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Ranchordás, Sofia

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Connected but Still Excluded?

Digital Exclusion beyond Internet Access

Sofia Ranchordás

17.1 INTRODUCTION

The Internet is a gateway to the informational world: it has the potential to equalise structural inequalities, democratise speech and create new economic opportunities.¹ The number of individuals connected to the Internet has never been as high as at the time of writing: roughly half of the world’s population (3.5 billion) is online.² Yet, as online services have become more pervasive, the gap between those who have access and can effectively use the Internet and those who only have unstable, sporadic or mobile internet access (if at all) has also increased.³ Despite the significant expansion of internet infrastructure over recent decades, millions of citizens in Western countries remain digitally excluded because they cannot, do not want to or are not able to engage critically with digital technology.⁴

The Internet has revolutionised not only the way in which we communicate with each other but also our interactions with public authorities, resulting in the shift from a paper-based administration to the creation of e-government and digital government tools such as government portals and digital identity systems.⁵ The automation of government decision making in varied fields (e.g., eligibility for social housing, welfare benefits, predictive policing) has nonetheless generated numerous legal and ethical concerns.⁶ These concerns include the lack of

I would like to thank Graham Butler, Sven-Erik Ceedigh, Mariolina Eliantonio, Pedro Arias Garrido, Amol Kulkarni, Yvette Lind and Rosalind Turkie for their useful suggestions.

³ Van Dijk and K. Hacker, ‘The Digital Divide as a Complex and Dynamic Phenomenon’ (2011) 19, no. 4 The Information Society 315; Sylvain (note 1).
 transparency of algorithms used in traffic or law enforcement; the risk of algorithmic biases and discriminatory decision making;\(^7\) and the disregard for public values such as fairness and accountability in high-stakes decisions (e.g., child protection).\(^8\) Legal scholars have overlooked the fact that there is an additional and deeper problem underlying these controversies: digital inequality is caused not only by algorithmic opacity but also by a multitude of socioeconomic factors that are not taken into account in the process of switching from a traditional paper-based public administration to digital government.

Individuals that are not (digitally) literate, cannot engage critically with digital technology or that do not wish to participate in the digital society are disproportionately at disadvantage in the context of digital government.\(^9\) Not only can minorities, and low-income and low-educated citizens be subject to algorithmic biases but they are also at risk of putting themselves in a worse legal position and being taken advantage of\(^10\) owing to their limited ability to interact critically with technology.\(^11\) Digital inequality denies vulnerable citizens their rights twice: first, because their ethnicity and socioeconomic status may be conducive to a ‘negative’ ranking or score (e.g., higher risk of welfare fraud); and second, because they are also excluded by the way in which digital technology is designed and what digital government expects from them in terms of skills, time and education. Digital inequality is a new type of digital divide, that is, the gap between those who participate in the digital age and those who do not. In this chapter, I argue that digital inequality is highly problematic as it deepens existing structural inequalities and adopts a targeted approach to public resources which is contrary to the conferral of rights to citizens.\(^12\)

This chapter focuses on the legal position of citizens that are ‘digitally excluded’ because they cannot use digital technology in a critical and competent way\(^13\) owing to limited digital skills, socioeconomic conditions, psychological problems or the lack of digital capital. The chapter explores in particular how this phenomenon impacts the exercise of fundamental rights before the public administration.\(^14\) Examples are senior citizens that cannot apply for benefits without assistance or individuals with low literacy that cannot fully understand online communication sent by public authorities. Interestingly enough, these are often the citizens that need automated public services (e.g., welfare benefits) the most\(^15\) and will be the most affected by the discriminatory effects of predictive policing, the automation of social security and algorithmic transparency of algorithms used in traffic or law enforcement; the risk of algorithmic biases and discriminatory decision making;\(^7\) and the disregard for public values such as fairness and accountability in high-stakes decisions (e.g., child protection).\(^8\) Legal scholars have overlooked the fact that there is an additional and deeper problem underlying these controversies: digital inequality is caused not only by algorithmic opacity but also by a multitude of socioeconomic factors that are not taken into account in the process of switching from a traditional paper-based public administration to digital government.

