Abstract

Despite the undoubted potential of the internet to improve public service provision and citizen engagement, the digital divide phenomenon remains one of the main barriers to migrating administrative and political processes to the internet. This chapter elaborates why the digital divide is an important issue for policymakers in social welfare states. Moreover, a digital divide framework is presented which highlights the multidimensional nature of the phenomenon. On the basis of this framework, current European activities to bridge the digital divide are discussed. Finally, the consequences of the digital divide for digital government are analyzed.
3.1 Introduction

3.1.1 Why Is the Digital Divide Important?

Social scientists have recognized that inequality regarding access to ICT limits people’s ability to participate in the information society where the creation, the distribution, and the use of information is a significant economic, political, and cultural activity. ICT helps people to engage in activities such as searching and applying for jobs on the job market. Also e-learning, which includes all forms of ICT-supported learning and teaching, simplifies access to good education for people. Apart from these economically or socially valued activities, ICT also allows people to better engage in political processes that aim to improve their social or physical environment. In times of growing skepticism of political decision-making, people can be better integrated throughout the whole life cycle of the political decision-making process. Thus, it provides new deliberative spaces for political discussions. ICT also empowers people to engage in significant social interactions facilitating the identification and the establishment of new social groups with shared political, cultural, and/or economic interests. Finally, ICT creates a space where significant consumption activities take place and where consumers are able
to order and pay for services and goods conveniently from their home computer. Through its effects on commerce, ICT provides access to low-priced products and novel ICT-enabled information services. In a nutshell, without access to ICT, disadvantaged groups do not have the freedom to engage in all of these valuable activities. Thus, despite its initial potential to combat social inequality, it remains to be seen in which areas ICT will exacerbate and in which it will ameliorate social inequality.

3.1.2 Will the Digital Divide Phenomenon Disappear Eventually?

It has been proposed that a new generation of young people that have grown up with ICT, so-called “digital natives,” are inherently used to new technology and that “digital immigrants” who learned to use ICT at some stage during their life are fundamentally different with respect to their abilities to exploit ICT. This view implies that the digital divide phenomenon will disappear in the course of time. Consistent with this view, Roger’s (2003) innovation diffusion theory suggests that nonadopters lag behind early adopters of ICT mainly because the former have not yet learned of the existence of an innovation and that differences with respect to ICT access diminish over time.

However, empirical findings show that “digital natives” are not as homogenous and high skilled as suggested by the dichotomy of natives and immigrants. Rather, these studies suggest that ICT access varies significantly from one activity to another within the group of “digital natives.” Thus, proposing that the gap between those with higher levels and those with lower levels of ICT capabilities will be completely closed at some time can be highly questioned. In particular, the multi-dimensional and dynamic nature of the digital divide phenomenon as we will discuss later fuels the concerns of social scientists and policy-makers.

3.1.3 Will ICT Exacerbate or Ameliorate Social Inequality?

When looking at the characteristics of disadvantaged groups, one can observe that groups with lower levels of access to ICT are the same groups that have lower access to education or income. Therefore, the question arises as to what exactly is new about the digital divide compared to other unequally distributed scarce or immaterial resources. In seeking an answer to this question, van Dijk (2006) identifies the characterization of the information society as a fruitful avenue and points to three properties of information as a basic source of digital inequality.

First, information is essential for the survival and self-respect of individuals. Thus, information is a primary good which John Rawls (1971, p. 62) describes as “things that every rational man is presumed to want.” Although the minimum amount of information that is required seems difficult to assess, at a time when digital information is replacing traditional media (e.g., print media), digital illiteracy has to be combated by society just like traditional literacy. Second, information
is also a positional good. The role one plays in social networks and the amount of valuable information one possesses determines one’s potential power in a community or in society as a whole. Lastly, information can be also a source of skill. Studies show that candidates for a job position who demonstrate good skills in relation to exploiting ICT are better off than candidates with low skills. Thus, the ICT skill premium is one of the causes of income inequality.

In the light of the effects of digital information on people’s outcomes and the vast amount of content and services available over the internet, many observers suspect that ICT will inevitably reinforce the gap between the information “haves” and “have-nots” and the rich and the poor in the information society.

