I. INTRODUCTION AND OVERVIEW

Effective access to information is crucial in facilitating the participation of citizens in civil society. Accessibility concerns in the information and communications technologies (ICTs) sector have become particularly important, given the increased role played by ICTs in everyday life. For persons with disabilities, technological developments such as the proliferation of the Internet and the provision of services for accessing digital television such as audio description (video description), closed signing, and the availability of subtitles (captions) in live broadcasts enabled by speech-to-text technologies can make an important contribution to facilitating independent living. Unfortunately, persons with disabilities still face significant barriers in accessing ICTs. These barriers include, inter alia, poorly designed Web sites (e.g., with graphics not readable by computerized screen readers, with information that can be accessed only by the use of the mouse rather than the keyboard), limited availability of subtitles on webcasts, the use of multiple remote controls for digital television, and difficult to navigate on-screen displays. These access barriers have the potential to

4 MeAC report, note 2, 49.
8 George and Lennard (2007), note 3.
affect persons with disabilities, including persons with sensory disabilities (visual and/or hearing), mobility disabilities, or cognitive disabilities. The objective to ensure equal access to information should play a central role in any regulatory framework for the ICT sector. Nevertheless, despite the potential of technology to empower the public as citizens, the regulatory framework for the ICT sector has been criticized for its overall perception of the public as economic actors and for the insufficient level of protection conferred to citizenship values such as equality and dignity.

This book examines the extent to which regulatory frameworks for the ICT sector safeguard the rights of persons with disabilities as citizenship rights. The analysis adopts a comparative approach focused on four case studies: Canada, the European Union, the United Kingdom, and the United States of America. These jurisdictions have a lot to offer in terms of comparison and contrast, and the research assesses whether they are confronted with similar challenges and whether similar solutions are adopted to address these challenges. The book does not seek to develop a new theory of regulation for the ICT sector, but rather to assess current regulatory efforts to safeguard the rights of persons with disabilities to have equal access to ICTs and the extent to which these measures protect persons with disabilities as citizens rather than just as consumers. The discussion relies on Selznick’s definition of regulation, referring to a “sustained and focused control exercised by a public agency over activities that are valued by a community.” While persons with disabilities face access barriers across the broad information technology sector, this research focuses on digital television and on the television-like services transmitted via the Internet. These media were chosen because of their significant influence in people’s lives and their key role in facilitating access to information. The discussion recognizes the importance of both accessibility and usability solutions for facilitating the access of persons with disabilities to information. Accessibility has been defined as “the possibility, regardless of specific user’s abilities, to easily access information in any form, structure or presentation,” while usability refers to “the extent to which a product is usable.”

9 MeAC report, note 2, p. 49.
12 The research adopts a general approach on digital television and does not distinguish among the terrestrial, cable, and satellite means of transmission. Furthermore, the analysis focuses on the regulation of the infrastructure in digital television and does not cover content regulation. Further areas not covered by the present research are the issue of access by persons with disabilities to emergency information and the issue of content transmission via mobile phones.
13 This aspect of the research focuses on Video on Demand (VOD) services but does not cover user-generated content.
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Can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use. Given that accessibility and usability are “two sides of the same coin,” the present study relies on “accessibility” as a general term that incorporates both accessibility and usability concerns for ensuring that persons with disabilities enjoy the full benefits of ICT products and services.

The study relies on a definition of disability focused on the social barriers faced by persons with disabilities, rather than on the medical condition of individuals. The discussion focuses on the tension between social and economic values in the regulation of ICTs and calls for a regulatory approach based on a framework of principles that reflects citizenship values such as equality and dignity. As stressed by the UN Convention on the Rights of Persons with Disabilities (UNCRPD), persons with disabilities are entitled to “the full and equal enjoyment of all human rights and fundamental freedoms” (including the right of access to information) and to “respect for their inherent dignity.” Regulatory frameworks should focus on “adapting society” to accommodate the full spectrum of abilities, rather than on adapting individuals to society. They should comply, inter alia, with the general principles advanced by the UNCRPD, including accessibility, “full and effective participation and inclusion in society,” and “respect for difference and acceptance of persons with disabilities as part of human diversity and humanity.” Given the importance of the UNCRPD as a landmark in protecting the rights of persons with disabilities to equal enjoyment of human rights, the discussion in this book will employ the term “persons with disabilities” rather than “disabled persons.”