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\(^15\) Tomlinson (note 6).
This chapter explores one of the paradoxes of our digital times: citizens in developed countries that have access to the Internet are also affected by the digital divide. Digital exclusion in developed countries takes a very different form in the twentieth century than it did in the early days of the Internet. The digital divide is nowadays determined by media engagement, digital literacy and tech-savviness. At the same time, the current digital divide is also one that continues to reproduce existing economic, social and political inequalities in our society.

Drawing on a review of the interdisciplinary literature that has studied digital exclusion for the last two decades, this chapter contributes to the legal literature with an account of the multidimensional causes of digital exclusion, a discussion of its most relevant legal implications and some preliminary insights on how public authorities should rethink their approach to the automation of public services in an unequal information society.

This chapter is structured as follows. Section 17.2 delves into the complex concept of digital divides and explores the most common causes of digital exclusion. Section 17.3 explores the problematic legal implications of the digital divide vis-à-vis public authorities in the context of administrative decision making. Section 17.4 proposes new solutions and approaches to digital inclusion and discusses how they can address the problems presented in this contribution. Section 17.5 concludes.

17.2 Digital Gaps

This section distinguishes between the different types of digital divides, discusses the primary underlying causes of digital exclusion and provides a brief account of the main developments in digital government that require not only internet access but also digital skills.

17.2.1 Old and New Digital Divides

The emergence of a global information society has permitted the development of new communities, the widespread sharing of knowledge and the creation of new business opportunities. Nevertheless, it is clear that not everyone is able to participate in this global information society and millions continue to be left behind in different ways. The digital divide has been amply studied in the last two decades. Communication science literature has consistently demonstrated the complexity and dynamic character of this phenomenon and the need to distinguish different types of digital divide that encompass not only the lack of access but also the role played by skills.

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18 Carmi and Yates (note 11).


20 Peacock (note 14).


17.2.1.1 First and Second-Degree Digital Divides

The term ‘digital divide’ refers to the study of discrepancies among individuals, businesses, and countries regarding their access to ICT-facilities and communication tools. At the very beginning of the Internet age, the first-degree digital divide was primarily associated with the disparity of access to internet infrastructure, that is, the lack of internet connection. Despite the existence of different metrics on internet access and the growing closure of the first-degree digital divide, the literature agrees that ICT growth has drastically reduced world inequalities. The first-degree digital divide persists primarily in developing countries and rural areas and it marginalises some regions of the world (for example, Africa), preventing them from having access to new forms of wealth production.

Despite the expansion of internet infrastructure, the digital divide is unlikely to disappear. Rather, it has evolved to a second-degree digital divide which encompasses unequal interactions with technology explained by the lack of skills required for meaningful use. Digital technology requires users to have operational, formal, informational and strategic internet skills. An adequate use of the Internet requires the ability to take action, interact with other users and information, and make transactions. The so-called second-degree digital divide refers to the gap between those who can effectively use digital technologies and those who cannot. The absence of digital skills has become a problem with important social consequences in developed countries. This type of digital divide translates itself in different internet usage: individuals that fall behind because of low digital literacy are less likely to use the Internet for political purposes, for example, to discuss political views, understand political or social realities and seek further information about them. Digital exclusion affects mostly women, minorities, senior citizens and low-educated individuals either throughout their lives or in specific life events (e.g., death of a loved one) when they do not have the choice or the motivation to employ the necessary technology or this option is reduced.