3.1.4 Outline of This Chapter

Research on the digital divide is concerned with the characteristics of disadvantaged groups, consequences of the digital divide, as well as the effectiveness of institutional interventions aimed at overcoming inequalities regarding ICT. In the following section, we introduce the capability approach which serves as a basis for researchers and practitioners in addressing social inequality, followed by a discussion of how to apply the capability approach to the digital divide phenomenon. The different dimensions of the digital divide are presented in section three. Thereby, we present a digital divide framework which provides a more elaborate perspective on the phenomenon. In the subsequent section, we present how the European Union is addressing inequality regarding ICT and give examples of initiatives trying to cope with certain dimensions of the digital divide phenomenon. Finally, we discuss the implications of the digital divide for the migration of administrative and political processes to the internet.

3.2 The Capability Approach

3.2.1 How Does the Capability Approach Relate to Other Theories of Justice?

Most theories of justice differ in terms of what they take to be the central social exercise in which equality is to be demanded. Take, for example, communists who strive to distribute goods in some equal manner, income-egalitarians who ask for equal incomes, or classical utilitarians who insist on equal weights on the utilities of all. Amartya Sen (1992), Nobel Prize winner for his contributions to welfare economics, doubts that complete equality in the distribution of any ability, resource, or outcome is ever achievable. Rather, he proposes that human development should be evaluated with respect to the capabilities people have to live a valuable life. The practical implication of this approach is that policy-makers who want to improve social welfare have to focus on expanding people’s freedoms to
enjoy things they value. As argued by Sen (1992), if equality is to be demanded in any space, it is to be demanded in the space of capabilities.

The capability approach can be used as a normative framework for the evaluation of individual well-being, the design of policies, and the formulation of proposals of social change in society. In the past decade, the capability approach has gained enormous popularity among researchers and practitioners and also serves as the theoretical basis of the UN Human Development Index, which evaluates nations with respect to the opportunities people have in terms of health, education, and employment.

### 3.2.2 What Are the Key Concepts of the Capability Approach?

Figure 3.1 gives an overview of the capability approach by representing a person’s capability set in relation to her or his social and personal context. A person’s capability set is mainly influenced by the infrastructure the person possesses and the way a person is able to convert this infrastructure into a set of capabilities. The capability set represents the opportunities a person has to live one type of life or another. The actual achieved outcomes are determined by the free choices made by the person out of the opportunities enabled by the capability set.

We illustrate the difference and interrelationships between means (or infrastructure), freedom to achieve (or capability set), and actual achievement (or functionings) by the example of a car which an individual possesses. The car is the infrastructure and mobility might be one of the capabilities that possessing a car enables. The mobility a car provides is not the same for all individuals but shaped by individuals’ internal characteristics (such as gender or health) or external circumstances (such as public policies, climate, or social norms). For example, if a person is disabled, then the car will be of limited help to convert the car into mobility. If a public policy does not allow certain persons (e.g., under-age persons) to drive cars, the car does not influence the individual’s mobility. Finally, whether the mobility is used by the person to drive to a distant job interview which might result in a new job position depends on the free choices the individual makes, for example whether the individual uses the car to drive to the job interview or not. Thus, capability sets offer individuals the freedom to achieve outcomes they value. And the things people choose to achieve are influenced by their personal preferences.
3.2.3 How Does the Capability Approach Relate to the Digital Divide?

The key practical implication of Sen’s capability approach is that policy-makers should focus on the identification and evaluation of actions that contribute to social welfare, that is increasing the set of opportunities for people to do things they value. This involves some normative judgment on what people value and the capabilities needed to achieve these outcomes. For example, the UN Human Development Index assumes that life expectancy, literacy, education, and standards of living of a country are important capabilities which can be assessed to measure human development. Inequality regarding ICT access limits people’s opportunities to achieve valuable outcomes such as finding jobs, obtaining education, accessing government information, participating in political discourse, and building networks of social support. In order to achieve these valuable outcomes, IT policy-makers in Europe have started to launch initiatives that foster participation of all individuals and communities in all aspects of the information society. Thereby, policy-makers focus on the infrastructure and groups with limited ability to convert the infrastructure into capability sets. We will introduce more detail on European activities fighting to close the digital divide in a later section.

