
Empowering Open and Collaborative Governance

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Editors

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Technologies and Methods for
Online Citizen Engagement
in Public Policy Making

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Foreword: The Research View

This book provides a comprehensive account of the use of digital media and supporting methods to facilitate participatory democracy, thereby forming a valuable reference for those engaged in researching eParticipation. Public legitimisation and acceptance of decisions is a key part of good governance and, as such, eParticipation research has the potential to foster open and transparent decision processes. Fundamentally, the research results are concerned with benefiting all stakeholders and bringing to bear relevant views and evidence to support workable policy development.

Typically, in the past, public engagement, and particularly consultation, has been conducted in an environment where the government published draft policies and provided citizens with an opportunity to submit comments, but not the opportunity to view or discuss each others' comments or to engage with the government and with one another in a public debate on the issues.

One of the starting points for practice-based research on eParticipation was the 2003 publication of the OECD. In this report I specifically looked at how information and communication technologies could be applied to enhance citizen participation in the policy process, considering how, and to what extent, new digital media could be used to facilitate the provision of information and to support the consultation and active participation of citizens to enable better policy-making. Back in 2003, I highlighted five main challenges for eParticipation: the challenge of scale and mass participation from technical and political perspectives; the need to use the technologies to encourage constructively deliberation by citizens on public issues; the need to ensure that governments could take a holistic view of the policy-making life cycle – here I advocated the use of knowledge management techniques; the need to develop methods to evaluate eParticipation processes and outcomes; and the need for governments to adapt structures and decision-making processes to ensure that the results of eParticipation are analysed, disseminated and used.

During the intervening years much progress – in both research and practice – has been made; however, major research challenges remain. The domain lacks an understanding of what actually works, when and why, and of the power relations at play within political participation. In collaboration with my colleague Stephen

Coleman, I recently undertook a study to identify current eParticipation research needs and to give some indication of future research directions. We identified six key concerns associated with the conduct of effective eParticipation research. The first addresses the need for more integrated, multidisciplinary research with effective and critical dialogue between researchers from different disciplines. The second relates to research design and highlights the methodological shortcomings of eParticipation research. The third focuses on socio-technical issues including issues such as the design of eParticipation tools and processes, and the representation and analysis of data. Fourth, institutional and political resistance to eParticipation applications is emphasised. The fifth issue concerns the major divides which characterise the problem of political disengagement from political institutions among citizens and barriers arising from demographic, social, economic and cognitive obstacles that limit access to online tools for participation. The sixth and last issue discusses the benefits and risks of eParticipation in the context of democratic theory, with particular emphases upon relationships between elected representatives, government executives, the ordinary civilian, and the potential transference of power.

eParticipation remains a challenging research domain. However, the collection of articles in this book comprehensively covers the subject of empowering open and collaborative governance and demonstrates the diversity of tools and methods when tackling the issues and concerns in research and practice. Many articles in the book address the above-mentioned issues and challenges systematically and comprehensively. This book provides an important contribution for researchers of all forms of digital governance.

I congratulate Prof. Dr. Charalabidis on proposing and then coordinating this collection of articles.

I wish the book great commercial and academic success.

Ann Macintosh
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Foreword: The Policy View

Online engagement of citizens is certainly not a new theme: it has been on the research and policy agenda for more than a decade under the different names of eDemocracy, eParticipation, Online Engagement, and Online Deliberation. For many years it has been clear that the Internet would radically change democracy, and that citizens would take a more proactive role in politics. Underlying the discussion was the hidden assumption that eDemocracy would basically correspond to increased opportunities for self-determination and decision-making by citizens.

Yet the impact has been far less dramatic than expected. Governments still struggle to engage truly in policy-making with citizens, and when they do so they often fail to generate the expected degree of engagement. eDemocracy and eParticipation projects have largely remained confined to the experimentation level and have been deployed in only very few cases.

