>	Knowledge Management - <i>management of knowledge used in eParticipation</i>
Deliberation - <i>understanding why, when and how citizens participate in formal and informal talk; design of tools to support deliberation;</i>	Mediation - <i>includes dispute or conflict resolution</i>

<i>assessing quality of contributions</i>	
Discourse - <i>includes discourse analysis, argumentation and issues of scalability with large corpora</i>	Mobile Communication Policy Processes – <i>governance</i>
Electioneering - <i>campaigning in elections</i>	Polling - <i>opinion measurement</i>
Evaluation - <i>of eParticipation as well as development of evaluation frameworks</i>	Security - <i>includes privacy and identity management</i>
Visualisation - <i>includes GIS, Virtual Reality and 3D</i>	Service Delivery - <i>participation in design, implementation and monitoring of services</i>
Voting - <i>such as an election or referendum</i>	Spatial planning - <i>includes urban planning and environmental assessment</i>

### *What next?*

A book on eParticipation with selected papers from the colloquium is planned at the moment. 15 PhD student candidates are selected to refine their colloquium papers in order to demonstrate what kind of research is carried out in the area of eParticipation. The book will also contain articles from senior researchers in the eParticipation field. One aim with the book is to make it an eParticipation course book. The release of the book is planned to the summer 2007.

The next DEMO-net activity, a tutorial for PhD students will take place in Örebro, Sweden February 7<sup>th</sup> 2007. The main goal of the tutorial is to give an introduction to the field of e-participation, to be able to learn what e-participation is and what research that is conducted in the field. The tutorial is therefore mainly directed to “beginners” in the field of e-participation. The tutorial is held in conjunction with The 2007 Scandinavian workshop on e-government which will take place at Örebro University 5-6 February.

The PhD network is currently on its way to be more formalised. A dedicated web site is planned. Until it is developed, the WP2 part of the Demo-net website takes on the role of storing information relevant to the PhD network.

Student exchange is also a part of the PhD network. So far a few exchanges are planned. Hopefully there are more to come.

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# The Use of ICTs for Dissemination of Knowledge in Developing Countries



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**Planned year for exam:** 2009

**PhD project/topic:** Inclusion and exclusion in e-learning

**Relation to eParticipation:** Inclusion, Exclusion, Participation

## ABSTRACT

Distance education based on Information- and Communication Technologies (ICTs) in developing countries seldom reaches the most disadvantaged groups and the research aim of the thesis is to explain why some groups are included and some excluded from this educational opportunity in developing countries. The thesis will be based on literature studies on e-learning retention- and attrition factors as well as empirical case studies in Sri Lanka and Bangladesh. Student groups will be identified using stakeholder theory and the cases will be analyzed using a "design-reality gap"- model. By comparing existing and alleged groups of recipients the findings will serve as a basis for a theory on inclusion- and exclusion factors for different student groups. The thesis will be able to work as guide to foresee likely problems of exclusion and create a higher rate of inclusion of the most disadvantaged.

**Keywords:** Distance education, Developing Countries, Inclusion, Exclusion, Participation

## Potential use of FCA-based approach to ontology extraction from texts



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**PhD project/topic:** Ontology building methods for the semantic web

**Relation to eParticipation:** emantic-based information retrieval improvement of eParticipation system

### ABSTRACT

Ontologies (as conceptual models) are a key enabling technology for the Semantic Web, extension of the current web where documents are annotated with meta-information in a machine processable format. Formal Concept Analysis (FCA) is a theory of data analysis that identifies conceptual structure in the data and is one of the possible approaches for ontology extraction task. Extension of classic FCA (binary table data) is one-sided fuzzy version that works with real values in the object-attribute table (document-term matrix in case of vector representation of textual documents). In our work we describe using of FCA for finding of concepts in textual documents and potential use of FCA-based created ontology for improvement of information retrieval in the Semantic Web environment. Fuzzy FCA approach in this extraction step is described as well as perspectives for the application in the e-government domain.

