# Open Government and Democracy: A Research Review

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#### Abstract

The concept of open government, having been promoted widely in the past 5 years, has promised a broader notion than e-government, as supposed to fundamentally transform governments to become more open and participative and collaborative. Unfortunately, this has not significantly enhanced a set of fundamental problems regarding e-government. One of the problems is that the underlying democratic ideology is rarely clearly expressed. In this paper, we have therefore constructed a framework for the analysis of open government from a democratic perspective, to explore the research foundation of open government and the types of research missing. We have looked closely at the notion of democracy in peer-reviewed journals on open government from 2009 to 2013, focusing on discussions of some fundamental issues regarding democracy and the type of solutions suggested. We have found that despite seemingly good intentions and an extensive rhetoric, there is still an apparent lack of adequate tools in which public deliberation and representation are addressed in any meaningful sense. There are two main important observations herein: (i) the rhetoric in the dominant discourse supports the concept of open government formulated by the Obama administration as transparency, participation, and collaboration, but in practice, the focus is predominantly on transparency and information exchange, while ignoring fundamental democratic issues regarding participation and collaboration, and (ii) the concept of the public is inadequately considered as a homogenous entity rather than a diversified group with different interests, preferences, and abilities.

#### **Keywords**

decision support, online representation, digital inclusion, public deliberation, collaborative government, open government, e-government

## Introduction

The concept of *open government* has been used for some time now. Efforts to make government more transparent are not new (see e.g., Chapman & Micheal, 2011; Cross, 1953). However,

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information and communication technologies (ICTs) have changed the preconditions for information sharing, and created technical possibilities for a more collaborative information production and sharing culture. As ICT has become more prevalent and part of our everyday life, the focus has shifted from the technology itself to how we use it. The concept of open government sets ICT as part of a wider attempt to transform governments to be more innovative and collaborative. It can be seen as a development of the e-government field that has been criticized for being largely focused on improving government services, and for not looking at the transformation of the government as a whole toward a more participatory democracy (see, e.g., Heeks & Bailur, 2007; Wimmer, Scholl, Grönlund, & Grönlund, 2007; Yildiz, 2007). There are a large number of tools that support a more collaborative, participative, and transparent government, and it seems that these in combination with adequate data support would have a potential for greater use for informed deliberation and participatory decision making. The concept of open government has been increasingly important for accommodating these ambitions, while enabling a more innovative and collaborative public sector, and thereby, facilitating more deliberative and participatory democratic systems. However, several issues are connected with this, prompting for a more radical change of the government and a development of an innovative deliberative democracy based in a pluralistic public sphere.

Collaborative information sharing and deliberative discussions are nowadays increasingly predominant on public platforms such as micro-blogs, online social networks, photo and video sharing sites as well as wikis and various tools that have enabled a bottom-up approach to information production and information sharing. Some of the most well-known tools have been developed by the private sector, such as platforms for photo and video sharing (like *Flickr* and *YouTube*), social networking sites (like Facebook or LinkedIn), or micro blogs (such as Twitter). Others have been developed within or for the public sector. Some crowdsourcing projects are good examples of the latter, where the public typically has been asked to perform a simple predefined task, for example, transcription projects such as The Australian Historic Newspapers Trove (n.d.), Citizen Archivist Dashboard (n.d.), Civil War Diaries & Letters Transcription Project (n.d.), or DIY History (n.d.). Others demand more from the participants but are still strictly task oriented, such as tools for reporting neighborhood issues, to help governments track problems and manage public spaces (e.g., FixMyStreet, n.d., SeeClickFix, n.d.), to collect eyewitness reports of violence (Ushahidi, n.d.), to open the patent examination process to the public (Peer To Patent, n.d.), or to submit and vote on petitions to the House of Commons, United Kingdom (HM Government e-petitions, n.d.). There are also systems aiming at making the public sector more transparent, such as Ballotpedia (n.d.), an online encyclopedia about American politics and elections; OpenCongress (n.d.); and more innovative projects such as Diplopedia (n.d.), the U.S. State Department wiki for Foreign Affairs information; Intellipedia, a joint information source for U.S. Intelligence Agencies and Departments (Ben Eli & Hutchins, 2010); and GCpedia, the Government of Canada wiki (Fyfe & Crookall, 2010); or MyUniversity (n.d.) for educational settings. Further common categories include various wikis and community portals for collaboratively sharing information about local places like cities (Kassel-Lexikon, n.d.; Stadtwiki Karlsruhe, n.d.). Following these trends for making information of various kinds public, many governments and authorities have started to deliver access to public data wherein people can search, download, reuse, and share data from agencies, localities, or the federal government for the United States: an example of this is the site data.ny.gov from the state of New York.

