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# **E-Democracy and Network Externalities**

## **- The Case of Websites of Finnish Members of Parliament**

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**Abstract.** Effective communication between voters and members of parliament is a key success factor democracy. Fortunately, modern information technology is giving a lot of new channels to take care of this communication. Traditionally, Members of Parliament have maintained static www-sites, but nowadays more dynamic and interactive forms of communication, such as blogs, Facebook and Twitter are almost a must for the Members of Parliament, especially in the case of less popular politicians. As in any technology application, even in www-presence of Members of Parliament network externalities occur: unexpected consequences of web-presence. This article sets out some preliminary concepts and ideas on what these network externalities might be.

**Key words:** e-democracy, Member of Parliament, web-sites, network externalities

### **1 Introduction**

Not even political life can escape the power of the Internet. Indeed, web presence has become a critical key to success in the playfields of Internet, as the election of Barack Obama shows. [1-2] [3] puts it very clearly: *“An exciting new technology like the World-Wide-Web is simply too much for a politician to overlook”* Internet with

its various communication platforms becoming strong channels for providing political information and for conducting political activities and decision-making.

The applications of www-technology in politics are many. Different tools are being developed through which electors can compare and weigh up the manifestos and opinions of political decision-makers. [4] Internet is a mainstream platform for political journalism. [5] In many countries, Internet is an important channel for political fund-raising. [6] Politicians beyond their active phase can use websites to maintain their political life. [7] Websites are a major channel for political activism. [8].

As in any technology application and adoption environment, learning happens [9-10] and during the technology adoption process, unexpected results occur. These unexpected results can also be called network externalities.

Our article unfolds as follows. In section 2, we perform a conceptual analysis of eDemocracy. In the section 3 we discuss network externalities. In the section 4, we hypothesise what network externalities could be in the case of Internet-presence of Members of Parliament. In section 5, the state of the art of the websites of Finnish Members of Parliament in 2006 and 2008 is analysed based on some collected data. Finally, in section 6 conclusions are drawn.

## **2 e-Democracy**

eDemocracy refers to support of democratic practice and processes through the potential of cyberspace. Päivärinta and Sæbø [11] note that eDemocracy can be harnessed to support many different models of democratic processes. They introduce the models of Liberal, the Deliberative, the Partisan, and the Direct Democracy. eDemocracy is an integral part of eGovernment [12].

The Internet is without doubt the most important public political sphere available today, and the only really international one [13]. Online public spaces can provide flexible and interactive outlets for dialogue, and document the dynamic, as values shift and de-

mands for transparency increase [14]. Schuler [15] also emphasises the effect of modern ICT on democratic processes: *“ICT provides tools for strong democracy, such as email, forums and online access to documents.”* Rheingold [16] also states that new media can help *“to gather critical information, organize political action, sway public opinion and guide policy making”*.

Williamson [17] defines a five-level maturity model of eDemocracy:

1	access	getting access to discussion and material
2	literacy	understanding the material and the media restrictions
3	content	having meaningful and relevant content
4	creation	taking part in content creation oneself
5	dissemination	publishing new material beyond individual community boundaries.

Welch [18] defines two goals for eGovernment applications to support eDemocracy: transparency and interactivity. The more transparent and interactive an institution’s web-pages are, the more they encourage trust in citizens. Mahrer and Krimmer [19] refer to the fact that Internet-presence of politicians supports multiple and complicated democracy goals.

On the worst case, Internet can also turn out to be a buffer between citizen and Members of Parliament [20]. One big challenge for Members of Parliament as well as for other politicians is to be able to maintain deep and credible enough presence in the Internet. Old and outdated material on the Internet is no receipt for success for a politician.

Members of Parliament are very central actors in the eDemocracy field. So their application the Internet is an important topic. We found widely-published empirical academic research on the topic in just one article. Jackson and Lilleker [21] report, among other things, on the websites of British Members of Parliament. They conclude that websites and e-mail still remain under-utilised communication tools for Members of Parliament.

### 3 Network externalities

*Network externality has been defined as a change in the benefit, or surplus, that an agent derives from a good when the number of other agents consuming the same kind of good changes. [22]. The roots of the network effect research are in the marketing discipline, where it was understood that the success of a product or service is a phenomenon strengthening itself. The phenomenon was called the bandwagon effect by which was meant “the extent to which the demand for a commodity is increased due to the fact that others are also consuming the same commodity. It represents the desire of people to purchase a commodity in order to get into ‘the swim of things’; in order to conform with the people they wish to be associated with; in order to be fashionable or stylish; or, in order to appear to be ‘one of the boys.’”[23] Still today, the network effect is often connected the act of buying and selling, and not the act of consuming, as above: “A positive consumption externality (or network externality) signifies the fact that the value of a unit of the good increases with the number of units sold” [24]. Another definition stressing buying is that of: “Network externalities arise when a consumer values compatibility—often stemming from ability to take advantage of the same complements—with other consumers, creating economies of scope between different consumers’ purchases” [25].*

One should make a difference between network effect and network externality. Network externalities should not properly be called network externalities unless the participants in the market fail to internalize these externalities [22]. An **externality** is the effect of a transaction between two parties on a third party who is not involved in the carrying out of that transaction. Internalizing an effect means that it is no more directed towards a third party. Network externalities can be direct or indirect, and positive or negative.

