

HAVING YOUR CAKE AND EATING IT TOO? ZERO-RATING, NET NEUTRALITY, AND INTERNATIONAL LAW

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ABSTRACT

This Article analyzes the international law response to the zero-rating conundrum. National debates rage across the globe on whether to permit zero-rating, which violates net neutrality, as a means of increasing connectivity, especially in the developing world. As a rule, these highly contentious discussions lack rigor, objectivity, and impact. They are characterized by a clash of dogmas: the sanctity of net neutrality principles, on the one hand, versus the imperative to close the digital divide or respect free markets, on the other. This Article seeks to bridge that dichotomy by invoking the applicable international law framework to analyze zero-rating as a limitation on net neutrality understood as a norm of human rights, which net neutrality demonstrably is. When viewed in this light, the zero-rating conundrum becomes a more tractable conflict of rights—the right to impart and receive information freely vs. the right to access the Internet—that can be constructively analyzed using the exceptions regime that human rights law provides precisely to resolve such conflicts. Under this framework, which legally binds almost 80% of the countries in the world, proposed exceptions to net neutrality like zero-rating must be examined under specific country conditions. These exceptions are assessed using a balancing test of factors, including necessity and proportionality, to determine whether, on the whole, freedom of expression is advanced or not in that particular context. This approach has the additional advantage of being able to accommodate inputs from other fields, like economics and technology policy. In short, understanding how human rights legal norms apply to net neutrality and zero-rating in practice should lead to better

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reasoned discourse on both sides of the debate, and thus to better outcomes.

TABLE OF CONTENTS

I. INTRODUCTION	366
II. THE PANORAMA: ZERO-RATING AROUND THE WORLD	372
A. <i>The Global Panorama: Types and Sponsors of Zero-Rating</i>	372
1. <i>Single-Site or Service Zero-Rating</i>	373
2. <i>Sponsored Data</i>	376
3. <i>Compound Zero-Rating</i>	378
4. <i>Faux (or Non-Selective) Zero-Rating</i>	381
B. <i>National Perspectives on Internet Access and Net Neutrality</i>	383
1. <i>Background and Context</i>	384
2. <i>Barriers to Connectivity</i>	390
3. <i>Three Approaches to Zero-rating</i>	395
a. <i>Zambia</i>	395
b. <i>Chile</i>	398
c. <i>United States</i>	401
C. <i>Concluding Observations</i>	402
III. “NEW” PERSPECTIVE: THE INTERNATIONAL LAW FRAMEWORK	403
A. <i>How Net Neutrality Became a Norm of International Human Rights Law</i>	403
B. <i>Net Neutrality and Contemporary Human Rights Law</i>	408
1. <i>Freedom of Expression in International Law</i>	409
2. <i>Non-discrimination in International Law</i>	412
3. <i>The Exceptions Regime for Freedom of Expression</i>	414
C. <i>Why International Human Rights Law?</i>	416
IV. TOWARDS A HUMAN RIGHTS ANALYSIS OF ZERO RATING	418
A. <i>Legitimate Aim</i>	419
B. <i>Necessity</i>	421
C. <i>Proportionality</i>	422
D. <i>Zero-Rating in Context</i>	426
V. CONCLUSION: HAVING YOUR CAKE AND EATING IT TOO	428

I. INTRODUCTION

In the aftermath of the ferocious net neutrality debates in the United States, which culminated in the Federal Communications Commission’s 2015 Open Internet Order,¹ attention shifted to similar policy discussions in Europe and elsewhere.² One struggle to protect net neutrality with far-reaching consequences is taking place in India, where government regulators in 2015 confronted intense social backlash over so-called “zero-rating” plans offered by local mobile

1. Rules Protecting and Promoting the Open Internet, 80 Fed. Reg. 19,738 (Apr. 13, 2015) (to be codified at 47 C.F.R. pts. 1, 8, 20), <http://www.gpo.gov/fdsys/pkg/FR-2015-04-13/pdf/2015-07841.pdf> [<https://perma.cc/WC5H-P6JH>] [hereinafter 2015 Open Internet Order].

2. See, e.g., Quinton O’Reilly, *The EU Has Plans for an Open Internet, but What Does It Mean?*, THE JOURNAL.IE (July 11, 2015, 8:00 PM), <http://businessetc.thejournal.ie/open-internet-europe-2193723-Jul2015> [<https://perma.cc/NTY6-SP63>].

operators.³ The spark was an Indian telecom joining forces with Facebook in early 2015 to roll out Internet.org, the latter's online platform (now called "Free Basics"), with the stated objective of advancing connectivity in the developing world. Among other things, Internet.org offered limited access to a bundle of select online content and services free of charge.⁴ Other Internet companies both large and small now offer free access to the mobile Internet in scores of developing countries around the globe.⁵

In recent years, a number of governments including the United States have legislated strong net neutrality protections to ensure that freedom of speech and expression online are not warped by market forces, or otherwise unfairly curtailed by network providers.⁶ A potential threat to net neutrality is zero-rating, which refers to "the practice by service providers of offering their customers a specific set of services or applications that are free to use without a data plan, or that do not count against existing data caps."⁷ Numerous countries are in the process of developing regulatory frameworks that will determine if and when restrictions on net neutrality, in particular zero-rating, will be permitted.⁸ But what could be wrong with offering limited but free access to the Internet to sectors of a population that would most likely not enjoy such connectivity or services otherwise?

Quite a bit, it turns out. Primarily, this is because zero-rating acts as a constraint on net neutrality, the principle that network providers—including

3. See Harichandan Arakali, *Amazon, Facebook Square Off over Net Neutrality in India*, INT'L BUSINESS TIMES (Apr. 17, 2015, 12:57 PM), <http://www.ibtimes.com/amazon-facebook-square-over-net-neutrality-india-1886050> [<https://perma.cc/HHH4-4H5S>].

