

Andreas Meier

eDemocracy & eGovernment

Stages of a Democratic Knowledge Society

 Springer

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Translated by Wiltrud Henkel

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Editorial

The challenges of modernizing the state and its administration have increased, especially with regard to the targeted application of Internet technologies. By means of eDemocracy, it is intended to support the exchange of information, as well as democratic processes of decision making, voting, and elections. eGovernment aims to put digital public services at disposal for citizens, companies, and organizations. Some examples are electronic services in taxation, employment services and online job markets, public offering via Web platforms, or mobile health services. The reference book *eDemocracy & eGovernment* aims to review systematically the use of the Internet in administration and politics. A process-oriented layer model (eGovernment Framework) of the University of Fribourg allows us to define the options of exchange and participation for the claim groups and to concretize them by application examples. The following topics, each including a case study of industrial, administrative or research practice, are the key aspects:

- *eAssistance* explains the application of Internet technologies and eGovernment portals, while keeping an eye on quality assurance. A case study on barrier free access gives procedure recommendations.
- *eProcurement* describes the Web-based procurement process and discusses the public offering via Internet. Reverse auctions, used in electronic procurement, provide case examples.
- *eService* discusses electronic governmental services for citizens and companies, as well as a Capability Maturity Model for benchmarking in the eGovernment. The case example serves the introduction of electronic health records.
- *eContracting* defines the electronic negotiation process and explains digital signatures. The case example is about face recognition in the biometric passport.
- *eSettlement* shows the sub-steps of the supply chain, including ePayment, eDistribution and eSecurity. The case study deals with security measures in electronic data exchange.
- *eCollaboration* gives the groundwork for content management, wiki tools and Weblogs, collaborative working environment and virtual forms of collaboration. Virtual Campus provides the case example.

- *eDemocracy* explains participation types, shows electronic elections (eElection), votes (eVoting) and steps towards public memory. An electronic electoral assistance system serves as a case study.
- *eCommunity* discusses communication strategies in the multi-channel management, as well as a model for citizen relationship management. A medical communication center provides the case example.

This reference book is mainly addressed to students of economic sciences at technical colleges and universities, who want to gain a systematic and comprehensive overview of the state of the art in eDemocracy and eGovernment. Apart from them, it is dedicated to citizens, politicians and executives, project leaders and experts in administration, who are occupied with the digital forms of exchange and participation in the knowledge society.

The book was created in the course of a master class in eGovernment and during the development of the eGovernment Framework at the University of Fribourg. Furthermore, the contacts with the eGovernment expert group of Switzerland (www.ech.ch), the Swiss ICT (www.swissict.ch) and the specialist group eHealth of the Society for Computer Science ("Gesellschaft für Informatik," www.gi-ev.de) have contributed to a great extent to the choice of topics and the focal points. I would like to take this opportunity to express my gratitude toward my colleagues, for our inspiring discussions: To Peter Haas, Andreea Ionas, Bruno Jeitziner, Andreas Meer, Willy Müller, Siegfried Reich, Marco Savini, Henrik Stormer, Heiko Schuldt, and Walter Stüdeli. A big thank-you goes to the experts from industry, administration and research, who contributed interesting case studies: Markus Riesch of the Swiss Foundation for Handicapped Accessible Technology Use; Heidi Rubi and Joachim Weiss of the Swiss Federal Railways; Wolfgang Dorda, Georg Dufts Schmid and Walter Gall of the Medical University of Vienna, Christoph Busch of the Fraunhofer Institute for Computer Graphics Research in Darmstadt; Siegfried Reich and Felix Strohmeier of the Salzburg Research Society; Birgit Feldmann of the University of Hagen; Bruno Jeitziner of the University of Fribourg and Reto Zurflüh of the Swiss Center for Telemedicine. This textbook would not exist without the talents of Luis Terán who improved the figures and did the copyediting. Special compliments go to Wiltrud Henkel for her excellent translation from German to English. Furthermore, I thank the editorial, Springer, most of all Christian Rauscher, for the pleasant collaboration.