This is in many respects a significant development; however, many problems still remain. Discrimination regarding gender, age, and ethnicity is just as common in the virtual context as in other social contexts. Herring's (2008) review of research on gender-building online shows how gender is relevant even in anonymous text-based chat and discussion forums. Nakamura (2001, 2008) and Wright (2005) show how racial identity is important for participation in interactive online environments. Even though online forums can have many *deliberative* characteristics, studies of online

political discussions in Canada and Poland have shown that the discussions often are neither constructive nor substantial (Koop & Jansen, 2009; Sobkowicz & Sobkowicz, 2012). Furthermore, various tools incorporate peer communication and discussions as a way of reaching consensus, but in actuality, the discussions are seldom combined with any sophisticated means to enable a deliberative democratic process in which relevant facts from multiple points of view are taken into consideration. Yet, there are tools available that focus on different ways to vote and structure argumentation around questions, such as, for example, Your Priorities (n.d.), VoteIt (n.d.), and Simply Voting (n.d.), or decision support systems such as Palisade (n.d.) and Rationale (n.d.). But they are very rarely integrated into more open-ended discussion forums. There are also platforms that aim to capture more systematic and deliberative decision making, (See e.g. Danielson, Ekenberg, Ekengren, Hökby, and Lidén 2008; Danielson, Ekenberg, Idefeldt, and Larsson, 2007), but they are often only used for very specific purposes, and even though such structured tools have proven to create higher quality results, their use tends to result in even more reduced participation, since very few can and are willing to handle them. Among others, Loukis and Wimmer (2012) present a comparison between an ordinary unstructured discussion and the one supported by structuring tools, and not surprisingly, they show that the structured discussion added quality, but excluded participants who did not master the tools or this type of reasoning.

It is also significant that on Wikipedia, 87% of contributors are male, typically around 18 years old, and half of the contributors are less than 23 years old, and only 14.7% are parents (Glott, Schmidt, & Ghosh, 2010). Moreover, in the 10 largest Wikis, less than 10% of the total number of authors are responsible for more than 90% of the posts (Ortega, Gonzalez-Barahona, & Robles, 2008). More generally, in an overview of the e-government field, Flak, Moe, and Sæbø (2003) illuminate the lack of knowledge about stakeholders' characteristics and differences. Similarly, Sæbø, Rose, and Skiftenes Flak (2008) call for greater in-depth knowledge of the citizen as an e-participant, especially given the differences in gender, nationality, social grouping, and cultural background. In the Fyfe and Crookall's (2010) study of the thoughts and attitudes of public servants in Australia, Britain, and the United States, one of the obstacles to a more collaborative government was the dearth of analytic support. Besides, in an overview of the field, Macintosh, Coleman, and Schneeberger (2009) have emphasized that the unequal distribution of Internet access may cause severe countereffects when attempting to strengthen democracy through increased e-participation.

To summarize, the democratic aspect of the current systems for information sharing and collaboration lacks development when it comes to deliberative processes and means to analyse the representativeness of the actors involved. It is therefore important to look at how these issues have been addressed in the ever-increasing number of articles on open government and this paper addresses this through a content analysis of peer-reviewed journals that have dealt with the topic during the past 5 years. The next section describes the current concept of open government, and the third section sets the concept into a broader theoretical framework to analyze the concept from a democratic perspective. The fourth section describes the methodology used and the fifth section presents the results of our content analysis. Finally, we discuss the findings in light of our theoretical framework and suggest an agenda for future research in the field.