4. Jon Russell, *Facebook Takes Internet.org and Its Free Mobile Data Services to India*, TECHCRUNCH (Feb. 9, 2015), <http://techcrunch.com/2015/02/09/internet-org-india> [<https://perma.cc/G7Y8-RXER>]; see also 'Free Basics by Facebook' Replaces Internet.org Website and App, ENGADGET.COM (Sept. 24, 2015), <http://www.engadget.com/2015/09/24/free-basics-by-facebook> [<https://perma.cc/9UEY-FHR5>] (stating that "Free Basics" offers a menu of services and applications to users in Asia, Africa and Latin America to choose from).

5. See *infra* Part II.A.

6. See *infra* notes 228-244 and accompanying text.

7. See, e.g., *Open Letter to Mark Zuckerberg Regarding Internet.org, Net Neutrality, Privacy, and Security*, FACEBOOK (May 18, 2015, 6:34 AM), <https://www.facebook.com/notes/accessnoworg/open-letter-to-mark-zuckerberg-regarding-internetorg-net-neutrality-privacy-and-/935857379791271> [<https://perma.cc/DK58-36YX>] [hereinafter *Open Letter*]; see also Mitchell Baker, *Zero Rating and the Open Internet*, LIZARD WRANGLING (May 6, 2015), <https://blog.lizardwrangler.com/2015/05/06/zero-rating-and-the-open-internet> [<https://perma.cc/592T-M6A2>].

8. See, e.g., *Net Neutrality: DoT Panel Against Facebook's Internet.org, Favours Airtel Zero*, INDIA TODAY (July 6, 2015, 10:13 AM) <http://indiatoday.intoday.in/technology/story/net-neutrality-facebook-internet.org-airtel-zero-trai/1/449368.html> [<https://perma.cc/E4S3-3MA9>]; see also Frederico Marini-Balestra & Ricardo Termolada, *The EU Debate on Net Neutrality: What about Zero Rating?*, ACADEMIA (2015), http://www.academia.edu/15249139/The_EU_debate_on_net_neutrality_What_about_zero-rating [<https://perma.cc/CYH5-EP39>]; Patricia Rey, *Net Neutrality in Mexico: Still a Long Way to Go*, BNAMERICAS (Feb. 27, 2015), <http://www.bnamericas.com/en/news/technology/net-neutrality-in-mexico-it-is-a-long-way-to-the-top> [<https://perma.cc/GQK8-QWKR>].

mobile operators—must treat all data and content online equally⁹ to guarantee the free flow of information and unfettered access to it.¹⁰ From this perspective,

‘[z]ero rating’ is [a] discriminatory technique where telecom operators allow customers access to select online content or services at no additional cost through a prior arrangement with content providers. The selected sites are rated at zero cost to the customers, violating the essence of net neutrality, which requires non-discrimination between different content and applications.¹¹

Simply put, given that zero-rating violates net neutrality by definition, the controversy is over whether zero-rating should ever be allowed, and if so, when.¹² This is what I call the zero-rating conundrum. To date the sharpest clash involving this conundrum has been in India, where public debates since 2015 have garnered significant international attention.¹³ The roll out of Internet.org in February of that year sparked waves of protest from Indian civil society and digital rights activists around the world.¹⁴ They worried that Facebook, a for-profit multi-national corporation, would—through its Internet.org platform—become “gatekeeper” to the Internet for millions of mobile phone users in the developing world, with nefarious consequences for local innovation, competition, and social development.¹⁵

As the backlash to Internet.org began to unfold in India, Facebook CEO Mark Zuckerberg responded publicly to critics in both an opinion piece published

9. U.N. Special Rapporteur on Freedom of Opinion & Expression, Organization for Security and Cooperation in Europe Representative on Freedom of the Media, OAS Special Rapporteur on Freedom of Expression & ACHPR Special Rapporteur on Freedom of Expression & Access to Information, *Joint Declaration on Freedom of Expression on the Internet*, ORG. FOR SEC. & COOP. IN EUROPE (June 1, 2011), <http://www.osce.org/fom/78309> [<https://perma.cc/JPT6-F642>] [hereinafter *Joint Declaration*]; see 2015 Open Internet Order, *supra* note 1, at 1.

10. *Open Letter*, *supra* note 7 (“Net neutrality supports freedom of expression and equality of opportunity by enabling people to seek, receive and impart information, and to interact as equals. It requires that the internet be maintained as an open platform on which network providers treat all content, applications and services equally, without discrimination. An important aspect of net neutrality states that everyone should be able to innovate without permission from anyone or any entity.”).

11. Vipal Kiran Singh, *Permit Zero-Rating Schemes for a Limited Period*, THE FINANCIAL EXPRESS (July 9, 2015, 1:09 AM), <http://www.financialexpress.com/article/fe-columnist/permit-zero-rating-schemes-for-a-limited-period/97559> [<https://perma.cc/4F7T-F87P>].

12. The policy debate surrounding net neutrality in any given country will obviously be broader than just whether or not to allow zero-rating. For a detailed discussion of most (if not all) relevant considerations in such a debate, see Barbara van Schewick, *Network Neutrality and Quality of Service: What a Nondiscrimination Rule Should Look Like*, 67 STAN. L. REV. 1 (2015). However, I will be focusing primarily on the key issue of zero-rating for the reasons explained in this Introduction.

13. See, e.g., Evgeny Morozov, *Facebook Isn't a Charity. The Poor Will Pay by Surrendering Their Data*, GUARDIAN (Apr. 25, 2015), http://www.theguardian.com/commentisfree/2015/apr/26/facebook-isnt-charity-poor-pay-by-surrendering-their-data?CMP=fb_gu [<https://perma.cc/CA98-MVNE>].

