



Research Paper

The Scope of Application of Digital Constitutionalism Output from an Empirical Research

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Abstract: This paper conducts an empirical research on the material scope of application of 187 texts belonging to the conversation of digital constitutionalism. At first insight, a similar enquiry could seem to be trivial. However, the textual analysis of the collected initiatives shows that these documents adopt a vast array of different terms to designate their material scope of application. This finding opens up the question of whether this terminological inconsistency is in fact unintentional, or is rather the result of a deliberate normative choice. To answer this question, this paper seeks to understand if the disparate employed terminology can indeed refer to the same concept. The collected texts generally tend to overlook the definition of the terms used to designate their scope of application. Consequently, this paper proposes a method to complement this fragmented definitional picture, and creates a diagram showing the relationship between the different adopted scopes. The paper demonstrates that the phenomenon of digital constitutionalism is not homogenous in terms of material scope of application. On the basis of these findings, this paper eventually advances some suggestions for the law- and policy-maker in order to increase the effectiveness of the initiatives belonging to the conversation of digital constitutionalism.

Keywords: Digital constitutionalism, Internet Bill of Rights, material scope of application, digital rights, Internet constitutionalisation

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Introduction

In November 2015 the Berkman Center for Internet and Society at Harvard University published its first research paper on ‘digital constitutionalism’¹. The paper proposed such a denomination as “a common term to connect a constellation of initiatives that have sought to articulate a set of political rights, governance norms, and limitations on the exercise of power on the Internet”². Indeed, the paper focused on a broad variety of texts which are commonly known, especially in the media jargon, as Internet Bills of Rights.

The Berkman scholars conducted an empirical research on a selection of thirty initiatives of digital constitutionalism. In particular, their paper analysed the substantive content, the political communities addressed, and the key actors involved in the process of deliberation and implementation of these texts. Moreover, the last part of the paper advanced questions for future research in line with the investigated topics.

In the framework of a research entirely devoted to the theme of digital constitutionalism, one of the first areas that is worth analysing is the definition of the scope of application of this phenomenon. Indeed, the Berkman research paper only focused on certain aspects of the personal scope of application of these initiatives, when dealing with the political communities and the key actors involved in the emergence of these texts. However, a more comprehensive picture of the scope of application of the phenomenon of digital constitutionalism also entails the study of the material and the territorial scope of application of these initiatives.

This paper represents the first output from this research. It will focus on the material scope of application of the phenomenon of digital constitutionalism, that is, simply said, the subject matter of the analysed texts. At first insight, such an enquiry could seem to be trivial. One would expect that these initiatives adopt the same material scope of application, or that they at least define it in a consistent manner. However, a textual analysis of the collected initiatives shows that these documents adopt a vast array of different terms to designate their material scope of application.

The first part of this paper will illustrate the findings of such a textual analysis: in particular, it will list the subject matters adopted in the analysed texts, it will categorise them in conceptual clusters, and it will identify trends of use over time. The findings of the first part will open up the question of whether these apparently different terms in fact reflect a mere terminological inconsistency, or are rather the result of a deliberate normative choice.

¹ L Gill, D Redeker, U Gasser, ‘Towards Digital Constitutionalism? Mapping Attempts to Craft an Internet Bill of Rights’ (2015) The Berkman Center for Internet and Society Research Publication 2015/15, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2687120.

² L Gill, D Redeker, U Gasser (n 1) 2.

To answer this question, the second part of the paper will seek to understand if the disparate employed terminology can indeed refer to the same concept, by looking at the definitions of the material scopes provided by the analysed texts. This section will observe that the collected texts generally tend to overlook the definition of the terms used to designate their scope of application.

Consequently, the third part of the paper will propose a method to complement the fragmented definitional picture of the adopted scopes. In this way, it will be possible to create a diagram showing the relationship between these scopes. The paper will therefore demonstrate that the phenomenon of digital constitutionalism is not homogenous in terms of material scope of application.

On the basis of these findings, this paper will eventually advance some suggestions for the law- and policy-maker in order to reduce the risks of a terminological inconsistency, and increase the effectiveness of the initiatives belonging to the conversation of digital constitutionalism.

1. An empirical research on digital constitutionalism: methodological premise

The Berkman paper on digital constitutionalism analysed thirty texts selected on the basis of five criteria³. The aim of the Harvard scholars was not to create “an exhaustive directory”, but “to select the most representative and influential samples for discussion”⁴. Conversely, the approach adopted in the research at the basis of this paper is rather different. Aimed at a systematic study of the phenomenon of digital constitutionalism, such a research started from the analysis of the existing literature on the disparate initiatives to craft an Internet Bill of Rights. In particular, it observed that the scholarship neither adopts the same definition of these texts, nor agrees on the same selection criteria⁵. Consequently, the existing literature examines different datasets of texts. Furthermore, the

³ L Gill, D Redeker, U Gasser (n 1) 3-5: in their paper the Berkman scholars specify four criteria, or “dimensions”, identifying the documents belonging to the ‘conversation’ of digital constitutionalism. According to the first criterion, a text should have a content addressing questions of “inherently constitutional character”, i.e. articulating rights at individual and collective level, defining the boundaries of state intervention, and specifying rules of governance. According to the second criterion, a text should “speak to a particular and defined political community, whether explicitly or implicitly”. The third criterion is linked to the second one: a text should “aspire toward a formalized political recognition and legitimacy” within the particular political community addressed. The fourth and last criterion concerns the width of the substantive content: a text should “exhibit a degree of comprehensiveness”. Even if the authors of the paper explicitly affirm to adopt only four criteria of selection, it is possible to detect a fifth criterion in the text. Such a criterion is related to the “nature of each document’s source”: a text should represent “the views of an organization, coalition, state or other organized group of some kind”.

⁴ L Gill, D Redeker, U Gasser (n 1) 2.

⁵ See L Gill, D Redeker, U Gasser (n 1); F Musiani, E Pavan, C Padovani, *Investigating Evolving Discourses on Human Rights in the Digital Age: Emerging Norms and Policy Challenges* [2009] International Association for Media and Communication Research (IAMCR), Annual congress on Human Rights and Communication, July 2009, Mexico; T Davies, ‘Digital Rights and Freedoms: A Framework for Surveying Users and Analyzing Policies’ in L M Aiello and D McFarland (eds), *Social Informatics: Proceedings of the 6th International Conference* (Springer 2014); S Oates, ‘Towards an Online Bill of Rights’ in L Floridi (ed), *The Onlife Manifesto. Being Human in a Hyperconnected Era* (Springer 2015) 229; R H Weber (ed), *Principles for governing the Internet. A comparative analysis* (UNESCO Publishing

scholarship generally adopts a deductive approach to define the criteria to select the texts to be analysed. This means that the selection criteria are normally generated from the analysis of a theoretical concept assumed at the outset of the investigation.

This research has preferred to adopt a more neutral approach in relation to the previous literature. In particular, it has identified an extensive, minimal definition of Internet Bill of Rights representing the lowest common denominator of the definitions provided by the existing scholarship⁶. In this way, the literature's research preconceptions and expectations have not been removed, but at least acknowledged and mediated. Indeed, the criteria to select the texts to be analysed have not been deduced from an arbitrarily identified theoretical concept, but are the results of an analytic comparison of the definitions provided by the scholarship. Furthermore, the choice to adopt a minimal definition better ensures that the analysed dataset encompasses the greatest number of initiatives emerged so far. Most importantly, this procedure will subsequently allow to refine the delimitation of the digital constitutionalism phenomenon on the basis of the analysis of these texts, without preliminary adopting any arbitrary selection criteria that could potentially bias the findings of the entire research.

The total number of texts that satisfy such a minimal definition are 187. The application of a minimal broad definition to create the first dataset of texts has generated a rough representation of the 'conversation' or 'discourse' on the articulation of rights and principle in the Internet environment⁷. The research at the basis of this paper hypothesises that the phenomenon of digital constitutionalism corresponds to this broad conversation or discourse, but that the Internet Bills of Rights represent a sub-category, or a specific 'modality' of such a broader conversation.

To verify this hypothesis, a second narrower dataset has been created by employing a maximal definition of Internet Bill of Rights⁸. Such a definition corresponds to the 'ideal-type' of Internet Bill of Rights originated from a comparison of the positions adopted by the existing scholarship. In particular, the involved logical process is the opposite of that one operated to obtain the minimal

2015); G Ziccardi, *Resistance, Liberation Technology and Human Rights in the Digital Age* (Springer 2013); see also the project 'Mapping Global Media Policy', <http://www.globalmediapolicy.net/node/20>.

⁶ This procedure follows J Gerring, *Social science methodology: A critical framework* (Cambridge University Press 2001) 65. The adopted minimal definition of Internet Bill of Rights is 'a law- or policy-related initiative aiming at articulating the rights, duties, principles, and freedoms of individuals, communities, or governance bodies in the digital environment'.

⁷ Both L Gill, D Redeker, U Gasser (n 1) and F Musiani, E Pavan, C Padovani (n 5) refer to the concept of 'conversation' or 'discourse' to indicate the emergence of initiatives articulating rights and principle in the Internet environment.

⁸ This procedure follows J Gerring (n 6) 65. The maximal definition of Internet Bill of Rights is 'a binding charter or equivalent text written in a normative style and issued at institutional level establishing a comprehensive set of fundamental human rights and governance principles governing the action of individuals, private sector and institutions in the digital environment'.

definition. Moreover, this research has employed as a precaution a gradual approach of selection⁹. In particular, the initiatives listed in the first dataset have been graded according to their level of satisfaction of the conditions of the maximal definition. A set of 47 texts scoring equal or greater than 4 points out of 5,5 has been identified.