**Keywords:** Collaborative Environments, Knowledge management, Information retrieval, Formal Concept Analysis

# Role of organizational memory in environmental planning processes: the problem of innovation of practices

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**PhD project/topic:** Argumentation Mapping to structure Organizational Memory. Investigating the role of organizational memory and argumentative discourses in collaborative decision making processes. Designing an argumentative decision rationale support system in order to address the need of stakeholders to interpret and reflect about decisions, reasons that have led to them and about knowledge produced during the argumentative discourses

**Relation to eParticipation :** Collaborative environment, argumentative discourse, spatial and collaborative planning

## ABSTRACT

**Purpose** - The paper describes some preliminary reflections on the role of organizational memory and argumentative discourses in Collaborative Decision Making Processes (CDMP) environmentally oriented. These reflections become part of a wider research program that aims at designing an argumentative decision rationale support system in order to address the need of stakeholders to reflect, interpret and reason about the knowledge produced during the argumentative discourses.

**Design/methodology/approach** - Main research fields of interest are Organizational memory and Argumentation theory. Argumentation-based approach to decision rationale and argumentation structuring methodologies are explored in order to represent, re-construct and document decision steps of the CDMP.

**Research implications** - Possible research implications come investigating the role of organizational memory as knowledge management infrastructure and studying possible representation forms for organizational memory.

**Practical implications** - The research perspective proposed in the paper is based on merging e-democracy and knowledge sharing effectiveness trying to find useful computer assisted tools to support groups' interactions and argumentation.

**Keywords:** Collaborative Environments, Argumentative Discourse, Decision Rationale, Organizational Memory, CSCW, Spatial Planning



# Conceptualizing eParticipation in Practice

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**PhD project/topic:** Conceptualising eParticipation in Practice

**Relation to eParticipation:** ICT Design Issues, Consultation, Deliberation, Evaluation, Spatial Planning. Civic Participation

## ABSTRACT

**Purpose-** By thoroughly focusing upon the contextual aspects and processes within practices, and including studies of the interplay between design and use, the conceptual understanding of eParticipation is suggested broadened and re-specified. The question of *how eParticipation is enacted* in practice among the involved parties, citizens, local authorities and politicians is crucial.

**Design/methodology/approach** - I am conducting qualitative research in an interdisciplinary research group at a technical faculty. My research draws on ethnographic case studies of institutional and civic practices of participation and eParticipation.

**Theory-** applying dialectical methods of information systems design coupled with practice-based social theories, aiming at furthering development of situated theory in the research domain.

**Relation to eParticipation and/or eGovernment-** eParticipation understood and described as a context-dependent activity, including studies of the interplay between design and use of eParticipation tools.

**Research implications** - Conceptual development

**Practical implications** - Practice-based conceptualisation

**Key words** - ICT Design Issues, Consultation, Deliberation, Evaluation, Spatial Planning

## Value awareness in Website design: A study of Swedish municipalities' front-pages



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**Planned year for exam:** 2008

**PhD project/topic:** Mediated, experienced and expected values in website design

**Relation to eParticipation:** How a design can communicate prioritisations of user groups, roles, action space and values.

### ABSTRACT

*Purpose :* The overall purpose is to create value-awareness in (eGovernment) website design. This is achieved by (1) exhibiting the existence of different genres in web design, (2) showing how web site design communicates values, (3) identifying reasons for, and consequences of, expected and/or experienced values that are mediated in municipality website design, and (4) show how genres restrict and support designers' work and hence constitute an inherited action space.

*Design/methodology/approach:* Based on a content analysis of 290 Swedish municipalities' front pages and interviews with users and designers, municipality web genres are described in terms of their form elements and values as expected and experienced.

*Theory:* The thesis draws on genre theory and theories from HCI.

*Findings:* Seven municipality website genres have been identified: notice-board, newspaper, brochure, promotion, commercial, portal and, filter.

*Originality/value:* The thesis discusses why organisations choose - or arrive at - a certain design solution and communicate certain values, and what effects this has in use for different user groups, as measured by experienced use qualities.

