

*Perspectives on e-Government*

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© Anne Marie Kanstrup, Tom Nyvang, and Esben Munk Sørensen (eds.) and  
Aalborg University Press, 2007

Cover: Nina Lilholt

Layout: Nina Lilholt

Ebook by Publizon A/S

ISBN:978-87-7307-903-4

Distribution:

Aalborg University Press

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9220 Aalborg

Denmark

Phone: (+45) 96 35 71 40, Fax: (+45) 96 35 00 76

E-mail: [aauf@forlag.aau.dk](mailto:aauf@forlag.aau.dk)

[www.forlag.aau.dk](http://www.forlag.aau.dk)

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## Introduction

Anne Marie Kanstrup & Tom Nyvang

This book is the first collaborative research publication from the Centre for Electronic Governance at Aalborg University. It is a central publication since it features the point of departure for the centre through papers presenting studies primarily taking place within the Digital North Denmark-project and secondarily taking place in other contexts but within the same themes. At the same time, it is an important publication in that it presents the three central research perspectives on e-Government: politics and organization, communication and interaction, technology and infrastructure. In other words, the aim and relevance of this publication is to set the ground for and point forward to future research from this outset.

### Target Audience

The target audience is, in short, e-government researchers and reflective practitioners within e-government including developers, project managers, and e-government decision makers in general. To communicate our offer to the target audience it is however relevant to identify what we mean by reflective practitioners. The term reflective practitioner as used here here was coined by Schön (1983). He used it to describe professional problem solving in practice in a world in which a traditional technical rationality was insufficient to explain the success and failure of professional doing. In this case, reflective practitioners reflect-in-action while they are doing e-government and they may on occasions step back and reflect-on-action to revitalise their e-government practice. The aim of the book is to unfold some of the complexity of e-government by feeding tools for thinking into reflection-in-action and reflection-on-action – that is *not* to deliver a manual with list of steps towards e-government or comprehensive lists on dos and don'ts. The overarching argument is that the field is complex in the sense that a full understanding builds on contributions from three quite diverse fields of research: Technology & infrastructure, politics & organisation and communication & interaction. The book also aims to unfold specific

problems, challenges and opportunities as they arise in theoretical and empirical studies within each of the three themes. In the following sections, we take a closer look at the three perspectives and introduce the individual studies and papers within the perspectives.

### **Three Perspectives – and their interrelations**

The book is - just as the Centre for Electronic Governance - structured by the three themes and perspectives on e-Government:

- **Technology and infrastructure** (concentrating on emerging internet-based and mobile technologies enabling governance, and on the physical and conceptual infrastructures that underpin these technologies).
- **Politics and organisation** (reflecting both the democratic dimension of digital governance and its location in government organisations with particular characteristics and ways of working).
- **Communication and interaction** (focusing on the roles of computer-mediated discourse, socio-technical interaction and technology-facilitated work in governance).

Central is here to point out that these perspectives are used to focus and structure research but that they are interrelated and powerful when put together (cf. figure I).

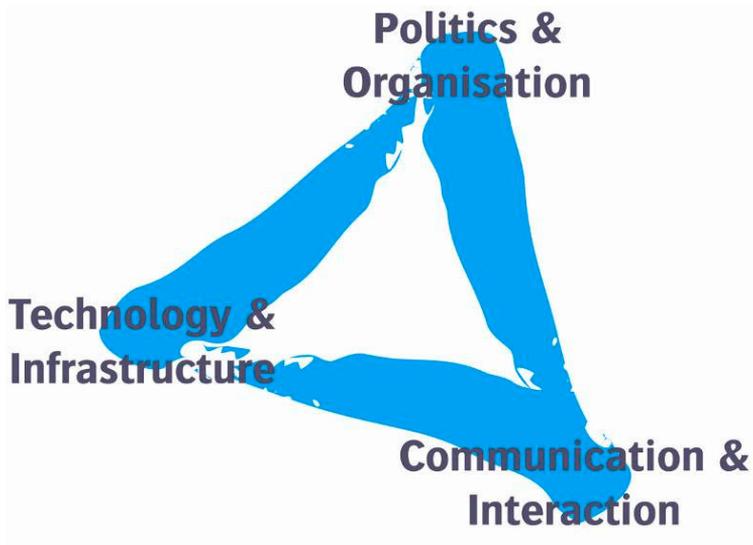


Figure 1: The three perspectives and interrelations for research in electronic governance.

### **Empirical Background**

The empirical background for the Centre for Electronic Governance and a major part of the papers presented in this volume is the Digital North Denmark-project. In 1999, the Danish Government designated North Denmark a coming national IT lighthouse in its IT strategy. This decision was part of the national IT and Telecommunications Policy Strategy (Forskningsministeriet 2000). The policy was made with the aim to convert Denmark from an information society to a network society. A part of the strategy was to strengthen regions with an already proven IT-capacity and IT-development and North Jutland was selected as a cornerstone in the network society, to light up and show the way for the rest of Denmark (Forskningsministeriet 1999). In the years 2000-2003, the Ministry of Information Technology and Research invested DKK 170 mill. in the project. In addition to this came a regional co-financing from public and private enterprises of DKK 340 mill.