The following sections will therefore present the findings of the analysis of the material scope of application of the collected texts, specifying if they relate to the entire dataset, i.e. to the texts satisfying the minimal definition, or to the narrower dataset, i.e. to the texts most satisfying the maximal definition.

1.1 Material scope of application: multiplicity and inconsistency

Table 1 below resumes and visualises the results of the analysis conducted on the 47 sources rating equal or greater than 4 points.

Material scope of application	Number of texts (out of 47)
Cyber environment	1
Cyberspace	3
Digital	1
Digital age	1
Digital economy	1
Digital environment	1
Digital revolution	1
Digital world	2
ICTs	7
Information and communication services	2
Information and communications environment	1
Information society	3

⁹ This technique has drawn inspiration from Gerring’s concept of ‘min-max definition’, an intermediary definition between the minimal and the maximal definition. The adoption of such a gradual selection approach has two main advantages. Firstly, it allows to avoid a rigid, ‘black or white’ definitional technique which would not be able to appreciate little differences between the texts. Secondly, it allows to ‘measure’ the degree of satisfaction of the conditions of the maximal definition by offering the possibility to potentially detect evolutionary trends over time. Furthermore, a gradual selection approach is consistent with the main hypothesis of this research that the texts of the Internet Bills of Rights are neither subjects to a rigid categorisation nor there is a scientific interest to do so. Accordingly, the emergence of a variegated multitude of Internet Bills of Rights can be explained as the progressive attempt carried out at institutional and societal level to ‘define’ fundamental human rights and governance principles in the digital environment.

Material scope of application	Number of texts (out of 47)
Information systems, information and communication systems	2
Internet	44 ¹⁰
Internet economy	1
Internet-related technologies	2
New ecosystem	1
New media	1
New technologies	2
Online	2
Online environment	2
Online networks and services	1

The column on the left lists in alphabetical order the material scope of application of the texts that most satisfy the maximal definition of Internet Bill of Rights. 44 texts out of 47 refers to ‘the Internet’ as their subject matter. Therefore, only three texts retain a scope other than the Internet, namely ‘cyberspace’, ‘online networks and services’, and ‘information society’.

As is evident from the figures in Table 1, the analysed texts do not adopt a single material scope of application, but often refer to more than one concept. The second most frequent scope is ‘ICTs’, which is the acronym of ‘information and communication technologies’, with 7 texts, followed by ‘cyberspace’ with only three examples, therefore very close to the average of the other scopes ranging between 1 and 2.

Table 2 aggregates in conceptual clusters the designations of the scopes found in the analysed texts.

Material scope of application	Number of texts (out of 47)	Percentage
Internet	47	100
Information and communication	12	25,5
Digital	7	14,9
Online	5	10,6
Cyberspace	4	8,5
New technological ecosystem	4	8,5
Information	3	6,4

¹⁰ In only 3 cases the denomination ‘Internet’ is not employed to designate the scope of application, but replaced respectively with ‘cyberspace’, ‘online networks and services’, and ‘information society’.

The number of texts reported in this table are the sum of the texts having a scope of application related to the seven conceptual clusters presented in the column on the left. The results of this operation give therefore only an approximate idea of the weight of each subject matter among the selected texts: indeed, as it is evident for the scope ‘Internet’ in the first row, it is not true that all the 47 analysed texts adopt the Internet as their scope¹¹. However, the majority of the analysed initiatives do not rigidly define their material scope of application, and at the same time refer to different designations relating to more than one conceptual cluster. In sum, the number of texts and the relative percentage shown in Table 2 are useful to have an approximate idea of the relevance of the different material scopes of application on the total.

In this way, for instance, it is possible to notice that, once aggregated, the terms referring to the conceptual cluster of ‘information and communication’ still hold an important role, and that the ‘digital’ and ‘online’ clusters acquire more weight, without however attaining a significant influence on the total.

Table 3 below includes the results of the analysis of the material scope of application of all the initiatives satisfying the minimal definition.

Material scope of application	Number of texts (out of 187)
<u>Audiovisual and information services</u>	3
<u>Big data</u>	1
<u>Blogging websites</u>	1
<u>Broadband market/services</u>	1
<u>Communication surveillance</u>	1
<u>Communication technologies</u>	4
<u>Computer network</u>	1
Cyber environment	1
Cyberspace	17
<u>Cybersecurity</u>	1
Digital	6
Digital age	7
<u>Digital computer and network technologies</u>	1
Digital economy	5
<u>Digital environment/ecosystem</u>	10

¹¹ The figure 47 is the sum of the 44 texts having the Internet as their scope, plus one text referring to the Internet economy, and two texts involving Internet-related technologies. Indeed, there are 3 texts that do not retain the Internet as their material scope of application (n 10).

Table 3 – Material scope of application (entire dataset)	
Material scope of application	Number of texts (out of 187)
<u>Digital marketplace</u>	1
<u>Digital media</u>	2
<u>Digital networks</u>	1
Digital revolution	1
<u>Digital services</u>	1
<u>Digital technology</u>	3
Digital world	3
<u>Digitisation/digitalisation</u>	3
<u>Direct marketing</u>	1
<u>Electronic commerce</u>	4
<u>Electronic environment</u>	2
<u>Electronic communications</u>	1
<u>Electronic marketplace</u>	1
<u>Electronic media</u>	1
<u>Global networks</u>	1
<u>Knowledge Society</u>	3
ICTs	37
<u>ICT industry</u>	1
Information and communication services/ systems/networks/society	7
Information and communications environment	2
<u>Information highways</u>	1
Information society	13
<u>Information society services</u>	1
Information systems	2
Internet	143 ¹²
Internet economy	1
<u>Internet ecosystem</u>	1
<u>Internet environment</u>	2
Internet-related technologies	2
<u>Means of mass communication</u>	1
<u>Mobile app ecosystem</u>	1

¹² In 44 cases the denomination ‘Internet’ is not employed to designate the scope of application, but replaced respectively with ‘communication systems and networks’ (2), ‘computer and computer network’, ‘ICTs/information and communication environment/industry’ (10), ‘cyberspace’ (3), ‘information society/information society services’ (5), ‘electronic commerce’ (2), ‘digital marketplace’, ‘digital computer and network technologies’, ‘digital network and computer technologies’, ‘digital environment’ (4), ‘information networks and digitalisation’, ‘knowledge society’ (2), ‘broadband’, ‘media’ (2), ‘social web/social networks’ (6), ‘digital economy’, ‘web’, ‘search engines’, ‘digital media’ (2), ‘online networks and services’, ‘mobile app ecosystem’, ‘online’, ‘communication surveillance’, ‘big data’, ‘digital’, ‘digital age’, ‘cybersecurity’. It is important to remind that each text can refer to more than one scope at the same time.

Material scope of application	Number of texts (out of 187)
New ecosystem	1
New media/media	3
New technologies	4
Online	7
Online environment	4
Online networks and services	2
Online technologies	1
<u>Online world</u>	2
<u>Search Engines</u>	2
<u>Social networks/social web</u>	7
<u>Web/websites/WWW/Web 2.0</u>	5

In the column on the left reporting the material scope of application of the analysed initiatives, the underlined subject matters are those which were not present in the 47 initiatives mostly satisfying the maximal definition. ‘ICTs’ and ‘cyberspace’ maintain their position of respectively second and third preference as material scope of application after ‘the Internet’. Two subject matters already present in the 47 previously analysed texts, namely ‘Information society/information and communication society’ and ‘Digital environment/ecosystem’, emerge from the average of the preference towards the other scopes respectively with 14 and 10 texts. Interestingly, the new subject matter ‘social networks/social web’ as well as the already present scope of the ‘online’ field are adopted by 7 sources.

Table 4 below, similarly to Table 2, aggregates this disparate array of subject matters into conceptual clusters¹³.

Material scope of application	Number of texts (out of 187)	Percentage
Internet	149	79,7
Information and communication	53	28,3
Digital	44	23,5
Cyberspace	19	10,1
Information	18	9,6
Online	16	8,5
Web, social networks and search engines	15	8

¹³ As for the data reported in Table 2, the caveat is that the number of the texts is the sum of the sources having a specific scope of application related to the twelve conceptual clusters presented in the column on the left. Therefore, the results of this operation give only an approximate idea of the weight of each subject matter among the selected texts. Indeed, the choice of a specific scope of application is not exclusive: the majority of the analysed texts specifies more than one subject matter.

Electronic	9	4,8
New technological ecosystem	8	4,3
Others	4	2,1
Audiovisual and information services	3	1,6
Broadband and mobile	2	1

From the comparison of these data with those referring to the narrower dataset reported in Table 2, it is possible to notice that ‘the Internet’ as subject matter loses part of its relative relevance. Indeed, 44 texts out of 187 do not refer to the Internet at all as their material scope of application¹⁴. In these cases, the scopes that more frequently replace the Internet are ‘ICTs’ (10 times), ‘social networks’ (6 times), ‘information society’ (5 times), and ‘digital environment/digitisation’ (4 times).

‘Information and communication’ maintains a similar ratio around 27% in terms of relevance on the total both among the 47 selected texts, and within the entire dataset. The third preference in aggregate terms is still ‘digital’, but with a more relevant ratio on the total of the texts. The fourth most chosen subject matter in the entire dataset is surprisingly the very general scope of ‘information’, which represented a tiny minority among the 47 selected texts. ‘Cyberspace’ and ‘online’ maintain similar ratios, but, interestingly, from the ‘online’ subject matter the new spin-off of ‘web, social networks and search engines’ emerges with the same weight of its mother concept. At the end of the table, it is possible to observe a minority of texts referring to the concepts of ‘electronic’, ‘new technologies’, ‘information and audiovisual services’, or only focusing on the means of communications transmission, such as ‘broadband’ and ‘mobile’.