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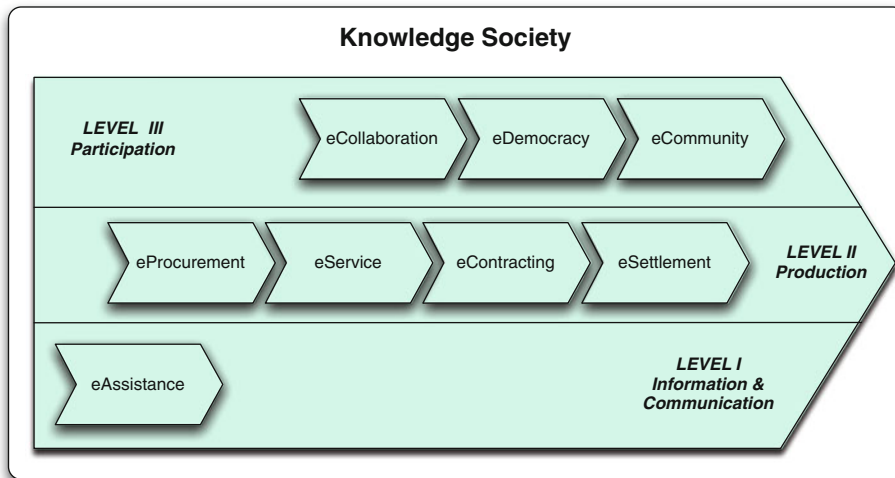
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1 eGov Framework



Chapter 1 introduces the topics eDemocracy and eGovernment. In Sect. 1.1, we will refer to the European eGovernment initiative, which is rooted in the Lisbon Strategy and includes the i2010 eGovernment Action Plan. The concepts of eDemocracy and eGovernment are defined in Sect. 1.2. In addition, we show different possibilities of interaction between administration and citizens on the one hand, and administration and companies on the other hand. The eGovernment Framework of the University of Fribourg consists of the three process levels, i.e., information and communication, production and participation (Sect. 1.3) and provides the structural concept for this book. Section 1.4 differentiates eGovernment from eBusiness and eCommerce. A topical overview of all chapters is given in Sect. 1.5. Bibliographical notes for eDemocracy, eGovernment, eBusiness, and eCommerce can be found in Sect. 1.6. The eight process areas eAssistance, eProcurement, eService, eContracting, eSettlement, eCollaboration, eDemocracy, and eCommunity make up the main chapters of this book and will each be complemented by a case study from either administration or investigation.

1.1 The Lisbon Declaration

Strategic goals of the Lisbon Strategy

The European Heads of State and Government met in Lisbon on March 23 and 24 of 2000 and set out a strategy for the European Union in the current decade. The three strategic goals¹ that were passed are:

- Preparing the transition to a knowledge-based economy and society by better policies for the information society and R&D, as well as by stepping up the process of structural reform for competitiveness and innovation and by completing the internal market
- Modernizing the European social model, investing in people, and combating social exclusion
- Sustaining the healthy economic outlook and favorable growth prospects by applying an appropriate macro-economic policy mix

Subsequent to the strategy declaration, the eEurope Action Plan was developed in order to facilitate the transition from an information society to a knowledge society and to exploit the ePotential in Europe.

The eGovernment Action Plan, that was passed under the title “i2010 eGovernment Action Plan—Accelerating eGovernment in Europe for the Benefit of All”² consists of the following key aspects:

Avoiding the digital divide

No citizen left behind: It must be avoided that any citizens are left behind in the process of introducing Web-based technologies to the administration (cf. digital divide in Sect. 10.5). In particular, it has to be ensured that all eGovernment portals and electronic administration services are also accessible to people with handicaps, language, speech, or learning disorders (cf. Sect. 2.5 on barrier free Web access).

Realizing regular benchmarking

Making efficiency and effectiveness a reality: Efficient and effective administration services for citizens, companies, and organizations strengthen the information and knowledge society. In order to measure the quality of governmental services, a benchmarking is carried out every year among the different countries (cf. agreement on administration services in Sects. 4.2 and 4.3 and the Capability Maturity Model for the benchmarking in Sect. 4.6).

Importance of public offering

Implementing impact key services: Governmental services for citizens (cf. Sect. 4.2) and companies (Sect. 4.3) are to be determined and carried out. There is a particular emphasis on eProcurement (cf. Chap. 3), in order to bring forward Public Offering via the Internet, among other things (cf. Sect. 3.5 and the case study on reverse auctions in administration in Chap. 3).

