

# **A REALITY OF VULNERABILITY AND DEPENDENCE**

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## Internet Access as a Human Right

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## Abstract

We are faced with a new reality where our reliance on Internet access to fulfill basic civil tasks is threatened by increasing personal and societal cyber vulnerability. This dichotomy of dependence and vulnerability requires a new framework for understanding the legal and human rights status of this evolving technological reality. A number of theories have sought to explain how Internet access could gain the status of a human right. These include a reliance on the freedom of expression protections offered by the International Covenant on Civil and Political Rights and the Universal Declaration of Human Rights. Newer approaches have suggested that International Customary Law could apply, or that Internet Access could attain the status of an auxiliary human right. Despite a repeated demand by international institutions to address modern cyber challenges through a human rights lens, this assortment of legal approaches has failed to garner a consensus view in the International community. This article reviews the merits of each of these arguments, and grounds the debate in the lens of this reality of dependence and vulnerability. Of the four options surveyed, we find that auxiliary righthood is the most promising approach, but that additional research is required to substantiate the claims.

*Keywords:* Internet access; human rights; cyber attacks; Internet shutdowns

## 1. Introduction and Context

What are the societal and legal implications of our growing dependence on Internet access? We are faced with a new reality where our reliance on Internet access to fulfill basic civil tasks is threatened by increasing personal and societal cyber vulnerability. This dichotomy of dependence and vulnerability requires a new framework for understanding the status of this evolving technological reality. From a social perspective, society's growing digital predominance has facilitated widespread cultural and political participation. It has changed the nature of modern speech by lowering the costs of disseminating information, enabling an efficient global transmission of information and allowing more people to participate in social discourse.<sup>1</sup> The world has long awaited the realization of the budding potential of the Internet to democratize communication,<sup>2</sup> and in 2018, an estimated 3.2 billion people are active on social media alone.<sup>3</sup> But this trend also bears risks. The ease of realizing basic civic functions through online avenues can at times supplant its traditional analogue equivalents, meaning that citizens lacking Internet connections are prevented from exercising their rights.

When we discuss the social implications of cyber-technology, our focus is often too narrow, examining the individual pieces of technological development rather than the multidimensional nature of how the digital revolution is affecting our daily functioning.<sup>4</sup> Rather than focusing on the manner in which social media platforms influence patterns of media reporting, for example, we could look at how digital technology has altered the very nature of free

<sup>1</sup> Jack M. Balkin, 'Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society' (2004) 79 *New York University Law Review* 1.

<sup>2</sup> Kristina Lerman, 'User participation in social media: Digg study' (2007) *IEEE/WIC/ACM international conference on web intelligence and intelligent agent technology* 255–58; Ann Macintosh, 'Characterizing e-participation in policy-making' (2004) *Proceedings of the 37th annual Hawaii international conference on system sciences*. (Computer Society Press 2004).

Eugene Volokh, 'Cheap speech and what it will do' (1995) 104 *Yale Law Journal* 1805-50.

<sup>3</sup> Simon Kemp, 'Digital in 2018: Global overview', *We Are Social* (2018).

<sup>4</sup> Susan Perry and Claudia Roda, *Human Rights and Digital Technology: Digital Tightrope* (2016) Springer.

speech and association. We argue that more than merely serving as a digital tool to ease the realization of human rights, Internet access has become inextricably intertwined with the basic capacity of how human rights manifest in the modern age. If access is indeed a human right, then the discussion needs to turn from how Internet access supports human rights, to how public policy must support Internet access and the duties that this right imposes upon governments.

There has been an ongoing debate for decades about the potential of the Internet to attain the status of a human right, and numerous theories have been asserted to justify this claim. The two most prominent theories argue that the International Covenant on Civil and Political Rights (ICCPR) or the Universal Declaration of Human Rights already provide sufficiently broad protections. These approaches rely on extending traditional legal and human right protections to modern technologies.<sup>5</sup> More recent approaches claim that customary international law has given birth to a new standalone right to Internet access as a result of national practice and culminating in a 2011 report by Frank La Rue, Special Rapporteur for the United Nations, which provides explicit institutional backing for the notion that Internet access impacts upon human rights.<sup>6</sup> A fourth argument claims that Internet access could be an auxiliary or derived human right in service to various primary rights.<sup>7</sup> The relative strengths and weaknesses of these competing theories will be discussed below.

Despite a repeated demand by international institutions to address modern cyber challenges through a human rights lens, this assortment of legal approaches has failed to garner a consensus view in the International community. In the absence of any unanimity, national and regional legislative bodies and courts have begun to implement various solutions that posit Internet access as a protected right under constitutional arguments, based on equality-based reasoning or simply due to the economic benefits of stimulating higher Internet connectivity. However the risks of heightened dependence combined with an ever-present sense of digital vulnerability requires a coherent human rights framework. In this paper, we begin by considering the nature of our dependence on Internet access and question what this means in context of our growing vulnerability to cyber-disconnection. We continue by evaluating the rationales and merits of the different human rights approaches that could offer a legal framework to govern this situation. We conclude by questioning the universal applicability of a human rights approach to Internet access and how it would apply to developing countries, before reflecting on how a human right to Internet access would manifest concrete implications and possibly lead to positive government duties.

## 2. CYBER-DEPENDENCE

The technological leap that is the Internet has advanced at an exponential pace over the course of decades to the point where over 4.02 billion people in the world are connected to the Internet.<sup>8</sup> While this still leaves approximately 3.2 billion people without Internet access (or roughly 44% of the global population), the rate of Internet usage continues to grow at 9% a year.<sup>9</sup> In the short time that the Internet has existed, it has become a central medium of political dialogue and has transformed the nature of political participation. The growth in digital penetration has

<sup>5</sup> Jason M. Tenenbaum, 'Is There a Protected Right to Access the Internet?' *International Journal of Constitutional Law Blog*, 6 June 2014. <http://www.icconnectblog.com/2014/06/is-there-a-protected-right-to-access-the-Internet>; Daniel Joyce, 'Internet Freedom and Human Rights' (2015) 26 *The European Journal of International Law* 2.

<sup>6</sup> Frank La Rue, Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, 16 May 2011, UN Doc A/HRC/17/27.

<sup>7</sup> Kate Mathiesen, 'The human right to Internet access: A philosophical defense' (2012) 18 *International Review of Information Ethics* 9.

<sup>8</sup> Kemp (n 3).

<sup>9</sup> Darrell West, 'Digital divide: Improving Internet access in the developing world through affordable services and diverse content', *Center for Technology Innovation at Brookings*, February 2015.

democratized public communication by allowing any person to broadcast at a whim their thoughts and opinions to a global audience with the push of a button. Essentially, digital technologies and infrastructure have transformed the social conditions through which people speak.<sup>10</sup> By lowering the cost of participation, citizens with few resources, who were otherwise excluded from the centralized corridors of political discourse, can participate in public dialogue.<sup>11</sup> On the structural level, cyber participation overcomes the obstacle of geographical dispersion and is entirely asynchronous compared to traditional forms of media and participation (i.e. you can't attend a physical protest once its ends or question a politician in a public forum after question time ends).<sup>12</sup> By facilitating lateral peer-to-peer discourse, the Internet pivots from the traditional few-to-many form of communication to a more inclusive structure that empowers a wider audience. Digital activities such as web forums and interactive media enable more active engagement compared to the traditional outlets that allowed only for passive participation.<sup>13</sup>

This trend bears risks, as the ease of realizing basic civic functions through online avenues can at times supplant its traditional analogue equivalents, meaning that citizens lacking Internet connections are prevented from exercising their rights. Where this becomes most problematic is where basic civil and human rights become entangled with a need for Internet connectivity. The most visible revolution in the practical manifestation of modern human rights is among the primary three speech-based rights – freedom of expression, freedom of association and freedom of information. In our analysis of the interplay between these rights and digital connectivity, we note that there are times where technological improvements simply increase convenience, and there are times where evolving technologies fundamentally alter the underlying nature of the right, creating a complete dependence on Internet access to engage in modern civic life.