14. *Id.*

15. See *infra* notes 86-88 and accompanying text.

by an Indian online financial paper and through a post on his Facebook page. He stated:

[S]ome people have criticized the concept of zero-rating that allows Internet.org to deliver free basic internet services, saying that offering some services for free goes against the spirit of net neutrality. I strongly disagree with this. We fully support net neutrality. We want to keep the internet open. Net neutrality ensures network operators don't discriminate by limiting access to services you want to use. It's an essential part of the open internet, and we are fully committed to it. But net neutrality is not in conflict with working to get more people connected. *These two principles—universal connectivity and net neutrality—can and must coexist.*¹⁶

Commentators were quick to reply that Mr. Zuckerberg “can't have it both ways on net neutrality.”¹⁷ A journalist for Wired affirmed bluntly that if the question is “whether the Internet.org model runs counter to the core tenets of net neutrality, [the] answer [is] obvious.” The two are irreconcilable. On this view, the question Mr. Zuckerberg and the proponents of zero-rating should be answering instead is “whether the same rules should apply in places where people don't have access to the Internet at all, let alone equal access.”¹⁸ The real question is whether it is acceptable “to suspend some of the net neutrality absolutism the tech community has rallied behind in the US if it serves a greater good in the world's poorest countries”¹⁹ This, too, is an essential dimension of the zero-rating conundrum.

By insisting that “universal connectivity” and net neutrality “can and must co-exist,” Mr. Zuckerberg and Facebook are accused of wanting “to have their cake and eat it too.” This adage is meant to convey that the ostensible goal—full respect for net neutrality—and the desired outcome—a global connectivity platform based on zero-rating—are inherently incompatible. If one subscribes to the “net neutrality absolutism” that characterizes certain sectors of the net neutrality debates in the United States, then that conclusion is inescapable. But is net neutrality as a principle really absolute? The issues reflected in the foregoing exchange have far-reaching consequences beyond the borders of any one country or region.

Other Internet companies, telecoms, and governments all over the world have kept a close eye on how the regulatory battles over net neutrality have unfolded in India, Europe and elsewhere.²⁰ Ultimately, India's regulator chose to

16. Mark Zuckerberg, *Internet.org Does Not Violate Net Neutrality*, LIVEMINT (Apr. 16, 2015), <http://www.livemint.com/Opinion/vewA4Z6qQ82luN8yQKIqxK/Mark-Zuckerberg-on-Net-neutrality.html> [<https://perma.cc/VZ9Q-ZSME>]; Mark Zuckerberg, FACEBOOK (Apr. 16, 2015, 10:59 PM), <https://www.facebook.com/zuck/posts/10102033678947881> [<https://perma.cc/G6EY-JJMD>] (emphasis added).

17. Issie Lapowsky, *Mark Zuckerberg Can't Have It Both Ways on Net Neutrality*, WIRED (Apr. 17, 2015, 2:08 PM ET), <http://www.wired.com/2015/04/internet-org-zero-rating> [<https://perma.cc/4ML9-FQQE>].

18. *Id.*

19. *Id.*

20. See, e.g., Telecom Reg. Authority of India [TRAI], *Consultation Paper No. 8/2015 on*

ban differential pricing, including zero-rating by telecoms, in February 2016.²¹ In the United States, the FCC adopted a set of strong net neutrality protections that nonetheless leave the door open to zero-rated “sponsored data” plans, provided they do not unfairly or unreasonably disadvantage consumer choice and expression.²² What that means is anybody’s guess.

No matter how you look at it, there is a great deal at stake in the zero-rating debate. But *how* you look at it is, in fact, critical to addressing the inherent tension between net neutrality and zero-rating in a coherent manner. This Article approaches the issue by bringing a “new” perspective to the debate: international human rights law. This corpus of norms is itself not new, of course. However, in most countries, the polemics surrounding zero-rating and net neutrality regulation have been largely devoid of reference to human rights rules. Policy debates have focused instead on the social, economic, and technical dimensions of zero-rating, as reflected in the still modest but growing body of research and commentary on the subject.²³ But even as advocates on both sides of the debates

Differential Pricing for Data Services, at 9 (Dec. 9, 2015), <http://www.trai.gov.in/WriteReadData/ConsultationPaper/Document/CP-Differential-Pricing-09122015.pdf> [<https://perma.cc/6ZLL-JWHT>] [hereinafter “*TRAI Consultation Paper*”]; Kieren McCarthy, *Council of Europe Gets Tough on Net Neutrality: No Blocking, Slowing Down, Degrading or Discriminating of Internet Traffic*, THE REGISTER (Jan. 13, 2016), http://www.theregister.co.uk/2016/01/13/council_of_europe_net_neutrality_guidelines [<https://perma.cc/3MFZ-7M46>] [hereinafter *Council of Europe Gets Tough on Net Neutrality*]. Brazil is an example of another front line in this battle. See Francisco Brito Cruz & Jonas Coelho Marchesan, *Net Neutrality in Brazil: The Debate Continues*, INTERNETLAB (Feb. 4, 2016), <http://www.internetlab.org.br/en/internetlab-reports/net-neutrality-in-brazil> [<https://perma.cc/B497-M4YU>].

21. See Annie Gowen, *India Bans Facebook’s ‘Free’ Internet for the Poor*, WASHINGTON POST (Feb. 8, 2016), https://www.washingtonpost.com/world/indian-telecom-regulator-bans-facebooks-free-internet-for-the-poor/2016/02/08/561fc6a7-e87d-429d-ab62-7cdec43f60ae_story.html [<https://perma.cc/2CBQ-V8PB>]; Jesse Hempl, *India Bans Facebook’s Basics App to Support Net Neutrality*, WIRED (Feb. 8, 2016, 12:52 PM ET), <http://www.wired.com/2016/02/facebooks-free-basics-app-is-now-banned-in-india> [<https://perma.cc/9BMY-3PZA>]. See also Part V (discussing recent developments in India).