At the same time, the Internet has clearly changed our democracies and helped even more the establishment of democracies elsewhere. The so-called Arab spring is a living testimony to that. This has all happened in an unpredicted and unpredictable way through large-scale self-organized and bottom-up organization in commercial platforms such as Social Networks. Very little of this was anticipated in scientific debate over eParticipation, which very much followed rather than led to this development. After 15 years of eParticipation we still cannot answer the very basic question of policy makers: how can I have a civilized and fruitful debate with millions of citizens? We are in dire need of a frank and comprehensive re-assessment of the scientific debate on eParticipation, which, at this stage, remains more an art than a science.

This book has therefore the great merit of responding to this call for a systematic and scientific reassessment of the field. It does not provide all the answers, but it sets an example for a more thorough and ambitious research path wherein all researchers and practitioners should engage.

Much has been said about the shortcomings of a techno-deterministic approach, but what matters is the use of technology, not the technology itself. The key determinants of eParticipation are social and psychological rather than technological. Yet in trying to avoid the limits of a *weltanschauung* shaped by technology, we

have somehow underestimated the importance of technological research and renounced the greater objective of a truly multidisciplinary approach which encompasses both technological and non-technological research.

This book therefore has the second merit of not shying away from getting our hands dirty with technology. It places different types of research alongside each other, and most importantly it strives to provide an integrated perspective of the two.

Finally, the scientific approach to eParticipation has not kept pace with new technological developments: for instance, the debate over deliberative democracy has focused too much on textual engagement and has overlooked the importance of visualization. This book refreshes the research field by embracing the latest technological developments, combining ambition and grand visions with insight and hands-on knowledge, not for providing all the answers but for asking more relevant questions. These are both my expectations and my wishes for this book.

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Preface

The use of information and communication technologies for supporting public administrations, governments and decision makers has been recorded for more than 20 years and coined as eGovernment, as technology has become more and more necessary for conducting everyday operations. Even though governments are inflexible, slow moving organisations which experience difficulties and in some cases exhibit scepticism for adopting new concepts, they quickly realised the huge potential and relief offered by ICTs and gradually began to incorporate information systems for supporting their operations. This resulted in less bureaucracy and improved service delivery for their clients, the citizens.

At the same time, the information community started to notice a shift in production of services and goods. What was once delivered by individuals or by enterprise entities slowly also became available through groups of individuals which acted as communities. Open source and open innovation started to gain the necessary momentum and as they became the driving force behind most Web 2.0 developments, they gained an enormous audience and people became keener to import such philosophies into other domains.

However, eGovernment and open and collaborative innovation did not establish logical links from the start, as governments did not favour the idea of sharing their data and models with the general public, claiming that such activities pose more threats than benefits and questioning the impact of collaborative development of services and policies.

It took more than a decade to persuade governments to change their attitude towards open and collaborative governance – a decade which included a huge worldwide economic crisis, radical changes in the socioeconomic landscape imposed not only by wars but also by the rise and development of countries with huge manpower and natural resources, public unrest, very low turnover in democratic activities such as elections, and, in general, a growing lack of trust and belief in governments and their policies.

Terms such as eParticipation, eGovernance and eGovernment imply the use of information and communication technologies for expanding and deepening political participation by enabling citizens to connect with one another and with their

elected representatives, and by re-engaging and re-activating them in the decision-making process. Furthermore, they serve as technology-mediated interactions between society and administration, usually over some decision-making, legislation or deliberation process.

Currently, citizen participation and on-line engagement holds a crucial role, not only within the new European Commission Research Roadmap for ICT-Enabled Governance but also throughout the world. Moving towards open governance roadmaps as adopted worldwide, eParticipation and citizen engagement stand out as a new domain, important for both decision makers and citizens. Over the last decade there has been a variety of pilot projects powered by policy makers, researchers, ICT vendors and citizens who are all actively involved through various eParticipation platforms.

Such attempts promote ideas and solutions that could help minimise the democratic deficit and support the active re-engagement of citizens in the decision-making process, making it more transparent, more interactive, more comprehensive and more trustworthy.