1.2 Occurrence of the scopes over time: terminological trends

After having analysed the rate of recurrence of the material scopes of application, it is also interesting to examine their recurrence over time. Table 5 below shows the occurrence over time of all the adopted material scopes of application.

Material scope	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Audiovisual and information services																									
Big data																									

¹⁴ See (n 12).

Table 5 - Occurrence over time of material scopes of application

Material scope	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Blogging websites																									
Broadband market/services																									
Communication surveillance																									
Communication technologies																									
Computer network																									
Cyber environment																									
Cyberspace																									
Cybersecurity																									
Digital																									
Digital age																									
Digital computer and network technologies																									
Digital economy																									
Digital environment/ecosystem																									
Digital marketplace																									
Digital media																									
Digital networks																									
Digital revolution																									
Digital services																									
Digital technology																									
Digital world																									
Digitisation/digitalisation																									
Direct marketing																									
Electronic commerce																									
Electronic environment																									
Electronic communications																									
Electronic marketplace																									
Electronic media																									
Global networks																									
Knowledge Society																									
ICTs																									
ICT industry																									
Information and communication services/systems/networks/society																									
Information and communications environment																									
Information highways																									
Information society																									

Material scope	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Information society																									
Information services																									
Information systems																									
Internet																									
Internet economy																									
Internet ecosystem																									
Internet environment																									
Internet-related technologies																									
Means of mass communication																									
Mobile app ecosystem																									
New media/media																									
New technologies																									
Online																									
Online environment																									
Online networks and services																									
Online technologies																									
Online world																									
Search Engines																									
Social networks/social web																									
Web/websites/WWW/Web 2.0																									

It is possible to observe that ‘the Internet’, ‘cyberspace’, and ‘information society’ are scopes which are almost constant over the analysed period between 1992 and 2016. However, if one looks at the rate of occurrence, the scope ‘cyberspace’ is often employed as subject matter in the 90’s (7 times between 1994 and 1999), but its use declines over time (only 10 times in total from 2002 and 2014)¹⁵. ‘ICTs’ continually recurs after 2001. The table also allows to visualise that the conceptual cluster ‘electronic’ appears in the 90’s and in the early 2000’s, while the cluster ‘digital’ is generally more present in the 2000’s.

In particular, the ‘electronic’ cluster is employed as subject matter 10 times in the decade 1990-2000, 4 times between 2001 and 2010, and only 1 time after 2010. Conversely, the scope ‘digital’ has exponentially increased its occurrence in the last five years, appearing only 4 times between 1995 and 1999, and between 2001 and 2005, but 7 times between 2007 and 2010, and 28 times between 2011 and 2016. However, if one looks at Table 6 below reporting the number of the selected sources

¹⁵ The rate of occurrence is not shown in Table 5, but it has been calculated from the general dataset.

per year, it is possible to argue that such an increase is merely justified by the greater number of initiatives selected in the last five years. As Table 6 shows, the number of texts collected between 2011 and 2016 are 100, while in the previous five years only 37.

Year	Number of sources
1992	1
1993	1
1994	2
1995	2
1996	4
1997	5
1998	4
1999	4
2000	1
2001	5
2002	3
2003	10
2004	3
2005	6
2006	4
2007	7
2008	6
2009	8
2010	11
2011	21
2012	19
2013	11
2014	30
2015	13
2016	6

In terms of trends over time it is also possible to observe that the ‘online’ cluster emerges only in the 2000’s, and that the clusters ‘Web’ and ‘social networks’ start appearing only from 2006, and then more regularly between 2010 and 2015. The scope ‘audiovisual and information services’ is used only 3 times in 1996, 1998, and 2006, and always in relation to the issue of the protection of minors. Finally, the clusters ‘broadband’ and ‘mobile’ appear as subject matters respectively only from 2004 and 2012.

Only in 44 cases, as previously said, the Internet is not chosen as material scope of application. Table 7 below represents the occurrence over time of the scopes that replace the Internet. The most recurring scope to be adopted not in conjunction with the Internet is ‘ICTs’: it is present throughout almost the entire analysed period between 1992 and 2016. The second most spanning scope is ‘information society’. It is interesting to observe that, among the scopes recurring more than one time, ‘communication system and network’ is mentioned only between 1992 and 1994, ‘cyberspace’ has been adopted as alternative subject matter only between 1996 and 1999, ‘electronic commerce’ does not recur after 2000, ‘digital computer and network technologies’ disappears after 1999, ‘media’ and ‘digital media’ occur only after 2005, and finally ‘social networks’ emerge only from 2007. Therefore, it is possible to contend that these tendencies confirm those identified at general level, i.e. also considering the cases in which these scopes are chosen in conjunction with the Internet.

Material scope	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
communication systems and networks	■		■																						
computer and computer network		■																							
ICTs/ environment/industry			■			■				■		■	■		■								■	■	
cyberspace					■	■		■																	
information society/services					■				■							■				■					■
electronic commerce						■	■		■																
digital marketplace							■	■																	
digital computer and network technologies	■	■					■	■																	
digital environment										■						■							■		
information networks and digitalisation									■																
knowledge society												■										■			
broadband													■												
media														■									■		
social web/social networks																■			■	■	■		■		
digital economy																■									
web																		■							
search engines																			■						
digital media																				■	■				
online networks and services																					■				

Table 7 - Occurrence over time of scopes other than the 'Internet'																									
Material scope	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
mobile app ecosystem																									
online																									
communication surveillance																									
big data																									
digital																									
digital age																									
cybersecurity																									

2. Terminological inconsistency and weak definitional effort: a deliberate choice?

The findings of the analysis of the material scope of application of the selected initiatives open up a series of new questions: is the observed terminological inconsistency unintentional or deliberate? Are the analysed trends over time a mere terminological change, or do they represent a shift in the material scope of application of the conversation of digital constitutionalism? Why do these texts inconsistently define their scope of application? Which patterns of social life are covered by these denominations?

In order to answer these questions, it is necessary to define the meaning of the terms employed to designate the scope of application of the analysed texts as well as to assess if these disparate denominations do not in fact refer to the same concept. Such an enquiry is not only important to gain a more complete picture of the emergence of the conversation of digital constitutionalism, but also to orient future law- and policy-making. Indeed, this investigation will allow to better identify the matters needing to be regulated as well as to hone their definition. Terminological accuracy is an essential characteristic of legal norms. Therefore, if it is true that the emergence of these initiatives represents an ongoing process of definition of constitutional norms for the Internet, the findings of the analysis on the material scope of application of these initiatives could help the law- and policy-makers to steer the legislative route towards more effective results.

The strategy adopted in this research will be to first look at the definition of these terms provided by the analysed texts. These documents offer an incomplete definitional picture of the adopted scopes, generally overlooking to define their subject matter. The collected texts rarely define the meaning of the terminology employed to establish their material scope of application: only 34 texts out of 187 include a definition. Moreover, comprehensive and intentional definitions are ever rarer among the selected texts.

The next sections will illustrate in details the findings of this investigation. In particular, the first paragraph will focus on the definition of the Internet, while the second paragraph on all the other subject matters. On the basis of these definitions, the third paragraph will attempt to clarify the relationship between the different adopted scopes.

2.1 The definition of the Internet: mission (im)possible?

The majority of the definitional elements found in the above mentioned 34 texts concern the Internet. Every source articulates its definition of the Internet in a different way, highlighting distinctive aspects. A large number of the texts defines the Internet as ‘a network of networks’¹⁶. The Internet is also designated as ‘computer network’¹⁷, ‘infrastructure’¹⁸, and ‘multi-media platform’¹⁹. Godwin in his proposal for a Great Charter of Cambodian Internet Freedom describes the Internet as “the myriad of computers and telecommunications facilities, including equipment and operating software, which *comprise* the interconnected worldwide network of networks”²⁰. Certain sources also specify that the Internet uses a single language consisting in a set of protocols²¹. The functions of the

¹⁶ E Dyson, G Gilder, G Keyworth, and A Toffler, ‘Cyberspace and the American Dream: A Magna Carta for the Knowledge Age’ (1994) <http://www.pff.org/issues-pubs/futureinsights/fi1.2magnacarta.html>; European Commission, ‘Green Paper on the protection of Minors and Human Dignity in Audiovisual and Information Services’ (1996) http://aei.pitt.edu/1163/1/minors_info_soc_gp_COM_96_483.pdf; European Parliament, ‘Report on the Commission communication on illegal and harmful content on the Internet (COM(96)0487 - C4-0592/96)’ (1997) <http://www.europarl.europa.eu/sides/getDoc.do?type=REPORT&reference=A4-1997-0098&language=EN#Contentd184264e1056>; SJ Page, ‘Human Rights Declaration of Individual Rights in Cyberspace’ (1998) <https://forum.icann.org/iana/comments/25july1998-31july1998/msg00015.html>; Association for Progressive Communications, ‘Internet Rights Charter’ (2006) https://www.apc.org/en/system/files/APC_charter_EN_0.pdf; OECD, ‘Communiqué on Principles for Internet Policy-Making’ (2011) <http://www.oecd.org/Internet/innovation/48289796.pdf>; OECD, ‘OECD Principles of Internet Policy Making’ (2014) <https://www.oecd.org/sti/ieconomy/oecd-principles-for-Internet-policy-making.pdf>; Panel on Global Internet Cooperation and Governance Mechanisms, ‘Towards a Collaborative, Decentralized Internet Governance Ecosystem’ (2014) <https://www.Internetsociety.org/sites/default/files/Internet%20Governance%20Report%20iPDF.pdf>; M Godwin, ‘The Great Charter for Cambodian Internet Freedom’ (2015) <https://www.linkedin.com/pulse/great-charter-cambodian-Internet-freedom-mike-godwin>.