Freedom of expression, the ability to communicate ideas and opinions, is the cornerstone of democracy and is thought to grant substance to all other civil liberties. Though this is an individual right, its underlying purpose is not only self-actualization and personal autonomy, 'but rather the preservation of democracy, and the right of a people, as a people, to decide what kind of life it wishes to live'.<sup>14</sup> In this area, the digital revolution has not affected the content of free speech, but has had a transformative impact on its medium, in other words, the process of speaking freely. In the short time that the Internet has existed, it has become a central medium of political dialogue. In an American study, 66% of social media users, constituting 39% of American adults, engaged in civic or political activities through social media. Likewise, 73% of adult Internet users (representing 54% of all US adults) went online to get news or information during the 2010 congressional elections or to get involved in political campaigns.<sup>15</sup> This migration of discourse is taking place in all matters of substantive discourse and not just in media. The increasing predominance of digital journalism,<sup>16</sup> the transition of academic journals to Internet based formats,<sup>17</sup> the role of digital interfaces in promoting public opinion and the evolution of

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<sup>10</sup> Jack M Balkin, 'Old-School/New-School Speech Regulation', (2014). 127 Harvard Law Review 2297.

<sup>11</sup> Balkin, (n 1).

<sup>12</sup> Stephen Coleman and Jay G. Blumler, *The Internet and democratic citizenship: Theory, practice and policy* (Cambridge University Press 2009).

<sup>13</sup> *ibid.*

<sup>14</sup> Owen Fiss, 'Free Speech and Social Structure', *Faculty Scholarship Series*, 1986, Paper 1210, [http://digitalcommons.law.yale.edu/fss\\_papers/1210](http://digitalcommons.law.yale.edu/fss_papers/1210).

<sup>15</sup> PewResearchCenter, 'Politics Fact Sheet', 2015. <http://www.pewInternet.org/fact-sheets/politics-fact-sheet/>.

<sup>16</sup> Jim Conaghan, (15 September 2015). Newspaper Digital Audience Peaks. *NewsMedia Alliance*, <http://www.naa.org/Trends-and-Numbers/Newspaper-Websites/Newspaper-Web-Audience.aspx>;

Ian Cram, *Citizen Journalists: Newer Media, Republican Moments and the Constitution* (Edward Elgar Publishing 2015).

<sup>17</sup> Donald W King., Carol Tenopir, Carol Hansen Montgomery, and Sarah E. Aerni, Sarah E 'Patterns of journal use by faculty at three diverse universities' (2003) *D-Lib Magazine*, 9(10); Judy Luther, 'White paper on electronic journal usage statistics' (2002) *Serials Librarian* 41(2).

online receipt of letters to the editor, a symbol of popular participation in political discourse, all offer stark insight into the vital role played by the Internet in enabling modern speech.

This link between political discourse and Internet access was perhaps best expressed by Justice Kennedy in the 2017 Supreme Court case of *Packingham v. North Carolina*. In unanimously striking down a law that limited access to social media, the court made clear how the Internet has transformed civic life and assumed the role of the modern ‘public square’:<sup>18</sup>

*By prohibiting sex offenders from using those websites, North Carolina with one broad stroke bars access to what for many are the principal sources for knowing current events ... speaking and listening in the modern public square, and otherwise exploring the vast realms of human thought and knowledge. These websites can provide perhaps the most powerful mechanisms available to a private citizen to make his or her voice heard. They allow a person with an Internet connection to ,become a town crier with a voice that resonates farther than it could from any soapbox.*

Likewise for freedom of association, another fundamental pillar of democracy, the Internet plays a key role in easing and facilitating traditional forms of assembly by facilitating instantaneous communication and targeted recruiting. Today, ‘[i]n a world where citizens are increasingly connected to the Internet, assemblies are not only planned and organised online, assemblies can occur entirely online’.<sup>19</sup> Modern protest movements can comprise millions of participants who are able to express support from the comfort of their homes, although this has also raised questions about the relative value of modern participation in protests.<sup>20</sup> Face to face human interaction has become culturally archaic in light of efficient online forums that amplify attendance and ensure anonymity. The influence of Internet forums on the conduct of popular assemblies and gatherings was most pronounced during the Arab Spring. Digital channels and electronic media were central to the organization, facilitation and recruitment processes that brought hundreds of thousands of people to the streets.<sup>21</sup> It is commonly accepted that the mass gatherings would not have converged without Internet access and social media.<sup>22</sup> This is equally so for the border-transcending nature of the protests and their instantaneous relay to other protesters and countries. Since governments began employing cyber-shutdowns during the Arab Spring, we have witnessed a drastic escalation in the use of this tool. During a one year period between 2015 and 2016, a study tracked 81 different instances of Internet shutdowns in 19 countries.<sup>23</sup> The fact that governments immediately target online connectivity to disperse protests is telling. These new digital avenues for civic engagement have done more than offer technological shortcuts for an Internet savvy generation – they have significantly reshaped our democratic processes and structures such that Internet access is now a prerequisite to participate in

<sup>18</sup> *Packingham v. State of North Carolina* 15-1194 U.S. (2017).

<sup>19</sup> Henrik Almstrom and Joy Liddicoat, ‘APC submission to the UN Special Rapporteur on the Rights to Freedom of Peaceful Assembly’ (2012) *Association for Progressive Communication (APC)*.  
[https://www.apc.org/sites/default/files/APC\\_Submission\\_FoA\\_Online.pdf](https://www.apc.org/sites/default/files/APC_Submission_FoA_Online.pdf).

<sup>20</sup> Henrik Christensen, ‘Political activities on the Internet: Slacktivism or political participation by other means?’ (2011) 16 *First Monday* 2.

<sup>21</sup> John Pollock, ‘Streetbook: How Egyptian and Tunisian Youth Hacked the Arab Spring’ (2011) 114 *Technology Review* 5; Anupam Chander, ‘Jasmine Revolutions’ (2011) 97 *Cornell Law Review* 505.

<sup>22</sup> Mohamed Arafa and Crystal Armstrong, ‘“Facebook to Mobilize, Twitter to Coordinate Protests, and YouTube to Tell the World”: New Media, Cyberactivism, and the Arab Spring’ (2016) 10 *Journal of Global Initiatives: Policy, Pedagogy, Perspective* 1.

<sup>23</sup> Darrell M. West, ‘Internet shutdowns cost countries \$2.4 billion last year’, Center for Technology Innovation at Brookings, October 2016, <https://www.brookings.edu/research/internet-shutdowns-cost-countries-2-4-billion-last-year/>.

civic life. But this centralization of democratic participation through a cyber funnel also offers unparalleled opportunities for governments to limit access.