17.2.1.2 Third-Degree Digital Divide

More recently, the literature has started to distinguish a third-level digital divide that is not only focused on differences in skills but rather emphasizes digital capital and the way in which

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27 Hagsttii (note 22).
29 van Dijk and Hacker (note 22).
30 Hagsttiii (note 22).
technology worsens traditional forms of inequality.\textsuperscript{34} As the online and offline worlds have become indissociable, different sociological theories have been applied to understand the intertwining between offline and online inequality.\textsuperscript{35} According to this line of research, digital inequalities are determined by class dynamics, cultural aspects such as status and prestige, group affiliations and digital capital.\textsuperscript{36} Policymakers are thus asked to take into account different groups’ digital capital, that is, the set of dispositions that individuals develop to engage with new technologies, their internalised aptitude to do so and the externalised resources that can be accumulated by the individual from using digital technology.\textsuperscript{37}

Existing scholarship shows that we should depart from simplified and traditional perceptions of the digital divide as a matter of internet access, the idea of digital ‘haves and have nots’ or digital natives vs. disconnected users.\textsuperscript{38} For lawyers, this means understanding the multidimensional factors that explain the growing inequality between the individuals that can actively participate and understand digital technology and those that cannot. Moreover, exclusion is often grounded on personal characteristics: age,\textsuperscript{39} poorer cognitive functions, low income\textsuperscript{40} and low education\textsuperscript{41} are some of the predictors of digital exclusion. Contrary to the general perception of the public, children and young people in general are not always ‘digital natives’ and may be digitally excluded owing to social, economic, cultural and political factors.\textsuperscript{42}

\section*{17.2.2 Literacy, Digital Literacy and Data Literacy}

As internet infrastructure expands, having access to digital technology and understanding online content has become increasingly important. The content has nonetheless become more important than the infrastructure\textsuperscript{43} as full access to online content implicates that individuals are at least able to read and write correctly: low literacy and digital illiteracy or limited digital skills are nowadays key factors behind digital exclusion that deserve additional attention.

Even in the most digitally advanced countries in the world such as Denmark, Sweden, and the Netherlands, there are still citizens who are low literate, do not understand what they read or are still not able to express themselves in writing.\textsuperscript{44} For immigrants who do not master the official languages of the countries where they reside, there may be an additional


\textsuperscript{35} Calderón Gómez (note 34).

\textsuperscript{36} M. Ragnedda et al., ‘Measuring Digital Capital: An Empirical Investigation’ (2020) 22, no. 5 New Media and Society 739.

\textsuperscript{37} Ragnedda (note 34); Ragnedda et al. (note 36).


\textsuperscript{41} Tirado-Morueta et al. (note 39).

\textsuperscript{42} Pawluczuk (note 13); C. Harris et al., ‘A Socioeconomic Related ‘Digital Divide’ Exists in How, Not If, Young People Use Computers’ (2017) 12, no. 3 PLoS One e0175011; Livingstone and Helsper (note 21).

\textsuperscript{43} Guadamuz (note 40).


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While some countries try to address this issue by publishing information in other languages (for example, in Spanish in the United States; in English and German in the Netherlands), this is not always a common practice.

Illiteracy or low-literacy are in some cases accompanied by the lack of digital skills and digital literacy. Digital literacy refers to the set of skills and competencies required to use multiple media through digital technologies. Digitally literate individuals have the critical thinking skills that are necessary to use technology in a strategic way to search, locate, filter and evaluate information; to connect and collaborate with others in online communities and social networks; and to produce and share original content on social media platforms. Communication science research has demonstrated that operational and formal internet skills such as the ability to use social media platforms are insufficient to fully participate in digital society. Individuals with limited digital skills, particularly those with low education, are less able to find information online that they need for their daily life. For example, older individuals tend to use the Internet less frequently than younger generations, even though the ability to use technology competently could help them throughout later life, particularly given the onset of poorer health.