**Key words:** Genre, municipality, web site design, value awareness, design issues

## **‘Get real!’ On the political online engagement of young women from less privileged backgrounds in Britain.**

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**Planned year of exam:** 2007

**PhD project/topic:** The political online engagement of young women from low socio-economic backgrounds and/or without higher education in Britain

**Relation to eParticipation:**

### **ABSTRACT**

The study focuses on the political (dis)engagement of women aged 16 - 21 from low socio economic backgrounds and/or without higher education in Britain. Current research suggests that e-democracy websites designed for young people tend to reach politically already engaged, often highly educated young people, but fail to reach other young people, such as women without higher education, who clearly would have a lot to contribute to politics. Designed as a mixed-methods project, the case study contrasts the views of producers of political websites designed for young people with the views and opinions of young women from low socio-economic backgrounds and/or without higher education, and investigates what would be needed to make the internet a more effective and powerful tool to engage this group of the British population more actively in political or civic affairs.

**Keywords:** evaluation, genre, gender, entertainment, PR & marketing, website design

# Electronic Democracy Instruments: Using Reference Modeling to Support Application Development in a New Domain



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**Planned Year for Exam:** 2007

**PhD project/topic:** Electronic Democracy Instruments: Using Reference Modeling to Support Application Development in a New Domain

**Relation to e-Participation:** ICT Design Issues, Voting, Deliberation, Evaluation

## ABSTRACT

Electronic democracy has developed in a slow pace and major countries still lag behind in their adoption of e-democracy instruments. Still there is growing need for it as voter turnout is decreasing and the unconnectedness of voters with their representatives is rising. E-democracy instruments are very complex information technology applications which involve several dimensions like legal, political, social, and information (technology) sciences. This thesis will develop a holistic reference model based on five best practice case studies around the world. In the end it will help understand and reduce complexity of such systems and thereby facilitate the development and discussion of such instruments.

Purpose - Reduce Complexity of E-Democracy Instrument Application Development and Implementation

Design/methodology/approach - Multiple Case Study and Reference Modeling

Theory - Electronic Democracy Instruments

Relation to eParticipation and/or eGovernment

Research implications - It will allow for a better understanding of success and failure of e-democracy instrument implementations

Practical implications - The reference model will allow for easier and more successful implementation of electronic democracy instrument application development

**Key words** - ICT Design Issues, Voting, Deliberation, Evaluation

## Citizenship (title not decided)



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**Planned year for exam:** 2010

**PhD project topic:** The concept of citizenship, political theory

**Relation to eParticipation (in your own words or by using the eParticipation key words below):** In studies of eGovernment and eParticipation it is often said that development should be guided by a citizen's perspective. The question is what this perspective contains? We seldom find a definition of the citizen or citizenship and these concepts can be described in different ways. My aim is to clarify these different interpretations.

### ABSTRACT

Title - Citizenship (title not decided)

Design/methodology/approach - Theoretical, historical logic analysis

Theory - Metatheoretical

Relation to eParticipation and/or eGovernment: In studies of eGovernment and eParticipation it is often said that development should be guided by a citizen's perspective. The question is what this perspective contains? We seldom find a definition of the citizen or citizenship and these concepts can be described in different ways. My aim is to clarify these different interpretations.

Description

Through history there have been different notions on citizens and citizenship. My main research questions are:

- How can these differences be described and the changes be explained?
- What are the dominant notions in this area today, and why?
- In what way can these basic notions, implicit or explicit, explain contemporary theories in the area of political science and in political practice?

The study is divided into six parts and moves from a descriptive typology based on ontological, epistemological and causal grounds, further towards an analyses of how different notions influence each other, influence political theory and influences political practice.

**Key words** - Political theory, citizen, citizenship

## A “Citizen-Centred Approach” for Development of Public e-Services – Conceptions of Social Systems Design for Citizen Involvement



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**Planned Year for Exam:** 2008

**PhD project/topic:** E-services at local governments

**Relation to e-Participation:** Citizen involvement and participation in development of public e-Services

### ABSTRACT

At the present time the “citizen-centred approach” comprises the dominant discourse in e-Government. Citizen involvement is critical to succeed in development and implementation of public e-Services and visions and efforts are focused on citizen participation in the development of process. However, there are shortcomings, which can be explained by the methods used in the design process. The methods used are not applicable to identifying the real needs of the users. The purpose of the research is to analyse and apply concepts of Social Systems Design for a view towards creating new perspectives for increasing citizen involvement in the design of local public e-Services. Social Systems Design would be a possible foundation in creating a “citizen-centred approach” to the design of public e-Services. However, in the current situation, there are several obstacles to fully applying Social Systems Design to the development process of e-Government although, the “designing within” approach would enrich the design of public e-Services.