Ensuring data privacy and security

Putting key enablers in place: The transition from an information society to a knowledge society demands the application of innovative technologies and

¹cf. Lisbon Strategy in bibliographical notes.

²cf. i2010 eGovernment Action Plan in bibliographical notes.

procedures. For example, an electronic identification system (see identity management in Sect. 5.3) has to be developed, in order to ensure electronic data interchange for the citizens that take data privacy and security into account (cf. digital signatures in Sect. 5.5 and public key infrastructure in Sect. 5.6).

Strengthening participation and democratic making: A change in participation models (cf. participation types pyramid in Sect. 8.1) allows to give citizens extended information, discussion and participation rights. In addition to electronic voting (eVoting) and election (eElection), community formation has to be promoted in preceding and succeeding process steps (cf. Chap. 8 on eDemocracy). Merely then will it be possible to carry out a political controlling by the citizens in the long-term (cf. steps toward public memory in Sect. 8.6).

Developing participation and community formation

The eGovernment project of the European Union is an ambitious and sustainable program. By concretizing adequate action plans, it will be possible to measure, comment on and publish target achievement, accomplishment, and quality on a regular basis. After the Lisbon Strategy had passed, all European countries adapted on a national level their strategies for an information and knowledge society, generated the general legal conditions for implementation and are currently in the process of realizing partial projects (e.g., eHealth, cf. service oriented eHealth architecture for mobile services in Sect. 4.5 or the case study on electronic health record in Chap. 4).

1.2 Definition of eDemocracy and eGovernment

In the transformation process from an industrial society to an information and knowledge society, the factor “information” gains in importance over the factor “production.” The application of information and communication technology is conceived as a chance for amplifying the capacity of the citizens to act, for strengthening cross-border contacts and relations and for developing an open society with cultural diversity.

An important resource: information

By Electronic Democracy or eDemocracy, we understand the support and enhancement of civil rights and duties in the information and knowledge society. In the center of attention stand options of participation, which, by the aid of information and communication technology, can be carried out time- and location-independently: Inclusion of the citizens even in early stages of clarification and planning by the public entities, improved information and discussion policy that is suited to the citizens’ requirements, barrier-free Web access in electronic votes and elections, formation of communities in different public sectors and for different social concerns, practice of civil rights on all communal levels and improvement of political controlling by use of adequate archiving and documentation systems.

What is eDemocracy?

By means of eDemocracy and the possibilities of participation that come along with it, the information society is to develop into a knowledge society. The primary target of this is not the creation of new rights and duties for the

Amplify possibilities of participation

citizens, but an extended information policy, activation of citizens, community formation, and creation of transparency (cf. public memory in Sect. 8.6). Apart from that, it is a goal of the European eGovernment initiative to maintain the cultural autonomy and diversity and to promote the mutual understanding and the interchange beyond language boundaries and country borders.

Definition of eGovernment

By the term electronic government, or eGovernment, we understand the simplification and execution of information, communication, and interchange processes within and between governmental institutions, and also between the governmental institutions and citizens or organizations. The focus is put on electronic governmental services and all public transactions directed at citizens (taxation, social facilities, employment service, social security, official ID cards, health services, etc.) and at companies (taxes, company start-ups, statistical offices, customs declaration, environmental performance, public procurement, etc.).

Figure 1.1 shows options of information, communication, and interchange between the three most important claim groups, governmental institution (A for administration), citizens (C) and companies (B for business). Accordingly, the eGovernment concept comprises the following three options:

Service exchange on different institutional levels

A2A—Administration to Administration: The governmental institution itself uses the Internet technologies to unify and improve the processes within their organization. This means that the information and exchange relations on a