18 Article 1, UNCRPD.
19 Ibid. Article 9 (Accessibility) and Article 21 (Freedom of Expression and Opinion, and Access to Information).
20 Ibid. Article 1.
22 Article 3, UNCRPD. The UNCRPD will be explored in more detail in Chapter 6.
23 Article 3(f), UNCRPD.
24 Ibid. Article 3(c).
The book begins with highlighting the importance of equal access to information for persons with disabilities and reflects on access to information as a tool for enabling participation in society as citizens. The discussion also seeks to identify key elements in a framework of principles for the regulation of ICTs, focused toward promoting and protecting the rights of persons with disabilities to have equal access to information. The next four chapters (Chapters 2–5) adopt a case study approach and examine the effectiveness of the regulatory frameworks in four jurisdictions for safeguarding the citizenship rights of persons with disabilities. The majority of the work covers developments affecting the regulation of ICTs until January 2011, but in some cases, reference is made to relevant developments that took place after that date. Finally, Chapter 6 draws on the findings in the case studies, assesses common challenges identified in the four jurisdictions, and searches for solutions in addressing these challenges. The human rights approach adopted by the UNCRPD sets the benchmark for reflecting on the case studies, particularly given that all four jurisdictions examined in this book are signatories of this international instrument.

The decision to discuss the UNCRPD in this chapter rather than as part of the individual case studies is to enable a more focused analysis of the UN Convention as part of the search for solutions to common challenges identified across jurisdictions. This final chapter reinforces the call for a regulatory framework for ICTs that protects the citizenship rights of persons with disabilities to enjoy equal access to information, that prioritizes these citizenship rights over the economic interests of the industry, and that facilitates the involvement of persons with disabilities in policy making. The discussion also deals with the issue of costs for providing an increased level of accessibility, questioning, inter alia, who should support such costs.

In adopting a case study approach, the present research was confronted with what Kahn-Freund calls the “traumatic experience” of every comparative work based on “the observation … that under similar social, economic, cultural pressures in

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27 Ibid.
29 The UNCRPD was signed by Canada, by the European Union, and by the United Kingdom on 30 March 2007 and by the United States of America on 30 July 2009. This instrument was also ratified by the United Kingdom on 8 June 2009, by Canada on 11 March 2010, and by the European Union on 23 December 2010. In addition, the United Kingdom has signed the Optional Protocol on 26 February 2009 and ratified this instrument on 7 August 2009. See the Secretariat for the Convention on the Rights of Persons with Disabilities (SCRPD) (2011a) “UN Enable: Convention and Optional Protocol Signatures and Ratifications,” http://www.un.org/disabilities/countries.asp?id=166.
30 Please note that some reference to the UNCRPD is made in Chapter 3 (European Union), where the convention is mentioned explicitly in the European Commission’s “Proposal for a directive on implementing the principle of equal treatment between persons irrespective of religion or belief, disability, age or sexual orientation” COM(2008)446.
similar societies, the law is apt to change by means of sometimes radically different legal techniques.” Kahn-Freund suggests that “the ends are determined by society” while “the means [are determined] by legal tradition.” The comparative analysis observes how, in responding to the challenges posed by technological advances in the ICT sector, these jurisdictions “[face] essentially the same problems and [solve] these problems by quite different means” and how “within one orbit of civilisation, identical social or economic objectives are achieved through very different techniques.” The examination of different regulatory responses to access-related concerns in the ICT sector was essential in the search for effective accessibility solutions. With the exception of Chapter 3, the case studies explored in this book are concerned with national responses to the protection of the rights of persons with disabilities in the ICT sector. Chapter 3 deals with the protection of the rights of persons with disabilities in the regulation of ICTs at the supranational, European Union level, rather than in the individual Member States. The inclusion of a case study at supranational level (reliant on a “mix of international and constitutional law”) has a lot to add to the analysis provided in Chapter 6. The reflection on the case studies put forward in the concluding chapter explores, inter alia, the merits of a coordinated response beyond national level (reliant on the benchmark set by the UNCRPD) to safeguard the rights of persons with disabilities in the ICT sector. As Tshuma suggests, coordination of regulatory efforts is vital in order to ensure that “issues falling within the regulatory grey zone between networks” do not “escape effective regulation.” The search for coordinated solutions at supranational level is particularly relevant for the Internet, given its transnational nature as a global network of networks.