The most tangible application of civic life is the nature by which governments interact with their citizens. This includes citizens accessing the information that the government holds on trust for them, the provision of basic public services and the manner in which citizens interact with their elected representatives. The free flow of information and ideas is at the very heart of the principles of democracy and is essential to human rights. Democracy requires that all individuals possess the capacity to participate in decision making and assess the performance of their government.<sup>24</sup> Internet access has grown to be the predominant intermediary between citizens and governments. Governments across the world are adopting 'E-Government strategies' wherein public services and information portals are migrated to the Internet. 'Simply stated, E-Government is the use of technology to enhance the access to and delivery of government services to benefit citizens, business partners and employees'.<sup>25</sup>

All of this comprises a drastic transformation in the nature of political participation. Traditional forms of political participation are replaced by modern equivalents such as political consumerism, Internet activism and viral campaigning.<sup>26</sup> In trying to isolate the precise nature of this evolving relationship, research has sought to identify whether online political participation supports, supplants or exists in tandem with their offline equivalents, but this has produced equivocal results.<sup>27</sup> To resolve this question, a new experiment was developed that used a controlled, randomized methodology to gauge the ability of participants to complete political activities under the conditions of Internet access and deprivation.<sup>28</sup> Participants received rewards for completing tasks that simulated the realization of freedom of expression, association and information. Participants were divided into a control group that had full access to environmental tools, while a treatment group was denied access to the Internet through any medium. The results revealed that Internet access significantly affected the distribution of success in the realization of freedom of expression ( $\chi^2 (df = 1) = 6.46, p = .011$ ) and freedom of association ( $\chi^2 (df = 1) = 14.59, p < .001$ ), and had a slightly less significant effect on the realization of freedom of information ( $\chi^2 (df = 1) = 4.66, p = .031$ ). A series of logistic regression analyses reinforced these findings, showing that the Internet access condition was the sole variable to significantly predict success for each of the three tasks even after demographic and other variables were added to the model. This experiment adds empirical evidence to the heretofore normative discussion on the dependent relationship between Internet access and human rights.

### 3. MODES OF CYBER-VULNERABILITY

Involuntary Internet deprivation is not a theoretical phenomenon. It affects millions of people in developed and developing countries alike, and takes place in vastly different contexts. It can be imposed by external authorities or it can transpire due to personal circumstances. It can be initiated by private actors and government actors, by known institutions or by anonymous hackers. It can take place with advance warning for a limited amount of time, or by surprise for a prolonged period. The possibility of a cyber-extinction event causing a widespread Internet blackout is becoming a distinct possibility. We review below four concrete mechanisms that lead to Internet

<sup>24</sup> Toby Mendel and N.D. Unesco, 'Freedom of information: a comparative legal survey' (2008) *Paris: Unesco* (Volume 149).

<sup>25</sup> Rachel Silcock, 'What is E-Government?' (2001) 54 *Parliamentary Affairs* 1.

<sup>26</sup> Sara Vissers and Dietlind Stolle, 'The Internet and new modes of political participation: Online versus offline participation' (2014) 17 *Information Communication and Society* 937.

<sup>27</sup> *ibid*; Rachel Gibson and Marta Cantijoch, 'Conceptualizing and Measuring Participation in the Age of the Internet: Is Online Political Engagement Really Different to Offline?' (2013) 75 *The Journal of Politics* 3, 701.

<sup>28</sup> Ryan Shandler, Daphna Canetti and Michael Gross, 'Internet Reliance: A Social and Legal Analysis of Internet Access as an Auxiliary Human Right' (2018) Manuscript submitted for publication.

disconnection: cyber-attack; digital divide; government shutdown; and criminal punishment. These modes of deprivation are not exhaustive. Among other possibilities, citizens can also choose to disconnect from the Internet in response to privacy concerns relating to surveillance or censorship; and religious groups can encourage members to avoid Internet connections for moral or communal reasons. These mechanisms are differentiated from the modes of disconnection reviewed below since they are anticipated and preferred by those affected.

### 3.1. Cyber Attacks

The most visible danger related to Internet deprivation is the risk of cyber attack. A key characteristic of cyber offensive tools is that this is an asymmetric resource – a resource with low entry costs that allows both small and large states and organizations to exercise significant power. Sophisticated cyber-tools that were once the domain of government agencies are now commonly utilized by domestic and international cyber-criminals that target businesses and individuals. Government sponsored cyber-warfare has allowed even countries with relatively weak military strength to employ and utilize asymmetrical military tools, the results of which are spilling over into civilian life. The anonymity of cyber-attacks, or at least the difficulty in ascribing attribution, means that contrary to classical military conflicts, governments appear more willing to employ offensive cyber tools. In addition to the myriad targeted cyber-attacks that focus on intelligence gathering or sabotage and are limited to isolated institutions, there is evidence of cyber attacks targeting civilian networks, such as the alleged Russian attack on the Ukraine in March 2014 that shut down mobile phone networks and hampered Internet connections for millions of Ukrainians.<sup>29</sup>

The rise of a one billion dollar ransomware industry has added further antagonists to the cyber offensive field, with international criminal organizations identifying a low cost modern variation on extortion. High profile ransomware attacks, such as WannaCry and Petya, infected more than half a million computers in over 150 countries.<sup>30</sup> Commercial espionage has also adapted to the cyber age with approximately 47% of US companies experiencing a ransomware attack or other online intrusion during a recorded 12 month period.<sup>31</sup> In the future, with the new frontier of the ‘Internet of things’, we will see an intertwining of the Internet with aspects of daily life that are not traditionally associated with digital connectedness. In contrast to the human-to-human interactions that the Internet has historically facilitated, this advancement will facilitate human-thing and thing-thing communication.<sup>32</sup> Predictions abound of more than twenty billion connected devices by 2020 offer a vast new avenue for cyber attacks. Already now, hackers have succeeded in denying access to major platforms like Twitter, Netflix and Facebook for hours by harnessing vulnerabilities in household items such as wifi-connected baby monitors and CCTV cameras.<sup>33</sup>

### 3.2. The Digital Divide

<sup>29</sup> David Lee, ‘Russia and Ukraine in cyber ‘stand-off’’, *BBC News*, 5 March 2014.

<sup>30</sup> Yellepeddi Vijayalakshmi, Neethu Natarajan, P. Manimegalai and Suvanam Babu, ‘Study on Emerging Trends in Malware Variants’ (2017) 117 *International Journal of Pure and Applied Mathematics* 22.

<sup>31</sup> Osterman Survey, ‘Understanding the Depth of the Ransomware Problem’, 2016, <https://www.malwarebytes.com/surveys/ransomware/>

<sup>32</sup> Lu Tan and Neng Wang, ‘Future Internet: The Internet of things’ (2010) *3rd International Conference Advanced Computer Theory and Engineering (ICACTE)*, , vol 5, 5-376.

<sup>33</sup> Bryce Hannah, ‘The Internet of Things Will Be Even More Vulnerable to Cyber Attacks’ (2017) *Chatham House The Royal Institute of International Affairs*. Retrieved from [www.chathamhouse.org](http://www.chathamhouse.org).

The digital divide refers generally to disparities in Internet access among segments of population groups, both internationally and within countries. This multidimensional phenomenon can be sub-divided into three primary areas: a global digital divide relating to the divergence in connectivity among industrialized and developing countries; a social divide between groups inside each society; and a democratic divide between those who do and don't take advantage of the full spectrum of digital resources to participate in public life.<sup>34</sup> For the purposes of this paper, we are focused primarily on the social and democratic digital divide, of which we can sub-divide the social divide further into variables relating to age and income. Age is strongly related to greater Internet connectivity. In a Dutch study, a country renowned for its high rate of connectivity, 19 percent of those aged 65 and older were found to lack regular Internet access at home, compared to rates of 5%, 1% and 0% among younger age brackets.<sup>35</sup> In Britain, 51 percent of the elderly population were found to lack Internet access at home in 2013.<sup>36</sup> Income levels for obvious reasons can significantly impact connection rates owing to the cost of computer equipment, Internet connection fees, mobile phones and more. Indeed, a series of studies have pinpointed income levels as the primary predictor of Internet access – both in terms of international comparisons and within individual countries.<sup>37</sup> While widespread Internet access is considered an equalizing force in society, this income generated digital divide raises the specter of the benefits of Internet access being concentrated among socio-economic elites.<sup>38</sup>

To combat this phenomenon, authorities are investing considerable resources into making Internet services more accessible for at-risk populations.<sup>39</sup> As far back as 2002, the U.K. government acknowledged that:

*'While the market has successfully delivered Internet access to most citizens, take-up among the most disadvantaged groups in society – those on low incomes, the elderly and people with disabilities - is lower. These groups are traditionally heavy users of public services ... but without access to the Internet or the skills to use it confidently, these groups may face further social exclusion'.*<sup>40</sup>

New research has claimed that the elderly shouldn't be treated as a homogenous group in understanding the variables contributing to low levels of connectivity. Various types of (dis)engagement from the Internet can be moderated by gender, attitudes towards age, perception of difficulty of Internet use, Internet attitudes and more.<sup>41</sup>

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<sup>34</sup> Pippa Norris, *Digital divide: Civic engagement, information poverty, and the Internet worldwide* (Cambridge University Press 2001).