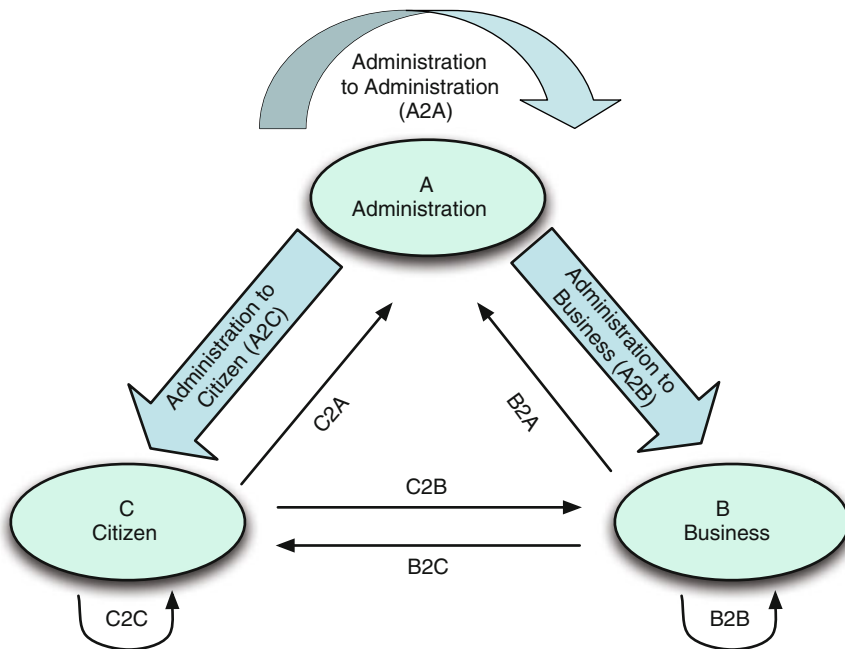


Fig. 1.1: How public entities can inform and interact with citizens and companies

certain communal level (e.g., on a national level) or between different levels of governmental institutions (e.g., between European level and member state level) are being cultivated. Particular institutional levels can be skipped (e.g., municipality contacts directly an authority on a national level, if the chain of command allows it). The complexity of interaction relations in governmental services is viewed in more detail in the section on technical, organizational, and semantic interoperability (cf. Sect. 4.1).

A2C—Administration to Citizen: With the option A2C, the governmental institution offers its services to the citizens electronically. This does not only include the twelve governmental services of the European Union (cf. Fig. 4.2 in Chap. 4 on eService), but rather all relations of information, communication, exchange, and participation between governmental authorities or offices and the public. Beside electronic votes and elections (Sects. 8.3 and 8.4, there are further options of participation like eCollaboration (Chap. 7) and eCommunity (Chap. 9). For example, it is important to facilitate an opinion-forming process before and after votes and elections, with discussion forums about ratings and evaluations, subscription services for citizens, documents, and basis of decision making (e.g., spider Web profiles of a congressman to visualize his political goals and actions, cf. Fig. 8.6 and case study Smartvote in Chap. 8, respectively) up to political controlling.

Exchange and relations with the citizens

A2B—Administration to Business: The third option of eGovernment concerns the governmental services directed at companies and organizations. For that purpose, the European Union determined eight service areas (cf. Fig. 4.3), which range from tax processes over start-ups to open tendering. Also for this kind of services, it results possible and sensible that public offices and government boards recognize the potential of Web-based communication and participation alternatives. For example, a government unit can consider using blogs (cf. Fig. 9.6 on possible applications of corporate blogs) to interest companies and the public in important topics or causes. Apart from that, the governmental institution can intensify the project works and collaboration with selected companies and organizations by use of software (collaborative working environment, see Sect. 7.5).

Service exchange between governmental institution and companies

In order to get a better overview of the variety of exchange relations for eDemocracy and eGovernment, the following section introduces a well-proven eGovernment framework. This framework also establishes the structure of this book (see chapter overview in Sect. 1.5) and can be used for a validation of the quality and depth of participation in governmental services.

1.3 Components of the eGovernment Framework

The European Union has realized at an early stage that the eGovernment strategy can only be pushed with clear and measurable action plans. As a consequence, twelve areas for governmental services for citizens, and eight areas for

Governmental services defined by EU

services for companies were defined (Chap. 4 on eService). In order to monitor the performance and quality of the governmental services in a benchmarking of all EU countries and Iceland, Norway, Switzerland, and Turkey (EU 27+, cf. Sect. 4.6), a Capability Maturity Model was developed. The Capability Maturity Model determines whether the governmental service in question is to be categorized as belonging to the information level, the one-way or two-way interaction level, the process level or the personalization level (cf. Fig. 4.7).