#### The Concept of Open Government

In the research field of computer science, open government can be seen as a new paradigm within different research areas with overlapping and sometimes changing meaning like e-government (making government more efficient, transparent, interactive, and service-oriented through the use of ICT), e-participation (top-down and bottom-up practices of citizen participation), and open data (availability, access, reuse, and redistribution of data to enable interoperability and innovation). The

open government concept encompasses participatory aspects of government such as crowdsourcing as a means to make the government more informed but also to make it more effective as some of the data production and management are distributed to a diversity of actors both in the public and private sectors. But interaction with the public is not only seen as a way to crowdsource information: collaboration concerns deliberative aspects of social media in which information is developed in a citizen to government dialogue. Transparency and information sharing on different levels within government, between government and the public, and in the public sphere means not only that the information shall be accessible by default to promote understanding and accountability, but also that it is interoperable and open for reuse both by different government agencies and the private sector to promote innovation.

The concept of open government has been strongly encompassed and promoted by the Obama administration (Open Government Progress Report to the American People, 2009). An article that maps online "virtual policy networks" (VPNs) has shown that the open government VPN is foremost promoted by the U.S. government and organizations based in the Unites States (Mcnutt & Pal, 2011). The concept is also promoted by the European Commission (European Commission, 2013) and the governments of Canada (2014) and Australia (2010). In China, the concept of open government has long been promoted, especially to make local government accountable on environmental issues (Horsley, 2010; Li, 2011). The Open Government Partnership (2014), an international platform sponsored by private investors and partner states, now gathers 63 Member States across the world that have committed to defining and implementing shared principles of open government.

The open government concept means that the focus is not so much on the technology but on the interoperability, openness, and participatory dimension that the technology might enhance, as well as on a fundamental change of how governments operate. Our interpretation of the official documents from the United States (Open Government Progress Report to the American People, 2009), Canada (Government of Canada, 2014), and European Commission (European Commission, 2013) that promote open government is that the concept is broadly used in the same way in various contexts, but that the focus differs. For instance, in the United States, private actors and nongovernmental organizations (NGOs) already largely govern the public sector, which can explain why the focus is on interoperability and accountability, shared standards, and open data practices. In Europe, where many states traditionally have had a bigger responsibility over their public sector, the focus is on decentralization and opening up to private sector actors and NGOs. In all documents, focus is on transparency and understanding, and public participation is seen as a central means to gathering information. Furthermore, the Obama administration has emphasized the importance of public collaboration, meaning not only to provide government with data but also to develop information collectively in a collaborative democratic process that includes different perspectives (Open Government Progress Report to the American People, 2009). Singapore's "Government with you" strategy also seeks to co-create information and services with the public (Linders, 2012). In the Australian statement, the main focus is on deliberation and a "greater participation in Australia's democracy" (Declaration of Open Government, 2010, p. 3).

The meaning of the open government concept thus shifts, from a way to make government more efficient and innovative to a way of improving democracy. In order to analyze how the concept relates to democracy, we will in the following suggest a framework for democracy.

## Framework for Analyzing Open Government From a Democracy Perspective

Open government can among other things be seen as a way to strengthen democracy through greater transparency, participation, and collaboration. These concepts are important aspects of democracy,

and to develop these democratic aspects in the interdisciplinary setting of open government, we need a shared democratic foundation.

In Dahlberg's (2011) overview of discourses on e-democracy, and in the reviews of the field of e-government by Heeks and Bailur (2007), the authors all point to a lack of nuanced discussion of the underlying concepts of democracy, and to the fact that it is usually an unarticulated liberal conception of democracy that forms the basis for technology development. Democracy in this liberal discourse is an instrument similar to a market economy, where citizens vote for the political parties of their choice, based on how these satisfy citizens' needs and interests. Here, the idea of individual autonomy and transparency is an essential condition for making enlightened choices. The open government discourse promotes a more participatory government, more in line with proponents for a deliberative democracy such as Habermas (1996) or Rawls (1993). The core idea is to turn back to a classic democratic idea where a broad public deliberative conversation is essential for reaching a shared understanding of the problems at stake and the decisions taken. Without active and engaged citizens, the gap between them and their representatives will create alienation in society and turn democracy into a marketplace for political ideas consumed by a passive audience. The deliberative democracy model has also been criticized, foremost because of the idea of a neutral public sphere without agonistic interests where all the facts are presented and everyone can share a common understanding. Laclau and Mouffe (2001) point out the unequal participation in the public sphere, and the hegemonic discourse that dictates what is possible to express in this sphere and what is considered as political. Therefore, consensus cannot exist, rather it is a "temporary result of a provisional hegemony" (Mouffe, 1999, p. 17), and there is a risk that the belief in this idea can undermine democratic institutions. Mouffe is also critical of the core aim of deliberative democracy to create a neutral sphere beyond self-interest and passion, where an "objective" reasoning and consensus are possible. Instead, she insists that democracy is about tolerating a plurality of values and identities, and should be about turning conflicting interests into competing interests rather than thinking that there is one solution that fits all.