<sup>35</sup> Alexander van Deursen and Ellen J. Helsper, 'A nuanced understanding of Internet use and non-use among the elderly' (2015) 30 *European journal of communication* 2, 171.

<sup>36</sup> Oxford Internet Surveys (OxIS), 'Oxford: Oxford Internet Institute, University of Oxford', 2001 <http://microsites.oii.ox.ac.uk/oxis/>.

<sup>37</sup> See for example Javier Corrales and Frank Westhoff *Information technology adoption and political regimes* (International Studies Quarterly, 50(4), 911-933 2006);

Bo Kinney 'The Internet, public libraries, and the digital divide' (2010) 29 *Public library quarterly* 104-61;

Xiaoqun Zhang 'Income disparity and digital divide: The Internet Consumption Model and cross-country empirical research' *Telecommunications Policy*, 37(6-7), 515-29.

<sup>38</sup> La Rue (n 6).

<sup>39</sup> Doria Pilling and Heike Boeltzig, 'Moving toward e-government: effective strategies for increasing access and use of the Internet among non-Internet users in the US and UK', *Proceedings of the 8th annual international conference on Digital government research: bridging disciplines & domains*, May 200, (35-46).

<sup>40</sup> *ibid.*

<sup>41</sup> Van Deursen (n 35).



### 3.3. Government Shutdown

The production of a centralized gateway for modern communication offers states unprecedented possibilities for surveillance and intervention. Dozens of governments across the world, typically but not always characterized by autocratic governance features, have at times initiated some form of Internet blackout, relying on a series of justifications that include safeguarding government authority, reducing public dissidence, fighting terrorism, maintaining national security, or protecting local businesses. Authorities are increasingly utilizing this tool to control the information landscape and citizens' ability to mobilize, in recognition of the manner in which the Internet has become the fundamental tool to facilitate mass social participation.<sup>42</sup> Shutdowns can range from a complete closure of the underlying Internet infrastructure, to the closure of mobile Internet services or even particular subnational apps or services such as ViOP or WhatsApp.<sup>43</sup>

In terms of pure numbers, the number of temporary government initiated Internet shutdowns has risen exponentially in recent years. One study conducted by University of Washington researchers identified 606 instances where 99 different governments deliberately interfered with Internet operations between 1995 and 2011.<sup>44</sup> Compared to a single disruption in 1995, and four disruptions in 1996, the number rose to 111 in 2010. During a one year period between 2015 and 2016, a Brookings Institute research project led by Darrell West tracked 81 different instances of Internet shutdowns in 19 countries.<sup>45</sup> His research observed a cumulative total of 753 days of affected Internet services causing some USD \$2.4 Billion in economic damage to the respective countries.

The most cited modern illustration of an Internet shutdown was by Egypt during the Arab Spring protests during 2011. In response to increasingly violent street protests that threatened the stability of the Mubarak regime, authorities adopted harsh steps to dispel protesters and end the popular uprising. It is notable that one of the primary steps taken to disperse the protests that were being publicized online, was to order 'all [Internet Service Providers] to shut down all international connections to the Internet'.<sup>46</sup> In light of the relatively few ISPs in the country at the time with international digital connections, this had the effect of severing Internet services for civilians. Other notable recent example of government shutdowns include Turkey in 2015 following a terrorist bombing at a public rally,<sup>47</sup> India throughout 2016 and 2017 in response to frequent street protests,<sup>48</sup> and Brazil following corruption protests in 2016.<sup>49</sup> While the justification of most of these occurrences rely on maintaining law and order and protecting public safety, multiple countries including Uganda, Algeria, India and Iraq have disrupted Internet services owing to concerns about student cheating on national exams.<sup>50</sup>

### 3.4. Criminal Punishment

<sup>42</sup> Dionne Searcey and Francois Essomba, 'African Nations Increasingly Silence Internet to Stem Protests', *The New York Times*, 10 February 2017.

<sup>43</sup> West (n 23).

<sup>44</sup> Philip N Howard, Sheetal D Agarwal and Muzammil M. Hussain, 'The Dictators' Digital Dilemma: When Do States Disconnect Their Digital Networks?' (2011) *Brookings Institution Issues in Technology Innovation*.

<sup>45</sup> West (n 23).

<sup>46</sup> Ramesh Subramanian, 'The Growth of Global Internet Censorship and Circumvention: A Survey' (2011) 11 *Communications of the IIMA* 2.

<sup>47</sup> Lizzie Dearden, 'Ankara terror attack: Turkey censors media coverage of bombings as Twitter and Facebook 'blocked'', *Independent*, 10 October 2015.

<sup>48</sup> Nivedita Dash, 'Jat reservation protest in Haryana: Mobile internet services blocked in Rohtak', *India Today*, 19 February 2016.

<sup>49</sup> Reuters Staff, 'Brazil judge orders WhatsApp blocked, affecting 100 million users', *Reuters*, 2 May 2016.

<sup>50</sup> West (n 23).

States have long restricted Internet access to prisoners – most commonly for sex offenders and accused terrorists.<sup>51</sup> The rationale for this deprivation is public safety – in that sex offenders could ostensibly continue to offend over the Internet, even behind bars, and members of terrorist groups and organized crime could continue to direct operations. Some of the most notorious examples of targeted Internet deprivation for prisoners who claimed that their rights were being infringed upon include Kevin Mitnick, convicted of various computer crimes in the United States 1995, and who was refused access to the Internet or any communications devices for fear that his technical genius was such that he could start a nuclear war by whistling into a pay phone.

In recent years, the phenomenon of Internet deprivation for prisoners has raised questions about the balancing of public safety with the rights to free expression – a right that is not robbed of prisoners. This practice of deprivation has led to multiple legal battles in state and federal courts of the United States, and also in countries as diverse as India and the United Kingdom. Reflected most prominently in the U.S. Supreme Court ruling of *Packingham v. North Carolina* that we noted above, the courts have consistently struck down Internet deprivation laws on the basis that it disproportionately harms the realization of free expression and other rights. Similar rulings have been handed down by the New Jersey Supreme Court, who overturned a complete Internet ban on a convicted sex offender, and instructed the state to find a less restrictive way to meet the legitimate public interest of preventing re-offending.<sup>52</sup> Other states, like Indiana and Nebraska have enacted similar laws, many of which were ultimately struck down for being overly restrictive.<sup>53</sup> In 2017, the Indian Supreme Court struck down a law that prohibited Internet searches on pre-natal sex determination on the basis that citizens have an unfettered right to access the Internet.<sup>54</sup> *Opinio juris* have also been provided by the United Kingdom Court of Appeal in 2012 in the case of *Regina v Smith & Others* where it was held in a case discussing the restrictions on Internet access for convicted sexual offenders that the Internet was an ‘essential part of everyday living’ and therefore, a complete ban on use in this case would be disproportionate.<sup>55</sup>

#### 4. THE NEED FOR A HUMAN RIGHTS APPROACH TO INTERNET ACCESS

This new dichotomy of cyber dependence and vulnerability requires a coherent human rights framework. A demand to address modern cyber challenges through a human rights lens has been echoed by international institutions, national legislative bodies and courts around the world. The most prominent calls have come from the United Nations and European Union. In his landmark 2011 report, Frank La Rue, the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression proclaimed that ‘the Internet has become an indispensable tool for realizing a range of human rights’ in light of which ‘states should develop a concrete and effective policy [...] to make the Internet widely available, accessible and affordable to all segments of population’.<sup>56</sup> The United Nations Human Rights Council built on this foundation with a follow up report in 2016 that affirmed ‘the importance of applying a human rights-based approach in providing and in expanding access to Internet’ and called upon states to formulate and adopt ‘national Internet-related public policies that have the objective of universal access and enjoyment of human rights at their core’.<sup>57</sup> Likewise in Europe, declarations by the Committee of Ministers called on states to take specific measures to facilitate access to the

<sup>51</sup> Adam Wagner, ‘Is Internet access a human right?’, *The Guardian*, 11 January 2012.