*About the
Capability
Maturity Model
of the EU*

According to the research of the University of Fribourg, the Capability Maturity Model seems to be qualified to evaluate in certain detail the quality and maturity level of single exchange options. On the other hand, the suggested twenty services for citizens and companies do not go far enough. In particular, the possibilities of eDemocracy are not, or not fully, taken advantage of, that is to say, the options of participation are only exhausted to a small degree (cf. Level III in Fig. 1.2).

Figure 1.2 shows the eGovernment Framework of the University of Fribourg. It constitutes a process model with the following three levels:

*Lowest process
level*

Process Level I—Information and Communication: The lowest level provides information and communication facilities in the eGovernment. It focuses on the design of communal Web portals, and more extensive eGovernment portals, respectively, as well as the use of Web 2.0 technologies. A barrier-free Web access, in compliance with the Web Content Accessibility Guidelines (WCAG) proposed by the World Wide Web Consortium (W3C), is imperative (see Sect. 2.5).

*Process level
of production*

Process Level II—Production: The second process level contains the actual governmental services required for the options A2A (Administration to Administration), A2C (Administration to Citizen), and A2B (Administration to Business). These services are primarily administration services for electronic procurement (eProcurement), traditional services such as taxation, education,

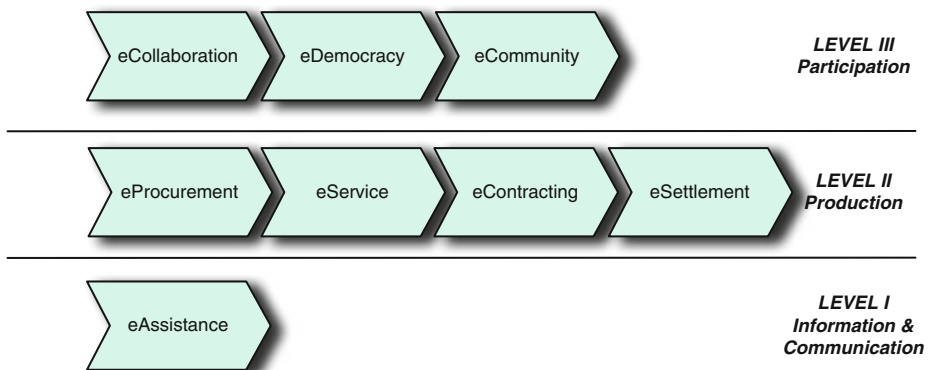


Fig. 1.2: Stage model (eGovernment framework) of the University of Fribourg

residents' registration, ID card acquisition, etc. (eService), contracts based on digitally signed electronic documents (eContracting) and processing such as electronic shipment, electronic payment, and the guarantee of data security and safety (eSettlement).

Process Level III—Participation: The participation possibilities on the third process level are of particular importance and are understood as an indicator for a progressive and responsible knowledge society. In addition to electronic voting (eVoting) and electronic elections (eElection), communication concepts must be analyzed, processes for the community formation must be established and a development model for the online citizens must be implemented. Virtual forms of organization and collaboration, including the use of Web 2.0 technologies and social software, respectively, enable the further development of the knowledge society.

Process level of participation of citizens

Many municipalities or small communities usually start by putting up a Web site, on which they communicate their concerns and projects; within the eGovernment Framework, they stand on the first process level of information and communication. The limited financial means and resources suggest that they link themselves with higher-ranking public institutions and participate in an eGovernment portal. On the second process level, the governmental services for eProcurement, eService, eContracting and secure settlement and performance (eSettlement) can be provided. The highest process level of participation requires a rethinking in administration, e.g., as suggested in the New Public Management (cf. Sect. 10.1). At the same time, the potential of innovative Web technologies can be used for different types of collaboration and community formation processes. In the matter of electronic votes and elections, there must be provided secure and transparent software solutions in order to establish trust in the electronic services offered for citizens.

Step-by-step approach to eDemocracy and eGovernment

1.4 Differentiation from eBusiness and eCommerce

Electronic business, or eBusiness, is defined as initiation, agreement, and handling of electronic business transactions, i.e., a service exchange with the help of public or private communication networks (Internet), with the goal of adding value. Companies (business) can appear as service provider and consumer, as well as public institutions (administration) and citizens or private consumers. It is important that the electronic business transaction creates an added value, be it in monetary form or as an immaterial contribution.