Summary
To sum up, the capability approach highlights why policy-makers and social scientists have intensively cautioned against the consequences of the digital divide. The ability to fully exploit ICT is an important capability set that enables individuals to achieve things they value. Moreover, providing the ICT infrastructure is not sufficient. Rather, persons’ internal characteristics and external circumstances influence how means are transformed to capability sets. The practical implication of this is that policy-makers have to focus on providing means and supporting individuals with weak personal conversion factors (e.g., elderly people). The capability to exploit ICT gives people the freedom to achieve things they value such as access to jobs or education or participating in political discussion or other social activities. In the following section, we develop a conceptualization of the digital divide phenomenon to better classify, assess, and understand the areas and effectiveness of digital divide policy-making.

3.3 A Multidimensional Concept

3.3.1 What Are the Different Dimensions of the Digital Divide?

The major challenge of the digital divide phenomenon is its multidimensional nature. If the digital divide was simply unidimensional (e.g., measured as whether a person has access to the internet or not) and if there was political will to bridge this
gap, the digital divide would be overcome in the course of time. In order to better classify and understand the digital divide, we present a digital divide framework in the following. The framework is centered on our definition of the digital divide. The digital divide refers to inequality regarding access to ICT between advantaged and disadvantaged groups. This definition of the digital divide appears to be a simple premise. However, according to Selwyn (2004), several questions have to be reconsidered to move towards a more elaborate and realistic understanding of inequalities in the information age: (1) what is meant by ICT, (2) what is meant by access, and (3) what distinguishes advantaged and disadvantaged groups? These questions are now discussed in turn in the following sections.

3.3.2 What Is Meant by ICT?

One ambiguity in our perspective on the digital divide relates to what the term “digital” in digital divide and thus, the term ICT actually refers to. ICT is not a fixed object, but rather a more general term that encompasses computers, the internet, middleware as well as necessary software, storage, and much more. The umbrella term ICT is also a moving target considering the short innovation life-cycle of ICT. Thus, whether groups have access to ICT or not can mean very different things at different times and in different studies on the digital divide. Moreover, the determination of which ICT means are necessary to build up a valuable capability set to fully exploit ICT is subject to public scrutiny and public discussion over time.

One potential solution to guide this discussion is to focus on digital content and services rather than on technological platforms. Taking this perspective, the digital divide can be seen also in terms of the digital information and services that people are accessing via ICT. As most internet resources like web sites or hosted storage services are accessible through a variety of platforms (e.g., computer or mobile telephones), focusing on content rather than on devices might be a more accurate and useful point of reference (Selwyn 2004). In the following, we take this narrow view on ICT and define it as all technological means giving people access to digital content and services. While this view also implies that access to ICT remains a moving target, it highlights that ICT is only a means to a certain end (i.e., accessing digital content and services). As we discussed earlier, the properties of digital information and services (primary good, positional good, source of skill) are a basic source of social inequality in the information society and needs to be overcome.

3.3.3 What Is Meant by Access?

The second ambiguity in our perspective on the digital divide relates to what the term access actually refers to. At the beginning, digital divide research mainly focused on the number and categories of groups having computers and an internet connection. Later on researchers went beyond physical access and paid more attention to the
social, economic, and cultural aspects of gaining access or to the concepts of digital competences and actual use of ICT. In the following, we draw on van Dijk (2006, p. 224) and introduce an ICT access framework which assumes that access is a “process with many social, mental and technological causes and not . . . a single event of obtaining a particular technology.” In this framework, motivational access is placed in front of physical access followed by skills access and usage access. We will explain each process step and its causes in the following (cf. Fig. 3.2).

Before people get any access to ICT, they have to first recognize that it is available to them and then determine whether ICT is relevant to their interests or purposes. Many elderly people do not see significant usage opportunities in digital content and services or reject the medium because they see the internet and computer games as dangerous media. Although prices for ICT are declining, many people still do not have the money for a computer or an internet connection. Also, computer anxiety (discomfort or fear experienced with using computers), technophobia (fear of technology in general), or cultural aspects play a role in explaining a lack of motivation to access ICT (van Dijk 2006). These barriers do not completely disappear with more ICT experience or with a new generation born with ICT. Rather, these personal conversion factors have to be incorporated by policy-makers.