22. See *infra* notes 228-245 and accompanying text.

23. See, e.g., Internet Governance Forum, *Session Report: WS 208: Net Neutrality, Zero-Rating, and Development* (Sept. 3, 2014), http://www.intgovforum.org/cms/wks2014/uploads/proposal_attachments/IGF_WS_208_-_Net_Neutrality,_Zero-Rating,_and_Development_session_report.pdf [<https://perma.cc/H6HM-5FL6>]. Recent studies have begun to fill in the blanks on the lack of empirical data. See, e.g., Center for Deliberative Democracy, *Increasing Internet Access to the Next Billion* (2015), <http://cddrl.fsi.stanford.edu/sites/default/files/igf-dp-report.pdf> [<https://perma.cc/BG6D-V9FJ>] [hereinafter *Stanford Study*]; see also Carolina Rossini & Taylor Moore, *Exploring Zero-Rating Challenges: Views from Five Countries* (Public Knowledge, Working Paper, July 2015), https://www.publicknowledge.org/assets/uploads/blog/Final_Paper-Jul_28-TM.pdf [<https://perma.cc/MD29-Q4MQ>] [hereinafter *Rossini Public Knowledge Paper*]; Chenai Chair, *Research ICT Africa, Africa Supply Side Assessment of Zero Rating* (Nov. 10, 2015), http://www.researchictafrica.net/presentations/Presentations/2015_Chair_Zero%20Rating%20presentation_IGF2015.pdf [<https://perma.cc/EM6Q-3CHD>]; Roslyn Layton & Silvia Elaluf Calderwood, *Zero Rating: Do Hard Rules Protect or Harm Consumers and Competition? Evidence from Chile, Netherlands and Slovenia* (Aug. 15, 2015),

intensify their research in search of better empirical data, their consideration of the *normative* framework of human rights law remains passing at best. This Article seeks to re-frame that perspective and, hopefully, expand it.

When net neutrality is analyzed as a human rights norm, which it demonstrably is, zero-rating issue takes on an entirely new dimension, one that is critical to understanding net neutrality's proper function in the real world. The zero-rating conundrum ceases to be cast as a divisive dichotomy of dogmas and transforms into something rather more tractable: a conflict of rights, of the type that is regularly confronted and resolved within the framework of international human rights law.²⁴ When viewed through the lens of human rights, "preserving [net] neutrality means preserving the power of *individuals* to make choices about how they use the Internet—what information to seek, receive, and impart, from which sources, and through which services."²⁵ Accordingly, the issue from a human rights perspective is this: *Can zero-rating ever be consistent with net neutrality principles, understood as the freedom enjoyed by all persons to seek, receive, and impart information in a nondiscriminatory manner?* Because even fundamental rights are not absolute, the answer to that question turns out to be *yes, sometimes, under certain circumstances*.

The remainder of this Article is dedicated to examining net neutrality as a human rights norm and the conditions under which that principle can be legitimately qualified by proposed restrictions such as zero-rating. It is divided into three Parts. Part II surveys the panorama of zero-rating around the world to establish a foundation for the legal and policy analyses to follow in Parts III and IV, respectively. It first reviews the principal forms that zero-rating has taken and offers a working typology to facilitate the discussion of the relevant issues. Part II then surveys net neutrality and zero-rating over a range of representative countries by region using both quantitative (statistical analysis) and qualitative (case study) methods. Part III outlines and analyzes the normative framework

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2587542 [https://perma.cc/97H7-NJC5] [hereinafter Layton & Elaluf-Calderwood]; Pedro Henrique Soares Ramos, Towards a Developmental Framework for Net Neutrality: The Rise of Sponsored Data Plans in Developing Countries, (Mar. 31, 2014), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2418307 [https://perma.cc/D7L6-HTA7]; ALEX SMITH & BEN MOSKOWITZ, MOBILE FOR DEVELOPMENT IMPACT: APPROACHES TO LOCAL CONTENT CREATION: REALIZING THE SMARTPHONE OPPORTUNITY (2015), https://stuff.webmaker.org/whitepapers/smartphones_content_skills.pdf [https://perma.cc/98KS-Y74D] [hereinafter MOZILLA STUDY]; Dhanaraj Thakur, Alliance for an Affordable Internet, The Impacts of Emerging Mobile Data Services in Developing Countries (Nov. 2015), http://1e8q3q16vyc81g8l3h3md6q5f5e.wpengine.netdna-cdn.com/wpcontent/uploads/2015/11/MeasuringImpactsofMobileDataServices_ResearchBrief1.pdf [https://perma.cc/EM6Q-3CHD].

24. See *infra* notes 246-331 and accompanying text.

25. CTR. FOR DEMOCRACY & TECH., THE IMPORTANCE OF INTERNET NEUTRALITY TO PROTECTING HUMAN RIGHTS ONLINE 5 (2013), <https://cdt.org/files/pdfs/internet-neutrality-human-rights.pdf> [https://perma.cc/597U-9M44] [hereinafter CDT REPORT 2013] (emphasis added). Network neutrality is also instrumental to preserving media diversity and pluralism on the Internet. This is discussed *infra* in Part III.B.1.

under international human rights law, focusing primarily on freedom of expression and non-discrimination principles. It explores the origins of the net neutrality principle to better understand its evolution as well as its relevance as a contemporary norm of human rights. Finally, Part IV applies the human rights legal framework to zero-rating in light of the preceding data to demonstrate how policymakers, advocates, academics and others can utilize this “new perspective” to better evaluate the function and impact of zero-rating in context.

II. THE PANORAMA: ZERO-RATING AROUND THE WORLD

This second Part is divided into two subparts. Subpart A scans the global panorama of zero-rating. It begins by providing an overview of the various forms that zero-rating takes and, where relevant, the principal sponsors of those initiatives. This allows for a useful differentiation between the various forms of purported zero-rated activities in effect or under study. This first subpart acts as a backdrop to the second, which takes a quantitative and qualitative look at the conditions under which net neutrality policies are implemented in different countries and regions. Subpart B first compiles key statistical indicators for a sample of countries selected by region. These indicators paint a picture of each country’s economic, social and political development, especially in terms of fixed and mobile Internet access. Finally, subpart B discusses the barriers to connectivity as they exist in these and other countries before outlining three case studies that exemplify the prevailing approaches to zero-rating.