¹⁷ European Commission, ‘Illegal and harmful content on the Internet’ (1996) <http://aei.pitt.edu/5895/1/5895.pdf>; M Godwin (n 16).

¹⁸ European Parliament (n 16); Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector, <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32002L0058&rid=1>; Association for Progressive Communications (n 16).

¹⁹ Association for Progressive Communications (n 16).

²⁰ M Godwin (n 16), emphasis added; this definition reproduces that one adopted by the U.S. Code: see 15 USC § 6501(6), 15 USC § 6555(2), and 21 USC § 802(50) <https://www.law.cornell.edu/uscode/text>.

²¹ European Parliament (n 16); WSIS Civil Society Plenary, ‘Civil Society Declaration to the World Summit on the Information Society – “Shaping Information Societies for Human Needs”’ (2003) <https://www.itu.int/net/wsis/docs/geneva/civil-society-declaration.pdf>; Lei nº 12.965, de 23 de abril de 2014, Marco civil

Internet are variably detailed: some texts assert that the Internet is a medium of transmission of electromagnetic energy²², or that it connects together a great number of computers²³, while other sources specify that it is a communications infrastructure²⁴, or a commercial platform²⁵. Most sources agree on the global²⁶ and decentralised²⁷ nature of the Internet. There is less consensus on the fact that it is by definition an open architecture²⁸, user-driven²⁹, public³⁰, and indestructible³¹.

It is apparent that the definitions of the Internet provided by the analysed texts focus on different aspects of this concept. There is no single text including all the definitional patterns identified above fusing on the substance, the attributes, and the functions of the Internet. However, two definitions appear to be the most comprehensive: 1) the European Parliament in 1997 defined the Internet as “a shared infrastructure (the 'network of networks'), the joint creation of all those party to it, using a single language (the TCP/IP protocols) and linking up computers worldwide, thus enabling their users to communicate”³²; and 2) the Brazilian Law called ‘Marco Civil da Internet’ in 2014 defined the Internet as “the system consisting of the set of logical protocols, structured on a global scale for public and unrestricted use, in order to enable communication of data between terminals, through different networks”³³. Both definitions include the following definitional elements: 1) the Internet is an interconnection of networks; 2) the Internet is global; 3) the Internet is based on a set of protocols; 4) the Internet allows communication. Therefore, both definitions provide some information on the substance, the attributes, and the functions of the Internet. Such observation is of little help, if one considers that, except for these two cases, the 34 sources analysed above do not adopt the same minimal definition, and rather stress different aspects of the Internet nature. Moreover, it is interesting

da Internet, <https://www.publicknowledge.org/assets/uploads/documents/APPROVED-MARCO-CIVIL-MAY-2014.pdf>; M Godwin (n 16).

²² SJ Page (n 16).

²³ European Commission (n 16); European Parliament (n 16).

²⁴ European Commission (n 17); Directive 2002/58/EC (n 18); Open Society Institute, ‘Open Internet Policy Principles’ (1997) <http://mailman.anu.edu.au/pipermail/link/1997-March/026302.html>; SJ Page (n 16); Marco civil da Internet (n 21); Panel on Global Internet Cooperation and Governance Mechanisms (n 16); M Godwin (n 16).

²⁵ Panel on Global Internet Cooperation and Governance Mechanisms (n 16).

²⁶ European Commission (n 16); Directive 2002/58/EC (n 18); Association for Progressive Communications (n 16); Marco civil da Internet (n 21); M Godwin (n 16).

²⁷ European Parliament (n 16); Open Society Institute (n 24); OECD, ‘Communiqué on Principles for Internet Policy-Making’ (n 16); OECD, ‘OECD Principles of Internet Policy Making’ (n 16); WSIS Civil Society Plenary (n 21).

²⁸ Open Society Institute (n 24); Association for Progressive Communications (n 16).

²⁹ European Commission (n 17); European Parliament (n 16).

³⁰ European Parliament (n 16); Association for Progressive Communications (n 16); Directive 2002/58/EC (n 18).

³¹ European Parliament (n 16).

³² European Parliament (n 16).

³³ Marco civil da Internet (n 21).

to notice that only 8 out of 47 texts scoring greater or equal to 4 points, i.e. those most satisfying the maximal definition of Internet Bill of Rights, contain a definition of the Internet.

The fact that there is no single common definition of the Internet, or that the latter is so rarely defined, is not surprising. Indeed, a common definition of the Internet does not exist³⁴. The Italian constitutionalist Passaglia compares the attempt to define the Internet with an ‘*actio finium regundorum*’, the Roman law procedure to define the contended boundaries of confining lands³⁵. Even eminent players on the Internet governance scene avoid to specify a single definition. Interestingly, one source, the Magna Carta for Philippine Internet Freedom, explicitly states that “[w]hen possible, definitions shall be adopted from those established by the International Telecommunications Union (ITU), the Internet Engineering Task Force (IETF), the World Wide Web Consortium (WWWC), and the Internet Corporation for Assigned Numbers and Names (ICANN), and other international and transnational agencies governing the development, use, and standardization of information and communications technology and the Internet”³⁶. However, the mentioned organisations, both singularly and collectively, do not firmly adopt a single definition of the Internet.

In particular, in a 2013 information document, the ITU declared that “it would seem appropriate to use the term ‘Internet’ in its broad sense, to refer to the applications and services as well as to the network itself”, like in the definition adopted in 1995 by the US Federal Networking Council³⁷. The latter defined the Internet as:

“the global information system that --

- (i) is logically linked together by a globally unique address space based on the Internet Protocol (IP) or its subsequent extensions/follow-ons;
- (ii) is able to support communications using the Transmission Control Protocol/Internet Protocol (TCP/IP) suite or its subsequent extensions/follow-ons, and/or other IP-compatible protocols; and

³⁴ RE Kahn, and VG Cerf, ‘What is the Internet (and what makes it work)’ (1999) http://www.cnri.reston.va.us/what_is_Internet.html.

³⁵ P Passaglia, ‘Internet nella Costituzione italiana: considerazioni introduttive’ [2012] *Consulta Online* www.giurcost.org/studi/passaglia5.pdf.

³⁶ Magna Carta for Philippine Internet Freedom, Section 3. Definition of Terms (2013) <https://www.senate.gov.ph/lisdata/1446312119!.pdf>.

³⁷ ITU Document WTPF-13/INF/8-E, ‘Defining the Internet’ (2013) https://www.itu.int/dms_pub/itu-s/md/13/wtpf13/inf/S13-WTPF13-INF-0008!!MSW-E.docx.

(iii) provides, uses or makes accessible, either publicly or privately, high level services layered on the communications and related infrastructure described herein”³⁸.

Some authors, in particular Kahn and Cerf, two Internet pioneers, refer to this definition as the most suitable³⁹.

In a 1993 document addressed to the IEF Network Working Group, Krol and Hoffman stated that the reason why the question ‘what is the Internet?’ is so frequently asked “is because there's no agreed upon answer that neatly sums up the Internet”⁴⁰. However, the Internet is defined in two IEF glossaries⁴¹. The Internet Users’ Glossary, under the term ‘Internet’, states that “[w]hile an Internet is a network, the term "Internet" is usually used to refer to a collection of networks interconnected with routers”, while under the term ‘Internet’ with capital letter, that “[t]he Internet is the largest Internet in the world. Is a three level hierarchy composed of backbone networks (e.g., NSFNET, MILNET), mid-level networks, and stub networks. The Internet is a multiprotocol Internet”⁴². On the other hand, the Internet Security Glossary, Version 2 defines the Internet as “the single, interconnected, worldwide system of commercial, governmental, educational, and other computer networks that share (a) the protocol suite specified by the IAB (RFC 2026) and (b) the name and address spaces managed by the ICANN”⁴³.

Finally, the World Wide Web Consortium defines the Internet by referring to the Wikipedia definition, according to which “[t]he Internet is a global system of interconnected computer networks that interchange data by packet switching using the standardized Internet Protocol Suite (TCP/IP)”⁴⁴. Interestingly, ICANN does not provide any definition of the Internet⁴⁵.

³⁸ Federal Networking Council, ‘Definition of "Internet"’ (1995) https://www.nitrd.gov/fnc/Internet_res.aspx.

³⁹ See RE Kahn, and VG Cerf (n 34); P Passaglia (n 35); ITU Document WTPF-13/INF/8-E (n 37).

⁴⁰ E Krol, and E Hoffman, ‘FYI on "What is the Internet?"’ (1993) <https://tools.ietf.org/html/rfc1462>; see J Quarterman, ‘What is the Internet, Anyway?’ (1996) <https://tools.ietf.org/html/rfc1935>.

⁴¹ The Internet Security Glossary, Version 2 by R Shirey (2007) <https://tools.ietf.org/html/rfc4949#page-7>, however, contains the following disclaimer: “(1) The recommendations and some particular interpretations in definitions are those of the author, not an official IETF position”.

⁴² G Malkin, Xylogics, Inc., T LaQuey Parker, UTexas (eds), ‘Internet Users’ Glossary’ (1993) <https://tools.ietf.org/html/rfc1392>.

⁴³ R Shirey, ‘Internet Security Glossary, Version 2’ (2007) <https://tools.ietf.org/html/rfc4949#page-7>.

⁴⁴ W3C, FAQ, ‘What is the difference between the Web and the Internet?’, <https://www.w3.org/Help/>.