Motivational access influences material access. Early research on the digital divide mainly focused on material access, that is whether people have physical access to computers and the internet or not. On the basis of large-scale surveys, sociodemographic factors such as income, education, age, and sex were identified that distinguish people with and without physical access. Also research on the global digital divide analyzed the phenomenon with respect to broadband and other telecommunication infrastructures. In some western countries, the physical access gap has been almost closed due to large-scale investments in the ICT infrastructure. Thus, research on the digital divide has shifted its focus more to the abilities and skills people have to fully exploit the physical access to digital content and services. Since ICT skills are much more dependent on personality characteristics and are much more complex to measure compared to physical access to ICT, closing this gap by ensuring sufficient ICT capabilities among all groups of society is a much more challenging task. Research on digital skills reveals that even among socioeconomic groups (e.g., high-income and high-educated people) there persist huge differences with respect to people’s capabilities to exploit ICT.

![Fig. 3.2 ICT access stages](image-url)
Measures to assess ICT skills vary considerably. In the following, we draw on van Dijk (2006) who distinguishes three basic types of ICT skills needed to fully exploit ICT. First, operational skills refer to the capability to work with the hardware and software. These most basic skills can be assessed by testing people’s ability to start a computer, open the browser, and simply access website information. Second, information skills are more sophisticated skills defined as the ability to search, select, and process information in specific sources following specific questions. This ability can be well assessed in a controlled environment in which a candidate receives a question that they need to answer by exploiting their informational ICT skills. Third, strategic skills are even more sophisticated skills defined as the ability to express oneself creatively, and appropriately, and to produce and generate content and services rather than simply to process it (Wang et al. 2012). We believe that these three types of ICT skills give people the capability to fully exploit digital information and services to achieve outcomes they value.

Actual use of ICT to exploit digital content and services is the ultimate goal of the process of ICT access. People have the freedom to choose how they utilize their ICT skills and how often they use ICT, which digital information and services they access, whether they use broadband or narrowband, and whether they only comprehend or in addition generate significant content and services and thus, actively participate in the information society.

All preceding steps of the ICT access process influence ICT usage. Motivational access is highly dependent on one’s personal context and external circumstances as is material access. Skills also depend on a person’s experience with using the technology. Thus, the relationship with usage is reciprocal. Also usage increases the opportunity people see to use the internet and these people are in turn motivated to obtain physical access and improve their ICT skills. Regardless of the interrelationship between the stages, all stages are important for social scientists and policymakers to consider because they influence whether people have the capability set to achieve outcomes they value.

### 3.3.4 What Distinguishes Advantaged and Disadvantaged Groups?

We can characterize research on advantaged and disadvantaged groups with respect to the unit of analysis. Digital divide research has mainly looked at three different units of analysis. The individual level – which is also the focus of our discussion – looks at socioeconomic (such as income, education) or demographic factors (such as sex, age) that characterize disadvantaged groups of individuals. Moreover, some researchers have also looked at differences regarding access to ICT among organizations. In particular, small firms often do not have the human and technological resources to exploit ICT which disadvantage them in the competition with larger enterprises. Lastly, digital divide research has also been very interested in comparing differences among nations (Norris 2001). While ICT has the potential to help in unifying the world by facilitating the exchange of information and
improving mutual understanding, observed differences among developed and undeveloped countries regarding ICT access suggest that ICT rather exacerbates than ameliorates economic inequality.

Having elaborated the meaning of ICT access, we now want to discuss the factors that determine why some individuals (which is our focus here) engage more successfully with ICT, whereas others do not. Understanding the mediating factors, we present the technological capital framework as discussed by Selwyn (2004). He proposes that three different forms of capital determine the degree to which individuals can successfully engage with ICT. This view is superior compared to discussing socioeconomic or demographic factors. Prior research has shown that even among the elderly, low-income, or low-educated people, there are considerable differences with respect to their ability to make meaningful use of ICT. These differences are explained by Selwyn (2004) with variations in economic, social, and cultural capital that these individuals possess. Moreover, focusing on capital rather than on demographic factors allows policy-makers to directly counter these inequalities regarding access to ICT.