**Key words:** Public e-Services, Local e-Government, Service Delivery, Citizen Involvement, “Citizen-Centred Approach”, Social Systems Design

# Design of a Virtual Environment for municipal Citizen Participation in developing countries, based on the interdisciplinary analysis of citizen participation at Ceará State (Brazil)



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**Discipline:** Political Sociology / Software Engineering

**Planned year for exam:** 2007

**PhD project/topic:** "Design of a Virtual Environment for municipal Citizen Participation that can be used in developing countries, based on the interdisciplinary analysis of citizen participation"

**Relation to eParticipation:** Collaborative Environments, Community Informatics, Deliberation, ICT Design Issues, Inclusion/Exclusion, Mediation

## ABSTRACT

The project ([www.e-participa.org](http://www.e-participa.org)) aims to determine the requisites of a *Virtual Environment for municipal Citizen Participation (VECP)* that could be used in developing countries. The research design is inspired by the *grounded theory* and is based on an interdisciplinary approach that incorporates both socio-political and technical components. The theoretical framework takes into account most of the current e-Participation research trends and analyses many participation and e-Participation experiences. Our empirical work is two folded and comprises, in first place, a qualitative analysis of the characteristics and requirements of the *VECP* 's stake-holders (from citizen associations through civil servants to e-Participation researchers), and in second place, the evaluation of existing participation and social networking Internet tools, with the intent of leveraging the most promising in the *VECP*. The project will provide a detailed specification of the *VECP* which could be used to initiate a *Free Software* project. Thus, the *VECP* would be available free of charge and remain open to the world's municipalities for further improvement.



**Keywords:** Collaborative Environments, Community Informatics, Deliberation, ICT Design Issues, Inclusion/Exclusion, Mediation

## Underlying Factors for Implementing E-Government Policy as Managerial Efficiency or as Citizen Empowerment in English and Italian Local Government



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**PhD project/topic:** 'Underlying Factors for Implementing E-government as Managerial Efficiency or as Citizen Empowerment in English and Italian Local Government'

**Relation to eParticipation:** Local e-participation; e-participation policy making; e-services

### ABSTRACT

**Purpose** – Understanding how different institutional, political and policy factors affect e-government policy implementation at local level towards managerial efficiency or towards citizen empowerment.

**Design:** data on seven independent variables of local governments is collected and related to the orientation towards managerial efficiency or citizen empowerment objectives of the on-line implemented e-government features.

**Methodology:** e-mail submitted questionnaires, secondary source data analysis (IV) and website content analysis (DV). Analysis of statistical correlation between independent and dependent variables.

**Approach:** quantitative, surveying 82 English (Counties) and 103 Italian (Province) local governments.

**Theory** – Neoinstitutionalism; policy networks; innovation theory.

**Relation to eParticipation and/or eGovernment** – Related to both at the same time.

**Research implications** – Considering e-government and e-democracy as a continuum; investigating the relationship between back office and front end processes.

Practical implications - Individuating feasibility of e-participation implementation for local governments.

**Key words:** Information Provision; Service Delivery.

# The Construction of Local e-Democracy

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**Planned year for exam:** 2007

**PhD project/topic:** The Construction of Local e-Democracy

**Relation to eParticipation:**

## ABSTRACT

Informed by accounts of the 'construction' of scientific facts and technologies from Science, Technology and Society studies, this thesis conducts a detailed, qualitative study of the 'construction' of two innovative e-democracy networks at the local level. These networks seek to establish new opportunities for 'active citizens' to participate in local governance and contribute to a role for English local authorities as 'community leaders'. I begin by studying the inception and design of these initiatives, trace them through the stages of their implementation, and conclude by considering the questions that remain over their longer-term sustainability and institution. This close study of governance-in-the-making challenges overly general accounts of participative and collaborative governance, focusing on the problems as well as the promise associated with introducing and instituting new governance arrangements. In the process, the thesis also studies some standard themes of social and political theory at close quarters, as they occur and are negotiated in practice. These include: the relationship between democratic innovation and institution; power as it is implicated in relations between civil society and the political state; the rules and practices of citizenship and representation; and the ownership and reproduction of 'public space'.