⁴⁵ No definition of the Internet is provided in the ICANN glossary, <https://www.icann.org/resources/pages/glossary-2014-02-03-en#i>. In the course ‘Digital Trade and Global Internet Governance, provided in the ICANN learning platform, the Internet is defined by Professor S Aaronson as ‘a network of network’, <http://learn.icann.org/courses/>.

In sum, as a consequence of this divergence of definitions, the Magna Carta for Philippine Internet Freedom, text dating 2013, had still to coin its own definition⁴⁶. As Kahn and Cerf clearly pointed out in 1999, there is a risk that the terminology currently employed at legislative level does not neatly define the boundaries between the subject to be regulated, and the exempted subject⁴⁷. The vast array of different definitions of the Internet provided by the 34 analysed texts witnesses the persistence of a pressing “need of clarification” in the area of policy-making concerning the Internet⁴⁸.

The main reasons hindering the possibility to craft a single definition of the Internet for policy-making purposes are essentially two. Firstly, the nature of the Internet is constantly evolving⁴⁹. The Internet is “a creature of the computer”, it will “continue to change and evolve at the speed of the computer industry”⁵⁰. This is why some authors tend to answer the question of ‘what is the Internet?’ with a history of the Internet development over time⁵¹. One of the 34 sources previously analysed acknowledges this issue in relation to information and communication technologies: in 1992 the OECD, after having defined the meaning of ‘information systems’ and ‘communication network’, stated that “[t]he dynamism of information and communication technologies dictates that this description of information systems may serve only to give an indication of the present situation and that new technological developments will arise to augment the potentialities of information systems”⁵². Introducing in a legal norm a similar caveat in relation to the Internet should be a last resort solution: this would mean that the normative definition is, on the one hand, a trustful picture of the current status of the Internet, but that, on the other hand, its accuracy could decrease over time. A good definition of the Internet, instead, should strike a balance between faithfully corresponding to the reality, and being future-proof.

The second main explanation of the lack of a single definition lies in the composite and multi-function nature of the Internet. The concept of the Internet can be approached from two different, but

⁴⁶ Magna Carta for Philippine Internet Freedom (n 36) Section 3(40): “40. Internet - The global system of interconnected computer networks linked by various telecommunications technologies and that uses the standard Internet protocol suite”.

⁴⁷ RE Kahn, and VG Cerf (n 34).

⁴⁸ RE Kahn, and VG Cerf (n 34).

⁴⁹ Concerning the evolving nature of the Internet, see BM Leiner, VG Cerf, DD Clark, RE Kahn, L Kleinrock, DC Lynch, J Postel, LG Roberts, S Wolff, ‘Brief History of the Internet’ (2012) <https://www.Internetsociety.org/brief-history-Internet>; E Krol, and E Hoffman (n 40).

⁵⁰ BM Leiner, VG Cerf, DD Clark, RE Kahn, L Kleinrock, DC Lynch, J Postel, LG Roberts, S Wolff (n 49).

⁵¹ See for example V Cerf, ‘Internet Governance’ draft 1.3 (2004) <https://www.icann.org/en/system/files/files/cerf-Internet-publication-28oct04-en.pdf>.

⁵² OECD, ‘Recommendation of the Council concerning Guidelines for the Security of Information Systems’ (1992) <http://www.oecd.org/sti/ieconomy/oecdguidelinesforthesecurityofinformationsystems1992.htm>.

complementary angles: 1) the technical aspect, and 2) the personal-functional aspect⁵³. A definition of the Internet focusing on the technical aspect highlights the nature of its structure and its intrinsic functioning mechanism, that is to say, for instance, that it is a network of network adopting a single language based on protocols. A definition of the Internet focusing on the personal-functional aspect conversely emphasises its functions in terms of personal liberties. The person, i.e. the human being, is therefore adopted as filter to select the relevant functions of the Internet. In this way, the Internet is defined for example as a means of communication, rather than a means of packet switching⁵⁴. To use a metaphor, if one imagines the Internet as a layer cake, the definitions related to the two aspects mentioned above correspond to the layers of the cake, horizontal sections covering all the surface of the Internet concept, but taking into consideration one single aspect of the whole notion. Furthermore, as is generally known, cakes are also usually cut in vertical slices. Therefore, a definition containing elements relating to the technical or the personal-functional aspects of the Internet may, at its turn, focus on a single specific feature of the whole concept. This will become more apparent later when looking at the other material scopes adopted by the selected texts.

2.2 The definition of the other material scopes of application

The second most defined scope of application is ‘cyberspace’. The cyberspace is depicted as a broader environment than the Internet, reaching a global dimension, and including the latter among other means of digital communication⁵⁵.

⁵³ This distinction has been inspired by the paper by P Passaglia (n 35): indeed, the Italian constitutionalist stresses the difference between the definitions of the Internet focusing on the technical structure and the functioning of the network, such as for example the one provided by the U.S. Federal Networking Council, and those mostly given by national courts emphasizing the correlation with the principle of personal freedom of individuals. See also the difference between narrow definitions only focusing on the network itself, and broad definitions including services provided through the network in ITU Document WTPF-13/INF/8-E (n 37).

⁵⁴ For a simple explanation of the packet switching function see RE Kahn, and VG Cerf (n 34).

⁵⁵ In E Dyson, G Gilder, G Keyworth, and A Toffler (n 16) ‘cyberspace’ is defined as “a bioelectronic environment that is literally universal: It exists everywhere there are telephone wires, coaxial cables, fiber-optic lines or electromagnetic waves. This environment is “inhabited” by knowledge, including incorrect ideas, existing in electronic form. It is connected to the physical environment by portals which allow people to see what’s inside, to put knowledge in, to alter it, and to take knowledge out. Some of these portals are one-way (e.g. television receivers and television transmitters); others are two-way (e.g. telephones, computer modems)”; in UNESCO, ‘Recommendation on the Promotion and Use of Multilingualism and Universal Access to Cyberspace’ (2003) http://portal.unesco.org/en/ev.php-URL_ID=17717&URL_DO=DO_TOPIC&URL_SECTION=201.html ‘cyberspace’ is the “virtual world for digital or electronic communication associated with the global information infrastructure”; in the Magna Carta for Philippine Internet Freedom (n 36) ‘cyberspace’ is “[a] global domain within the information environment consisting of the interdependent network of information systems infrastructures including the Internet, telecommunications networks, computer systems, and embedded processors and controllers, or the virtual space constituted by a computer network with a set of distributed applications and its users”.

‘Information and communication technology’ (ICT) is defined only by two sources, which propose a similar, but not identical definition. In the Manila Declaration on Accessible Information and Communication Technology, ICT is defined as “a member of the larger set of electronic and information technology products, equipment systems and services that store, process, transmit, convert, duplicate or receive digital information”⁵⁶; while in the Magna Carta for Philippine Internet Freedom as the “[t]he integration of real-time communication services, non-real-time communication services, and telecommunications, computers, software, hardware, storage, and devices, which enable users to access, store, transmit, and manipulate information”⁵⁷.

In the OECD Guidelines for the Security of Information Systems published in 1992 the concept of ICT is split in the definition of ‘information system’ (“computers, communication facilities, computer and communication networks and data and information that may be stored, processed, retrieved or transmitted by them, including programs, specifications and procedures for their operation, use and maintenance”) and in the definition of ‘communication networks’ (which include “data communication, telephone and facsimile”)⁵⁸. Peers observes that the Council Framework Decision 2005/222/JHA of 24 February 2005 on attacks against information systems, now replaced by Directive 2013/40/EU, had a broader scope of application than the Cybercrime Convention since it applied to ‘information systems’ rather than to ‘computer systems’⁵⁹. The Decision defined ‘information systems’ as “any device or group of interconnected or related devices, one or more of which, pursuant to a program, performs automatic processing of computer data, as well as computer data stored, processed, retrieved or transmitted by them for the purposes of their operation, use, protection and maintenance” (article 1(a))⁶⁰. Such a definition is similar to that one proposed by the OECD in 1992: however, in the latter there is no explicit reference to the ‘automatic processing of data’.

In 1995 the European Commission defined the ‘information society services’ as “new services [...] located at the intersection between information technology, telecommunications and television

⁵⁶ Interregional Seminar and Regional Demonstration Work-shop on Accessible ICT and Persons with Disabilities, ‘Manila Declaration on Accessible Information and Communication Technology’ (2003) <http://www.un.org/esa/socdev/enable/maniladecl.html>.

⁵⁷ Magna Carta for Philippine Internet Freedom (n 36).

⁵⁸ OECD, ‘Recommendation of the Council concerning Guidelines for the Security of Information Systems’ (n 52).

⁵⁹ S Peers (n 16).

⁶⁰ Council Framework Decision 2005/222/JHA of 24 February 2005 on attacks against information systems, <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32005F0222>.

[whose] common denominator is digitization”⁶¹. The e-commerce directive of 2000 defines the ‘information society services’ as a broad category of online economic activities⁶².

The remaining subjects are defined only by single sources. In particular, in 1996 the Commission defined ‘on-line services’ as “electronic communications systems which offer paid-up subscribers a range of services (electronic mail, information services, games and discussion groups or chat lines) accessible via the telephone network using a modem and a computer”⁶³. While the Eurocities project defined the ‘information society’ as a society based on “intangible, human and social capital, defined by knowledge and creativity”⁶⁴.

Finally, in 1997 the Committee of Ministers of the Council of Europe included the Internet within the ‘electronic media’ along with radio and television⁶⁵, and the Manila Declaration of 2003 considered ‘websites’ as well as mass media, telecommunication systems, ATMs, computers, and photocopiers as ‘electronic and information technology products’⁶⁶.

⁶¹ European Commission, ‘Green Paper on Copyright and Related rights in the Information Society’ (1995) <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:51995DC0382&from=EN>.

