

Communities of Interest in Development of a Service Concept in eDemocracy

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Abstract. This article contributes to the knowledge base of researchers, service concept developers and the user communities of the d:mo eDemocracy web portal in Molde, Norway. We examine the development process of the d:mo service concept and analyze to what extent it recognizes and involves extended Communities of Interest (CoI). We give insight in the CoI so that the d:mo service concept will be more relevant to communities and their members and better meet the needs of a broad spectrum of citizens.

Introduction

The development of eDemocracy solutions from service concepts to service products is a complex design and development problem. When developing information communications systems (ICT) to support collaborative debates in these solutions, complexity arises from elaborate political and social environments and a intricate array of needs and motives of the extensive user communities. The technical problems, like hardware and software choices are of secondary importance in this context. This paper presents the gained knowledge of an interpretive case study of the Communities of Interest (CoI) around the development of a service concept for the support of eDemocracy in local municipalities. We propose that the CoI be integrated into the service concept development process. This article is intended to contribute to the understanding of

the development process in this case, and as such contribute to the development of better eDemocracy solutions in general.

Molde municipality in Norway was selected and accepted to host a pilot project of an eDemocracy service concept. The service concept called “d:mo” is designed and developed by the private company ErgoGroup AS. The developers state that d:mo, is “A solution that is designed to strengthen dialogue between the elected representatives in a community and the citizens/voters” (ErgoGroup, 2006). We will analyze a CoI around the common goal of developing the d:mo. As such, we do not see d:mo as a service product, but as the implementation of a service concept that supports eDemocracy in action. ErgoGroup as the developer of d:mo is an active and important member of the CoI associated with d:mo. It has a financial interest in developing service products in the domain of public services. However, other groups and individuals have an interest in the ultimate acceptance and use of the d:mo service-concept and will determine how successfully it supports eDemocracy. The members of the CoI include the private organizations such as ErgoGroup and private consultants; citizens and citizen groups of Molde including student groups and volunteer groups; public sector members including municipality administrators, elected representatives for political parties, and external researchers and evaluators. We propose that the CoI will benefit from integration of interests with other members.

This paper is organized as follows: relevant research is presented in a Literature Review, next our Research Methodology is described, the Case Study analysis of the CoI network is presented in the main body of the paper, our understanding of the context is offered in the Discussion section and followed by our Conclusions.

Literature Review

Our research is based on the research and references from the primary disciplines of Communities of Interest (CoI) and eDemocracy.

Communities of Interest (CoI)

Communities of Interest (CoI) are defined as groups of people (from different disciplines or sectors) who share a common interest or a common goal. The common goal can be to design a process or business model, hardware or software product. CoI have the benefits of integrating practitioners that normally work in and have the perspective of different domains. CoI members usually have a shared goal in the framing and resolution of a design problem (Fischer, 2001, 2001a). These CoI can be composed of several Communities of Practice (CoPs) where CoPs are defined as groups of people that have a common background, professional practice or professional goal (Fischer, 2002) (Wenger, 1998).

Informed participation is a design process that is based on collaboration from unlike participants where the participants both learn and contribute actively to the design process. It is based on the concept that knowledge is constructed from the context of the design and design environment. For the design process to succeed, there should not be dominant actor design, but rather all participants are “empowered to incrementally acquire ownership in problems and to contribute actively to their solutions” (Brown et al., 1994; Fischer & Ostwald, 2002; Raymond, E. S. & Young, B., 2001). The conceptual design method has been applied to social issues that involve technology and evolving approaches to problem solving (Greenbaum and Kyng, 1991). In informed participation the knowledge of individual members are combined or intertwined, such that framing the context of the problem and solving the problem are an interactive and simultaneously evolving process (Schön, 1983). This is relevant to the d:mo CoI, because as the members acquire a better understanding of the context, insights can be applied to making eDemocracy more effective.