The idea of this book was conceived back in 2008 as the editors working in various research teams, mostly in European projects in eGovernance and eParticipation, started to realise not only the unlimited opportunities and positive changes that ICT could bring to public policies and governance, but also the various obstacles, limitations and bottlenecks that need to be seriously considered if we really want to improve the way policies are designed and implemented. Their knowledge was empowered during their involvement in the MOMENTUM support action project which spent more than 3 years in monitoring, analysing and collaborating with more than 20 such pilot eParticipation projects covering 15 countries. Their knowledge was further improved during the development of the research roadmap regarding ICT for governance and policy modelling that was designed during the CROSSROAD project, which constituted a similar ‘think tank’ for policy making and ICT supported governance, gathering more than 300 researchers from 50 institutions.

Objective of the Book

This book aims to provide the latest research findings such as theoretical foundations, principles, methodologies, architectures, technical frameworks, cases and lessons learnt within the domain of open governance and on-line citizen engagement. This constitutes a new approach to addressing the issue of implementing open collaborative governance solutions and initiatives, providing both research and practical results. Unique characteristics that distinguish this book from existing titles are the systematic analysis of the domain, the all-around view of political, legal, technical and user-oriented aspects and the inclusion of reviews, case reports and evaluation of international initiatives.

We believe that the book has the power to contribute to the systematic analysis and publication of cutting-edge methods, tools and approaches for assisting the relevant stakeholders in their quest for a more efficient participative public policy

debate, allowing the utilisation of the capabilities provided by ICT. At the same time, since open and collaborative governance is a multi-disciplinary domain, new research challenges are bound to touch on the various research topics presented in this book such as Semantics, Social Media Platforms, Web Service Technologies, Social Sciences, Service Oriented Architectures and Model Driven approaches, etc.

These research findings are organised according to the following main areas:

- Public policy debate foundations: processes and methods for scoping, planning, evaluating and transforming citizen engagement
- Information and communication technologies for citizens' participation
- Future research directions of open, collaborative ICT-enabled governance

Target Audience

The audience of the book includes researchers and practitioners in the eGovernance domain, public administration officials, policy makers and decision drivers at local, national or international levels, engaged in both design and creation of policies and services, university students and professors of computer, social, political and management sciences, ICT industry staff engaged in eGovernance and policy modelling projects, and participants of related worldwide, EU FP7 research and CIP/PSP innovation projects.

Organisation of the Book

The book is composed of 14 chapters, structured in 3 parts as follows. Part I is entitled “Public Policy Debate Foundations”, and includes six chapters laying the foundations regarding processes and methods for scoping, planning, evaluating and transforming citizen engagement. Part II is “Information and Communication Technologies for Citizens' Participation” and includes five chapters with more practical approaches to designing and building collaborative governance infrastructures and citizens participation for businesses and administrations. Part III on “Future Research Directions of Open, Collaborative ICT-Enabled Governance” consists of three chapters and presents a review of the current domain, providing constructive critique on the developments of the past, and laying out perspectives regarding the future challenges and research direction.

Part I - Public Policy Debate Foundations: Processes and Methods for Scoping, Planning, Evaluating and Transforming Citizen Engagement

Six chapters are included that aim to touch the foundations of open and collaborative governance, often by providing insights from recent projects in this area. As such, the topics extend from ways to engage citizens in policy formation activities

to assessing the specific models and methodologies employed or designed for that purpose.

In Chap. 1 Karlsson analyses a major issue that is faced in the concept of open and collaborative activities, which is simply recruiting participants for such activities in order to empower representative democracy systems and not letting such activities become prey to manipulating groups with specific interest or risking ending up with an unconcerned audience. For this reason Karlsson provides a review of recruitment strategies used in local eConsultations and analyses the case study of the European Citizens Consultations (ECC) before concluding with the development of a set of questions that aim to assist with the design of future attempts.