⁶² Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market, <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32000L0031&from=EN> defines information society services by reference to Article 1(2) of Directive 98/34/EC as amended: information society service is therefore “any service normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient of services.”; Recital 18 of Directive 100/31/EC provides with further information on the qualification of an information society service: “(18) Information society services span a wide range of economic activities which take place on-line; these activities can, in particular, consist of selling goods on-line; activities such as the delivery of goods as such or the provision of services off-line are not covered; information society services are not solely restricted to services giving rise to on-line contracting but also, in so far as they represent an economic activity, extend to services which are not remunerated by those who receive them, such as those offering on-line information or commercial communications, or those providing tools allowing for search, access and retrieval of data; information society services also include services consisting of the transmission of information via a communication network, in providing access to a communication network or in hosting information provided by a recipient of the service; television broadcasting within the meaning of Directive EEC/89/552 and radio broadcasting are not information society services because they are not provided at individual request; by contrast, services which are transmitted point to point, such as video-on-demand or the provision of commercial communications by electronic mail are information society services; the use of electronic mail or equivalent individual communications for instance by natural persons acting outside their trade, business or profession including their use for the conclusion of contracts between such persons is not an information society service; the contractual relationship between an employee and his employer is not an information society service; activities which by their very nature cannot be carried out at a distance and by electronic means, such as the statutory auditing of company accounts or medical advice requiring the physical examination of a patient are not information society services”.

⁶³ European Commission (n 16).

⁶⁴ Eurocities, ‘Charter of Rights of Citizens in the Knowledge Society’ (2005) <http://www.comune.bologna.it/iperbole/eurocities/images/documenti/e-rights%20charter.pdf>.

⁶⁵ Committee of Ministers - Council of Europe, ‘Recommendation No. R (97) 19 on the portrayal of violence in the electronic media’ (1997) <https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=0900001680509212>.

⁶⁶ Manila Declaration (n 56).

2.3 The Internet and the other material scopes: an undefined relationship

As previously said, the Internet is often adopted as a subject matter in conjunction with other designations: the sources offer little explicit information on the relationship between the Internet and those other scopes. In particular, they only affirm that the Internet would be a ‘tiny part of cyberspace’⁶⁷; that the World Wide Web is the main application of the Internet⁶⁸; that is part of the audiovisual and information services⁶⁹, and of the ICT industry⁷⁰. There is no agreement on the qualification of the Internet as a media per se, or as a ‘necessary platform for other media’⁷¹. ‘Online’ is defined as the state to be connected to the Internet or to another network⁷², and the ‘Internet of things’ is portrayed as the future stage of the Internet where everyday objects will be interconnected⁷³.

Reflecting on the mosaic of information derived from the texts, the subject matters ‘cyberspace’, ‘ICT’, and ‘information systems and communication networks’ seem to include the Internet. ‘Information society’ is a broad concept referring to the entire society, therefore not directly focusing on the Internet, but certainly linked to the latter, if not even including it. Conversely, the concepts of ‘information society services’, ‘online services’, ‘electronic media’, and ‘websites’ seem to take into consideration single aspects of the Internet. The first two scopes focus on Internet services; ‘electronic media’ concerns the Internet in so far as it is seen as a communication medium, and at the same time encompasses other media, such as the radio or the television; ‘websites’ refers only to the pages accessible through the World Wide Web, which is the main application of the Internet.

⁶⁷ E Dyson, G Gilder, G Keyworth, and A Toffler (n 16).

⁶⁸ European Commission (n 17).

⁶⁹ European Council, ‘Recommendation on the development of the competitiveness of the European audiovisual and information services industry by promoting national frameworks aimed at achieving a comparable and effective level of protection of minors and human dignity’ (1998) <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:31998H0560&from=EN>.

⁷⁰ DA Hope (Global Network Initiative), ‘Protecting Human Rights in the Digital Age’ (2011) https://www.bsr.org/reports/BSR_Protecting_Human_Rights_in_the_Digital_Age.pdf.

⁷¹ See, for the first position, Committee of Ministers - Council of Europe (n 65), and Pontifical Council for Social Communications, ‘Ethics in Internet’ (2002) http://www.vatican.va/roman_curia/pontifical_councils/pccs/documents/rc_pc_pccs_doc_20020228_ethics-Internet_en.html; for the second position, Dunja Mijatović (OSCE), ‘Shaping policies to advance media freedom’ (2013) <https://www.osce.org/fom/100112?download=true>.

⁷² Magna Carta for Philippine Internet Freedom (n 36).

⁷³ Committee of Ministers’ deputies meeting– Council of Europe, ‘Internet Governance – Council of Europe Strategy 2016-2019 Democracy, human rights and the rule of law in the digital world’ (2016) <https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=09000016806ad2a8>.

3. Completing the definitional mosaic: a proposal for a relational diagram

On the basis of the limited information provided by the analysed texts, only part of the whole picture on the relationship between the adopted material scopes of application is visible. Therefore, it has been necessary to find a method to complement such a definitional mosaic in order to get a more comprehensive picture of the relationship between the different adopted subject matters.

For the limited purpose of this paper, the definitions provided by the Oxford English Dictionary have been adopted. The choice to refer to the definitions provided by a language dictionary is justified by the limited target of the present analysis. Indeed, this paper does not aim at assessing the validity of the definitions of the analysed material scopes from a technical perspective. Its purpose is rather to establish their mutual relationship from a semantic point of view.

Once complemented the definitional mosaic through the definitions of the Oxford English Dictionary, the Venn diagram represented in Figure 1 has been created. This paper proposes such a diagram to illustrate the relationship between all the involved subject matters. The next two paragraphs will focus, on the one hand, on the Internet, narrower and neighbouring scopes, and, on the other hand, on the scopes encompassing the Internet.

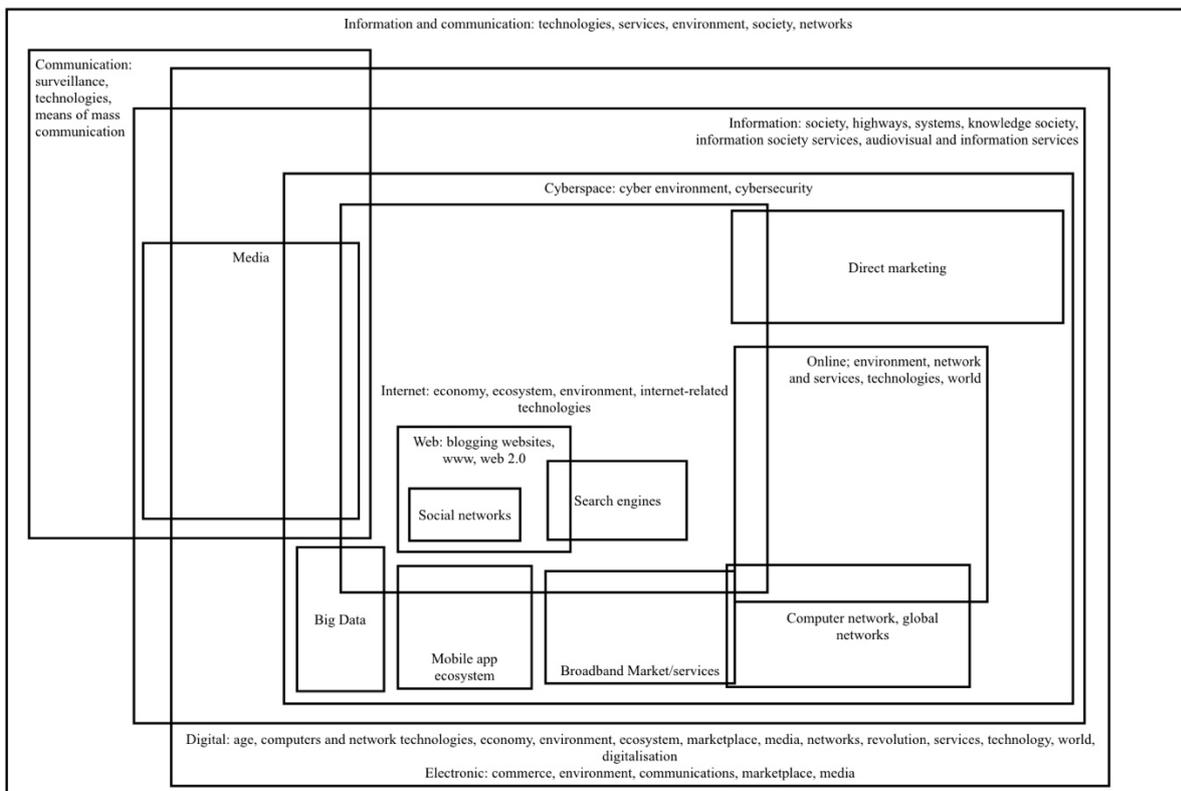


Figure 1 – Relationship between the analysed material scopes

3.1 The Internet, narrower and neighbouring scopes

The shape including ‘the Internet’ and Internet-related concepts, such as Internet economy, ecosystem, environment, and technologies, lies at the centre of the graphic. The Oxford English Dictionary defines the Internet as “the global network comprising a loose confederation of interconnected networks using standardized communication protocols, which facilitates various information and communication systems such as the World Wide Web and email”⁷⁴.

In Figure 1, the shape including the Internet and Internet-related concepts therefore encompasses the ‘Web’. The Web is the shortening for World Wide Web, the main application of the Internet created in 1989 at the Conseil Européen pour la Recherche Nucleaire (CERN) by Tim Berners-Lee. It is defined by the Oxford English Dictionary as a “multimedia information system on the Internet, whereby documents stored at numerous locations worldwide are cross-referenced using hypertext links, which allow users to search for and access information by moving from one document to another”⁷⁵.