The CoI perspective describes a complex environment with many participants or members. This perspective differs from the concept of stakeholders in stakeholder theory as described in Freeman (1999). Stakeholder theory was developed as a theory of the firm, to manage private organizations more effectively and efficiently by obtaining all the concerns of those with invested interests. More recently, Scholl (2002) and Klischewski and Scholl (2006) have applied stakeholder theory to eGovernment development projects. They identify the salience of the stakeholder based on assessment of power, legitimacy and urgency, and the stance of the stakeholder as supportive or adversary. Stakeholder theory is not at odds with the perspective of CoI, in that it recognizes that primary, secondary or even tertiary stakeholders can influence the outcome of a given project. Scholl (2002) suggests that the insights of stakeholder theory can be difficult to apply to g2c scenarios because from the basis of the theory the citizen is not the same as the customer in b2c settings. We suggest that CoI perspective and an informed participation design approach can offer new insights of how to receive input from the various member groups of CoI irregardless of their salience or stance.

The CoI member groups in the development of the d:mo service concept come from different professions. Some of the identified “groups” do not come from one single professional practice, such as many of the citizen groups. These groups nevertheless can be identified by prototypical characteristics of their members. For example, a subset of high school students can be identified as a group of young people that currently do not vote, but will be old enough to vote in the next town election. From a CoI perspective, all these groups will have different motivations and activities that contribute to the common goal, and they should be integrated into the development process.

eDemocracy

In Scandinavia political institutions of electoral representation (political parties) have registered a decline in electoral turnout and diminishing membership in political parties (Aars, Offerdal, 1998). This trend has been viewed by state and local authorities as a crisis that must be reversed. State and local governments have therefore supported a wide range of experimental pilot projects to reverse the trend. These projects are reported in Aars (2006, 2003). This research supports that many see top-down government sponsored programs as being forced on the citizenry and that they do not succeed in creating bottom-up engagement. The report focuses on the Norwegian local democracy program initiated by the Norwegian Association of Local and Regional Authorities – KS¹. 20 local municipalities participated in the program from 1996 to 2000. While some argue that participation by all does not equate to a well functioning democracy, it is still said that top-down efforts are seen as controlling rather than enhancing participation² (Pratchett, 1999).

What is eDemocracy? From one public administrative perspective, the former Norwegian Minister, Morten Meyer defined e-democracy as such: “E-democracy is about how IT can be made use of for the establishment of new types of channels, for example electronic meeting places between citizens and politicians” (Meyer, 2004). From a broader perspective, Lars Torpe (2002, 2004) presents a framework for local democracy representing 5 models of democracy, of these we mention 3 models: deliberative, network and participatory. The deliberative democracy model is based on socially formed interests and opinions. Network and participatory models both involve direct and active participation by the citizens. The parents meeting at the local school may represent a type of participatory democracy. Network democracy differs from participatory in that the participation of citizens is more self-organized, informally structured and less planned. It is what Pratchett would call truly bottom-up. It is a type of emergent democracy, involving those present and presently interested in a particular topic. Torpe also suggests that ICT can support the formation and operations of informal networks. But, he does not examine specifically eDemocracy portals. We observe that the d:mo service concept should support communication and network formation in the network democracy model. That is d:mo could allow for greater numbers of persons to deliberate topics, and also be non-restrictive in terms of who could participate. However, this is not yet demonstrated. We further note that d:mo is being managed from groups operating under the deliberative democracy model. That is Molde municipality administration and political parties deliberate within

¹ KS is “Kommunenes Sentralforbund” in Norwegian. (www.ks.no)

² Pratchett’s distinction between top-down and bottom up: local democracy initiated experiments are bottom-up, as opposed to measures initiated by national government, which he regards as top-down (Pratchett, 1999). Aars (2003) says there are many cases of the political elite managed projects pursuing citizens to become involved that only achieve forms of input from the political elite or preferred groups.

a representative form of the democratic process. The deliberation process and the decision that follow in the municipality administrations are not the same as those that take place on d:mo.