How is eBusiness defined?

Figure 1.3 shows the three groups of market participants (administration, citizens, and business) with their possible exchange relations. Each of these participants can appear as a provider or as a consumer of services. This gives us a total of nine basic exchange relations.

		SERVICE DEMAND		
		Administration	Citizen	Business
SERVICE OFFER	Administration	Administration to Administration (A2A) e.g. Types of collaboration of virtual communities	Administration to Citizen (A2C) e.g. Opportunity for electronic voting	Administration to Business (A2B) e.g. Open tendering of project schemas
	Citizen	Citizen to Administration (C2A) e.g. Citizens evaluate public environmental projects	Citizen to Citizen (C2C) e.g. Small advertisement on personal homepage	Citizen to Business (C2B) e.g. Web site with personal qualification profile
	Business	Business to Administration (B2A) e.g. Electronic services for public administrations	Business to Citizen or Consumer (B2C) e.g. Products offer in a eShop	Business to Business (B2B) e.g. Order from suppliers (supply chain)

Fig. 1.3: Exchange possibilities of eGovernment in comparison with eBusiness and eCommerce

Exchange possibilities of the eGovernment

As illustrated earlier in Sect. 1.2, the exchange relations A2A, A2C, and A2B belong to the eGovernment: Government and administration offices are on the side of the provider and they maintain exchange relations internally (A2A), with the citizens (A2C) or with companies (A2B). Laws and ordinances set the corresponding service mandate. Apart from that, the governmental institution can delegate services to a third party by outsourcing contracts (service level agreements), e.g., to NPOs, NGOs, or private companies. The exchange options of the eGovernment can be understood as a subset of all eBusiness and electronic exchange relations, respectively, according to the chart in Fig. 1.3.

Subarea of eCommerce

Another subset of eBusiness is the actual eCommerce. By the two exchange options Business-to-Consumer (B2C) and Business-to-Business (B2B), companies offer products and services to clients or companies. They are called the two options of electronic commerce (eCommerce). A concrete example

for a B2C option would be the operation of an electronic shop by a company. The exchange option B2B constitutes the supply relations between companies (supply chain management, cf. Sect. 6.1).

While speaking of eGovernment and most of the exchange options of eBusiness, the abbreviation C stands for citizen, when speaking of eCommerce, it stands for consumer. An important feature of the matrix of exchange options is the fact that people can assume the role of a provider as well. For example, the option C2C means that there is an electronic exchange relation between individuals. Also, citizens can provide services for companies (C2B) or administrative institutions (C2A).

In the numerous collaboration and exchange options of eBusiness and eGovernment, the market participant assumes different roles. At one time, he acts as a service provider, another time, as a service consumer. A citizen can, for example, act as a service consumer and provider at the same time, if he offers his skills on a Web site to the administration or to private companies as a volunteer or as an entrepreneur. This promotes the market and exchange relations of the so-called multi-option society, which will be explained more deeply in Chap. 10 on eSociety.

Different roles in eBusiness

1.5 Chapter Overview

This book focuses on the process areas of eGovernment and dedicates a chapter to each content area (Fig. 1.4). The introductory chapter defines the concepts and introduces to both European Strategy and the eGovernment Framework of the University of Fribourg.