The most obvious drivers of the digital divide are differences with respect to individuals’ economic capacity to purchase hardware and software. Although prices for computers, internet connections, and printers are declining, these prices combined with a perceived lack of usage opportunities hinder many low-income or elderly people in obtaining access to ICT. While economic capital might to a large extent account for different levels of engagement with ICT, it should not be overemphasized. Also social and cultural capital structures participation in the information society as both are, under certain conditions, convertible to economic capital or institutionalized in the form of ICT skills.

Cultural capital denotes the extent to which individuals or organizations have absorbed or have been socialized into the information society. Cultural capital can exist in different forms. People, who invest in self-improvement of ICT skills, for example by reading a textbook about using computers, possess embodied cultural capital. In contrast, people, who are socialized into technology use, for example by being exposed to ICT via magazines, books, or other media available in their household, possess objectified cultural capital. Lastly, people, who obtain ICT skills in the form of credentialed training, possess institutionalized cultural capital. While economic capital might be necessary to possess ICT infrastructure, people need cultural capital to make better use of the infrastructure. Thus, the levels to which people possess cultural capital highly influence their ability to exploit ICT.

Moreover, engaging successfully with ICT is also determined by social capital, that is having a social network of individuals (family members, friends, and neighbors) or institutions (help lines, after-sales support) with expertise in ICT. Social capital can be converted into economic capital when members of the social network are willing to share their expertise or access to ICT. The importance of social capital was also highlighted in a study conducted by Murdock (1996) who examined differences with respect to computer use in households:
The maintenance of particular forms of computer use will depend in large parts on access to users who can offer advice, encouragement and practical support. Conversely users who are isolated from or marginal to such networks may find it difficult to acquire competencies and sustain interest over time. (Murdock 1996, p. 273)

In a nutshell, economic, social, and cultural capacities can be used to analyze, explain, and predict how individuals, groups, or communities will participate in the information society and how participation in the information society can be increased. Therefore, policy-makers should focus on strengthening people’s capital to overcome the digital divide.

Summary
The section introduced a digital divide framework that provides a more elaborate and realistic understanding of inequalities in the information age. First, we have defined ICT, that is part of the object in which equality is to be demanded, as all technological means giving people access to digital content and services. Second, we have described the social process (motivational, physical, skills, and usage access) by which individuals and organizations gain access to these means. Finally, we have argued that the extent to which individuals or organizations can access ICT can be traced back to fundamental differences in their economic, cultural, and social resources which they can build upon when trying to exploit ICT. Increasing these three forms of capital is the major concern of initiatives fighting to close the digital divide.

3.4 European Digital Divide Initiatives

3.4.1 What Is the Digital Agenda?

In 2010, about 30% of all Europeans – largely made up of elderly people, people on low incomes, unemployed or less educated people – had still never used the internet. As the first of its seven flagship initiatives under the Europe 2020 strategy, the European Commission published the “Digital Agenda” to address challenges in overcoming these deficiencies. The digital agenda emphasizes that the benefits of the digital society should be made available to all citizens.

The digital era should be about empowerment and emancipation; background or skills should not be a barrier to accessing this potential. (European Commission 2010)

The agenda outlines concrete actions on each access stage of our digital divide framework. For example, to overcome a lack of motivational access, the agenda aims at increasing internet trust and security through EU-wide online trust marks and dispute systems. Security and trust are one of the major sources of uncertainty in using internet applications and are one of the major barriers for consumers and businesses to engage in e-commerce. In order to enhance material access, the digital
agenda sets the target to equip each household in Europe with broadband access by
2013 and to equip at least half of them with fast broadband by 2020. Moreover, the
agenda aims to improve skills access by investing in the enhancement of digital
literacy skills and by offering e-learning and customized education material teach-
ing internet users how to better exploit ICT. Additionally, the agenda foresees
investment in the digital distribution of cultural, journalistic, and creative content,
making it cheaper and more quickly accessible and thus, setting further incentives
to increase usage access to digital information and services.