<sup>52</sup> *J.I. v. New Jersey State Parole Board* 223 N.J. 555 (2017).

<sup>53</sup> Elizabeth Tolon, ‘Updating the Social Network: How Outdated and Unclear State Legislation Violates Sex Offenders’ First Amendment Rights’ (2012) *African Journal of International and Comparative Law*.

<sup>54</sup> *Sabu Mathew George vs Union Of India And Ors* 341 S.C.C. 08 (2017).

<sup>55</sup> *Regina v Smith & Others* EWCA Crim 1772, (2011).

<sup>56</sup> La Rue (n 6).

<sup>57</sup> Human Rights Council, ‘The Promotion, Protection and Enjoyment of Human Rights on the Internet’ 27 June 2016, UN Doc A/HRC/32/L.20.

Internet in light of the link between cyber connectedness and the realization of particular human rights.<sup>58</sup> In a 2015 report by the council's Committee of Experts on Cross-Border Flow of Internet Traffic and Internet Freedom, the committee identified that one of the central challenges of protecting the right to freedom of assembly lies in the lack of clear guidance in the face of the transition to online assemblies.<sup>59</sup>

This call for a human rights framework has resonated on the national level as well. The foremost judicial statement on the topic is a strongly worded decision in 2009 by France's Constitutional Council.<sup>60</sup> The court concluded that given the diffusion of online services and their growing importance to participation in democratic life, freedom of expression must include the freedom to access online networks.<sup>61</sup> The judges tempered their decision by noting that strengthened regulatory protection is required, but left open the nature of this protection. In *Packingham vs. North Carolina*, the United States Supreme Court recognized that the new digital landscape is altering the way we think and express ourselves, so requiring new thinking on how to apply existing law to apply it to the modern Internet.<sup>62</sup> Similar cases in the United Kingdom<sup>63</sup> and India<sup>64</sup> have struck down laws that restrict Internet access on the grounds that it restricts the exercise of human rights, yet they too have equivocated in their description of the nature of this relationship.

In the absence of a comprehensive human rights approach to Internet access, individual countries have adopted local solutions that entrench Internet access within legislative and constitutional frameworks. In Greece, a 2001 constitutional amendment inserted a clause that states that '[a]ll persons have the right to participate in the Information Society. Facilitation of access to electronically transmitted information, as well as of the production, exchange and diffusion thereof, constitutes an obligation of the State ...'.<sup>65</sup> Finland took this approach a step further by legislating that in addition to mere access, *high-speed* broadband Internet is a legally enforceable human right. Even though Internet diffusion is extremely high in Finland (96% of the population is connected to the Internet), the government explained that the law was important to protect the rights of rural citizens and minorities.<sup>66</sup>

Among these different forums, we can observe a series of foundations upon which a right to Internet access could be based. Some are based on the importance of Internet access to free speech, another is founded on education rights, and yet another is derived from equality based reasoning. Combined together we can see the vague outline of a rights based approach to Internet access, but the individual rationales fail to identify a unifying foundation or consistent legal framework. What is consistent is a recognition of the need to view cyber advances through a human rights lens and a desire for a more uniform approach.

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<sup>58</sup> Council of Europe, *Declaration by the Committee of Ministers on the Protection of Freedom of Expression and Information and Freedom of Assembly and Association with Regard to Internet Domain Names and Name Strings*, (adopted by the Committee of Ministers on 21 September 2011) para 3, <https://wcd.coe.int/ViewDoc.jsp?id=1835805>;

Council of Europe, 'Committee of experts on cross-border flow of Internet traffic and Internet freedom (MSI-INT), Draft report on freedom of assembly and association on the Internet' (11 May 2015), <https://rm.coe.int/draft-report-on-freedom-of-assembly-and-association-on-the-internet/1680744cfb>.

<sup>59</sup> Council of Europe (2015) (n 58).

<sup>60</sup> Conseil constitutionnel [CC] [Constitutional Court], decision No. 2009-580DC, June 22, 2009, relative à la loi favorisant la diffusion et la protection de la création sur internet, June 13, 2009, Journal Officiel De La République Française [J.O.] [Official Gazette of France] p. 9675.

<sup>61</sup> Nicola Lucchi, 'Access To Network Services And Protection Of Constitutional Rights: Recognizing The Essential Role Of Internet Access For The Freedom Of Expression' (2011) 19 *Cardozo Journal of International and Comparative Law* 645.

<sup>62</sup> *Packingham v. State of North Carolina* (n 18).

<sup>63</sup> *Regina v Smith* (n 55).

<sup>64</sup> *George v Union of India* (n 54).

<sup>65</sup> Syntagma [Syn. 2008][Constitution] 5a (Greece).

<sup>66</sup> Bobbie Johnson, 'Finland Makes Broadband Access a Legal Right', *The Guardian*, 14 October 2009.

## 5. APPROACHES TO INTERNET RIGHTS IN THE ACADEMIC LITERATURE

Multiple schools of thought have offered theoretical groundings for a right to Internet access. These rely on a broad range of philosophical and legal framings that span from information rights to public accommodation laws to access to knowledge theories and more. What these theories share in common is that they are attempting to build a legal-philosophical foundation on which a right to Internet access could rest. We begin this section by reviewing some of these theoretical groundings, before contemplating some of the practical avenues by which Internet access could attain human rights status.

One of the most transformative theories in the field of human rights in recent decades has been the capabilities approach to human rights, proposed by Amartya Sen and Martha Nussbaum.<sup>67</sup> The capabilities approach stems from an underlying dissatisfaction with traditional theories of human rights that emphasize access to goods and resources, and notions of subjective utility.<sup>68</sup> In contrast, Sen and Nussbaum assert that rights emanate from the humanity of each individual, borne from a concept of human dignity. What is important then, is not the underlying utility or value, but the actual capabilities, or set of functionings, that enable human dignity. The capabilities that fall under this category are “human capabilities that can be convincingly argued to be of central importance in any human life, whatever else the person pursues or chooses.”<sup>69</sup> Scholars, not least Sen and Nussbaum, have argued that ICTs (Information Communication Technologies) in general and Internet access in particular, play a key role in advancing human capabilities.<sup>70</sup> The capabilities approach theory, applied to Internet access, views the capability of human communication as being of central importance to human life – a capability that we found to be highly dependent on Internet access. An analysis by William Birdsall connected ICTs to each of the capabilities enumerated by Nussbaum – including life, bodily integrity, emotional development, and more.<sup>71</sup> A related approach, which is also predicated on an opposition to the view of human rights as natural rights derived from a universal human nature, is a theory by Charles Beitz.<sup>72</sup> Beitz offers a political theory of human rights that emphasizes the specific political role each right is expected to play in the international community, and takes into account changing political realities.<sup>73</sup> Applied to Internet access, Beitz would posit that a human right to Internet access exists if its use would significantly contribute to the protection of basic social and political interests, or if its absence would endanger the exercise of these fundamental interests.<sup>74</sup> In attempting to apply Beitz’s theory to Internet access, scholars argue that its emancipatory character and contribution to political life is inarguably sufficient.<sup>75</sup>

One of the most explicit attempts to ground a human rights theory of Internet access was offered by Michael Best in a short essay in 2000.<sup>76</sup> Even at that time, Best argued that information technology was implicitly linked to communication, information and national development. But rather than sufficing with his identification of a causal nexus between Internet access and

<sup>67</sup> Among a long list of articles on the topic by Sen and Nussbaum, see for example: Amartya Sen, 'Human rights and capabilities' (2005) 6 *Journal of human development* 151-66.