With this discussion in mind, we turn to the liberal democratic theory by Dahl (1989) to identify some core concepts. This theory is useful as a starting point as it does not constrain democracy to a certain context, but rather sees democracy as an iterative and scalable process in *a context that includes those affected by its decisions*. Dahl's democratic model can thus apply to members of a small group or citizens in a state as well as participants in a voluntary organization. Democracy, in Dahl's perspective, is an ongoing reflective process that is not only about collective decision making but also about who is a representative "citizen" in the corresponding decision-making processes. Central to this process is *understanding*: the aim that everyone involved has primarily an enlightened understanding of the problems and opportunities as well as the rights to express their understanding. Thereafter follows basic democratic rights to participate in the *deliberative* process of agenda setting, discussions, and voting. Finally, equal *representation* is important on different levels, from setting the agenda, to discussion and voting. By analyzing these three aspects, we can reflect on the degree of democracy in a situation.

We will now show how open government concepts relate to these three aspects of the democratic process: understanding, deliberation, and representation.

#### Understanding

Understanding is a central notion in the definitions of open government. The first two directives of the Obama administration report on open government were *transparency* and *participation*, with a focus on providing information (Open Government Progress Report to the American People, 2009). Transparency is put forward as a means to provide citizens with information, while participation concerns how to gather information with the help of citizens. Focus is thus on information to

improve understanding and a central precondition for this information exchange is public participation. The European Commission also talks about transparency and participation in its latest call for open government initiatives, where it defines open government as accountability through transparency and as a way of creating "personalized" public services (ICT-enabled open government, 2013). Other documents emphasize participation as a possible way to reduce costs for public services (European Commission, 2013). The Obama administration also points toward efficiency and improved services and favors the distribution and decentralization of the public sector on several actors, public as well as private. The aim is to distribute this even further and release public data, making it easily accessible and possible to reuse as well as generally enabling governments to become more efficient in various ways. Hence, data interoperability is perceived as important both for accountability and because it can then be used in new and innovative ways. *Understanding* in the open government setting thus means making information that is produced by the government accessible and sharable, but also gathering information with the help of participating citizens.

#### Deliberation

The Obama administration also provides a comprehensive definition of collaboration that, unlike their definition of participation, not only is about exchanging information but entails creating new knowledge through citizen dialogue and through the development of an internal culture of knowledge sharing (Open Government Progress Report to the American People, 2009). Collaboration here implies that information is developed in *deliberation*, in a discursive form of decision making, supported by tools for dialogue and sharing. Deliberative processes have been discussed widely, especially in the field of political science (Dryzek, 2010; Fischer, 2003). The underlying assumption in a deliberative process is that if we acquire an informed understanding, we, as a collective, will be able to take an informed rational decision by weighing pros and cons and by predicting the consequences of different actions. Even though, in theory, the deliberative framework is believable, it remains a difficult one even when it comes to simple decisions. It is time consuming and energy consuming to gather information and to predict and understand future consequences of a situation. Support tools in the deliberative process aim to structure the decision situation and provide information regarding the alternatives and criteria involved. *Deliberation* in the open government setting thus means forms of collective decisions and information production to enable collaboration and innovation.

#### Representation

Equal representation is not formally addressed as a problem in any of the documents but rather regarded as a fact or an opportunity. In the Obama administration report, representation is addressed by defining "to involve everyone" as a way to "develop more complete pictures" (Open Government Progress. 2009. p. 6). In the European Commission's Vision for Public Services (European Commission, 2013), questions about diversity, inequality, or inclusion are excluded. Citizens and the public are treated like one voice. In other documents, diversity is touched upon as a design question that can be overcome to, for example, produce "more personalized public services that better suit the needs of users" (ICT-enabled open government 2013). The official documents about open government are thus rather unclear when it comes to issues like deliberation, and almost numb when it comes to representation. Therefore, it becomes pertinent to see how scholars have looked at these issues and how it has been dealt with in studies of open government tools and projects. In the following section, our methodology is described.