A. *The Global Panorama: Types and Sponsors of Zero-Rating*

This subpart examines the principal configurations of zero-rating as it presently occurs. To recall, we have defined zero-rating as the practice of offering free access to certain online services or data for customers of particular mobile networks.²⁶ This is generally implemented by exempting traffic to certain sites or through select applications from a subscriber’s data caps.²⁷ Additionally, in some zero-rating arrangements, users can access the service even if they do not have a

26. Matthew Shears, *No. 208 Net Neutrality, Zero-Rating & Development: What’s the Data?*, INTERNET GOVERNANCE FORUM (Sept. 2014), http://www.intgovforum.org/cms/wks2014/index.php/proposal/view_public/208 [<https://perma.cc/BH29-SX9S>]. It is important to note that this typology does not include public service zero-rating, such as some governments employ for purposes of emergency or other public services. An example is provided by the regional government of São Paulo state, in Brazil, which subsidizes electronic government services through a publicly sponsored zero-rated platform. See Henrique Medeiros, *Poupatempo No Celular: Acesso Patrocinado Custará R\$ 20 Milhões ao ano para o Estado de SP*, TELETIME (Sept. 28, 2015), <http://convergecom.com.br/teletime/28/09/2015/estado-de-sp-aposta-em-0800-de-dados-para-economizar-r-20-mi-no-poupatempo> [<https://perma.cc/9Z64-J39W>]; see also POUPATEMPO, <https://www.poupatempo.sp.gov.br/epoupatempo> [<https://perma.cc/Z47H-U4SZ>] (the São Paulo regional government e-services website).

27. Shears, *supra* note 26.

data plan.²⁸ These types of programs are popular in the mobile market because of the high cost of bandwidth compared to wired Internet, coupled with the low or non-existent availability of wired connections in many countries.²⁹ The goal of this subpart is to present a functional typology of private sector zero-rating practices that can facilitate the analyses to follow.

In this regard, there are at least four models of zero-rating practices: single-site or service zero-rating, sponsored data, compound zero-rating, and faux (or non-selective) zero-rating. These categories are not mutually exclusive: a given plan or platform may fit into more than one category depending on its characteristics. Each rubric is examined below.

1. *Single-Site or Service Zero-Rating*

In single-site or service zero-rating, one of the earliest adopted forms of zero-rating, a content provider contracts with one or more telecoms to provide users with free access to a version of its particular site or service free of charge. Generally, the zero-rated content can either be exempted from a customer's data plan "cap" or accessed wholly apart from any data plan. Unlike sponsored data plans (discussed below), single-site or single-service plans may not involve the content providers paying the telecom for the customer's zero-rated data usage, though they can. Such sites can be offered as a non-profit public interest service, e.g. Wikipedia Zero, or as a gateway to the greater Internet, where additional sites are accessible for a fee, e.g., Google Free Zone. Another example of a single-service application that telecoms zero-rate in a number of countries as a marketing strategy is WhatsApp, the world's most popular messaging app.³⁰ Telecom service providers benefit from these arrangements by catering to users who wish to utilize the free sites or services (and through payments from content providers where they exist) and incentivizing them to pay for data packages or complementary data usage.

The best-known examples of single-site zero-rating are Wikipedia Zero,

28. *Id.* Users generally are required to provide some personal data to subscribe to the zero-rated service or website, so in that sense they are not completely "free."

29. Antonios Drossos, *Forget Fast Lanes. The Real Threat for Net-Neutrality Is Zero-Rated Content*, GIGAOM (Apr. 26, 2014, 10:30 AM PDT), <https://gigaom.com/2014/04/26/forget-fast-lanes-the-real-threat-for-net-neutrality-is-zero-rated-mobile-traffic> [<https://perma.cc/J6TW-ZLJB>]; see David Talbot, *Around the World, Net Neutrality Is Not a Reality*, MIT TECH. REV. (Jan. 20, 2014), <http://www.technologyreview.com/news/523736/around-the-world-net-neutrality-is-not-a-reality> [<https://perma.cc/6T85-PVWQ>] (noting that many users do not have easy access to Wifi and no traditional connections at home).

30. *How Popular Is WhatsApp Around the World?*, WHATSAPP 4, <http://www.whatsappfor.org/facts/popular-whatsapp-world> [<https://perma.cc/R5K4-RQGJ>]. Various telecoms zero-rate WhatsApp as a marketing strategy in Colombia, Ecuador, Mexico and Brazil. See KARISMA FOUNDATION, *¿CÓMO SE CONTRATA EN LATINOAMÉRICA EL ACCESO A INTERNET? ¿QUÉ TIENE QUE VER ESTO CON LA NEUTRALIDAD DE LA RED?* 29, 34 (2016), <https://karisma.org.co/ofertas-de-acceso-a-internet-en-america-latina> [<https://perma.cc/XBA7-EXLM>]; *Rossini Public Knowledge Paper*, *supra* note 23, at 39-40.