<sup>68</sup> Justine Johnstone 'Technology as empowerment: A capability approach to computer ethics' (2007) 9(1) *Ethics and Information Technology* 73-87.

<sup>69</sup> Martha C Nussbaum, , *Women and human development: The capabilities approach* (vol. 3, Cambridge University Press 2001).

<sup>70</sup> William F Birdsall, 'Human capabilities and information and communication technology: the communicative connection' (2011) 13(2) *Ethics and Information Technology* 93-106.

<sup>71</sup> Birdsall (n 70).

<sup>72</sup> Charles R Beitz, *The Idea of Human Rights* (OUP Oxford 2011).

<sup>73</sup> *ibid.*

<sup>74</sup> Xiaowei Wang, 'Time to Think about Human Right to the Internet Access: A Beitz's Approach' (2013) *Journal of Politics and Law*, 6, 67.

<sup>75</sup> *ibid.*

<sup>76</sup> Steven Hick, Edward F Halpin, and Eric Hoskins (eds), *Human Rights and the Internet* (Palgrave Macmillan 2000)..

information rights, Best went one step further to offer one of the earliest proposals for a standalone human right to Internet access. Best argued:<sup>77</sup>

*However, I am making a stronger claim, which is that a symmetric information right to some extent requires the Internet, and thus access to the Internet itself has become a human right ... Thus to be excluded from this information technology is, effectively, to be excluded from information, full stop.*

While Best's assertion was a decade ahead of its time, identifying at an early stage the extent of the relationship between Internet access and modern life, he was unable at that time to offer a systemic basis for a human rights claim.<sup>78</sup>

Not all theories of Internet rights derive from a connection with human communication and political participation. A novel theory by Colin Crawford highlights the implications of Internet exclusion.<sup>79</sup> In light of what he called the 'propertization of cyberspace', Crawford argued that the best avenue to protect against exclusion of access is to articulate a right to Internet access. In contrast to competing theories, Crawford identified public accommodation law as the ideal legal vehicle to ground a right to Internet access. A similarly legalistic approach, from another direction, is offered by Molly Land. Land forcefully argues that the multitude of international legal protections for freedom of expression and freedom of information is already applicable to the Internet.<sup>80</sup> This applicability is founded on language in various treaties (such as article 19 of the UDHR and ICCPR) that explicitly protects the "media" of expression and information, and applies this protection to later developed technologies. While this wouldn't activate an individual right to Internet access per se, the effect would be the same. Land also proposes a separate pathway to rights status by suggesting that the access to knowledge movement could form an appropriate vehicle to impose obligations related to Internet access.<sup>81</sup> Land reviews a range of existing legislation that ensures access to information for disadvantaged and disenfranchised populations in fields as diverse as healthcare, education, culture and more. By reconciling this movement with the evolving role of Internet as a knowledge dispensary, Land suggests that it could lead to the imposition of strong obligations via imprecise norms – ensuring access while maintaining flexibility.<sup>82</sup>

## 6. POSSIBILITIES WHEREBY INTERNET ACCESS COULD BECOME A HUMAN RIGHT

Over the course of two decades, these theories have offered competing philosophical bases for a right to Internet access. While varying in their reliance on legalistic interpretations and capabilities or interests-centered analyses, what the theories possess in common is a shared view of the central role of Internet access in realizing modern rights. Stemming from these analyses, we can now observe four concrete legal approaches by which Internet access could become a human right. The first approach relies on Article 19(2) of the ICCPR, which declares:

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<sup>77</sup> *ibid.*

<sup>78</sup> Wang (n 74).

<sup>79</sup> Colin Crawford, 'Cyberplace: Defining a right to Internet access through public accommodation law' (2003) 76 *Temple. Law Review* 225.

<sup>80</sup> Molly Land, 'Toward an international law of the internet' (2013) 54 *Harvard. International Law Journal*, 393.

<sup>81</sup> *ibid.*

<sup>82</sup> *ibid.*

*Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice.*

The argument here is that the language used in this clause is sufficiently broad to apply to new technologies that facilitate the protected activities. Indeed, in his review of the legislative history and intent of this clause, Tenenbaum argues that the broad language was inserted in order to cover precisely these kinds of future developments.<sup>83</sup> During the drafting phase, two motions were rejected that would have constrained the scope of the protections offered to communications. The word ‘seek’ was preferred over the word ‘gather’ since the drafters wanted to protect ‘active steps to procure and study information’.<sup>84</sup> In addition, a motion to replace the phrase “through any media’ with the more restrictive phrase ‘by duly licensed visual or auditory devices’ was denied on the grounds that it “it would be contrary to the general principle of freedom of information... to adopt the restrictive formula ...’.<sup>85</sup> In reviewing the Commission on Human Rights Summary Record of the session, Land contends that the more expansive phrase “regardless of frontiers” was specifically included to ensure that the protections would be extra-territorial – a recognition of the international nature of this right. This expansive intent was well summarized by the French delegate to the drafting committee in his famous argument that ‘[t]he members of the Commission must take into account the fact that their work concerned the future and not the past; no one could foresee what information media would be employed in a hundred years’ time’.<sup>86</sup> The legislative history shows a clear intent for a broad application that offers protection to all proactive pursuance of information and the expression of ideas – regardless of location – essentially Internet communications<sup>87</sup>. Although this direction possesses merit, it relies on a legalistic interpretation of particularly ambiguous language and so the argument that it supports a stand-alone right has not gained traction.<sup>88</sup> This is compounded by the fact that the argument lacks support from the United Nation’s Human Rights Committees, who have failed to take up this interpretation.

The second approach to a human rights framework for Internet access is based on article 19 of the Universal Declaration of Human Rights, which guarantees that: ‘[e]veryone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers’. Similarly to the ICCPR argument, this claim relies on an expansive interpretation of the clause to read into a right to Internet access. The ambiguous phrasing of ‘regardless of frontiers’ can be understood to indicate that the clause should apply to any medium that is central to facilitating the distribution of ideas and information. This argument was most popular during the 1970s and 1980s in the context of a proposed ‘right to communication’ that was debated at international forums. Though the Internet itself was not yet born at that time, a series of new technologies such as satellite technology had drastically altered the communications landscape. In this context, debate centred on whether the UDHR clause gave rise to a right to communicate through the new technologies, or whether it required an additional vote and the establishment of a new treaty. The discussions took place in the backdrop of cold war tensions, which influenced the debate, yet it was actively decided that an additional statute and body would be required to entrench the right to communicate.<sup>89</sup> Most scholars accepted that the decision not to

<sup>83</sup> Tenenbaum (n 5).

<sup>84</sup> Manfred Nowak, ‘U.N. Covenant on Civil and Political Rights: CCPR Commentary’ (N P Engel 1993) 343.

<sup>85</sup> Commission on Human Rights Summary Record 6th Session (2 May 1950) 59 UN Doc.E/CN.4/SR.165.

<sup>86</sup> Land (n 80).

<sup>87</sup> For an in-depth history of the drafting of this clause, see Land (n 80).

<sup>88</sup> Hans Haugen, ‘Is Internet Access a Human Right-for Everyone, or only for Persons with Disabilities?’ (2014) 40 *Kritisk juss*, 01, 26-51.