#### Methodology and Data

The concept of open government has been used at least since the 1940s with different connotations in the research literature, but the quite recent increase in the number of research articles the last 5 years coincides with political initiatives, such as the abovementioned ones. To explore the research foundation of the current open government paradigm, we have therefore reviewed articles on open government in the past 5 years (2009–2013).

We looked at six of the more prominent journals in the field of e-government (see Table A1 in Appendix A). We also investigated other research fields, and to get the dominant and more developed discourse, we excluded conference proceedings and books, and foremost looked at peerreviewed journals listed in *Web of Knowledge*. As we were interested in the definitions of the open government concept and not the practices, we specifically looked at articles that were directly related to "Open Government" by mention of the concept in a title, in an abstract, or as a key word. In total, the 80 reviewed articles came from 44 different journals (see the list of journals in Table A2 in Appendix A).

The content analysis has examined the way in which the three democratic notions of transparency, deliberation, and representation are addressed in open government literature. We established a context of understanding by also investigating how authors define open government, its benefits, and its problems as well as which parts of the democratic process have been emphasized—understanding, deliberation, or representation—and what types of solutions are suggested to address these. If the issue of representation has not been an issue at all, it is difficult to understand whether it is an issue that the author does not consider relevant, or just that it is not a subject of focus. One way to understand authors' attitudes to the issue of representation is to explore how "the public" and "the citizen" are defined, that is to say whether it is generally looked upon as one entity or if it is looked upon as a diverse group of people (see Appendix A for summary of questions in the content analysis).

To provoke our own preunderstanding of the concept, we also studied more closely articles that differ from the mainstream open government discourse, as a way to get as many alternative readings of the concept as possible. The research process is described in Figure A1 in Appendix A. Each article was read by two to three reviewers, except for the articles in Spanish, which were only read by one of the reviewers.

## Results

During the time span from 2009 to 2013, we found 80 articles with open government as a topic, part of the title or abstract. Three main fields promote the concept: e-government (22 papers), public administration (20 papers), and computer science (18 papers). But the concept was also used in articles covering subjects like political science, law, medicine, education, environment, geography, infrastructure and philosophy. Almost one fourth of all articles were found in the *Government Information Quarterly* with 19 articles; none of the other journals had more than 7 articles on the subject, whilst *Government Information Quarterly* appears as the main promoter of the concept. We had expected more discussion of the articles had open government as the main topic, whereas in the computer science field, the explicit focus was often on open data, and open government was simply mentioned as a context.

#### The Dominant Discourse: Open Government = Understanding

Almost all articles define open government along the Obama administration's definition where open government promotes transparency, participation, and collaboration in order to reinvent government

and to engage citizens into the decision-making process via the use of new technology. However, regarding what is described as the benefits of open government, the dominant discourse foremost emphasizes the innovative potential for interoperability to make government officials and politicians accountable through greater transparency. Popular themes are transparency, interoperability, well-informed citizens, accountability, trust, and anticorruption. To reconnect to our theoretical framework, the focus is thus on *understanding* rather than deliberation or representation. Activities indicating deliberation are sometimes mentioned as something that inevitably will come with greater transparency:

Theoretically, the main value of Open Data as a concept is that in providing a free public access to various official files the government not only becomes presumably more transparent but also more efficient as it potentially could promote civic engagement by enabling citizens to participate in various discussions on how to better address their needs. (Kassen, 2013, p. 1)

Social media seem to be considered as platforms for deliberation as if the existence of a discussion forum and like/dislike buttons would develop a more deliberative democracy without any organizational support. The idea is that crowds of data activists will transform the data to useful public tools:

Various independent online community projects which use Open Data to create applications and platforms for direct civic participation are good examples of the potential in general. (Kassen, 2013, p. 2)

The issue of who actually participates is not addressed. The public is seen as one homogenous group, without diverse needs or political interests. Of all reviewed articles, only 7 define "the public" or "citizens" as heterogeneous groups that consist of individuals with different interests or with unequal means to participate. Not even from a security perspective, identifying "the public" has been expressed as a problem. Instead, the assumption seems to be that whoever acts like a citizen counts as one.