The Web at its turn conceptually includes ‘social networks’, designation that today mainly identifies websites “which enable users to interact with one other, find and contact people with common interest, etc.”⁷⁶. The concept of ‘search engines’, instead, is only partially included within the shape of the Web: indeed, ‘search engine’ is not only a website, but also “a program used to search for information available over the Internet, using its own previously compiled database of Internet files and documents”⁷⁷.

A number of neighbouring concepts constellate around the central shape including the Internet. The size of these material scopes vary, but they are all not entirely included within the shape of the Internet. It is graphically difficult to represent their relationship with the Internet: they can cover one comprehensive layer of the whole Internet – to come back to the metaphor of the cake, a layer of the layered cake – such as for example in the case of ‘computer network’ or ‘global networks’, concepts focusing on the technical aspect of the Internet; or they can stand for a tinier part of the Internet – a slice of the layered cake – such as in the case of ‘direct marketing’ or ‘mobile app ecosystem’. If it

⁷⁴ “Internet, n.” *OED Online*. Oxford University Press, March 2017.

⁷⁵ “World Wide Web, n.” *OED Online*. Oxford University Press, March 2017. The World Wide Web Consortium defines the Web in the W3C’s Architecture of the World Wide Web, Volume I (<https://www.w3.org/TR/webarch/>) as “an information space in which the items of interest, referred to as resources, are identified by global identifiers called Uniform Resource Identifiers (URI)”. However, such a definition does not clarify the relationship between the Web and the Internet.

⁷⁶ “social, adj. and n.” *OED Online*. Oxford University Press, March 2017.

⁷⁷ “search, n.” *OED Online*. Oxford University Press, March 2017.

were possible to realize a 3D representation of the graphic above, the first kind of neighbouring concepts, i.e. those corresponding to one comprehensive layer of the whole Internet, would be represented by a shape horizontally intersecting the Internet parallelepiped, while the second kind of concepts, i.e. those corresponding to a tinier part of the Internet, by a shape vertically intersecting such a parallelepiped. This idea becomes clearer if one looks at the definition of these concepts.

The concepts of ‘computer network’ and ‘global networks’ instinctively seem to correspond to the same idea of the Internet⁷⁸. Indeed, according to the Oxford English Dictionary definition, the Internet is “the global network comprising a loose confederation of interconnected networks”⁷⁹. However, a more careful analysis shows that both designations do not perfectly match such a definition. The definition provided by the Oxford English Dictionary does not specify neither that the network should be a ‘computer’ network nor that the interconnected networks are ‘global’. It is indeed the network comprising the confederation of networks that is global. Nevertheless, both concepts describe one of the main technical aspects of the Internet, i.e. the fact to be a network, or to be composed of networks. These concepts do not entirely correspond to the whole idea of the Internet because such an aspect represents only a layer of the definition of the Internet. Furthermore, in the case of the concept of ‘computer network’, such a layer is not limited within the perimeter of the Internet shape. Indeed, from a logical point of view, the definition of the Internet does not entail that ‘the global network’ encompasses *all the existing* computer networks. There could be a computer network that is not interconnected with others, and therefore not included in the Internet. In fact, this was certainly true in the past: the Internet is indeed the result of the progressive interconnection of more networks developed in different parts of the world⁸⁰. Today, the fact that the overwhelming majority of networks is connected to the Internet does not mean that the existence of an independent computer network could not exist.

Another neighbouring concept is ‘online’. The definition proposed by the Oxford English Dictionary is “[d]esignating or relating to a service, resource, etc., available on or performed using a computer network (esp. the Internet), or a person or organization that can operate or accesses this”⁸¹. The use of the term ‘online’, also in conjunction with the expressions ‘environment’, ‘network and services’, ‘technologies’ and ‘world’ corresponds to more layers of the Internet concept because it involves both the technical aspect of the Internet, i.e. the use of a computer network, and the reference

⁷⁸ Each of these concepts is adopted only by one source; see Table 3 above.

⁷⁹ “Internet, n.” *OED Online*. Oxford University Press, March 2017.

⁸⁰ RE Kahn, and VG Cerf (n 34).

⁸¹ “online, adj. and adv.” *OED Online*. Oxford University Press, March 2017. It is also interesting to underline that this is the second definition of the term ‘online’, being the first not related to computing, but to the fields of railway lines, or air lines.

to the services and the resources available on the Internet⁸². However, this concept is not entirely included into the shape of the Internet because, as is evident in the definition, it does not necessarily entail the use of the Internet. Indeed, the definition only refers to ‘a computer network’⁸³.

The distinction between ‘media’ and the Internet is instead more apparent. ‘Media’ are defined as “[t]he main means of mass communication, *esp.* newspapers, radio, and television, regarded collectively”⁸⁴. As previously said, there is no agreement on the qualification of the Internet as a medium per se, or as a platform for other media⁸⁵. In both cases, it is possible to agree that the Internet concept does not cover the entire area of the media concept. The concept of media, indeed, represents a part of the function as communications mean exercised by the Internet. Not all the communications taking place on the Internet can in fact be classified as media. An evident example is private communications by email between single individuals. To better visualise the relationship between the two concepts, it is possible to say that the shape of the media is a slice of the Internet layer of ‘communication’ that at the same time covers the shape of the Internet and extends beyond it.

Conversely, the concept of ‘communication’ covers the entire layer of communication within the Internet shape. ‘Communication’ is defined as “[t]he transmission or exchange of information, knowledge, or ideas, by means of speech, writing, mechanical or electronic media, etc.”⁸⁶. From the reference to ‘electronic media’ it is apparent that the shape of ‘communication’ includes the slice of the Internet layer represented by the media⁸⁷. It also encompasses the entire media shape extending beyond the Internet, i.e. the section of the media which is not ‘electronic’. It also covers all the other kinds of communications which are not mass communication, and therefore media, and are not electronic, such as post correspondence or oral communication between individuals. These considerations are also valid if one looks at the specific terms employed in the communication cluster. The most recurring expression is ‘communication technologies’⁸⁸. Indeed, it refers to a technical layer covering the Internet and extending beyond it: an example of this last circumstance is offered by the telephone, means of communication which is not included into the Internet shape. ‘Communication

⁸² See the difference between narrow definitions only focusing on the network itself, and broad definitions including services provided through the network in ITU Document WTPF-13/INF/8-E (n 37).

⁸³ Emphasis added. Indeed, also the Magna Carta for Philippine Internet Freedom (n 36) defines ‘online’ as the state to be connected to the Internet or to another network.

⁸⁴ “media, n.2.” *OED Online*. Oxford University Press, March 2017.

⁸⁵ See (n 71).

⁸⁶ “communication, n.” *OED Online*. Oxford University Press, March 2017.

⁸⁷ See *infra* the definition of ‘electronic’.

⁸⁸ See Table 3 above.

surveillance’ represents a layer of the wider concept of communication, while the designation ‘means of mass communication’ corresponds to the concept of ‘media’⁸⁹.

The designations ‘direct marketing’, ‘broadband market services’, ‘mobile app ecosystem’, and ‘big data’ all represent concepts corresponding to a portion of the Internet shape and extending beyond the latter. The Oxford English Dictionary defines ‘direct marketing’ as “a method of marketing goods or services using direct mail, telemarketing, or media advertising, in response to which customers order directly from the manufacturer or provider”⁹⁰. The portion of the ‘direct marketing’ shape outside the Internet shape is well exemplified by the reference to ‘telemarketing’, a marketing technique using the telephone.

The expressions ‘broadband market’ and ‘broadband services’ refer to services delivered through a “data transmission employing a wide bandwidth”⁹¹. The term ‘broadband’ can be associated with Internet access⁹². In this context, it means “transmission at a faster rate or higher quality” than dial-up transmission, i.e. the transmission using the telephone network⁹³. However, the concept of ‘broadband’ is not univocally associated with the Internet⁹⁴: this explains why the shape of ‘broadband market services’ is not merely a section of the Internet shape, but goes beyond it.

The denomination ‘mobile app ecosystem’ requires a composite definition. The term ‘mobile’ refers to “a mobile phone (usually a smartphone) or portable computing device, such as a laptop, e-reader, or tablet computer”⁹⁵. ‘App’ is the shortened form for ‘application’, referring especially to an ‘application programme’, that is “a computer program designed to carry out a specific task or meet a specific user requirement”⁹⁶. Many mobile applications offer Internet services⁹⁷. However, as is evident from the combination of these two definitions, the presence of a connection to the Internet is not necessary. Therefore, the concept of ‘mobile app ecosystem’ represents a section of the shape of the Internet extending beyond the latter.

⁸⁹ See the definition of ‘media’ above.

⁹⁰ “direct, adj. and adv.” *OED Online*. Oxford University Press, March 2017.

⁹¹ “broadband, adj. and n.” *OED Online*. Oxford University Press, March 2017.

⁹² “broadband, adj. and n.” *OED Online*. Oxford University Press, March 2017; see also “Broadband” in Wikipedia, <https://en.wikipedia.org/wiki/Broadband>.

⁹³ “broadband, adj. and n.” *OED Online*. Oxford University Press, March 2017; “dial-up, adj. and n.” *OED Online*. Oxford University Press, March 2017.

⁹⁴ See “Broadband” in Wikipedia, <https://en.wikipedia.org/wiki/Broadband>.

⁹⁵ “mobile, adj.1.” *OED Online*. Oxford University Press, March 2017.

⁹⁶ “app, n.” *OED Online*. Oxford University Press, March 2017; “application, n.” *OED Online*. Oxford University Press, March 2017.