<sup>89</sup> Joyce (n 5).

recognize a right to communicate following extensive debate in policy and government circles ended the claim that UDHR guaranteed a right to communicate. Yet others, notably Antonio Pasquali, continue still today to claim that this debate was tainted by Cold War rivalries and that a fair reading of the text offers implicit support for a right to communicate in general, using the Internet in particular.<sup>90</sup>

A third and more recent approach claims that national practice and rising levels of institutional support on the international level is sufficient to comprise customary international law and so grant Internet access the status of a human right. The key piece of evidence that proponents rely on to support this claim is a 2011 Report by Frank La Rue, the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression,<sup>91</sup> and a 2016 resolution by the United National Human Rights Council that called for a ‘human rights based approach to facilitating Internet access’.<sup>92</sup> Inside the 2011 report, La Rue declares that:<sup>93</sup>

*Given that the Internet has become an indispensable tool for realizing a range of human rights, combating inequality, and accelerating development and human progress, ensuring universal access to the Internet should be a priority for all States. Each State should thus develop a concrete and effective policy ... to make the Internet widely available, accessible and affordable to all segments of population.*

This suggestive phrasing triggered an enormous level of media attention and a torrent of news articles with headlines proclaiming exaggerated claims such as ‘United Nations Report Declares Internet Access a Human Right’.<sup>94</sup> Beyond the popular media however, it is clear that these arguments do not meet the legal criteria for proving a human right under customary international law. Beyond the absence of sufficient state practice, the precise wording of the reports constitute a call to adopt more expansive policies to increasing Internet accessibility and affordability – not a claim that Internet access has become a human right.

In contrast to the approaches reviewed above, a fourth argument claims that Internet access has become an auxiliary human right in support of a series of primary rights. Internet access does not emanate from the human condition, and to this end, Cerf is right in arguing that Internet access is not a primary right.<sup>95</sup> Yet not all rights flow from a person’s inherent humanity, nor need they transcend the social conditions in which we live. According to rights theorist Carl Wellman, primary rights can give birth to either derived or auxiliary rights:<sup>96</sup>

*“Derived rights may be either more specific forms of some generic right, as the freedom of the press is a special case related to the right to free speech; or auxiliary rights that serve to protect some primary right, as the right to habeas corpus serves to prevent a violation of the individual’s right to liberty”.*

An auxiliary right is a secondary human (or civil or political) right with all of the protections and limitations of the primary human (or civil or political) right that it serves. What makes it a

<sup>90</sup> *ibid.*

<sup>91</sup> La Rue (n 6).

<sup>92</sup> Human Rights Council (n 57) para 5..

<sup>93</sup> La Rue (n 6).

<sup>94</sup> Jenny Wilson, ‘United Nations Report Declares Internet Access a Human Right’, *Time*, 7 June 2011.

<sup>95</sup> Vince Cerf, ‘Internet access is not a human right’ *New York Times*, 4 January 2012, 25-26.

<sup>96</sup> Carl Wellman, *The Proliferation of Rights: Moral Progress or Empty Rhetoric?* (Westview Press 1999).

secondary right is not its import or authority, but simply that it is borne as a result of its connection to a primary right. Just as the right to liberty can be frozen in certain situations, and so the right to habeas corpus would be automatically denied, so too would an auxiliary right to Internet access rely on the authority and applicability of any primary rights that it is connected to. The value of this right is that it recognizes modern manifestations of particular rights, preventing a scenario where society protects human rights while forbidding people “to engage in the concrete activities of exercising those rights”.<sup>97</sup> An example of this contextual extension of rights is the right to a free press, which was only born following the invention of the printing press, but without which today the right to free expression and the exercise of autonomy would be completely hollow.<sup>98</sup> In the case of Internet access, the claim is that a number of human rights have become entirely intertwined with Internet access, and that in the absence of Internet access the right would lose substance and value. In this case, the primary rights that it could connect to include freedom of expression, freedom of information, freedom of association, the right to national development, the right to education, the right to employment and more. This paper reviewed above how modern forms of expression, association and political participation are growing dependent on Internet access, and if it can be shown that the rights can not be effectively realized in the absence of Internet access, as the empirical experiment above attempted to do, then this would be sufficient to activate a claim of auxiliary righthood. This theory also recalls elements of the approaches of Sen, Nussbaum, Best and Beitz who argued that the exercise of human rights, manifesting in their modern capabilities and interests, require Internet access in the most basic sense.

## 7. DISCUSSION AND POLICY IMPLICATIONS

We began our analysis by observing a concerning paradigm of digital dependence and vulnerability. This paradigm is premised on the idea that Internet has become central to the realization of our basic rights and civil functioning, while being simultaneously characterized by a sense of vulnerability. Ironically, it is the very openness of the global Internet infrastructure that provides both its utility and its susceptibility to infiltration. As Internet penetration continues to extend both vertically (new users) and horizontally (additional uses such as the Internet of things), this vulnerability will only deepen. The insecurity of the technology is complicated by the fact that disconnection can be caused by government and non-government actors, through targeted attacks or due to collateral damage, and via digital means or due to financial circumstances.

Yet despite this phenomenon, we should be wary of anointing any technology as a human right. A seminal op-ed in the New York Times by Vince Cerf, commonly referred to as the ‘father of the Internet’, asserted that ‘technology is an enabler of rights, not a right itself’.<sup>99</sup> Cerf is correct in that Internet access does not emanate from a person’s inherent humanity, and is not a natural right equivalent to life, liberty and freedom. However not all rights need transcend the social conditions in which we live.<sup>100</sup> ‘Human rights are commonly understood as the inalienable rights to which each person is entitled by virtue of being human’.<sup>101</sup> ‘For an individual claim to constitute a human right it must be fundamental, universal, definable in justiciable form (in other words, capable of judicial interpretation and application), and the actor designated responsible for implementation must possess the necessary capability to fulfil the obligation in question’.<sup>102</sup>

<sup>97</sup> Mathiesen (n 7).

<sup>98</sup> James Griffin, *On Human Rights* (1st ed, Oxford University Press 2009); Mathiesen (n 7).

<sup>99</sup> Cerf (n 95).

<sup>100</sup> Wellman (n 96).

<sup>101</sup> Alexander Timmer, ‘Report state-of-the-art literature review human rights, democracy and the rule of law’ (2013) *Frame: Fostering Human Rights Among European Policies, Large-Scale FP7 Collaborative Project*, GA No. 320000.

<sup>102</sup> Stephen Tully, ‘The human right to access electricity’ (2006) *19 The Electricity Journal* 3, 30-39.



Our analysis indicates that we have grown dependent on Internet access to fulfil basic social and political tasks and to realize basic human rights. This dependence will continue to grow so long as Internet based activities supplant and replace the original methods through which we originally realized our rights. After many years of debate, there is an emerging consensus that Internet access is a human right – and the demand to formulate a consistent human rights framework has been echoed by the United Nations,<sup>103</sup> by courts in the United States, Europe and Asia,<sup>104</sup> and by a series of states.<sup>105</sup> The remaining question is not whether Internet access is a right, but under what framework the right manifests.

Each of the four pathways that we reviewed has its proponents in the literature, and each option possesses advantages and weaknesses. The advantage of options one and two – relying on articles 19 of the ICCPR and UDHR respectively – is the simplicity of the argument. At its core, this argument proposes extending a universally accepted right, anchored in multiple international instruments, to a modern technology. The phrases “regardless of frontiers” and “through any media” appear to imply a clear intent for an expansionist interpretation. But opposing this trend is the fact that it has gained no international traction. Despite ample opportunity, no state or international body has taken up this interpretation, and the argument has largely fallen from the international agenda. Another weakness is that this option ties a right to Internet access only to freedom of expression (and possibly information), ignoring the strong nexus with other rights. The third option, proposing international customary law, is the most expansive pathway. With the sheer number of legislative, legal, constitutional and international proposals that are anchoring some form of Internet rights in national practice, there may well come a time where Internet access could become a standalone human right as a matter of customary international law. But at this stage it is too early to conclude this, and we will need to see additional international and state-based implementation before it can be further scrutinized. As such, we contend that auxiliary righthood possesses the strongest claim – both due to its own merits, and due to deficiencies in the alternative pathways. A structure of auxiliary rights is suitable for the nature of Internet access as it views Internet access as tied to the realization of other primary rights. The empirical data reviewed above supports the notion of Internet access as an auxiliary human right since it reveals a direct correlation between connectivity and the ability to realize basic civil rights. This solution of an auxiliary right offers both the concrete protections of human rights and flexibility as digital connectivity develops. This discussion would benefit from future research that expands this method and experimentally tests the relationship between Internet access / deprivation and additional human rights, such as the rights to education, development and employment.