The basic idea of open government is seldom problematized: many articles do not argue why transparency, participation, and collaboration in government are important or beneficial, the assumption being that these are obvious positive and unquestionable norms. The problem is never open government, but how to reach it. The obstacles to open government that are often discussed in the reviewed articles are mainly as follows:

- Problems to interpret the data: It is not enough to release data. Without the right tools and understanding to interpret it, data are not very useful.
- Cultural barriers: There is a need of a culture change in government, to create open government norms and practices.
- Organizational barriers: There are problems in the current information management that are not compatible with the idea of open government.
- Technical problems and lack of resources: Interoperability demands global standards as well as negotiations between different worldviews and objectives. To maintain the feedback loop with citizens and collaborating agencies, extra administrative resources are needed.
- Motivation: Means to participate do not equal motivation.
- Privacy and copyright: This issue appears in journals in the field of law and public administration. The question is how to handle the conflict between private interests and rights with the public demand for openness.
- Outsourcing of public functions to private companies is another dilemma when it comes to defining the boundaries of open government: when is data open and public, and when is it within the private sphere of companies?

Security is not a focus in any of the articles, but sometimes is mentioned as a concern. The solutions to the problems are related to the research areas in focus. Computer science journals offer improved ways to create interoperability through new ways of linking or categorizing data or suggest better interface design. Public management journals suggest institutional changes and means to motivate participation such as more information, video communication, contests, and celebrities:

For example, if video capability allows citizens to hear directly from public managers rather than simply reading a challenge description, does this drive participation? Does the presence of a judging panel composed of known experts or celebrities drive participation? (Mergel, 2013, p. 889)

Better public relations efforts need to be undertaken to create an environment in which the public wants to get involved. (Mitchell, 2007, p. 27)

It is also suggested that government should act on places where 'people' are, like on social media as Facebook and Twitter. (Mitchell, 2007, p. 27)

However, most often solutions are not specific. Instead, what is suggested to overcome hinders is better understanding, and the solutions provided by the authors are various models and frameworks for open data and open government.

Despite the often-used Obama administration open government definition, the deliberative and representative aspects of democracy are largely lacking in these articles. Deliberation is mentioned in the passing but not problematized. Representation is not an issue at all and just mentioned in passing.

#### Alternative Discourses: Problems with Transparency

A few articles put forward alternative opinions to the dominant discourse: for example, a difference in the attitude towards the concept of transparency or in the framing of the problems. We took a close look at these, especially to find answers on how to address the questions of deliberation and representation.

One of the few articles that focuses on deliberation is about Regulationroom.org, an online experimental e-participation platform, designed and operated by Cornell e-rulemaking Initiative (Farina, Epstein, Heidt, & Newhart, 2013). Regulationroom is a tool that aims to open up the rule-making process in legislation, by inviting the public to review new regulations. The discussion process is structured according to policies and supported by moderators trained to help users to follow those policies and to foster a deliberative discussion. The presumption is that not only experts have important facts to contribute but that locals with experience of the problem also are valuable.

They thus provide situated knowledge, by which we mean information about impacts, problems, enforceability, contributory causes, unintended consequences, and so on that are known by the commenter because of lived experience in the complex reality into which the proposed regulation would be introduced. (Farina et al., 2013, p. 512)

However, not everyone can express himself or herself in a way that is praxis in the context of law making and, therefore, needs to be educated in the art of rational reasoning. The way information is expressed and collected can also change to fit more diverse ways of communicating. The project not only provided a platform, an education to legislating and moderators, but attempts were also made to reach out to a diversity of stakeholders.

Regulationroom.org is characteristic of the articles we looked at as it has a government perspective. Even though many articles discuss a reformulation/reorganization of government, the pressure to transform it is top-down. In this context, an ethnographic study of open data and journalism stands out, as it sees open government as a paradigm that was established outside government, through data activism. Parasie and Dagiral (2012) discuss the difference between "computer-assisted reporters" and "programmer journalists" in Chicago, and how both citizen journalism and traditional journalism are important. A traditional journalist role is crucial for interpreting data and looking at the whole picture, while it can be combined with a more collaborative information production, where the journalist/programmer enables participants' own stories, thanks to easy-to-use interfaces and access to data.