Research Methodology

In this research we conduct an interpretive case study of the CoI in relation to the d:mo service concept. The goal of this research is to produce an understanding of the context of the d:mo service concept. We propose that the d:mo service concept, like other ICT in development, influences and is influenced by its CoI members. Further we propose that a better understand of the members' interactions, activities and motives, will lead to a better achievement of the CoI's common goals (Walsham, 1993).

Our interpretation of the case environment is based on the seven principles of an interpretive case study as outlined by (Klein & Meyers,1999). We explain in this section how our study in particular makes use of the seven principles:

- (1) Hermeneutic Circle – one comes to an understanding of the complex whole from preconceptions about the meanings of its parts and their interrelationships. Our understanding about the context of d:mo is modified as we interpret the interactions of the members of the CoI over the study period. The service concept was first implemented in Spring 2004. Evaluation of the context began in August 2005 and is ongoing.
- (2) Contextualization – We review in the case study historical background of the CoI members so it is clear how the current environment has emerged.
- (3) Interaction Between Researchers and Subjects – The role of researchers and their relationship to d:mo CoI members are explained in Table 1. The researchers are involved in the development process in that their feedback underway can contribute to the service concept development.
- (4) Abstraction and Generalization – We relate our data interpretation of the environment to the theoretical concepts of CoI and eDemocracy as described in literature review.
- (5) Dialogical Reasoning – We must be sensitive to possible contradictions between our assumption of the motivations and influences of the CoI members and the actual findings of our study. Some of our assumptions about the motivations of citizens are based on the research of Aars (2006, 2003), also reported in literature review.
- (6) Multiple Interpretations – We are sensitive to possible differences in interpretations of the context by different CoI members as we refer to two surveys on awareness of d:mo that were conducted by different groups. The survey of 27-Aug-05 was conducted by members of Molde University College. The survey of 09-Feb-06 was conducted by the private consultant that is the coordinator of the d:mo project.

- (7) Suspicion – Possible biases in the survey responses are described in the first survey summary in the case study.

The data is obtained through interactions with CoI members. Referenced materials include a public report of a survey from August 27th, 2005 (Kjersem, 2005), and private records and conversations from meetings with ErgoGroup developers, Molde Municipality administrators, citizens and student citizens. The research methodology is used mostly for interpretation and presentation of the study results. Future research should attentively check that the methodology criteria are met during data collection phases as well.

Case Study: CoI and eDemocracy

The key factors of the social groups of CoI that we identify as contributing to our comprehension of the development process of d:mo are:

- Who are the identified members of the d:mo CoI;
- How common are the goals of the identified COI members;
- What factors motivate the integrating of the diverse perspectives of groups;
- What have been the activities within CoI that contribute to the shared understanding of common goals and tasks leading to their achievements;
- What other activities could be proposed;
- What are the benefits of making all voices heard; who benefits or not.

By relating these questions to the case we contribute to a better understanding of what factors offer added value to the service concept design. We attempt to identify the factors that help CoI members achieve their goals and suggest factors that could increase the perceived value of the common goals by its members.

CoI Members

In this section we outline the groups most involved in the development of the d:mo service concept. We identify these interested parties as having been the historically active participants of the CoI, from project initiation until 02/2006.

- (1) Ergo Group
- (2) Molde Municipality Management Team (MMMT)
- (3) Private Consultant (the Project Coordinator)
- (4) External Evaluators (Møre Research Molde, Molde University College)
- (5) Molde Municipality Administration (Mayor's Office)
- (6) Molde Municipality Political Parties
- (7) Ministry of Local Government and Regional Development (KRD³)

ErgoGroup (1) has implemented the concept thus far as the d:mo web portal

³ KRD is "Kommunal- og Regionaldepartement" in Norwegian.

pilot project in Molde municipality and as such they are a very dominant member of the CoI in this study. ErgoGroup has the following goal in the design of d:mo, that it is “A solution that is designed to strengthen dialogue between the elected representatives in a community and the citizens/voters” and “to stop the negative trend and arrange for an enduring positive development in the citizens relationship to local democracy, and stimulate critical factors such as trust, overview, engagement and influence” (ErgoGroup, 2006).