A common refrain and potential limitation to the notion of Internet access as a human right is the absence of Internet penetration among developing countries. Can we claim in good faith that Internet access is a universal human right where access is so skewed towards developed countries? This argument is especially potent in advocating for auxiliary righthood, since dependence cannot be shown where access is absent. While there is merit to this argument, we suggest three responses as to why Internet access still bears a claim to human right status. Firstly, the accelerating rate of Internet penetration will soon make this point moot. The reason for this is that even in countries with relatively low levels of Internet penetration, it is only a matter of time until they too achieve digital saturation. To illustrate this point, the most recent Internet tracking report indicates that more than 250 million new users logged on to the Internet for the first time during 2017.<sup>106</sup> Global Internet penetration is already at 53%, with the fastest growth taking place in Central Africa and Southern Asia, driven by more affordable smartphones and mobile data plans.<sup>107</sup> Secondly, we

<sup>103</sup> La Rue (n 6); Human Rights Council (n 57).

<sup>104</sup> *Packingham v State of North Carolina* (n 18); *Conseil constitutionnel* (n 60); *George v Union of India* (n 54).

<sup>105</sup> Tully (n 102).

<sup>106</sup> Kemp (n 3).

<sup>107</sup> Kemp (n 3).

can consider an analogous situation with regards to other accepted human rights, such as the right to healthcare. Realizing the right to healthcare relies upon the presence of doctors, clinics, medical supplies and hospitals. In countries without access to doctors or medical equipment, society claims that the right to healthcare is going unrealized. This is despite the fact that the country may never have had widespread access to hospitals. This assertion reflects the fact that modern healthcare is associated with modern manifestations of the right. The same goes for the right to education and schools, and the right to due process and a functioning judicial system. Thirdly, we should be careful about accepting the rationale that those without access to the Internet have no need for it, since this will serve to perpetuate the global digital divide.<sup>108</sup>

## 8. ACTUALIZING A RIGHT TO INTERNET ACCESS

Granting Internet access the status of a human right would have far-reaching social implications and would drastically affect the cyber status quo in a number of areas. Such a determination would affect public policy, cyber regulation and the inherent tensions between national security considerations and civil liberties. It could moreover impose significant positive obligations upon governments to ensure this right for its citizens in contrast to the past where digital governmental obligations have been cast as negative rights.<sup>109</sup>

A common misconception about a human right to Internet access, expressed among others by Vince Cerf in his famous New York Times op-ed,<sup>110</sup> is that governments would be compelled to supply every person with a computer and Internet connection. “This misconception is based on a misunderstanding of the sorts of obligations that human rights impose on states.”<sup>111</sup> Among developing countries, recognizing a reality of limited resources and competing priorities, the United Nations has made clear that states are only obliged to progressively fulfill such rights to the best of their ability.<sup>112</sup> Among developed countries, where Internet accessibility already tends to be high, a right could manifest in efforts to minimize the digital divide. For example, a study in Glasgow demonstrated that public libraries could play a role as a provider of public Internet access.<sup>113</sup> In other cases, the market could be encouraged to offer more affordable Internet access in recognition of its social value. In Spain, for example, broadband services are legislatively compelled to offer reasonably priced broadband services at speeds of at least one megabit per second.<sup>114</sup> Similar legislative, constitutional and legal protections have emerged in countries such as Finland,<sup>115</sup> Greece,<sup>116</sup> Costa Rica,<sup>117</sup> France<sup>118</sup> and elsewhere. Individual policies would need to be tailored to the requirements of particular countries, but these are just some of the possible responses to a positive duty to ensure Internet access.

Beyond positive duties to guarantee simple connectivity, states could accrue additional social responsibilities. The ability of states to restrict Internet access (to the entire population or specific persons such as prisoners and security threats) would be limited. The proportionality

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<sup>108</sup> Mathiesen (n 7).

<sup>109</sup> Andrew T Hopkins, 'Right to Be Online: Europe's Recognition of Due Process and Proportionality Requirements in Cases of Individual Internet Disconnections' (2010) 17 *Columbia Journal of European Law* 557.

<sup>110</sup> Cerf (n 95).

<sup>111</sup> Mathiesen (n 7).

<sup>112</sup> *ibid.*

<sup>113</sup> Gillian Anderson and Jason Whalley, 'Public library internet access in areas of deprivation: The case of Glasgow' (2015) 32 *Telematics and Informatics* 521-37.

<sup>114</sup> Sarah Morris, 'Spain government to guarantee legal right to broadband'. *Reuters*, 17 November 2009.

<sup>115</sup> Johnson, Bobbie, Finland Makes Broadband Access a Legal Right, *The Guardian*, 14 October 2009, <http://www.theguardian.com/technology/2009/oct/14/finland-broadband>.

<sup>116</sup> Syntagma (n 65).

<sup>117</sup> *Guzm, Fallas and Vila v. Ministry of Environment, Energy and Telecommunications* Judgement 12790 of the Supreme Court, File 09-013141-0007-CO, 30 July 2010 (Costa Rica)

<sup>118</sup> Conseil constitutionnel (n 60).

calculus during offensive cyber attacks would be altered seeing as any cyber attack that deprived a civilian population of Internet access would prima facie infringe upon their rights and increase the damage caused. A new question would be raised regarding a duty to protect civilians from crippling cyber attacks that inhibit their access to the Internet. On a practical basis, such a finding is unlikely to spur a flood of new legislation, since governments do not necessarily respond to developments in human rights theory. Multiple governments and international institutions are already enacting protections for Internet accessibility due to its connection to economic development and educational outcomes.

## 9. CONCLUSION

The demand to address modern cyber challenges through a human rights framework has echoed through national legislative bodies, international institutions, courts and the halls of academia. Rather than merely serving as a digital tool to facilitate the realization of human rights, Internet access has become inextricably intertwined with the basic capacity of how human rights manifest in the modern age. As digital means of political participation supplant their traditional analogue equivalents, this demand for a human rights framework will become more urgent.

Yet despite a burgeoning discourse in the academic and legal communities, there is no consensus about the best human rights framework that covers this complex situation. This article considered four prominent contenders to the throne. While each has its merits, we contend that auxiliary righthood bears the strongest claim. A structure of auxiliary rights suitably reflects the modern nature of Internet access by granting flexibility in its application as the technology evolves and the social implications become clearer. The empirical data, what little there is, similarly supports this conception by tying Internet access to particular human rights such as freedom of expression, freedom of association and freedom of information.

Looking ahead, regardless of which legal framework the international community coalesces around, the next challenge will be to develop practical policy measures that reflect this new perspective. This is likely to impose positive duties on governments to guarantee Internet connectivity through some form, and perhaps even to ensure high speed connectivity and secure connectivity. While many governments are already doing this due to economic impetuses, a human rights motivation may manifest differently. Lastly, we reiterate that though the debate on the role of technology in civic life has developed significantly, there is a stark absence of empirical knowledge regarding the effect of Internet access on political participation or our dependence on such access to realize our basic civil rights. In the context of our growing vulnerability to disconnection, understanding this relationship will take on growing importance. We encourage additional research that attempts to isolate the precise contribution of digital connectivity to political participation and human rights generally, and individual rights in particular.