Kahn-Freund (1966), note 31, p. 47.
The research is not concerned with subnational responses to accessibility in the ICT sector.
For a discussion of accessibility provisions within individual Member States of the EU, see MeAC report, note 2.
An analysis of the “changing media” offers the possibility to explore, besides technological advances, the “economic and social change which is widely claimed to be revolutionary.” As Goldberg et al. indicate, such an analysis involves assessing whether “important social values” are protected effectively in this changing environment. The present study questions, inter alia, whether regulators give sufficient weight to wider social benefits of accessibility, or whether they are persuaded by industry concerns about the cost of accessibility provisions, to the detriment of persons with disabilities. If the latter prevails, it is important to identify ways in which regulatory frameworks could be refocused to provide effective protection to citizenship rights and perceive accessibility through a human rights lens (rather than an economic lens driven by costs). Herman and McChesney argue that “finding and developing a democratic alternative to market driven or exclusively governmentally dominated media systems may well be one of the central tasks of our era.”

The search for solutions is not confined to domestic responses, and the UNCRPD could provide the basis for tackling some of the challenges identified in the case studies and for facilitating international cooperation in the regulation of private service providers that operate beyond national confines. This is necessary in order to eliminate accessibility barriers that cut across borders and to harmonize standards for the accessibility of ICT products. The search for solutions beyond national regulatory realms acknowledges, as indicated by Lord Bingham, that “there is a world elsewhere.”

II. A FRAMEWORK OF PRINCIPLES FOR REGULATING ICTS

The regulatory framework for the ICT sector can play a crucial role in ensuring that persons with disabilities enjoy equal access to information and benefit fully from technological advances. This section calls for the regulation of ICTs based on a framework of principles (such as equality of citizenship and the protection

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42 Ibid. p. 1.
43 Ibid.
46 Kayess and French (2008), note 26, p. 32.
47 Article 32(1), UNCRPD.
48 Kayess and French (2008), note 26, p. 32.
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of human dignity)\textsuperscript{50} that prioritizes citizenship interests over commercial interests. The discussion stresses that the regulatory framework for the ICT sector should perceive persons with disabilities as citizens rather than as mere consumers, given that the citizenship notion goes beyond the vision of the public as economic actors and comprises democratic values such as equality between all members of society.\textsuperscript{51} Furthermore, the regulatory framework should rely on a social definition of disability, focusing on the social barriers faced by persons with disabilities rather than on the medical condition of individuals.\textsuperscript{52} Such an approach aims to ensure that persons with disabilities are perceived not as disempowered victims but as citizens with full entitlements in society.\textsuperscript{53} Only a regulatory framework based on the citizenship values of equality and dignity can ensure that the interests of persons with disabilities are effectively protected in the ICT sector.

A Regulatory Framework That Protects the Citizenship Rights of Persons with Disabilities

Equality of access to ICTs plays an important role in enabling the participation of persons with disabilities in civil society as citizens.\textsuperscript{54} Gregg stresses that “access to technology is one determinant of who can participate in the social, cultural, political and economic facets of a society,”\textsuperscript{55} while Feintuck and Varney suggest that effective access to information is “a prerequisite for any meaningful concept of citizenship,” as the media provide the public with the necessary information to be involved in civil society.\textsuperscript{56} Varona shares the emphasis on participation as a key aspect of citizenship, arguing that equality among citizens can be ensured only if all the public benefits from “the ability to participate in democratic deliberations and debate.”\textsuperscript{57} Furthermore, Procacci refers to “the capability to participate” in society as “an integral part of well-being,”\textsuperscript{58} and Rifkin points out that, in light of changes in