Data literacy and algorithmic literacy are new and important dimensions of the debate on digital literacy and the digital divide. Citizens that are ‘data illiterate’ are unable to fully engage with digital technology and government, and participate in our modern society. The Cambridge Analytica scandal in 2017 exposed a collective unawareness of how much disinformation individuals receive on a daily basis and how it influences their voting decisions, how their data is abused, and the lack of information as to how to protect themselves against both private and state surveillance. Data illiteracy affects a larger number of individuals than other forms of literacy. Digital and data literacy nowadays requires citizens to understand how the platform economy works, how digital platforms are funded, and how privacy and content settings are designed and changed. The lack of data literacy affects an individual’s ability to participate in social and political discussions and assess data in a critical way. At a time when multiple public and private services are being automated, algorithmic literacy may well be the next layer to be added to digital literacy. Algorithmic literacy means that individuals are not only aware of how data is gathered and used but also of how it can affect decisions made about them. Individuals who are not aware of how decision making processes are automated may experience more difficulties navigating digital government and understanding beforehand how algorithms will process their requests.

17.2.3 The Digital Divide and Digital Government

The term digital government refers to the ‘introduction, application, and use of digital technologies and data in government and its external relationships, including citizens, businesses,
Despite some initial (and still ongoing) setbacks, e-government has contributed to more openness, enhanced citizen participation and reduced government expenditure.\textsuperscript{54} In recent years, digital government in developed countries (for example, the United Kingdom, The Netherlands and Denmark) has fully embraced the datafication and automation of public services, allowing technology to change the way in which the welfare state operates\textsuperscript{55} and how public authorities approach decision making. The algorithmic processing of data for the purposes of automated decision making has been perceived as problematic vis-à-vis the rule of law, potentially discriminatory and opaque.\textsuperscript{56}

Digital technologies have the potential to expand access to public services\textsuperscript{57} but only if digital government is designed with public values in mind, socioeconomic inequalities are taken into account and citizens’ different attitudes towards technologies (for example, reluctance to uptake technology or fear of surveillance) are addressed with personalized solutions. However, digital government services are still developed with the assumption that citizens have average digital skills and are ‘digital citizens’, that is, individuals who have the digital skills required to participate in the information society in a critical, effective, secure and ethical way.\textsuperscript{58} Section 17.3 delves into the legal implications of digital exclusion in the context of citizen-state interactions.

### 17.3 Legal Implications

Digital inequality is entrenched in structural inequalities and while it cannot yet be solved by technology, it can be worsened by it.\textsuperscript{59} As digital technology becomes increasingly interwoven in a number of settings (education, employment, payment systems, personal life), individuals that were at disadvantage because of their lack of access to technology will be increasingly excluded. While digital inequality primarily is a matter of exclusion and thus of unequal treatment, this section analyses digital exclusion through the lens of other fundamental rights such as due process, good administration and the right to internet access.\textsuperscript{60} Even though the right to health is not the focus of this chapter, this fundamental right may also be put at stake by the new digital divide. With the rapid advancement of e-health, mHealth, and personalised healthcare, and the rapid switch to online consultations during the pandemic, the ability to interact with digital technology has become increasingly important. The right to health in the digital age means that citizens should have access to digital technology designed for medical purposes, for example, through well-functioning, safe and affordable mobility technologies. Citizens should also have the required education and training to request health information online and feel empowered by the use of mHealth. The protection of the right to health in the digital age has implications

\textsuperscript{53} Lips (note 5).
\textsuperscript{55} L. Dencik and A. Kaun, ‘Datafication and the Welfare State’ (2020) 1, no. 1 Global Perspectives 12912.
\textsuperscript{57} Tomlinson (note 6).
\textsuperscript{58} J. Schou and M. Højholt, ‘Digital Citizenship and Neoliberalization: Governing Digital Citizens in Denmark’ (2018) 22, no. 5\textit{ Citizenship Studies} 507; Mossberger et al. (note 21).
\textsuperscript{59} Carni and Yates (note 11).
\textsuperscript{60} K. Allmann and A. Sengupta, ‘Beyond Internet access: seeking knowledge justice online’,\textit{ OpenGlobalRights}, 2019, available at www.openglobalrights.org/beyond-internet-access-seeking-knowledge-justice-online/?lang=English
for governments that should continue investing in the required infrastructure and design national policies that enable equitable and affordable access to ICT for health.