**Key words:**

## Quality in e-Government Services



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**Planned year for exam:** 2009

**PhD project/topic:** Quality in e-Government Services

**Relation to eParticipation:** Evaluation of Services.

### ABSTRACT

Although internationally there is a noticeable shift of governmental service provision from traditional channels to web-based ones, restraints due to poor quality of service are apparent. In the literature there are studies for assessing the efficiency and effectiveness of public organizations and on the other hand there are multiple studies trying to measure the quality of the delivered e-service. We believe that in order to deliver a high quality of services we cannot draw close one of the two approaches disbounded one from the other. The aim of this PhD thesis is a more 'holistic' view of the subject which embraces the back office, the front office and the customers' needs in a unified model through adaptation composition and extension of the existing approaches. Moreover the development and use of instruments to estimate and monitor the quality of e-government services in three real world cases and finally the validation and refinement of the quality model.

**Key words:** quality, e-government, service

## Supporting participatory budget elaboration through the web



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**Discipline:** Decision science

**Year for exam:** July 2006

**PhD project/topic:** Supporting group decision through the web: e-democracy and e-participatory budgets

**Relation to eParticipation:** Application of ideas from decision and negotiation analysis to involve people in public decision processes

### ABSTRACT

Participatory budgets are becoming increasingly popular in many municipalities all around the world. The idea is to allow citizens to, somehow, participate in the allocation of part of the municipal budget. In spite of various attempts to introduce ICT within politics and public policy decision making, most participatory budget experiences have been based on physical meetings and voting by hands, with little ICT and analytical decision support involved. We describe a general framework combining decision analysis and negotiation analysis principles to support groups in the elaboration of a participatory budget. We also present PARBUD, a web-based Group Decision Support Systems (GDSS) which implements this methodology through the web, and an experiment conducted with this system.

**Purpose** – Design and implementation of a web system based on decision analysis and negotiation analysis principles aimed at facilitating citizen participation in forming budgets, with the aid of the public.

**Design/methodology/approach** – Development of a framework and its implementation in a web system to be used in the elaboration of a public budget

**Theory** – Design of information and group decision support system

**Relation to eParticipation and/or eGovernment** Our systems aimed at facilitating citizen participation in public policy decision making.

**Findings** – [if relevant] We show an example of how to increase public participation in policy making processes with the use of information technology.

**Research implications** – Development of ideas from decision science to support public policy making with the participation of the public

Practical implications – A methodology to support participatory budget formation which is possible to implement through the web and aims at overcoming conceptual and technical difficulties in the current participatory budget experiences

**Key words:** Deliberation; Mediation; ICT design issues

## New Media and Moderation



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**Planned year for exam:** 2007

**PhD project/topic:** Online-Moderation

**Relation to eParticipation:** Spatial planning, Discourse, Mediation, Deliberation, Consultation

### ABSTRACT

**Purpose – Aim and result of this work** is the development of practical guidelines for emoderation in spatial planning processes.

**Design/methodology/approach –** The complex background of e-moderation is discovered piece by piece, referring to the theoretical concept of a dynamic socio-technical system and focusing on e-moderation dimensions. The research methods include case studies and action research.

**Theory –** This work is based on the concept that process, media and moderation assemble a

dynamic socio-technical system (Märker et al 2003, Trénel et al 2001). This system is characterized by interdependent relations, which have to be controlled by the moderator. The dynamic interdependences are not yet analyzed in depth, which is the focus of this work.

**Relation to eParticipation and/or eGovernment –** Empirical basis are several processes which can be classified as e-participation processes according to the definition of von Lucke & Reinermann (2000).

**Practical implications –** This work is not only essential for spatial planners, but also important for any process manager who wants to support complex e-participation processes.

**Key words:** Spatial planning, Discourse, Mediation, Deliberation, Consultation



# **Towards Understanding eParticipation in an Institutional Perspective.**

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**Planned year for exam:** 2008

**PhD project/topic:** eParticipation and Institutional mechanism.

**Relation to eParticipation:** eParticipation, Policy Processes, Institutional Processes, Decision Making, Discourses, Case Study.