Chapter 2 by Edelmann, Höchtl and Sachs takes public administrations as a research environment and discusses the advancements that collaboration for open innovation can provide to such organisations, starting from the point that the ubiquitous presence of ICT, citizens' digital literacy, and their potential willingness to participate on-line can efficiently enable collaborative production. As the authors explain, enhancing the inclusion factor in decision-making does not imply a change in the structures of the democratic processes, but it can certainly improve the decision-making process which leads to efficient and effective results.

Chapter 3 by Ergazakis, Askounis, Kokkinakos and Tsitsanis presents the concept of ePetitions and their impact in policy making. Starting from that point, the authors review existing, generic eParticipation evaluation approaches, as well as existing tools and models for technology adoption that are relevant to their theme. They go on to propose their own methodology to tackle ePetitioning systems, also providing a set of future research challenges for improving the technology adoption of such systems.

Chapter 4 takes as a starting point the effect of the Internet on political and social change, as recorded in the last few years where various initiatives such as the 'Arab Spring' or the Icelandic and Spanish citizens' movements were born and grew in the Internet community. De Marco, Antino and Robles Morales take a closer look at the new type of political participation and try to analyse this new phenomenon in order to understand its limits and potential by designing a statistical tool that can measure the impact and influence of such movements.

In Chap. 5, Panagiotopoulos and Elliman focus on ePetitioning initiatives that have emerged in Europe in the last few years, with a closer look at the UK experience at national and local levels. Through their investigation, the authors provide an analysis suggesting that those initiatives can offer great benefits to authorities and be effectively complemented by other forms of deeper engagement, and that it is very important for political organisations to keep an eye on the general public's perception of such exercises and be prepared to support participants in different ways and on a regular basis.

Chapter 6, the last chapter of this part, discusses the lack of proper evaluation mechanisms in various eParticipation initiatives and the absences of a widely accepted methodology for this purpose which often leads to loss of investments, as the developed systems do not operate as they should. In this context, after

reviewing the major evaluation frameworks and methodologies for this domain, Loukis proposes a synthetic methodology that retains and merges the better parts of what already exists, while demonstrating a lighter version of this methodology to support cases of rapid development and minimum effort.

Part II - Information and Communication Technologies for Citizens' Participation

Part II of the book focuses on key technological components, infrastructures, frameworks, methodologies and ready-made solutions for eParticipation. It covers both back and front office issues, from conception to implementation, application and assessment, as they have primarily been set out during some of the biggest research projects of the last few years.

Tiscornia and Fernández-Barrera declare in Chap. 7 that the major prerequisite for active participation of citizens in the decision-making process is having a full knowledge of the transnational and national regulatory and institutional context, as there are still many barriers that prevent citizens gaining a true understanding of the effects brought about by normative changes and regulatory innovations. The authors focus on the role that ICT, and more specifically semantic technologies, can play in providing powerful tools for bridging the gap between the formal and the conceptual aspects of legal knowledge, by guaranteeing to citizens not only formal access to the sources of the law but also substantial knowledge of its content.

Chapter 8 by Scherer, Wimmer and Schepers investigates the various challenges present in the distant decision-making models that accompany the concept of eParticipation and propose a regional participation model to engage citizens in distant decision-making. Their model is accompanied by a framework consisting of a procedure to implement this approach, a set of extensive marketing methods, an eParticipation platform and a serious game, which together can provide the model with the necessary sustainability and effectiveness.

In Chap. 9, Trampuš, Sen, Stojanović and Grobelnik tackle the information overload issue encountered in almost every popular discussion forum, which makes it very difficult for participants to identify and retrieve important information at the right time. The authors provide a novel visual approach to data interpretation in on-line discussion forums in the form of a tool that enables any discussion forum visitor to visualise its contents easily and thus gain an overview of its structure and discussion trends, leading to better participation of citizens in political life.