ErgoGroup has a long history for providing ICT solutions for the public sector and they have developed several solutions for Molde municipality. Prior to the d:mo pilot another department within the company had developed Molde municipality’s home page. A third department had developed an e-marketplace for municipality public services: a solution for registering, updating and following up administrative services online. We suggest that Ergo Group as an active and invested member of the CoI will benefit from integration of interests with other members.

The MMT (2) are municipality officials that have broad responsibilities to attend to in many areas of public administration. They are part of a larger group of persons working with the Molde Mayor’s Office and communicate with the larger municipality administrative structure (5). They have met with representatives of political parties (6) in Town Council meetings where the d:mo project had been approved by council representatives (6). After the project start, the Mayor’s Office outsourced the coordination of the project to a Private Consultant (3). The private consultant who operates in the private domain is responsible for coordinating communications between various groups.

After ErgoGroup’s first implementation of the pilot website for d:mo, the Ministry of Local Government and Regional Development (7) offered financial support for an external evaluation of the project. In the summer of 2005 the research organization, Møre Research Molde (4) received the evaluation commission. Møre Research Molde is a public owned organization, but operates as a private market actor. They have reassigned Molde University College, researchers in the Department of Economy, Informatics and Social Sciences at Molde University College (4) to be external evaluators to the d:mo pilot project from August 2005 until the last quarter of 2007.

Less Active Members

We have thus far introduced the more active members of the CoI. Figure 1 offers a view CoI member groups including less active members. The members of the CoI are from several CoPs and less formal groups. Examples of less formal groups would include the citizen groups such as student groups and clubs and volunteer organizations. Although high school student groups are one of the primary target groups for d:mo as we will point out in a summary of two surveys, they for the most part did not know about d:mo. One of the involvements of

students is that 2 students had been given a summer job in 2005 to be an editor of a news strip on the website. The strip was called “Five on the Street”. The point was to ask five persons for their opinion to a posed question, based on a recent community issue. D:mo website is in March 2006 under a redesign stage. The question/responses that were posted in August 2005 are still on the website as of March 2006. The website at present has low usage statistics and it appears that content will not be editorially maintained until the functional redesign stage is complete. After redesign the site will be re-launched to the intended user segment. The direct involvement of so few students in the past did not stimulate the activity of other students.

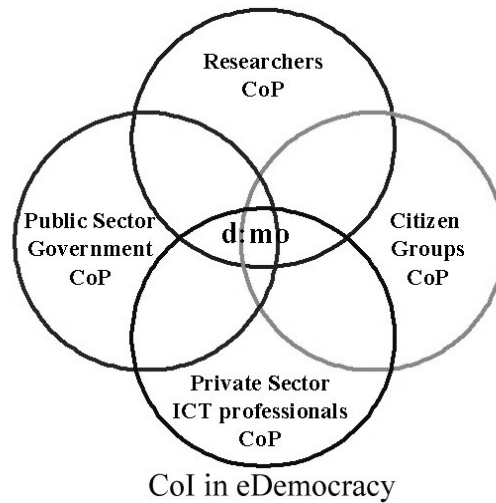


Figure 1. Members of CoI in eDemocracy are from several CoPs and less formal groups.

Common Goal

In the pilot project thus far, the concept of d:mo has been implemented in an Internet based web portal. It is intended to be a communications channel for the development and creation of contact between local citizens and the community’s politicians. The primary goal as stated by Molde municipality on the d:mo web site is, “d:mo shall be in independent meeting place, where citizens and municipality politicians in the municipality can discuss and work together on local political issues.” This goal is stated on the town’s website, (<http://www.molde.dmo.no/>). The goals of the individual political parties in regard to d:mo have not been documented. The Molde Town Council voted in a Town Council meeting of February 16th, 2006 to allow the Molde Administration to continue to support the pilot project where the development of the service concept is still funded by ErgoGroup.