3.4.2 What Are Examples of European Initiatives Fighting to Close
the Digital Divide?

While the digital agenda sets ambitious objectives for the European member states
with respect to the fight against the digital divide, it is mainly left to the national,
regional, and local authorities as well as private organizations to start, operate, and
evaluate concrete projects. In the following we give some examples of initiatives
aiming to reduce inequalities with respect to people’s access to ICT. More cases can
be found on the ePractice portal created and operated by the European Commission
which offers cases on digital divide initiatives under the label “eInclusion”

Box 3.1. Project: Hungarian Initiative “Click on It Grandma!”
“Click on it, Grandma!” is a project initiated by the Budapest Cultural Center
and aims at increasing the digital skills of older people. Launched in 2002, the
learning program was first offered in Budapest with the idea to enable senior
citizens to fully participate in the Hungarian economy and society as well as
to improve their quality of life through educational programs. The initiators
emphasize that older people tend to be less open to new technologic novelties
and therefore need to be educated in order to keep up. Ten different courses
are offered and focus on how to write e-mails, surf the web, find useful
information, and manage digital files. During and after the course,
participants have access to computer points free of charge. The training
sessions are carried out using a specially developed textbook and a website
for further reference. Professional trainers assist during the exercises.
Because of its success, the program was extended beyond Budapest and
transformed into a national education program, offered in 12 different cities
across the country. Approximately 1,200 senior citizens completed the course
in 2007. Moreover, former participants founded so-called “Grandma clubs”
that bring people together to talk, learn, and share their experiences (more
information on http://www.epractice.eu/cases/clickonit).
Box 3.2. Project: ECDL Initiative in Austria
The initiative “European Computer Driving License (ECDL) barrierefrei” is the Austrian implementation of the European ICT literacy certification. The program seeks to improve the IT skills of people with disabilities, enabling them to find employment and to increase awareness of the needs of disabled people among the general public. The standard materials provided by the ECDL foundation were adapted for people with a wide range of disabilities by offering alternatives to keyboard and mouse input, such as on-screen keyboards, hands-free mice for paralyzed people, and Braille displays and speech output for visually impaired users. In view of our digital divide framework, the project aims to improve the ICT skill access of people with disabilities.

Thereby, the project tends to improve people’s institutionalized cultural capital by providing them with a credited ICT qualification (more information on http://barrierefrei.ecdl.at/).

Box 3.3. Project: “Eldy in Piazza”
The project “Eldy van on the square” (“Eldy in piazza”) aims at bringing people in rural areas together with computers and internet access. Launched by the Italian NGO “Eldy” in 2009, the project’s initiators drive with a customized van equipped with computers and training materials through small towns in the north of Italy. Eldy states that people in rural areas often lack access to computers; this is also the result of a reluctance to try new technologies in their culture. Volunteers and professional trainers offer free training sessions on the free-to-use “Eldy” platform, which is tailored for computer beginners. A typical “Eldy” course explains to the participants how they send e-mails, chat with people over the Internet, get in touch with their family via video calls, and how to organize digital documents or photos. Free training materials are distributed and technical support is given to the participants.

Eldy reports that the project’s benefits are increased social inclusion in rural areas, improved e-democracy and e-inclusion as well as the promotion of volunteering and a cooperative spirit. Since 2009, 100 courses have been held and more than 4,000 people have been trained in the area of Veneto. The “Eldy” platform itself has more than 400,000 users worldwide and is supported by a community of volunteers (more information on http://www.epractice.eu/en/cases/eldyvan).
Summary
Over the last two decades, the European member states have made considerable investments to overcome inequalities regarding access to ICT. However, the digital divide is still a widely observed phenomenon. In the digital agenda of the European Commission ambitious goals are set that address various dimensions of our digital divide framework. While member states share the goal of overcoming the digital divide, it is left to national, regional, and local initiatives to launch programs to fight the digital divide. A review of cases from the practitioner platform ePractice shows that in particular elderly people or people living in rural areas are the target of digital divide initiatives.

3.5 Consequences of the Digital Divide for Digital Government

The internet is an increasingly important resource in many aspects of life, for example education, employment, government, commerce, health care, recreation, and more. We argue here that the digital divide also has important consequences for the implementation, management, use, and outcomes of public services and political decision-making processes which are discussed in the following.