The project was named “The Digital North Denmark” and the overall goal was to explore the potentials of a network society for all citizens of North

Denmark. The democratic focus on “all citizens” resulted in an aim to establish a “wide ranging” IT-lighthouse which encouraged private companies, educational organisations, and even individual persons or communities to apply for funding and start experiments with Information and Communication Technology (ICT). Thus, the aim of the Digital North Denmark shifted from a focus on existing IT-strengths and their further development in the region to a focus on increasing IT-use in the region in order to strengthen the region as a whole and to create a “learning region” (Dalum & Pedersen 2004, 22-28).

The result was a total amount of 91 projects<sup>1</sup> categorised under the themes

- Digital administration (21 projects),
- Qualification and education (33 projects plus 11 projects on art and culture),
- IT industrial development (22 projects), and
- IT infrastructure (4 projects)

In addition, an independent participatory research group was established consisting of researchers from Aalborg University. The work in this participatory research group and not least the technological experimentation in the North Denmark in the years 2000-2004 has been an important basis and point of departure for the establishment of the centre for e-Government at Aalborg University – a cross disciplinary centre and research approach to electronic government which had its official opening at Aalborg University in April 2006. The first part of this book – the first two papers – presents this background: the Digital North Denmark-Project and the participatory research approach and experiences from the period.

## The papers

The book is introduced with two papers presenting the empirical and methodological **background** of the centre:

*Christian Richter Østergaard* presents “The Digital North Denmark Programme - Promoting Regional Change?” - an analysis of the change strategy

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<sup>1</sup> For further information see Dirckinck-Holmfeld et al. 2004 and <http://www.detdigitalenordjylland.dk/en/welcome.htm>.

in the Digital North Denmark and discusses the intended versus the implemented and realised strategy.

*Lone Dirckinck-Holmfeld* presents "Social Experiments and Participatory Research as Method" – a methodological reflection for participatory research as it has been carried out in the Participatory research group related to the Digital North Denmark as well as the perspectives this methodology brings for cross disciplinary participatory research in e-Government.

On this basis, papers are structured within the three themes: Technology & infrastructure, politics & organisation, and communication & interaction.

The theme **technology and infrastructure** is represented with two papers:

*Jeremy Rose* introduces this theme with the paper "Technology and Government: Extending the Double Dance of Agency". He theorises about the relation between information technology and government by introducing the concept of agency to e-government research.

*Ole Brun Madsen* presents "The Danish ICT Infrastructure Evolution Since 2000" - the importance of infrastructure in relation to e-government with reference to a large scale investigation of the needs and possibilities in a modern ICT infrastructure.

Within the theme **politics and organisation**, two papers present research results from the Digital North Denmark:

*Lars Torpe* introduces this theme with his paper "Local Political Deliberations on the Internet". He analyses the potentials of the Internet for political deliberation with focus on tools for citizen involvement and actual use and consequences of the tools.

*Jeppé Agger Nielsen* presents in "Digital Municipality Planning – Experiments with the Use of ICT-Tools in Democratic Processes" an investigation of the dialogue and communication possibilities in digital planning with reference to a case study in the municipality Hals.

Within the theme **communication and interaction**, four papers present research results from both the Digital North Denmark and related studies. The papers can be read as moving from a societal perspective with a paper focusing on citizenship (paper one) to an organisational perspective with two papers focusing on infrastructure (paper two) and implementation (paper three) to a user-perspective with a paper focusing on IT support (paper four).

*Ellen Christiansen* introduces this theme with the paper “Inclusiveness as a Parameter in Design of Online Interaction with Public Authorities ” which discusses citizenship and e-Government and concludes by suggesting user driven innovation as a way for designing applications that enhance the experience of citizenship.

*Ann Bygholm* presents “Communicating Across Sectors in Health Care – A Case of Establishing a New Infrastructure” an analysis of the problems involved in application of ICT for communication and coordination in terms of the concept of infrastructure. The case being electronic exchange of information between municipality and hospital, and between municipality and the general practicing doctors.

*Tom Nyvang and Camilla R. Poulsen* present “Implementation of ICT in Government Organizations - User Driven or Management Driven?” reflections and analysis of two different strategies for implementing ICT in an organisation: A predominantly user driven and a predominantly management driven approach.

*Anne Marie Kanstrup & Pernille Bertelsen* present in their paper “Local IT-Support: Values, Characteristics, and Selection Methods” an analysis of local IT-support and suggest a method for identifying qualified candidates for IT-support positions in organisations.

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**Part One**  
**Background**