17.3.1 Digital Rights and the Right to Internet Access

Recent scholarship has debated whether internet access should deserve human right protection in itself or as a right instrumental to the freedom of expression. The Internet is not only a ‘medium’ through which individuals communicate and easily disseminate information, but it is also part of the message that individuals seek to communicate. The European Court of Human Rights has decided in a number of cases regarding denial of access to internet infrastructure that blocking websites was a limitation of the freedom of expression (e.g., Yildirim v. Turkey). Nevertheless, as the digital divide shifts and the ability to use and understand digital technology becomes just as important as having access to it, it is important to expand our legal analysis and see digital rights beyond the realm of freedom of expression. Nowadays, there are multiple ways in which someone can feel that she is not included in the digital society even if access to internet infrastructure is available. Digital technology enables citizens nowadays to enjoy many other rights and the lack of internet access should be interpreted in light of its modern and day-to-day meaning and citizens’ needs.

Digital rights and freedoms, that is, human or fundamental rights that allow individuals to gain access to the Internet, use digital technology, and create and share content online, have political, participatory and society integration dimensions that allow individuals to feel empowered by technology and participate on different levels. Digital rights are thus closely connected to the idea of digital citizenship, which is regarded as a fundamental concept for the future of democracy, even though it is not defined by reference to a nation-state but to performance in cyberspace and participation in online communities.

17.3.2 Fundamental Rights

The automation and digitisation of public services, if correctly designed, would not in themselves violate fundamental rights. Nevertheless, technology makes political preferences of governments opaque, less tangible and more difficult to contest, and it creates an additional hurdle for citizens who are not comfortable with technology. In the Black Box Society, Pasquale (2015) described extensively the asymmetries of information between the companies gathering data and data subjects and exposed the difficulty for average citizens to interrogate these systems.
because of a lack of access, resources or specialized knowledge.\textsuperscript{70} When these systems are implemented by public authorities in the context of social welfare benefits to inform decision making (for example, child welfare data systems throughout the United Kingdom or social security systems in the United States),\textsuperscript{71} citizens may feel subject to surveillance, powerless, as they do not know how they are being ‘ranked’ and ‘scored’, and reluctant to use potentially discriminatory systems.\textsuperscript{72}

Unequal treatment is the primary legal dimension of digital exclusion and inequality as not all citizens may have the ability to engage with public bodies and public services on equal terms. Even though digital government policies may not aim to treat certain groups of citizens unequally, this has become the unwanted result of digital-by-default policies. Moreover, digital inequalities reproduce and deepen existing socioeconomic inequalities and further deprive citizens who are already marginalised from having access to better opportunities and services. Furthermore, like other forms of inequality, digital inequality is explained by personal characteristics and is part of a constellation of power relations that determine whether or not an individual will be included in the digital society.\textsuperscript{73} When individuals are asked to submit any benefits applications exclusively online or when an offline alternative is considerably difficult, governments may be treating marginalised citizens with limited ability to use the Internet in an unfair and unequal way. Equal treatment before digital government should take into account citizen needs and the existence of groups that are structurally behind the majority of the population owing to their literacy skills, socioeconomic conditions and digital capital.\textsuperscript{74} This digital gap may limit the ability of marginalised citizens to navigate online applications, for example for welfare benefits, more consciously and help citizens predict their eligibility for them.\textsuperscript{75} Thus far, legal scholars, institutions and courts have not taken this perspective and (with the exception of scholarship focused on algorithmic discrimination), to the best of my knowledge, there are not yet judicial cases that give legal meaning to digital inequality. Instead, the disadvantages of citizens before digitalisation are slowly entering the policymaking and judicial realms through the lenses of other fundamental rights such as the right to a due process, the principles of good administration and the proportionality principle.