The goal of Molde municipality seems to align with the developers,

ErgoGroup's goal, as stated previously, "d:mo – A solution that is designed to strengthen dialogue between the elected representatives in a community and the citizens/voters." (ErgoGroup, 2006)

Activities of the CoI

To first launch the d:mo service concept the leaders of Molde municipality and ErgoGroup organized a presentation seminar of d:mo in the spring of 2004 at Håholmen. Participants included these groups listed previously: representatives from political parties (6), the municipality administration (5), representatives from Molde's culture and business community and that lead to the hiring of a private consultant (3) who became the project coordination of project d:mo. The consultant would work with the Municipality Management Team (2) and with the Deputy Mayor and Municipality Chief of Operations and Administration.

At the request of groups (2) and (3), the external evaluators (4) conducted a survey to benchmark the awareness and usage of the d:mo site was conducted on August 27th, 2005 in Molde center. It was a Saturday and an especially active day in the town center. The day called, "Moving in Day" was an opportunity for clubs, volunteer organizations, and political parties to present themselves to the public using information stands along the main street. The Molde University College research group collected 211 replies to the survey. Of the respondents 170 of them had home addresses in Molde municipality and the remaining 41 mostly came from nearby neighbor municipalities.

D:mo also had an information stand with a computer and web access and persons to answer questions. But there was little interest in the d:mo stand and large competition for public attention. Among our survey respondents there were about 12 persons from political parties that were standing at nearby stands. These 12 were of the group that were well informed of d:mo through the prior town council meetings and so their responses can express a bias of more knowledge than the general public.

The complete analysis and findings of the survey can be found in (Kjersem, et.al. 2005). But, across all groups surveyed few citizens (36%) had heard about d:mo and (19%) had visited the site and (6%) had written something on d:mo. In an age wise distribution regarding those (6% refers to 208 responses) who had written something: it was shown that number of contributions from (ages 15-24) was 3, from (ages 25-44) was 3, from (age 45-56) was 6 and no one over the age of 67 wrote on d:mo. The lack of knowledge and use was in spite of the promotion efforts of the municipality administration that the web address had been advertised in the local town newspaper (Romsdals Budstikke) the entire week before. In addition, there was a direct link to d:mo in the top right menu item on the municipality's web page.

It was supposed that interests in political debates are greatest right before

elections, and that the survey given right before a local election should register a period of high interest. However high interest was not reflected in the percentage rates of knowledge and use of d:mo.

The implementers of the d:mo project were not very encouraged by the results of the survey because it was suspected that perhaps the municipality had embarked on a project that was not attending to the needs of the citizens. Some involved in the project management suggested that perhaps the content of the topics discussed could scare away those interested in serious political debate. Some survey respondents commented that it was just too technically difficult to use the web site. The researchers were then requested to make a technical review of the functional aspects of the web site and to point out weaknesses. A list of suggestions for technical improvements was made. In addition, the municipality administration received feedback from several consultants in the government administration. However, we believe that functional improvements alone will not lead to the d:mo concept's success. Rather a new development framework is needed.

A second brief and informal questionnaire was conducted by the project coordinator on February 9th, 2006. The respondents were 185 second-year high school students from two schools in Molde called Molde Videregående school and Romsdal Videregående school. The simple question of "Have you heard of d:mo?" had confirmed the previous survey findings, that is 9.2% of the students responded "yes" and 90.8% responded "no." The question, "Do you believe there is a need for such a website?" was responded with 63.2% "yes" and 36.8% "no." To stimulate interest four students offered to design and proposed a new "logo" for the web portal. The logos (old and new) were presented and the questionnaire asked if the proposed logo was preferred. 84.8% preferred the new to the old 9.3%. The proposed logo has not to date been adopted.