## **ABSTRACT**

The purpose of this project is to explore how eParticipation is influenced by institutional mechanism in order to contribute to the understanding of the role and meaning of online participation in policy-making. The project, represent an organizational approach to eParticipation and will contribute to the knowledge of institutional drivers and inhibits of eParticipation across different countries. The theoretical perspective is neo-institutionalism and eParticipation is seen as a part of an organizational decision process which is highly dependent of the institutional environment.

**Keywords:** eParticipation, Policy Processes, Institutional Processes, Decision Making, Discourses, Case Study.

# Gender in the development of public e-services

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**Planned year for exam:** 2010

**PhD project/topic:** Gender in the development of public e-services

**Relation to eParticipation:** end user involvement in development of public e-services, focusing on gender, plus gendered meanings affecting the systems development process and possibly the public e-service

## ABSTRACT

This paper is a report from a case study in progress, conducted on a systems development project in a Swedish government agency. The aim of the project is the development of a public e-service, the main users being administrative officers in the internal organization. E-participation is defined as involving citizens – especially focusing on gender – in the development of public e-services. The purpose of the study is to make visible if and how gender affects the development of public e-services, and the method used is participant observation. A number of research questions are formulated, along with some tentative results, based on discourse analysis of prototyping work in the project. The preliminary results of the analysis indicates that the method in practice conflicts with an official rhetoric with the result of a step-by-step undermining of the positions of the female administrative officers for whom the e-service is said to be developed.

**Keywords:** case study, public e-services, information systems development, gender inclusion, prototyping

## Web Based Learning Portal



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**PhD project/topic:** An ontology-based, dynamic, collaborative E-learning environment.

**Relation to eParticipation:** The system to develop can fulfill one of eParticipation goals: Citizens before deciding should be well informed and interact with their pairs in a dynamic and argumentative way.

### ABSTRACT

This paper describes a distributed system for information retrieval and document collection. The access on information from multiple information systems and its integration, the pedagogical and technological are relevant issues. Also the constructivism theory, where knowledge is constructed and is not the result of passive reception and some tools: ontologies, concept maps and software agents are presented. Previous initiatives and tools for dealing with semantics are described. A section on syntactic and semantic interoperability is described in detail. This system being developed can fulfil one of eParticipation goals. Citizens before deciding should be well informed and interact with their pairs in a dynamic and argumentative way. At moment we haven't any findings but learning is essential for our community lives. Our research is based in computer visualization mechanisms. Interaction between users and construction of knowledge is better achieved with diagrams to written documents. A very high-level architecture is shown.

**Key words:** Collaborative Environments, Discourse, Knowledge Management, Community Informatics, ICT Design Issues

## Fuzzy Relations and Semantics

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**PhD project/topic:** The use of semantic technologies in knowledge management

**Relation to eParticipation:** Enhance usability of eParticipation system

### ABSTRACT

The core of the system which supports knowledge management (e.g. the e-Government system) is a search engine. The identification of the citizen's life event is the first and necessary step of the e-Government system. The next step can be construction of the relevant plan which helps to cope with this event. The user presumably has one particular meaning of 'something specific' in mind when she/he constructs the query. But the search engine can find more than one meaning according to this query as well as nothing. The user can be disappointed.

The way of overcoming this problem is adding a value for degree of membership to each ontology term that is "overloaded" (many query terms can indicate this ontology term). Therefore fuzzy logic should be used. Search engine can obtain membership value as a result of operations by using implemented t-norms. This result can be used as a relevance that helps to identify user's life event.

The formal representation of membership values might be done by using of XML documents with these values.

**Keywords:** Knowledge Management, Ontology, Fuzzy logic

# Principles of public administration activities and ICTs

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**Planned year for exam:** 2007

**PhD project/topic:** Modern principles of public administration and evaluation of electronic public administration

**Relation to eParticipation:** Evaluation

## ABSTRACT

**Purpose** - The paper discusses relationships among trends of quality management in public administration, principles of public administration activities (particularly the principle of openness and transparency and principle of participation) and challenges of electronic public administration evaluation.

**Design/methodology/approach** - Methodology is based on the analyses of literature and own research that is related to the theory and practice of public administration, e-government and its evaluation.