Good administration entails that digital government policies should be necessary and adequate to advance the public interest (government efficiency, broader participation, timely decisions) as well as proportionate to their objectives and not excessively restrictive.\textsuperscript{76} While states have considerable appreciation in balancing practical resources and fiscal constraints against the implied duty to provide access to public services, developed countries should take the different needs and skills of their citizens into account.\textsuperscript{77}

In the Netherlands, the approach to ‘digital-by-default’ has been discussed in recent years, as numerous developments in digital government have resulted in the disproportionate increase of administrative burdens for citizens. The National Ombudsman has warned that thousands of

\textsuperscript{70} Pasquale (note 7).
\textsuperscript{71} J. Redden et al., ‘Datafed Child Welfare Services’ (2020) 41 Policy Studies 5, 507; Eubanks (note 7).
\textsuperscript{72} Eubanks (note 7).
\textsuperscript{74} S. Park and J. Humphry, ‘Exclusion by Design: Intersections of Social, Digital, and Data Exclusion’ (2019) 22 Information, Communication & Society 934.
\textsuperscript{75} Gran et al. (note 52).
\textsuperscript{77} Peacock (note 14).
citizens in need may have to go to great lengths to be able to claim online all the benefits to which they are entitled.\textsuperscript{78} Moreover, citizens can easily lose track of e-mail notifications and miss important deadlines (for example, to submit a statement of objections or appeal an administrative decision). The Administrative Jurisdiction Division of the Dutch Council of State, the highest general administrative court in the Netherlands, has recently appeared to revisit its strict position\textsuperscript{79} regarding excusable delays for administrative decisions notified solely through governmental portals. In 2020, this court underlined in a judicial decision that special circumstances could be taken into account in order to excuse citizens using governmental portals for not respecting the legal delay for a statement of objections.\textsuperscript{80} This decision may suggest the need to adopt a more lenient and citizen-friendly approach towards the possibility that governmental portals may underperform or they may be difficult to use. When digital government fails, public authorities should be prepared to accept that citizens will make mistakes and be unable to meet legal delays.\textsuperscript{81} This position is also aligned with a recent opinion of the Dutch Council of State on good administration and digitalisation of government in which this institution underlines the need to keep providing meaningful interaction with citizens and limit the growing automation of public services.\textsuperscript{82}

The Ombudsman has also dealt with a number of complaints regarding the digitalisation of public services and, more specifically, the shift to card payments in a number of municipalities. In 2015, the Ombudsman delved into the principles of good administration in a complaint regarding the requirement of the municipality of Leiden that its residents pay for any municipal service using a debit card or, as an alternative, request its services online. The Ombudsman underlined that this type of policy was detrimental to senior citizens and a number of groups of citizens for whom payment in cash remained important.\textsuperscript{83} Moreover, citizens typically do not have alternative physical service providers for different services, so the absence of other options limited citizens’ access to the public administration.\textsuperscript{84} The requirement to switch to online services is widely present and deemed as acceptable in the private sector. Although the distinction between the public and private realms is increasingly elusive, citizens cannot be compared to consumers of public services that can switch to offline services when they find digital government too complex to use.\textsuperscript{85} Instead, when using digital technologies, governments should ensure that digital platforms are oriented towards citizens and their needs, including those who are ‘averse’ or unable to use technology.\textsuperscript{86} The need to maintain non-digital alternatives is visible

\textsuperscript{80} Dutch Council of State, Administrative Jurisdiction Division (ABRvS), 22 January 2020, ECLI:NL:RVS:2020:175.
\textsuperscript{82} Raad van State, ‘Ongevraagd advies over de effecten van de digitalisering voor de rechtsstatelijke verhoudingen’, Kamerstukken II 2017/2018, 26643, nr. 557.
\textsuperscript{84} Ibid.
in the tax legislative framework of many countries despite their online offers of pre-filled and simple online forms (e.g., Sweden, The Netherlands).