Direct network externalities exist when an increase in the size of a network increases the number of others with whom one can

“communicate” directly. Indirect network externalities exist when an increase in the size of a network expands the range of complementary products available to the members of the network [26].

Network externalities can be positive or negative. A typical negative network effect is a traffic jam. All too often network externalities are understood just as positive. The same phenomenon can be both positive and negative, depending on the role of the observer. To take an example, to a railway operator having a lot of customers is a good thing (more revenue), but for the customer the same situation can mean congestion, also a negative effect.

The enchantment of network externalities is that they often come out as surprise and as a byproduct that was not calculated or foreseen in any way.

#### **4 Network Externalities and Member of Parliaments' web-presence**

In Figure 1, we illustrate some network externalities that come out from the use of electronic media in political communication. Please note that this is not analyzing the very basic goal and purpose of political communication: better democratic processes. This is the expected and natural outcome of web-presence of politicians, not something unexpected, not also externalities. Figure 1 concentrates on unexpected outcomes of using web-based technologies for democratic processes.

Please note that the classification is tentative and very rudimentary. In general, classification of network externalities is difficult: Externalities for one party or stakeholder might be negative, and the very same externalities can be positive for some other party or stakeholder. In the same way, differentiation between what is direct and what is indirect is very vague.

		<i>Direct</i>	<i>Indirect</i>
<i>Type of effect</i>	<i>Positive</i>	<ul style="list-style-type: none"> <li>•Increased computer literacy of politicians and their support staff</li> <li>•Increased interest towards ICT of politicians and their support staff</li> </ul>	<ul style="list-style-type: none"> <li>•New business for many media area companies</li> <li>•Non-stop political processes</li> <li>•Environmental benefits from decreased paper use</li> </ul>
	<i>Negative</i>	<ul style="list-style-type: none"> <li>•Decreasing value of other, more traditional, channels of communication</li> <li>•Unemployment and lost business in traditional political media</li> <li>•Increased pressures towards politicians privacy</li> </ul>	<ul style="list-style-type: none"> <li>•Devaluation of political messages</li> <li>•More abstract democracy system for citizen</li> <li>•New challenges for political career management</li> <li>•Too fast political processes</li> </ul>

**Fig. 1** Network externalities in the case of www-presence of politicians

Positive effects are foremost the increased interest and skills of members of parliament and their staff in ICT-issues. This is very positive for the whole ICT-industry and cluster. When realizing their web-presence, Members of Parliament need a lot of support, which fact gives new business opportunities for many experts and companies with media skills. As in any e-activity, even in eDemocracy the goal is to substitute paper communication with electronic communication, which is good from the environmental point of view.

The Internet never sleeps. Activity takes place on a 24/7 hour basis. This will have an unexpected effect on the political processes as well. Might be that in some cases the speed of activities becomes too fast, which could potentially decrease the quality of political processes. Indeed, this is a real externality, which consequences are yet hard to predict.



Negative externalities can most likely be seen in the valuation of other channels of communication, especially if we think that the amount of real and affordable communication has some maximum amount that is already achieved. Might of course be that political issues cannot gain any more human attention in our society, where attention is a scarce resource [27]. We already now see signs that the traditional political media is worried about its status in the political sphere. Again, is this good or bad is surely not a straightforward issue.

Internet activity is always a threat for privacy [28]. Politicians are by definition in the focus of public interest, and their lives are followed up in great detail. Heavy Internet presence will surely cause a further privacy threat for them.

## **5 Conclusions**

Internet presence is a must for any politician nowadays. Internet is even more important than traditional media such as press, TV or radio. The challenge of Internet is its global reach, interactivity and speed. Politicians have a hard time answering to these challenges.

In our conceptual analysis, we categorised eDemocracy as a sub-topic of eGovernment. Members of Parliament are in a central position in eDemocracy, but the academic world has conducted very little empirical research into their websites.

In our network externalities analysis we found out, that several unexpected outcomes can come out from the active web-usage of Members of Parliament, also outcomes not touching upon the democratic system in an expected way.

Our study will continue with more complicated and deep analyses of the collected data. Additional theory to give ramifications to the conclusions is also required.

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