**Theory** - Theoretical part relates mostly to public administration and its electronic form.

**Relation to eParticipation and/or eGovernment** - The article tries to discuss e-participation in broader context, particularly in the field of its evaluation.

**Findings** - Methods that are currently used for e-government evaluation must be combined and amended in order to inform more accurately and deeply.

**Research implications** - The interdisciplinarity and cooperation in research is necessary.

**Practical implications** - Some of the results of the research may enhance the rationality of evaluation of the Czech information policy.

**Key words:** Evaluation

# Interoperability Framework of eGovernment in Environmental Information Exchange of the Czech Republic

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**PhD project/topic:** Standards for environmental communication

**Relation to eParticipation:** ICT Design Issues, Information Provision, Service Delivery, Spatial planning, Security

## ABSTRACT

The Masaryk University Research Project (Analysis and Design of Communication Framework within International Environmental Information Systems) is presented. It is funded by the Ministry of Environment of the Czech Republic and related to the European DEMO-net project (The Democracy Network) funded by the Commission. Research activities of Masaryk University monitor environmental communication activities and current interoperability with four target groups (public administration bodies, academicians, citizens and businesses) of the Czech Republic within national and pan-European environmental information systems to support eDemocracy and eParticipation. Methodology and prospective results relating to an interoperability and communication framework for national and international environmental information exchange are being discussed. Another theme is the reuse of public sector information with respect to eParticipation and objectives of interoperability for pan-European eGovernment services.

**Keywords:** ICT Design Issues, Information Provision, Service Delivery, Spatial planning, Security.

## “The Digital Youth Revolt”: Young People, the Internet and Civic Participation



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**PhD project/topic:** Young people, the Internet and Civic Participation

**Relation to eParticipation:** EParticipation is regarded as online civic participation, which is broader than traditional notion of political participation, and is an activity of ordinary citizens. The focus is on the potentials of internet for empowerment and mobilization of the “digital generation”.

### ABSTRACT

**Purpose-** Analysis of internet as a mobilizing tool for civic engagement and empowerment of the “digital generation” (aged 15-25).

**Design/methodology/approach-** The central focus will be on the production, characteristics and uses of civic websites aimed primarily at young people.

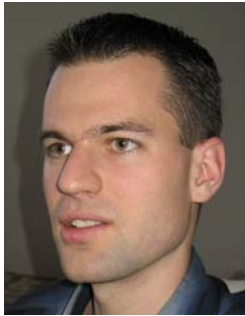
**Theory-** Focus is on technological potentials of internet, building mostly on optimistic perceptions of internet enhancing democratic processes and possibilities for inclusion of youth who are seen as interested, but marginalised actor in the public sphere.

**Research implications-** Research will show in which ways the young people use the internet for e-participation and which could be the future measurement indicators of this “new politics”.

**Practical implications -** Results will show how could web-sites be used for promotion of civic engagement, how young people perceive such sites and in what ways do they want to be included into the democratic processes.

**Key words:** campaigning, information provision, cultural politics, evaluation

## Public administration conserving archivation in relation to e-Government services prosecution



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**PhD project/topic:** eGovernment safety risks

**Relation to eParticipation:** ICT Design Issues, Security, Service Delivery

### ABSTRACT

Main purpose is trustable delivery confirmation in relation to long-term documents archivation problem. It is a security very sensitive theme according to eGovernment safety risks and citizen's private information protection. The main idea is to confirm that document which contains valuable and worth information of heterogeneous areas was successfully delivered and stored on safe place.

Research approaches were used in the continuous LTAP definition and development.

Particular LTAP service operations were defined by use of many different criteria like multi-criteria decision making, Djakstra algorithm (SPF – Short Path Find) etc.

Main theory part was taken from internet drafts and approved long-term archivation basics. Some long-term archivation implications in practical domain are elimination of physical archives, clerks and officers reduction and at least (but not last) cost reduction. Long-term archivation and LTAP development should be research base for future projects.