Google Free Zone, and Facebook Zero, though there are important differences between them. Wikipedia Zero is a charitable initiative by the Wikimedia Foundation that partners with mobile operators to provide free access to Wikipedia to everyone.³¹ Its stated goal is to “empower people around the world to develop and share freely licensed educational content.”³² It is currently available in 57 countries where it zero-rates access to its specially enabled websites through 75 different operators, reaching an estimated 600 million people.³³ Unique among zero-rating programs, Wikipedia Zero is publicly committed to providing transparency and accountability via ten operating principles.³⁴ These include: (1) carriers must zero-rate access to all parts of Wikipedia, and may not only zero-rate a portion of the site; (2) carriers must ensure that users do not mistakenly incur data charges and that users are prompted with a notice if they are about to leave a zero-rated page; (3) there will be no exchange of payment between Wikipedia Zero and the mobile carrier for providing the zero-rated services; and (4) there are no exclusive contracts—one carrier signing on with Wikipedia Zero does not prevent other carriers from doing the same.³⁵

Google offers another single-site zero-rating type plan. Google Free Zone is an initiative that grants customers free access to Gmail, Google Search, and Google+, the company’s social networking service.³⁶ Customers are able to freely access Gmail and Google+ from their mobile phones, but advanced functionality like downloading email attachments requires a data plan.³⁷ Additionally, customers can search Google through their phones without incurring data charges.³⁸ The Google Search functionality allows users to access any of the websites listed on the first page of Google Search results, free of charge.³⁹ If users

31. *Mobile Partnerships*, THE WIKIMEDIA FOUNDATION, http://wikimediafoundation.org/wiki/Mobile_partnerships [https://perma.cc/NF65-C8HR] (Mar. 30, 2016); *Wikipedia Zero*, THE WIKIMEDIA FOUNDATION, http://wikimediafoundation.org/wiki/Wikipedia_Zero [https://perma.cc/4HZX-MJBS] (Apr. 3, 2015).

32. *Wikipedia Zero Operating Principles*, THE WIKIMEDIA FOUNDATION, http://wikimediafoundation.org/wiki/Wikipedia_Zero_Operating_Principles [https://perma.cc/D4XG-9CZQ] (Apr. 3, 2015).

33. *Wikipedia Zero*, *supra* note 31. See also *Mobile Partnerships*, *supra* note 31 (listing host countries and mobile partnerships).

34. See *Wikipedia Zero Operating Principles*, *supra* note 32.

35. *Id.*

36. Press Trust of India, *Airtel Ties up with Google to Offer Free Search, Google+ and Gmail Services*, GADGETS360 (June 26, 2013), <http://gadgets.ndtv.com/telecom/news/airtel-ties-up-with-google-to-offer-free-search-google-and-gmail-services-384506> [https://perma.cc/EW4A-TUQ5].

Google Free Zone is offered in the Philippines, Sri Lanka, India, Thailand, Nigeria and Kenya. See *Reduce Data Usage on Android, iOS and Desktop*, SO INTO TECH (Nov. 16, 2014), <https://sointotech.wordpress.com/2014/11/16/reduce-data-usage-android-ios-desktop> [https://perma.cc/FQ4X-ZYR3].

37. Press Trust of India, *supra* note 36.

38. *Id.*

39. *Id.*

want to access websites not included in Google's results, they are required to purchase a data plan.⁴⁰ Because Google Free Zone is effectively zero-rating access to some external content that is accessed through its search engine results, it can be viewed as having some characteristics of the compound zero-rating plans discussed below.⁴¹

Facebook Zero—not to be confused with Facebook's Internet.org initiative⁴²—is a plan designed to allow users to access a limited version of Facebook on the Internet through their mobile device at any time, free of charge.⁴³ Smart phones and feature phones can access it on the web or through a popular app; on non-smartphones, for which it is optimized, Facebook Zero presents the user with a streamlined, text-only version of the social media site.⁴⁴ Launched in May 2010, Facebook partnered with more than fifty telecom operators to provide free access to Facebook Zero in forty-five countries.⁴⁵ Facebook does not pay its telecom partners to provide the service; nor does it use advertising.⁴⁶ Facebook Zero is made available to customers who have a data plan with one of the partnering telecom service providers.⁴⁷ If users want to access photos or follow external links, they receive a notification that they will be incurring data charges by doing so.⁴⁸ There is evidence that many eventually do so.⁴⁹ Additionally, people who access Facebook Zero are likely to invite their friends to do so as well, attracting new customers for the telecom provider.⁵⁰

When compared with other forms of zero-rating, sponsored data and pure zero-rating in particular, these single-site or service plans have been relatively

40. *Id.*

41. Nathaniel Mott, *Google Debuts Free Zone to Challenge Facebook for Dominance in Developing Countries*, PANDO (Nov. 8, 2012), <https://pando.com/2012/11/08/google-debuts-free-zone-to-challenge-facebook-for-dominance-in-developing-countries> [<https://perma.cc/4GQ5-JP4E>].

42. *See infra* notes 82-89 and accompanying text.

43. Robin Wauters, *Facebook Launches Zero, A Text Only Mobile Site for Carriers*, TECHCRUNCH (Feb. 6, 2010), <https://techcrunch.com/2010/02/16/facebook-launches-zero-a-text-only-mobile-site-for-carriers> [perma.cc/KJ27-MZ5Q].

44. Christopher Mims, *Facebook's Plan to Find Its Next Billion Users: Convince Them the Internet and Facebook Are the Same*, QUARTZ (Sept. 24, 2012), <http://qz.com/5180/facebook-s-plan-to-find-its-next-billion-users-convince-them-the-internet-and-facebook-are-the-same> [<https://perma.cc/Y4UF-RE23>].

45. *Id.*

46. *Id.*

47. *See* Wauters, *supra* note 43.

48. *Id.*

49. *One Year in: Internet.org Free Basic Services*, INTERNET.ORG (July 27, 2015), <https://internet.org/press/one-year-in-internet-dot-org-free-basic-services> [<https://perma.cc/S5WW-CSR8>] [hereinafter *One Year In*]; MOZILLA STUDY, *supra* note 23, at 12; Stanford Study, *supra* note 23, at 5; Darrell M. West, *Digital Divide: Improving Internet Access in the Developing World Through Affordable Services and Diverse Content* 2, 10-11 (Feb. 2015) http://www.brookings.edu/~media/research/files/papers/2015/02/13%20digital%20divide%20developing%20world%20west/west_internet%20access [<https://perma.cc/SM2D-AMKN>].