3.5.1 How Does the Digital Divide Influence Public Service Delivery?

In contrast to traditional service delivery, digital public service delivery allows citizens and businesses to access public services from anywhere 24 h a day. Thereby, users can benefit from significant cost and time savings (cf. Chap. 5 Online One-Stop Government). However, only clients who have access to ICT and are able to conceive the technical terms of the public sector domain can exploit the opportunity to access and use digital public services. This has consequences for both the demand and supply side of public service delivery.

For the supply side it implies that public administrations always have to maintain the offline delivery channel because public administrations are not allowed to choose their customer base but have to ensure that all sections of the population can access public services (cf. Chap. 4 Legal Aspects of Digital Service Delivery). Therefore, they always have to maintain traditional service delivery for disadvantaged groups who are unable to access digital content and services. However, running two channels – offline and online – in parallel often eats up the efficiency gained by introducing digital public service delivery. As many of the disadvantaged groups are among those who rely most heavily on the support of public services, moving all public services to the internet is economically inefficient. Instead, public administrations should only offer digital services
where the vast majority of users have full access to these services and should rather focus on digitalizing back-office processes for the remaining services (cf. Chap. 5 Online One-Stop Government).

For the demand side the digital divide implies that users have different outcomes in relation to public services. Those clients of the public administration, who can access public digital content and services, can benefit from a higher level of flexibility as well as significant time and cost savings. Therefore, they can invest their time and resources in other valuable activities instead of waiting at public offices. Moreover, businesses that are able to integrate public services into their own business processes might have competitive advantages over businesses with lower IT sophistication. These outcome differences have to be taken into consideration when implementing and managing public service delivery.

3.5.2 How Does the Digital Divide Influence Political Processes?

While the digital divide phenomenon can somehow be handled by maintaining the offline and online channel for public service delivery, the consequences of the digital divide for political decision-making processes are much harder to estimate. Before the internet emerged, mass media, town hall meetings, or voting were typically the main channels to express and exchange perspectives about political issues and mobilize political groups. Today, citizens have additional political channels. For example, social networking websites have created new ways to socialize and interact over the internet. A possible consequence of inequalities regarding access to ICT is that groups who are disadvantaged lose influence in the political discourse. While highly educated and young people can promote their ideas on the internet and can find like-minded people from all over the world, disadvantaged groups still have to rely on traditional political channels like elections or town hall meetings. As discussed earlier, the role citizens play on social networking websites can influence their effect on peer users. Moreover, the ability of citizens to produce and generate content rather than simply to process it represents another source of inequality with respect to political power.

In a nutshell, whenever political actors or institutions use the internet to exchange ideas and opinions or even take legally binding decisions, they have to consider that the voice of disadvantaged groups might be ignored. Therefore, political decision-makers should not overemphasize sentiments in social networking platforms although this information is much easier to obtain than from offline channels such as town hall meetings or public opinion polls.

Summary

To sum up, the digital divide has considerable consequences for the implementation and management of public digital services as well as political
Summary (continued)

decision-makers and institutions that use the internet to gather and distribute ideas and opinions on political issues. On the one hand, public administrations who wish to offer digital services have to realize that they have to maintain traditional service delivery for disadvantaged groups such as elderly, low-income, or low-educated people. On the other hand, if politicians use the internet to gather or express their views to citizens, businesses, or interest groups, they have to realize that many disadvantaged groups are left out of this political process often leading to decisions that are not sufficiently legitimized as an outcome (cf. Chap. 9 E-Participation).

Chapter Summary

This chapter has provided a deep insight into the nature of the digital divide phenomenon. In the introductory section, we discussed why the digital divide is important both today and in the long run and whether ICT will exacerbate or ameliorate social inequality. After this, we introduced the capability approach as a normative framework for assessing social inequality. Thereby, we discussed how the approach relates to other theories of justice and how it can be applied to the digital divide phenomenon. In section three, a digital divide framework was introduced that provided us with a more elaborate view on the different dimensions of the digital divide. To develop the framework, we have specified what is meant by access to ICT and analyzed the factors that underlie inequality regarding access to ICT. Equipped with a theoretical understanding of the phenomenon, we explored how the European member states deal with the digital divide by presenting different case studies. Finally, we discussed the consequences of the digital divide for the digitization of public services and political decision-making processes.

References