Not only the ability to interpret information and participate in a deliberative discussion is questioned but what transparency entails is also discussed. The quality of the data is one aspect of transparency: in a theoretical article on transparency, Fung (2013) suggests that "The important info might not even be in the data." Transparency policies generally make available only documents that already exist, not the ones that might be useful or that could be the most relevant. To ensure that important data are produced and accessible, the author suggests that strong nongovernmental collective actors, like a free press, are needed to ensure citizens the right to information (Fung, 2013). Likewise, Parasie and Dagiral (2012) question the single focus on government data in the open government paradigm, where the importance of ensuring alternative data sources is forgotten. Independent information agencies are therefore needed (Parasie & Dagiral, 2012).

Fung (2013) also questions the idea that it is mainly the individual who is the "user" of the data, but professionals and organizations that function as guardians of individual rights are rather the ones who benefit from it. Fung also introduces the idea of data proportionality, meaning that it is especially information about large state or private organizations that might jeopardize citizens' interests that should be available.

In the dominating open government discourse, participation and collaboration are mostly seen as unproblematic. We only found one article that focused on the problems that emerge with a more participatory system (Cornford, Wilson, Baines, & Richardson, 2013). This article deals with the democratic potential of open data on a local level, and discusses the implications of the Localism Bill 2011 in England, an attempt to create more decentralized decision making based on local participation. The authors point to the problem of conservatism that can occur in too confined, densely linked communities (Cornford et al., 2013). The solution proposed is to create systems that, like academic networks, connect individuals based on interest and thus link the local network with wider global interests to create more innovative "interpretative" environments.

Transparency is mostly something that is looked upon as a common good, and there is no real critique against this basic idea, that data should be "free." Wikileaks for example is only mentioned in one article. But in an article on strategies taken by the left movement in relation to transparency and secrecy, the authors do question the transparency norm and claim that secrecy might be needed in certain contexts and that secrecy also has been a powerful strategy in relation to the state in different revolutionary movements (Birchall, 2012).

To summarize the alternative open government discourses:

- Deliberation through rational reasoning is a culture that can be taught.
- Nongovernmental collective actors, like a free press, are needed in the open data paradigm to ensure citizens the right to information. The individual does not have the power.
- Data proportionality, information about large state or private organizations that might jeopardize citizens' interests should be made available.
- To create more innovative and "interpretative" environments, by supporting global interestbased communities.
- That secrecy is a powerful strategy in relation to the state.

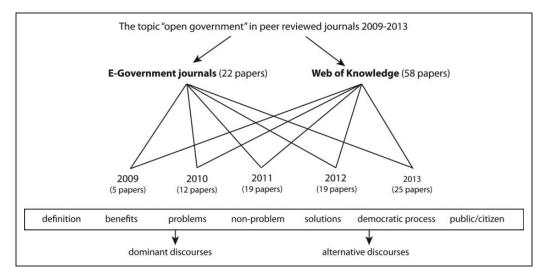
To conclude, the dominant discourse promotes the concept of open government as formulated by the Obama administration: transparency, participation, and collaboration. But in practice, it ignores the more problematic notions of deliberation and representation, and foremost focuses on understanding through information exchange. Only one article presents a method to support deliberation with no suggested solution to the issue of representation. Finally, most commonly, the public is presented as one homogenous group.

## Discussion

The open government concept that is promoted in the research articles is a powerful meme, as it talks about change, transformation, and even a revolution in government as we know it. It is also difficult to oppose this belief system; the promises of accountability, innovation, and a sharing culture that will be fulfilled if we just follow the same standards. Despite the clear democratic problems with ICT, with increasing inequalities and access to the means to participate in society as being more complex than ever, most research has focused on the less problematic areas of open government, avoiding the difficulties with digital differentiation. Both participation, in which citizens provide government with information, and collaboration, in which information is developed in dialogue, can be criticized from a radical democratic perspective. In this perspective, the "public" is not one but many and is marked by differences. In such context, it is difficult to achieve consensus in a deliberative process because of conflicting interests in and between groups. As research on digital differentiation has shown, ICT has also increased the inequality between different groups' ability to participate as far as needed literacy and social capital are concerned (Norris, 2001; Schradie, 2011). It matters who it is that discusses and makes decisions. Feminist scholars especially emphasize the importance of "situated knowledge" (Haraway, 1988), meaning that knowledge always is situated in an individual's preunderstanding of the information. People have different and sometimes antagonistic interests, but they also produce and interpret information differently, which is why the outcome of information gathering also depends on who the "crowd" is that gathers the information. Therefore, there is a need for discussion and action research in the area toward means for a more deliberative democratic support.