Proposed Activities from the Project Coordinator

As a result of further discussion between the project coordinator and students on Feb. 9th, it was suggested that a re-launch campaign should include: advertisement on the student radio channel, link the logo to web sites that are visited by many, and make a poster. These suggestions can be considered as "proposed activities" for the second phase of the pilot project. The project coordinator suggested that the new logo design be considered when the web portal would be ready for re-launching.

On February 13th, 2006 the project coordinator also had a meeting with an IT expert in the municipality and with representatives of the search engine and advertisement web portal Tilbudssiden.no (<http://www.tilbudssiden.no/>) to discuss cooperation with d:mo. It was suggested that there would be a permanent link to d:mo, and that this site had the advantage of a professional editorial staff.

In addition it was agreed that a debate forum would also be set up for the Tilbudssiden.no site that calendar events between the two sites could be coordinated and even joint marketing campaigns were discussed.

These proposed activities for raising the awareness of d:mo do take feedback from previously less active members of the CoI. However, these activities are independent of a conceptual framework that would take into consideration the needs and motivations of all the member groups.

Discussion

The previous sections have given background on member groups of the d:mo CoI and discussed the goals and activities of some of the active members. Table 1 summarizes this and in addition shows how current and proposed activities compare between group members. In this table, the three user groups (Students, Volunteer groups, All citizens) have up until the present, not used or been aware of d:mo to a large extent. Therefore, the content of the table listed under “Activities” is ideal rather than achieved. We suggest that these activities will be realized in future trials of d:mo, if the “Proposed Activities” are undertaken through a holistic framework. That is we suggest that user groups be allowed to give feedback and contribute to d:mo’s concept design through a modification of the design process, and rather than through random interactions. Recent efforts to use coordinated development approaches are being lead by the National Competency Center for eGovernment⁴ of who ErgoGroup and Molde municipality are among the steering members. This center should serve as a knowledge resource to the d:mo development effort.

Some of the “proposed activities” in Table 1 could be more specifically stated. But, it is not specific activities that are important to the development process, rather how activities are integrated into the whole. We suggest this process be based on the conceptual learning framework of “informed participation.” Fischer (2002) says, gathering new knowledge is a continuous process and that the knowledge repository does not sit in one centrally controlled place, but is embedded in the network and used by the members. This implies that the user communities are also active contributors to service design. Specific activities of groups could be as follows, but again the activity must come under a framework:

- Involve user groups (i.e. student groups) in the editing of portal content;
- Involve user groups (i.e. student groups) in marketing the portal – for example through student radio;
- Allow user groups (i.e. students) to develop multimedia content for the portal – such as interviews or editorials;

⁴ In Norwegian this is called “Kompetansesenter for eForvaltning” (KSeF) (<http://www.ksef.no/>).

- Allow user groups (i.e. clubs) to advertise on special pages on the portal.

Similar activities and integrative flows should be developed to account for member groups from different CoPs such as the political party representatives. The political representatives are also targeted “user groups” of d:mo. They must also be active in contributing to debates and active in what is done with consensus of issues that have been debated on d:mo. Their full participation in use and design is critical if the service concept is to be considered a success.

Members	Goals	Motivation for d:mo	Activities	Proposed Activities	Benefits to members
ErgoGroup	Develop new concept	New market sector	Central control of concept	More integration w/others	Steers design in market
Municipality Mgmt Team	Serve citizens	Displays competency	Responsible for pilot	Education Marketing	Satisfied citizens
Private Consultant	Coordinate project	Service Contract	Coordinates members	Develop feedback channels	Continued project involvement
Møre Research Molde; Molde College	Evaluate d:mo; share knowledge	Contribute to concept understanding	Studies and reports	Publish findings and results	Knowledge added to discipline
Administration	Better manage municipality	Demonstrations of modernizing capacities	Assign management team	Use and feedback on design	Knowledge more from citizens
Political Representatives	Represent citizens	Reelect party; more party members	Approve of project	Use and feedback on design	Knowledge more from citizens
Ministry of Local Govt. (KRD)	Coordinate governance of local governments	More effective local government	Funds pilot projects and evaluations	Continued funding	Better eDemocracy services are developed
Student Groups	Support rights of student CoP	Greater influence of CoP	Participate by use of d:mo	Use and feedback on design	Influence & knowledge of local government
Volunteer Groups	Support rights of Volunteer CoP	Greater influence of CoP	Participate by use of d:mo	Use and feedback on design	Influence & knowledge of local government
All citizens in community ⁵	Live with high quality of life	Higher quality of life in the municipality	Participate by use of d:mo	Use and feedback on design	Influence & knowledge of local government