\textsuperscript{51} Ibid.
\textsuperscript{56} Feintuck and Varney (2006), note 1, p. 250.
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society produced by technological advances, the issue of access to information as a precondition to participation represents “one of the most important considerations of the coming age.” It is, therefore, crucial that regulatory frameworks for ICTs seek to ensure that persons with disabilities enjoy equal access to ICT products and services and the same choice of programming. Regulatory measures for the ICT sector should reflect a perception of persons with disabilities not only as consumers but also as citizens. The notion of consumer reflects a narrow perception of the public as economic actors in the pursuit of self-interest, who would benefit from lower prices, increased choice, and increased quality of products. On the other hand, the citizenship notion is much broader, including, inter alia, concerns such as the need to have access to information in order to participate in society. The concept of citizenship comprises wider democratic values such as equality between the members of society and the protection of human dignity. When acting as citizens, people are more than just economic actors in the pursuit of self-interest. They are also participants within the wider social and political sphere. The citizenship values of equality and dignity should play an important role in any regulatory framework for the ICT sector.

The citizenship values of equality and human dignity are inherent in every human being, and legislative frameworks committed to safeguarding these values aim to ensure that “everybody is treated as having value or worth.” A formal approach to equality seeks to ensure that individuals are not treated less favorably because of a specified characteristic and adopts a reactive approach to discrimination, providing individuals with the right to sue if they have been treated in a discriminatory manner. On the other hand, a substantive vision of equality is concerned with

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60 MeAC report, note 2.
61 Feintuck (2004), note 50.
62 Ibid.
63 Ibid.
68 Ibid. p. 164.
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69 Chalmers et al. (2010), note 52.
70 Fredman (2001), note 66, p. 163.
71 Chalmers et al. (2010), note 52.

tackling “systematic” forms of discrimination rooted in society and with securing social inclusion for underrepresented groups. The concept of human dignity plays an important role in ensuring substantive equality. Substantive equality also aims to ensure “respect for difference.” The concept of human dignity can act as a powerful tool in human rights discourse and in enhancing the protection of fundamental values such as equality of citizenship. This concept is often linked with the notion of “autonomy” or “the freedom of the individual to choose according to his view of the ‘good life’” and has been defined as “the right not to be disadvantaged or humiliated by virtue of one’s subjective characteristics.”

The adoption of a regulatory framework for the ICT context based on the notions of substantive equality and human dignity would call for a proactive approach in altering the structural barriers faced by persons with disabilities in accessing ICTs. Such an approach would also ensure that such measures do not differentiate between the levels of protection conferred to citizens in facilitating access to information.

The present research relies on a wide definition of citizenship, based on the values associated with this concept and including all residents within a community. The nationality-based definition reflected in Marshall’s writing has been described as exclusionary, leading commentators to call for an approach to citizens “disentangled from nationhood.” The wide definition of citizenship adopted in this book should reflect “the actual practice and experience of what might be called citizenship,” including participation in society. Marshall identifies three universal elements of
citizenship: civil, political, and social. The civil element comprises individual liberties, including the freedom of expression, the right to property, and the right of access to justice. The political aspect refers to the right of citizens to be involved in the political life, standing in elections and exercising their right to vote. Finally, the social element comprises, inter alia, “the right to share to the full in the social heritage and to live the life of a civilized being.” Examples include the right to education, housing, and access to services. The notion of “consumer” could be included within the civil element of citizenship, given the individualistic emphasis of civil rights and the function of economic freedoms highlighted by Marshall as being “indispensable to a competitive market economy.” Marshall refers to the civil, political, and social elements of citizenship as part of a dynamic process, reflecting an evolution from civil rights (developed in the eighteenth century) to political rights (in the nineteenth century) and social rights (in the twentieth century). Nevertheless, this “perioditisation” in the development of citizenship rights has been subjected to criticism arguing, inter alia, that this is accurate in the British context but may not be illustrative of other jurisdictions. Furthermore, Marshall’s definition of citizenship has been criticized for not acknowledging “the differentiated experiences and standings of various social groups,” including persons with disabilities. While acknowledging the merits of a citizenship concept based on civil, political, and social rights and the need for corresponding institutions to support these rights, this concept can only be of assistance for persons with disabilities if it recognizes “the diversity of citizenship.”

83 Marshall (1950), note 78, p. 10.  
84 Ibid. p. 11.  
85 Ibid.  
86 Ibid.  
87 Ibid. p. 33.  
93 Davis (1999), note 91, p. 68.  