Furthermore, trying to access different stakeholders-particularly in more marginalized groups—is notably difficult, and in order to reduce the severity of such situations, it is important to recognize antagonistic interests as well as understand which opinions are visible in the debate and which are not. When it comes to means for a more representative participation in collaborative governments, the existing support tools seem to lack this ambition, with the possible exception of tools that address the need to identify the participants. In an online community, your identity is defined by how you perform online. When it comes to simple and clearly defined task-oriented activities such as the transcription of data, identity is not an issue, but as soon as the tasks become more complex, legally recognized identity becomes important. Therefore, there is a need for more critical research in this area. It also becomes necessary to discuss the reasons why issues around representation and digital differentiation are not discussed at all in these areas of research. In the same way, it is important to question the fact and the reasons why political science scholars have not been discussing open government in their own discipline/ publications? This review of the open government paradigm shows that the concept of open government is highly politicized toward a political discourse that is mainly about innovation and efficiency, rather than deliberation and democracy. open data and transparency are means not only for accountability but also for control. Therefore, we need a more critical discussion on who controls the data, how the data are produced, and by whom.

# Appendix A



**Figure A1.** Research process: First we searched for the topic "Open Government" in e-government journals from 2009 to 2013. Thereafter, we extended our search of the same topic to all journals. We reviewed the articles primarily with the seven questions mentioned in Table A3. We looked at both common denominator to identify dominating discourses and especially for alternative discourses.

 Table A1. List of the Most Prominent e-Government Journals According to a Review by Scholl (2010) and Listings on Forums for e-Government.

Transforming Government: People, Process and Policy (TGPPP) Journal of e-Government (JEG)/Journal of Information Technology and Politics (JITP) Electronic Government, an International Journal (EG) International Journal of Electronic Government Research (IJEGR) Electronic Journal of e-Government (EJEG) Government Information Quarterly (GIQ)

 
 Table A2.
 Journals in the Database Web of Knowledge With Articles on the Topic "Open Government" and Amount of Articles per Journal.

Journal Name	Articles
Government Information Quarterly	19
IEEE Internet Computing	7
Profesional de la Informacion	4
Annual Review of Law and Social Science	2
British Medical Journal	2
Governance – An International Journal of Policy Administration and Institutions	2
The International Journal of Electronic Government Research (IJEGR)	2
International Review of Administrative Sciences	2
Journal of Web Semantics	2
Politics & Society	2
Public Administration Review	2
Public Performance & Management Review	2
Artificial Intelligence Review	I

(continued)

## Table A2. (continued)

Journal Name	Articles
Canadian Medical Association Journal	I
Cartographic Journal	I
China Quarterly	1
Econtent	I
Futurist	1
Gestion y Politica Publica	1
Harvard Journal of Law and Public Policy	I
Hrvatski Casopis za Odgoj i Obrazovanje - Croatian Journal Of Education	1
Informacios Tarsadalom	1
International Journal of Software Engineering and Knowledge Engineering	I
IT Professional	I
JAMA – Journal of The American Medical Association	1
Journal of Environmental Sciences – China	1
Journal of Policy Analysis And Management	1
Journal of Public Transportation	I
Journal of The American Association For Laboratory Animal Science	I
Journal of The American Society for Information Science and Technology	I
Lex Localis – Journal of Local Self-Government	I
New Media & Society	I
Information Systems Management	I
Political Studies	1
Prologue-Quarterly of the National Archives and Records Administration	I
PS – Political Science & Politics	I
Public Administration	1
Public Administration and Development	1
Public Money & Management	I
Public Performance & Management Review	I
Revista Del Clad Reforma y Democracia	I
Transforming Government: People, Process and Policy (TGPPP)	I
Theory Culture & Society	I
Wisconsin Law Review	I
Total	80

How are the three democratic notions of transparency, deliberation, and	Definition	How does the author(s) define open government?
representation addressed in articles about the open government	Benefits	What benefits do they see with open government?
	Problems	What problems do they describe? What justifies the research?
	Nonproblems	What is not a problem regarding democracy?
	Solutions	What kinds of solutions are given by the author(s)?
	Democratic process	What part of the democratic process is emphasized? Understanding, deliberation and/or representation?
	Public	How are "the public" and "the citizen"

Table A3. Research Question and Subquestions in the Content Analysis

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