Table 1. COI members and activities in the d:mo service concept.

⁵ Although some members of other groups, like political representatives, are also members of this group: “all citizens”, this category is intended to represent the qualitative average profile of “all citizens”.

We suggest such development processes will motivate user groups to contribute to d:mo's design and to the eDemocracy discussions, because the participants will gain social capital. As pointed out by Fischer (2001a) and Raymond and Young (2001), social capital is "(1) human beings have an innate drive to compete for social status; (2) social status is determined not by what you control but by what you give away; (3) prestige is a good way to attract attention and cooperation from others; and (4) utilization is the sincerest form of flattery."

Because of the above argument, we would suggest an Open Source Software (OSS) development framework could be used in the d:mo development process. We reason, the OSS framework offers a good conceptual foundation for collaborative design through heterogeneous groups. Organizations and developers that participate in open source projects consist of a very diverse group of people, both professionals and hobbyists. Their mutual interest in the product of a specific OSS project is what connects them. For many developers, OSS represents a proving ground where they can have varying learning goals, enhance social relationships, and gain privileged access to a community (Hippel, 2003). On a group level, trust and collaboration are basic principles. Also, OSS products commonly result in communities growing around them. These communities consist of individuals with a common goal, but with varying reasons for participating. Members are typically not assigned to tasks, but focus on aspects of the product in which they have interest or expertise. The fact that the developers generally also are the users of the software implies that the requirements elicitation process in open source will be the result of the personal agendas of the contributors (Scacchi, 2004).

Further, there is evidence to suggest economic reasons for using the OSS framework. For example, the online entertainment industry have reported trends that time for developing online media rich applications is doubling and costs of programming increasing five fold with respect to traditional top-down software development (OECD, 2005).

Conclusions

A complex political environment and not complex ICT is the greater barrier to the adoption of d:mo as a forum for political debate. CoI are composed of an elaborate array of participants and the d:mo development process would benefit from a learning process that makes use of the conceptual learning framework of "informed participation" (Arias, et.al. 2000) (Brown, et.al. 1994). Further study of d:mo should examine how informed participation could be applied. This learning framework implies that artifacts of the design environment and knowledge repositories are accessible and shared among its members. It also implies that there is no one top-down controlling member.

We suggested the OSS development is a general framework for at least

encouraging many active collaborators and that OSS can benefit the development of d:mo service concept. Development in OSS is based on the concept that anyone can alter and redistribute the software with no economic compensation to copyright holders. While the service concept d:mo is developed by a private actor, the OSS process could motivate CoI member to contribute. The OSS process is not in conflict with the competitive industry value system. Hippel (2003) suggests that the OSS and related processes are a necessary for modern organization to compete in broader (global) markets. Diker and Scholl (2004) find that the OSS processes through Internet-based and large-scale intellectual collaborations lead over time to broader, deeper and more rapid results than closed profit oriented undertakings in the software sector. Scacchi (2004) suggests there is a value tradeoff between the openness of OSS and the closeness of new inventions that make a company competitive.

Finally, the conceptual learning framework of “informed participation” for d:mo should be tested within an OSS development framework using the resources of the Norwegian National Competence Center for eGovernment, as they have the goals of actively testing new services and new work methods, support municipalities in developing projects, develop practical methods, and sharing results so that the knowledge on eGovernment can be best applied.

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