**Key words:** Certificate, archive, protocol



## Local electronic forums: a few characteristics of a discursive political space and its links to the democratic deliberation



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**PhD project/topic:** e-deliberation at local level

**Relation to eParticipation:** eDeliberation, Mediation, discussion forums

### **ABSTRACT**

Our paper deals with the kind of deliberation that can be observed on forums provided by about thirty local French authorities on their websites. First we analyze the real constraints that shape the organisation of electronic debates. Second, we look at the issues and arguments used by Internet users. Finally, we wonder whether the electronic forums strengthen or weaken the social and cultural hierarchies among citizens. Besides interviews with council actors and forum content analysis, our methodology includes a comparative analysis with face-to-face debates. We do not draw a parallel between the Habermasian approach of deliberation and online forums. It is rather a question to take up the issues stemming from the various deliberative theories (for instance, Dryzek, Elster or Sanders). We attempt to put in light the difficulties and the advantages of the use of ICT to improve the management of local democracy and specially its deliberative dimension.

**Key words** – deliberation, local authorities, France, electronic forums.

# The Adoption and Use of Open Source for the Facilitation of eDemocracy

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**PhD project/topic:** The Adoption and Use of Open Source for the Facilitation of e-Democracy

**Relation to eParticipation:** ICT Design Issues, Policy Processes, eDemocracy, Open Source

## **ABSTRACT**

**Purpose** – To develop a model of adoption and use which can be used to explain and inform open source provision for the purposes of eDemocracy.

**Design/methodology/approach** – Interpretive multiple case studies.

**Theory** – Socio-Technical Interaction Networks (STINs).

**Relation to eParticipation and/or eGovernment** – Open source initiatives have attracted a lot of attention in various areas over the last ten years. There has been interest from the software industry, business and education. In parallel there has been a lot of interest in eGovernment and in Europe there are programs to introduce eDemocracy as well as policies to support the introduction of open source software.

**Research implications** – Possible extensions to STIN theory.

**Practical implications** – Improved understanding of OSS adoption allowing government agencies to follow stated policies on open source and eDemocracy more effectively.

**Key words** – ICT design issues, Policy Processes, eDemocracy, Open Source.

# Technology choices and literacies for e-participation in Malawi: The development of a framework of inquiry

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**Planned year for exam:** 2006/2007 Academic Year

**PhD project/topic:** The Adoption and Use of Information and Communication Technologies (ICTs) for Educational Purposes in Malawi

**Relation to eParticipation :** Socio-technical action, [e-] literacy, Inclusion and Exclusion, Deliberation, Discourse, Community Informatics

## ABSTRACT

The doctoral research presented in this paper aims at developing a greater understanding of the processes governing technological choices and their consequences by probing the nature of the interdependent relationship between the technology and the social context within which it is embedded. The research uses a grounded theory approach to investigate these processes and then uses the findings to develop a theoretical framework for conceptualizing issues which surround the adoption and use of Information and Communication Technologies (ICTs) in Least Developed Countries (LDCs). The research argues that the adoption and use of ICTs should be conceptualised from a socio-technical viewpoint and that such a perspective enables stakeholders to anticipate, explain, evaluate and understand various experiences and consequences related to the adoption and use of ICTs. The research, therefore, has significant implications for e-participation research and practice especially in social contexts where technologies are being implemented to promote e-participation and subsequent socio-economic progress. This paper summarises the initial phases of a three year doctoral study and presents the development of a framework of enquiry.

**Keywords:** Community Informatics, Inclusion and Exclusion, Deliberation, Discourse

# Guiding the release of microdata by using support and confidence of association rules

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**PhD project/topic:** Guiding the release of microdata by using support and confidence of association rules

**Relation to eParticipation:** security, privacy, microdata, information utility, association rules

## ABSTRACT

This paper describes a proposed study that aims to develop a formal model to guide the process of releasing microdata, such that the released microdata possesses desired levels of privacy and information utility. Statistical data related to individuals is collected, analysed, and released to assist in the planning, decision-making, and policy development of governments and other organizations. However, individuals may be reluctant to participate in the collection of statistical data if they do not have sufficient confidence that their privacy will be protected when statistical data is released. Currently, no formal models or other guidelines exist that can be used to guide the process of releasing microdata. This makes it difficult to determine the optimal levels of privacy and information utility that the released microdata should possess. This problem may be solved by developing a formal model that can be used to guide this selection.

**Keywords:** security, privacy, microdata, information utility, association rules