Throughout the quest for more participative decision-making, young people play a very important role, not just because they are more familiar with ICTs but mainly because they belong to the generations that should continue these efforts, as it is their lives that will be impacted the most by improved policies. In Chap. 10, Taylor-Smith, Kimpeler and Pruulmann-Vengerfeldt describe an eParticipation engagement model tailored to the needs of the young, and able to cope with complex topics, such as distributed discussions. Their chapter gives an overview of the

theoretical basis, process and impacts of such a model and provides recommendations for future development and use.

In Chap. 11, Wimmer, Furdik, Bicking, Mach, Sabol and Butka identify the needs of both decision makers and citizens to engage collaboratively in a trustworthy, transparent and information rich environment. They introduce a comprehensive and innovative approach to collaborative policy development including collaborative scenario building techniques and formal policy modelling supported by an integrated ICT toolbox. This enables stakeholders to take part in designing, simulating and assessing various policy scenarios, introducing conceptual modelling, improving the understanding of policies, and supporting semi-automatic transformation of text statements into formal statements and agent descriptions.

Part III - Future Research Directions of Open, Collaborative ICT-Enabled Governance

Part III focuses on analysing the current developments of the domain from a higher point of view. This helps the authors to draw a complete picture of the current landscape of the domain and to understand the needs that derive from this domain, both as amendments and corrections of existing approaches and as future demands from the society and the research community. In this context, the chapters of this section provide a holistic view of the progress made so far in open and collaborative governance and lay down the most important future research challenges.

In Chap. 12 Neubauer, Vuga and Ilc examine the pervasive notion that the use of new ICTs (which are perceived as inherently democratic) will automatically empower citizens in their relations with the state, claiming that the majority of socio-political issues can be addressed solely through citizens' technological empowerment. First the authors focus on the general characteristics of this universal solution framework. After identifying the conditions of possibility of the framework as of neoliberal and technophilic rationality, they critically evaluate (with example of recent events in North Africa and the Middle East) the role of ICTs in empowering citizens and generating socio-political change. They then discuss the steps needed for reconceptualising the relationship between use of ICTs and empowered forms of citizenship.

Of course, as a newly established domain, open and collaborative governance has witnessed a number of attempts that did not deliver the expected results, pointing out several valuable lessons and issues that should be further investigated and researched in order to avoid future mistakes. Chapter 13 by Prieto-Martín, de Marcos and Martínez discusses, from a holistic perspective, the challenges related to the development of eParticipation in Europe. They assess the field's practical and theoretical achievements and limitations, and corroborate the fact that eParticipation has not progressed during the last decade as expected. The authors, after diagnosing the problems with the domain, come up with a set of recommendations that should help enhancing the effectiveness of future European eParticipation actions.

The final chapter of the book, Chap. 14 by Charalabidis, Koussouris, Lampathaki and Misuraca is devoted to the findings of the latest research roadmap for eGovernance which has been designed in a collaborative and participative manner, collecting the opinions and thoughts of a vast number of experts in this area from the scientific, industrial and policy making communities. The authors present the major results of this collaborative exercise, identifying the major research questions that arise regarding new ICT-enabled governance models and methods of monitoring, interaction, collaboration for policy making together with the appropriateness of existing or emerging policy modelling mechanisms that aim to re-engage citizens effectively in the decision-making process.

Conclusion

Today, as this book is made available to readers, the world is trying to recover from the huge financial crisis that has struck the EU and the US, and public unrest is more obvious than ever. Governments strive to persuade their people that they are working in the right direction and that they should be trusted in the decision-making process regarding the future policies.

Open and collaborative governance and the underlying ICT tools constitute a major asset for governments and decision makers and they can help transparency and trust to become once again a vital part in the democratic process. For this reason, researchers, practitioners, decision makers and citizens should collaborate to pass through the crisis together, equipped with the necessary models and methods laying down constructive, fair and forward-looking policies.

We hope that the methods, approaches, practices and solutions presented in this book will serve as a useful companion in this quest.

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Yannis Charalabidis
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