⁹⁷ See “Mobile app” in Wikipedia, https://en.wikipedia.org/wiki/Mobile_app.

The concept of ‘big data’ is defined as “data of a very large size, typically to the extent that its manipulation and management present significant logistical challenges; (also) the branch of computing involving such data”⁹⁸. This concept relates to the Internet only in so far as data are collected, transmitted or stored through the Internet⁹⁹. For this reason, also the ‘big data’ shape only intersects the Internet shape, but it is not included in the latter.

3.2 The concepts encompassing the Internet

The remaining material scopes of application found in the analysed texts all encompass the Internet shape. Starting from the less comprehensive concept, the first subject matter completely including the Internet is ‘cyberspace’. ‘Cyberspace’ is defined as “the space of virtual reality; the notional environment within which electronic communication (esp. via the Internet) occurs”¹⁰⁰. This definition therefore confirms the position of some of the analysed sources according to which ‘cyberspace’ is a broader concept than the Internet¹⁰¹. The concepts of ‘Internet’, ‘online’, ‘big data’, ‘mobile app ecosystem’, ‘broadband market/services’, ‘computer network/global networks’, and ‘direct marketing’ all presuppose the presence of electronic communications. Therefore, in the graphic it is possible to see that the ‘cyberspace’ shape encompasses the Internet and all the mentioned neighbouring concepts with the exclusion of ‘media’. The concept of ‘media’, indeed, also covers traditional media which can still maintain a non-electronic form.

The material scopes of ‘information society’, ‘knowledge society’, ‘information highways’, ‘information systems’, ‘information society services’ identify the important conceptual cluster rotating around the concept of ‘information’. ‘Information’ is defined as the “[k]nowledge communicated concerning some particular fact, subject, or event”¹⁰². Such a notion is so wide that the shape illustrating the ‘information cluster’ captures the ‘cyberspace’ shape including the Internet, and all the neighbouring concepts of ‘media’, ‘online’, ‘big data’, ‘mobile app ecosystem’, ‘broadband market/services’, ‘computer network/global networks’, and ‘direct marketing’. However, if it were possible to build a 3D image of the graphic, it would be possible to see that the shape of ‘information’ covers only one layer of all these concepts, and does not fully englobe them.

⁹⁸ “big, adj. and adv.” *OED Online*. Oxford University Press, March 2017.

⁹⁹ [To reflect on this point].

¹⁰⁰ “cyberspace, n.” *OED Online*. Oxford University Press, March 2017.

¹⁰¹ See (n 67).

¹⁰² “information, n.” *OED Online*. Oxford University Press, March 2017.

The material scope of ‘audiovisual and information services’ has been listed together with the information cluster, because, notwithstanding the name, it does not represent a more encompassing category. These services, indeed, are defined in terms of the senses that they stimulate, sight and hearing, and in terms of the function they exercise, i.e. “communication of news”¹⁰³. However, in both cases these services convey ‘information’ in a broad sense.

The three remaining material scopes encompass almost all the previously mentioned concepts, but from two different perspectives. No one of these scopes entirely englobe all the previously analysed subject matters. They rather cover one specific conceptual layer of these concepts. The broadest one is the ‘information and communication’ conceptual cluster: as is evident from the name, it encompasses both the ‘information’ and the ‘communication’ layer. The terms ‘technologies’, ‘services’, ‘society’, ‘environment’ and ‘networks’ in conjunction with the expression ‘information and communication’ assume enough breadth to cover at least one layer of all the mentioned subject matters.

The remaining two antagonistic concepts are ‘digital’ and ‘electronic’. ‘Digital’ means “represented by a series of discrete values (commonly the numbers 0 and 1), typically for electronic storage or processing”¹⁰⁴, while ‘electronic’ means “operating according to the principles or methods of electronics, such as a transistor, microchip, or electron tube; operating by means of or employing such devices”¹⁰⁵. These two concepts can be broadly taken as synonyms, and encompass a conceptual surface that is slightly narrower than in the previous case. Indeed, they do not encompass non-digital or non-electronic forms of communication. However, all three concepts entirely cover the core of the relational graphic proposed by this paper. The main difference between the three is represented by the conceptual layer they cover: the ‘information and communication’ conceptual cluster focuses on a functional aspect, while the ‘digital’ and ‘electronic’ clusters on the substantial aspect. In other words, a concept can be categorized under the heading of the ‘information and communication’ cluster if its function is to inform or communicate. Conversely, a concept can be categorised under the ‘digital’ or ‘electronic’ conceptual heading only if its substance is expressed in the binary language of 0/1 digits, or if uses the principles or the methods of electronics.

¹⁰³ “information, n.” *OED Online*. Oxford University Press, March 2017.

¹⁰⁴ “digital, n. and adj.” *OED Online*. Oxford University Press, March 2017.

¹⁰⁵ “electronic, adj.” *OED Online*. Oxford University Press, March 2017.

4. Concluding remarks

4.1 The material scope of application: findings of an empirical research

This paper conducted an empirical analysis of the material scope of application of 187 selected texts. All these initiatives satisfy a minimal definition of Internet Bill of Rights, and are considered as part of the broader conversation of digital constitutionalism. This paper demonstrated that such a conversation is not homogeneous in terms of material scope of application. Indeed, the analysed texts adopt different subject matters, and do not generally identify one single material scope of application, but adopt a mix of terms deriving from different conceptual clusters. The analysis of the occurrence of the material scopes over time also showed that the area that is perceived as needing of regulation changes over time, and some trends are observable.

The examined dataset is not only characterised by terminological inconsistency at infra- and inter-textual level, but also by a weak definitional effort. Only a tiny minority of the analysed texts contains a definition of their material scope of application. The existing definitions are rarely comprehensive, sometimes conflicting, and focusing on different aspects of the concepts under consideration.

The definitions of the different scopes provided by the analysed texts have been compared, and complemented by the definitions of the Oxford English Dictionary. In this way, it has been possible to understand the relationship between the different material scopes of application adopted by the analysed texts. A Venn diagram has been proposed to visually represent these relationships. This diagram shows that the selected texts in fact focus on different subject matters. In particular, the correlation between these subject matters is not comparable with a Russian doll. The adopted scopes are logically intertwined according to different criteria, which are sometimes difficult to represent in a two-dimensional Venn diagram. Such a diagram, indeed, can only show the relationship between two concepts in terms of breadth, greater or lower. Conversely, if one could observe the diagram in three dimensions, it would be possible to appreciate more articulated relationships. To facilitate the visualisation of these interactions, the metaphor of the layered cake has been employed. A layer of the cake represents a notion that covers one comprehensive aspect of the concept under consideration. Conversely, a slice of the cake represents a tinier portion of the entire concept, or of a single layer.

In relation to the question of whether this terminological inconsistency is the result of a deliberate or unintentional choice, this paper has found evidences supporting both hypotheses. On the one hand, the presence of definitions in certain texts as well as the observation of trends in the occurrence of terms over time could point out that such a terminological inconsistency is the result

of a deliberate choice. Indeed, if one considers the conversation of digital constitutionalism as a group of progressive attempts to define the fundamental rights and principles for the Internet, the terminological inconsistency can be explained as the perceived need to always find a more suitable material scope of application. At its turn, this need could be justified by a variety of factors, such as the willingness to ensure a normative technological-neutrality, or to fit the substantive content of these texts. On the other hand, the terminological inconsistency at intra-textual level, and the observed scarcity of definitions seem to support the opposite argument in favour of an unintentional choice: in particular, this could be due to the absence of stable definitional parameters allowing to perform a conscious identification of the most suitable material scope of application. Therefore, given that both hypotheses are supported by evidences drawn from the empirical analysis conducted in this paper, and that these two kinds of answer do not seem to be mutually exclusive, this paper proposes to adopt an intermediary solution, arguing in favour of the validity of both the arguments.

4.2 Towards a more effective law- and policy-making

It is beyond the scope of this paper to ascertain which is the most suitable material scope for the conversation of digital constitutionalism. Indeed, a specific material scope of application could be proposed, only if one had examined the rights and principles included in the collected texts. However, at this stage it is possible to advance some suggestions from a law- and policy-making quality perspective.

First of all, a good norm should aim at guaranteeing legal certainty. To this extent, normative clarity is of primary importance. For this reason, both terminological inconsistency and the scarcity of definitions are to deplore from a normative point of view. The findings of this paper can therefore offer the law- and policy-maker two advices in order to increase the legal certainty and the normative effectiveness of the conversation on digital constitutionalism: 1) infra-normative terminological consistency should be ensured; and 2) inter-normative terminological consistency should be sought at international level, given the transnational character of the phenomenon to regulate.

In relation to this point, it is possible to make another suggestion. A second important aim of a good norm is to be future-proof. This quality, in the specific case of the Internet, can also be translated in terms of technological-neutrality. In brief, a norm is good if, in spite of technological developments, it still accurately defines its scope of application after a certain amount of time. Therefore, a norm defining the material scope of application on the basis of functional aspects should

be generally preferred to a norm relying on substantive aspects. Indeed, the technological function is normally more stable over time than the substantial features of specific technological devices.

At the same time, it is not possible to justify the scarcity of definitions observed in the analysed texts as expression of a conscious strategy of normative vagueness. Such a vagueness does not aim at ensuring the technological neutrality of the selected documents over time, but it is the result of the absence at a more general level of a common definition of the adopted scopes. A process of definition of these concepts should be put in place bearing in mind the normative objective of establishing fundamental rights and governance principles for the Internet. To this purpose, a high-level co-operation between lawyers and engineers is required. Only in this way, a real balance between terminological future-proof quality and normative accuracy will be found.

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