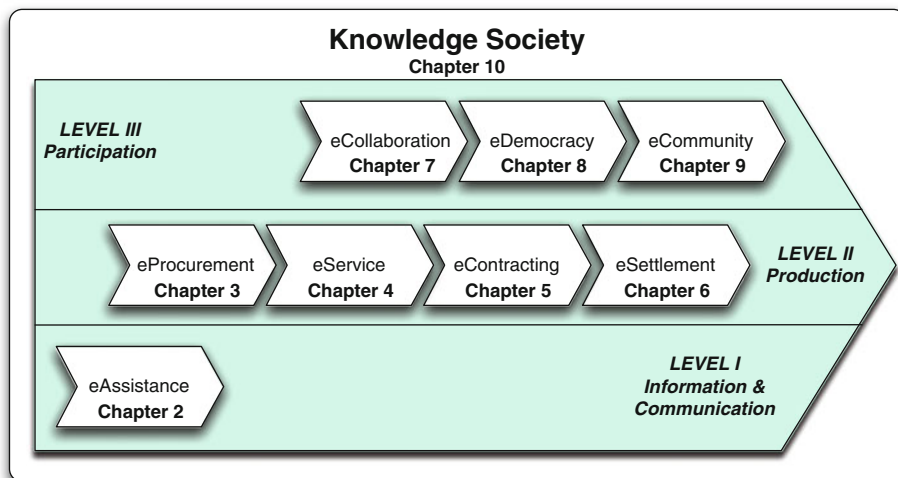


Fig. 1.4: eGovernment framework and chapter overview

eAssistance
(Chap. 2)

Chapter 2 on eAssistance is located on the lowest process level of information and communication. Here, the groundwork for all Web-based information exchange is set. In addition to the discussion of Internet services, a classification of social software and Web 2.0 technologies is given. One of the main focal points is the catalog for communal Web sites, that can be expanded step by step to an eGovernment portal. A barrier-free Web access and a quality assurance in the Internet are important for eAssistance. The case study, presented by the Swiss Foundation for Handicapped Accessible Technology Use, also deals with barrier free Web access.

eProcurement
(Chap. 3)

Chapter 3 on eProcurement describes, as a part of the process level production, the Web-based options for procurement and purchase, including the potential benefits for administration. To this end, basic procurement models are discussed, namely sell side (catalog and procurement software are located on the vendors' side), buy side and Marketplace (third party providers with multi-supplier catalog and software platform). The Public Offering via Internet requires a gradual process chain, optionally including auctions. Apart from that, desktop purchasing systems are discussed in order to unburden the purchasers and governmental institution members in the process of procuring MRO goods (maintenance, repair, and operations). The case study of Swiss Federal Railways shows forms of reverse auctions for the procurement.

eService
(Chap. 4)

Chapter 4 addresses the topic of service management in the eGovernment. First, proceedings of technical, organizational, and semantical interoperability are presented, in order to facilitate heterogeneous system and application environments within and outside of the administrative unit. Afterwards, the governmental services for citizens and companies, as proposed by the European Union, are discussed. A sample catalog for a communal product plan allows for standardizing electronic services and harmonizing them beyond the communities. As an example serves a service oriented eHealth architecture for mobile health services, that is deepened in a case study for the electronic health record of the University of Vienna. To complete the chapter, a Capability Maturity Model for governmental services and a benchmarking, regularly carried out by the European Union, are presented.

eContracting
(Chap. 5)

The electronic negotiation process with legally binding agreements is dealt with in Chap. 5 on eContracting. Generic services support the Web-based negotiation process with services for archiving, validation, and settlement. The emphasis lies on the identity management for identification, authentication, and authorization of Web users. The Role-Based Access Control (RBAC) model of the US National Institute of Standards and Technology furthers the separation of access and processing rights (separation of duties). Another focus is the asymmetric encoding with public and private keys that serve to generate digital signatures. The discussion of the public key infrastructure and further basic legal requirements complete the chapter. As a case study serves the face recognition in the biometric passport (ePass), demonstrated by the Fraunhofer Institute for Computer Graphics Research in Darmstadt.

Chapter 6 on eSettlement deals with the handling and completion of electronic transactions. To begin with, the SCOR model is presented, which explains the partial steps of a supply chain. Then, electronic payment procedures are classified and illustrated. It is possible to organize the distribution of digital products and services either online or offline, whereas hybrid forms are also thinkable. While using the exchange options, it is imperative that privacy policies and data security maintain guaranteed. In order to protect author rights for digital products or services, digital watermarks can be applied. The Salzburg Research Society is developing a case study for protecting the electronic data exchange.

*eSettlement
(Chap. 6)*

Chapter 7 on eCollaboration belongs to the third process level, which considers different possibilities of participation for citizens. First, the specific characteristics of document management systems and content management are discussed. There are many applications for wiki tools in the administration, as there are possible advantages for project management, product development, employee suggestion systems, and community formation. The governmental institutions should consider the use of blogs and adoption of software solutions for collaborative working environments and facilitate them, if needed. Virtual types of organization and collaboration improve different strategies for the development of organizations. The case example Virtual Campus is brought in by the distance teaching University of Hagen, in which over 50,000 students of the areas culture and social studies, computer science, business administration, and law are registered.