A growing number of countries are also seeking to streamline their public services through online platforms and registrations, raising multiple legal questions regarding their accessibility and legal basis. The Irish Public Services Card is an example hereof. This registration system was deemed compulsory to access a range of public services beyond social welfare payments. The Data Protection Commissioner found nonetheless that this system had no legal basis and further violated the principle of transparency. Although data protection and legality issues are at stake in this case, which is currently under appeal at an Irish circuit court, this is a reminder of the need to question whether the full digitalisation of public services is required. The shift of public services to the digital space raises not only issues of proportionality but also of legal certainty. For example, in Mexico, the Supreme Court invalidated a legislative disposition that required companies to upload their accounting on a governmental portal even though parts of the system were in English.\footnote{Mexican Supreme Court (Suprema Corte de Justicia de la Nación), Num. de Registro 2012921, Libro 35, Octubre de 2016, Tomo I, 699.}

The principle of legal certainty was at stake because many citizens would not have been able to fully understand what was being required from them.

To sum up, digital exclusion has important legal implications, as the inability to interact with technology erodes citizens’ ability to have access to the rights to which they are entitled by law. Digital inclusion can be promoted not only through the reinforcement of digital skills but also by questioning when, why and the way in which information and services are digitalised and made available for everyone. Moreover, it is important to discuss the proportionality of these policies and the importance of maintaining offline alternatives for users in difficulty.\footnote{S. Yates et al., ‘Digital-by-Default: Reinforcing Exclusion through Technology’ (2020) 2 In Defence of Welfare 158, available at www.social-policy.org.uk/wordpress/wp-content/uploads/2015/04/39_yates-et-al.pdf.} These offline alternatives should not be regarded as last resorts for undereducated and senior users but rather as options with equivalent value to that offered online. A monodisciplinary and traditional analysis of digital divide is nonetheless insufficient to understand the causes of this problem and how to design solutions.

\subsection*{17.4 HOW TO CLOSE THE GAP: SOLUTIONS}

States have different responsibilities when it comes to digital inclusion: first, as providers of public services that are constitutionally guaranteed to citizens; second, as educators; third, as legislators and law enforcers that should ensure that all citizens are equally treated before the law. Access to public services is based on legal entitlements, which means that, for example, citizens with low digital skills should not experience a direct or indirect disadvantage in this context. Moreover, governments should play a leading role in ensuring that citizens are not left behind in the digital revolution, can easily apply online for the benefits they are entitled to, can participate in different aspects of their national or local public administration processes and can communicate with public bodies remotely regardless of their literacy levels.

\subsubsection*{17.4.1 Digital Inclusion Policies}

Digital inclusion is a strategy that aims to ensure that all citizens have equal opportunities and adequate skills to benefit equally from digital technology.\footnote{Pawluczuk (note 15).} This strategy encompasses both
functional and critical skills. On the one hand, digital inclusion policies require that young individuals are trained to be employable in a world where many traditional jobs will be automated. It is thus important to refocus the debate on education, literacy and digital citizenship and develop new ways to reduce the digital divide through education.90 On the other, digital inclusion encompasses critical participation skills in the information society and a consideration of the impact that technology will have on individuals’ abilities to exercise fundamental rights.

Access to information is another important element that should be included in the debate on digital inclusion. In the early days of the Internet, free online information was the norm. Despite the advancement of several open-access policies, high quality information and systems remain in the hands of ‘infogopolies’.91 These small clusters of tech companies, media and publishers own vast amounts of copyright that impede the free publication of information, make different public and private procedures less transparent, and limit the ability of citizens to gain further insight into a number of issues. When access to information has a high price tag, the digital divide becomes particularly difficult to bridge for those living in developing countries where institutions cannot pay the required subscription fees. Intellectual property rights limit not only the access and dissemination of knowledge but also the use of the Internet to its fullest potential. In order to solve this problem, it is important to keep open-access and high quality material available online so that individuals can continue to develop themselves. The 2020 UN-Survey on E-government encourages governments to continue advancing digital government policies, particularly in light of the COVID-19 pandemic, design future-proof approaches to digitisation of public services and consider partnerships with private parties.92