50. *See* Wauters, *supra* note 43.

uncontroversial. Even so, both Google and Facebook have been criticized for acting as the “gatekeepers” to the Internet for the millions of users who access it exclusively through their zero-rated sites.⁵¹ Nor does it help their case that in many parts of the developing world, single-site plans like Facebook Zero have led to startling misperceptions in the minds of millions of users about what the Internet is and is not.⁵² In direct response to Facebook and Wikipedia’s single-service plans, Chile became the first country to adopt net neutrality regulations prohibiting the plans outright,⁵³ although it later backtracked on Wikipedia Zero.⁵⁴ Aside from violating net neutrality principles, these single-site plans in Chile were criticized as representing “bubbles created by companies like Google and Facebook to make sure their products become synonymous with ‘the Internet’ in consumers’ minds.”⁵⁵

2. *Sponsored Data*

In this model, content providers contract with and pay a telecom service provider to offer a range of information or services at no cost to users. The best-known example may be AT&T’s Sponsored Data service. Launched in January 2014, AT&T’s program allows advertisers to sponsor mobile data for their subscribers.⁵⁶ Such sponsorship also includes allowing companies to sponsor “business-related data usage for [their] employees, or sponsor data as part of a customer loyalty program.”⁵⁷ Similar sponsored data plans are being promoted by telecoms in other countries as well. In 2015 an Indian telecom, Bharti Airtel,

51. Mott, *supra* note 41.

52. Leo Mirani, *Millions of Facebook Users Have No Idea They’re Using the Internet*, QUARTZ (Feb. 9, 2015), <http://qz.com/333313/millions-of-facebook-users-have-no-idea-theyre-using-the-internet> [<https://perma.cc/69EF-4RVW>]. Out of 699 respondents in Nigeria and Indonesia using Facebook Zero, nearly 10 percent (68) said they did not use the Internet. *Id.*

53. Lauren Walker, *How Is Net Neutrality Working for the Countries That Have It?*, NEWSWEEK (Sept. 10, 2014, 4:00 PM), <http://www.newsweek.com/how-net-neutrality-working-countries-have-it-269632> [<https://perma.cc/VT5N-SZ3A>]. See also *infra* notes 202-223 and accompanying text.

54. Rossini *Public Knowledge Paper*, *supra* note 23, at 19.

55. Nathaniel Mott, *Chile Should Be Commended for Taking away Facebook and Wikipedia*, PANDO (May 30, 2014), <https://pando.com/2014/05/30/chile-should-be-commended-for-taking-away-facebook-and-wikipedia> [<https://perma.cc/P3V6-8PTT>].

56. Mark Bergen, *Net Neutrality Likely to Permit Sponsored Data Plans*, ADVERTISINGAGE (Feb. 12, 2015), <http://adage.com/article/digital/net-neutrality-policy-permit-sponsored-data/297071> [<https://perma.cc/7YCD-KPXE>]. Sponsored data can take most any form, including advertising, games, commercial apps, or content. See Strategy Analytics, *Sponsored Data Not Hurt by Net Neutrality, Benefits Consumers Says Strategy Analytics*, PR NEWSWIRE (Mar. 11, 2015, 8:00 AM), <http://www.prnewswire.com/news-releases/sponsored-data-not-hurt-by-net-neutrality-benefits-consumers-says-strategy-analytics-300048300.html> [<https://perma.cc/9FUT-ETCW>].

57. Russell Brandom, *Sponsored Data: AT&T Will Now Let Companies Buy out Your Data Charges for Specific Videos and Apps*, THE VERGE (Jan. 6, 2014, 12:00 PM), <http://www.theverge.com/2014/1/6/5279894/at-t-announces-net-neutrality-baiting-sponsored-data-mobile-plans> [<https://perma.cc/LJ4N-ZBBM>].

launched a platform of zero-rated services, Airtel Zero, to some controversy.⁵⁸ This platform offered subscribers access to a range of sites and local services whose providers paid Airtel to be included.⁵⁹ Alternatively, the telecom company itself might sponsor (or exempt from data charges) a defined set of sites or services in order to enhance its competitiveness in relation to rival telecom providers.⁶⁰ T-Mobile's free music service is an example of this type of company "self-sponsored" data plan. Its "Music Freedom" arrangement enables subscribers to access music streaming services like Pandora, iTunes Radio, and Spotify, without counting it against the users' data usage caps.⁶¹ In other words, T-Mobile itself exempts the selected content usage from its data charges and thus "pays" for the music streaming by customers.⁶²

Sponsored data plans are popular among telecom service providers for a reason. Regardless of which version of the model a telecom adopts, it benefits not just from the payments received from content providers (unless the telecom is the sponsoring entity), but also by giving users the opportunity to access free data or services on their network, making it more attractive to actual and potential subscribers. The content providers, of course, benefit by increasing their exposure to potential new customers and collecting some personal data from users. Sponsored data plans are similar to single-site plans because some may involve a particular content provider making payments to the telecom to offer its site, information, or services free to customers. Arrangements where Facebook Zero, or Google Free Zone paid their telecom partners to exempt access to their respective content and services from data charges would also fall into this category.

Sponsored data plans have been criticized on a number of grounds. Digital rights advocates have condemned AT&T's Sponsored Data service as a transgression of net neutrality principles because it treats different sources of content differently.⁶³ On purely economic and competition grounds, sponsored data "giv[es] companies with more resources and . . . capital to spend on advertising an upper hand," while disadvantaging start-ups and entrepreneurs who cannot afford to pay telecoms to make their content available to consumers for free.⁶⁴ Airtel Zero was criticized on the same grounds.⁶⁵ T-Mobile's "Music

58. *CEO Defends Airtel Zero Despite Backlash*, TIMES OF INDIA (Apr. 18, 2015, 1:21 AM IST), <http://timesofindia.indiatimes.com/tech/tech-news/CEO-defends-Airtel-Zero-despite-backlash/articleshow/46964010.cms> [<https://perma.cc/7E7N-NQ7W>].