*eCollaboration
(Chap. 7)*

The process area eDemocracy is outlined in Chap. 8. A participation pyramid is explained by means of the involvement of the citizens and the complexity of public tasks. Afterwards, the variety of electronic votes and elections is displayed, putting a special emphasis on those options via Internet, which are independent of time and place. The sub-processes eDiscussion and ePosting accompany projects for electronic votes and elections. They improve the basis of decision making and voting and advance the personal responsibility of the citizens. In order to ease the complexity, multi-dimensional calculation and illustration methods are used. The step-by-step construction of a Semantic Memory allows the knowledge society to both exercise political controlling and a historiography with multimedia-based facts (audio, video) and documents. The case study Smartvote shows how a Web-based election assistance system is regularly used in Switzerland.

*eDemocracy
(Chap. 8)*

In Chap. 9, we present communicative strategies (push, pull, customized push) and Web-based tools for community formation. A multi-channel management allows synchronizing the different contact channels (counter, call or communication center, Web portal, amongst others) and media (telephone, e-mail, blog, amongst others). A development model for online citizens includes the user categories online surfer, online communicator, online community member and online citizen. With the help of this model, the governmental institution can estimate the degree of popularity, the capability to communicate and the personal involvement of the citizens. The according key figures allow the institutions

*eCommunity
(Chap. 9)*

to adjust their Web sites better to the needs of the claim groups. Further applications are tools for community formation, like civic network systems, buddy or recommender systems, as well as corporate blogs. The Swiss Center for Telemedicine presents their medical communication center in a case study.

*Knowledge
Society
(Chap. 10)*

The final Chap. 10 on knowledge society discusses the efforts for decentralization in the New Public Management, efforts that can be realized by means of information and communication systems. Certain processes in the knowledge management, the use of expert systems and knowledge-based data banks, as well as adequate data mining and Web mining methods endorse the transition from an information society to a knowledge society. During this process, the associated dangers and risks must not be neglected. An ethical maxim for the knowledge society with different dimensions is therefore essential.

1.6 Bibliographical Notes

*Edited volumes
and first
scientific works
on
eGovernment*

Some works on the topic of eGovernment, mostly edited volumes, are available on the market. [Asghari \(2005\)](#) describes in his editor's compilation the digital evolution in the state and points out solutions in the areas of process management, eProcurement, and governmental services. In Bieler and Schwarting's compilation ([Bieler and Schwarting, 2007](#)), some experts in the area of eGovernment have their say on the matter. Apart from communication concepts and forms of collaboration, the legal requirements for the eGovernment are covered. The edited volume of [Gisler and Spahni \(2001\)](#) gives the basics on service quality in the administration and illustrates applications. [Jansen and Priddat \(2001\)](#) address in their work the changed potentials and the modernization of the state by means of eGovernment. The reference book by [Mehlich \(2002\)](#) introduces to the topic of eGovernment, explains the current development status and gives a prognosis. Basic concepts and current applications of the area eGovernment are compiled by [Meier \(2002\)](#) and Hofmann/Reich (2009). [Scheer et al. \(2003\)](#) illustrate processes of the eGovernment using a process model.

The European Union has launched the eGovernment initiative with the Lisbon Strategy (2000). Subsequent to this, the i2010 eGovernment Action Plan (2006) was published, in which concrete measures for the implementation are listed. The European Commission set the governmental services for citizens and companies, see [EU \(2007\)](#). The latest survey and a benchmarking for the countries EU 27+ are to be found under [Benchmarking \(2007\)](#).

*Extensive
literature on
eBusiness and
eCommerce*

There is a remarkable variety of reference books on electronic business, that deal with different aspects of electronic transactions. [Bullinger and Berres \(2000\)](#) published a manual for medium-sized businesses, which assort basic concepts and practical experience reports for electronic business transactions. [Kollmann \(2007\)](#) Kollmann's reference book gives basic concepts for electronic purchasing and selling as well as electronic trading. Web-based business models are compiled by [Hofmann and Meier \(2008\)](#). Meier's (2001) edited volume is addressed to managers and features several articles on initiation,