17.4.2 Assistance Programmes

Assistance programmes are essential to ensure that citizens with disabilities or limited literacy or digital skills can become acquainted with technology and start uptaking it. In the United Kingdom and Denmark, ‘assisted digital’ policies provide multichannel access to public services and provide additional help to citizens in need. In most cases, institutions providing support are charities, neighbourhood associations, libraries and other non-profit organizations. Nevertheless, in the United States, some digital inclusion programmes are supported by technology companies which do not have a reputation for protecting the privacy of their users or informing users well regarding the possibility of being profiled.93 Many digital inclusion programmes designed for marginalised communities bring about privacy intrusions, surveillance and social control.94

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94 A. Viseu et al., ‘Situating Privacy Online’ (2004) 7, no. 1 Information, Communication & Society 92; Eubanks (note 7); Gangadharan (note 95).
17.4.3 Design and Iterative Learning

Interfaces of ICT and associated programmes and applications can be off-putting, challenging and extremely difficult to use for those with sensory, cognitive and physical disabilities. However, as Beth Noveck explains, designing good interfaces that are user-friendly and provide the right amount of information to citizens is ‘hard no matter what the topic or tool. It is especially difficult to know what information about a person is the right information to display.’

On the one hand, a user should be informed about why a number of results were presented to her. On the other, government platforms should not overload the user with information. Inclusive design is thus one of the key challenges of digital government. The United Kingdom has developed a number of design principles that should guide the design of new digital services. These principles include ‘starting with user needs’, designing with data to allow for data-driven decision making, simplify as much as possible, and promote iteration and accessible design.

Guidelines for Assisted Digital also include guidance on how to write content for government websites in plain language, use pictures to support the text and increase accessibility to individuals with disabilities.

User-friendly and simple design may nonetheless be insufficient to address some of the more complex issues of the digital divide. Even when public authorities try to design technology that is ‘easy to use’, citizens may remain unaware of the underlying complexity of the system. The focus on user-friendliness requires that citizens trust blindly that the simple design does not mask anything that citizens would not want to use or that it does not gather information that they would not want the government to have. Unfortunately, many citizens do not realize how their online profiles can affect their professional lives and their position before public authorities. Digital understanding requires citizens to be aware of the role of the Internet in civic and political life.

While there are no one-size-fits-all solutions, and iterative approaches to digital government may be the best option, continuous experimentation within the limits of the law and improving user interaction should be the priorities.

17.5 Conclusion

Nowadays it is clear that digital technology is not only a ‘medium’. Instead, the Internet is the most important infrastructure used to apply for benefits, request a service from a public authority and participate in public discussions. When citizens do not have access to it or cannot use it competently, then they cannot speak or participate. For the Internet to be an inclusive platform, all users must have comparable internet access, skills and digital capital. This chapter has shown that digital inequalities accentuate existing and complex social inequalities.

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95 Noveck (note 54).
98 Ibid.
99 Noveck (note 54).
100 Ibid.
101 Ibid.
103 Sylvain (note 1).
104 Selwyn (note 10).
that cannot be reduced to the binary model of a ‘digital divide’. Instead, it is important to understand the different stages or levels of digital inequality experienced by citizens, identify how their legal position is affected by these inequalities and devise not only digital but also educational and socioeconomic strategies to address them. Inclusive digital technology and inclusive digitalisation as a strategy for governments entails the promotion of awareness of the benefits and risks of technology, affordable access to ICT and devices, availability of diverse information, reduction of language barriers and the ability to adapt to the changing technological environment through the advancement of digital and literacy skills.¹⁰⁴

Legal scholars and administrative lawyers in particular need to be mindful of the opportunities and risks of digital technology, the existence of groups that are not equally comfortable with ICT and the need to adapt existing procedures to these new circumstances.¹⁰⁵ Future research on public law and technology should go beyond existing debates on technicalities and privacy implications and engage with fundamental issues connected to the shift of power dynamics and the impact of technology on fundamental rights.¹⁰⁶ By doing so, public law lawyers can open the door to new reflections on the meaning of good administration in the digital age and on how to adapt administrative law and procedures to these new challenges.

¹⁰⁴ Yu (note 24).
¹⁰⁶ Redden et al. (note 71).