59. *Id.*

60. *Data Caps*, PUBLIC KNOWLEDGE, <https://www.publicknowledge.org/issues/data-caps> [<https://perma.cc/SA4J-4V2D>].

61. Adam Levy, *T-Mobile Music Freedom Is Ultimately Bad for Consumers*, THE MOTLEY FOOL (June 26, 2014), <http://www.fool.com/investing/general/2014/06/26/t-mobiles-music-freedom-is-ultimately-bad-for-cons.aspx> [<https://perma.cc/N9TP-W9VP>].

62. *Id.*

63. Sam Becker, *Here's Why No One Is Buying into AT&T's Sponsored Data Plan*, THE CHEATSHEET (July 29, 2014), <http://www.cheatsheet.com/business/heres-why-no-one-is-buying-into-atts-sponsored-data-plan.html> [<https://perma.cc/U948-T97K>].

64. *Id.*

Freedom” falls into this category too, because it does not support every music streaming service, and thus can be perceived as prioritizing certain sources of online (music) content on its network at the expense of others.⁶⁶

Proponents of sponsored data respond that so long as the service pricing is reasonable with equal access for all companies wishing to participate, there is no harmful discrimination or prejudice to consumers, only benefit.⁶⁷ On this view, non-discriminatory access to purchasing sponsored data reflects no anti-competitive or unfair behavior because everyone is treated equally; this “no harm, no foul” approach leads to the conclusion that there would be no meaningful violation of net neutrality under such circumstances.⁶⁸ Supporters in the United States and India have likened sponsored data plans to the “toll free” or “1-800” dialing approved by the FCC, whereby the public interest is served by companies paying for charges rather than the consumer.⁶⁹

3. Compound Zero-Rating

Compound zero-rating plans are those in which a sponsoring company (or companies) partners with a telecom service provider to grant subscribers access to a bundle of selected sites and services. Generally, these zero-rated platforms provide free access to a wide range of local and other select content as determined by the sponsoring companies, often in consultation with government authorities.⁷⁰ Accordingly, these plans are more like a platform of curated

65. *CEO Defends Airtel Zero*, *supra* note 58.

66. See, e.g., Mike Masnick, *Music Freedom or Holding Consumers Hostage? Letting ISPs Pick Winners and Losers Is a Problem*, TECHDIRT (June 19, 2014, 10:03 AM), <https://www.techdirt.com/articles/20140619/06354227623/when-your-internet-access-provider-gets-to-pick-winners-losers-theres-problem.shtml> [<https://perma.cc/A8AR-KPNV>].

67. See, e.g., *Airtel Launches ‘Airtel Zero’: A Win-Win Platform for Customers and Marketers*, AIRTEL (Apr. 6, 2015), <http://www.airtel.in/about-bharti/media-centre/bharti-airtel-news/corporate/airtel+launches+-+airtel+zero-+a+win-win+platform+for+customers+and+marketers> [<https://perma.cc/NQ3K-9KV7>]; Steve Anderson, *Airtel Unveils Sponsored Data Services*, NEXT GENERATION DIGITAL SERVICES (Apr. 7, 2015), <http://www.nextgenerationdigitalservices.com/topics/nextgenerationdigitalservices/articles/401131-airtel-unveils-sponsored-data-services.htm> [<https://perma.cc/FAV6-SUBJ>].

68. *CEO Defends Airtel Zero*, *supra* note 58.

69. See *AT&T Introduces Sponsored Data for Mobile Data Subscribers and Business*, AT&T (Jan. 6, 2014), <http://www.att.com/gen/press-room?pid=25183&cdvn=news&newsarticleid=37366&mapcode> [<https://perma.cc/ERD7-SKZ8>]; Karl Bode, *Despite Limited Interest in AT&T’s Sponsored Data, Company Still “Bullish” on Its Awful Precedent*, WIRELESS (Feb. 5, 2015, 1:37 PM), <https://www.techdirt.com/blog/wireless/articles/20150106/12150529611/despite-limited-interest-ats-sponsored-data-company-still-bullish-its-awful-precedent.shtml> [<https://perma.cc/NU8Y-FFFE>] (“To hear AT&T pitch it at the time, this would be akin to ‘free shipping’ or a 1-800 number for data . . .”); *CEO Defends Airtel Zero*, *supra* note 58.

70. For example, Mark Zuckerberg and President Juan Manuel Santos of Colombia launched Internet.org in Bogota. *Internet.org App Launches in Colombia*, INTERNET.ORG (Jan. 14,

offerings accessed through a subscriber's mobile phone. Unlike sponsored data services, they do not require payments to or by the telecoms, which can forego such fees in exchange for enhanced offerings to customers and an increased subscriber base.⁷¹ Telecoms benefit by attracting new users who might not otherwise be able to (or want to) pay for a data plan and online access. The content providers and telecoms can claim both to be offering a service and creating new market opportunities for users to access additional data or services for a fee.⁷² Despite their apparent utility, these plans are among the most controversial type of zero-rating to date for a variety of reasons discussed below.

As mentioned above, Google Free Zone has attributes of both a single-service and a compound zero-rating plan.⁷³ Airtel Zero in India combined features of sponsored data and compound zero-rating before it was shut down by the Indian regulator's decision to ban all differential pricing by telecoms, including zero-rating.⁷⁴ But Facebook's original Internet.org, now part of the Free Basics connectivity platform, is an unalloyed example of a compound zero-rating plan.⁷⁵

Founded in August 2013, Internet.org seeks to close the digital divide by providing entire populations in less developed countries with affordable access to dozens of services on the Internet without charge, with wider access provided for a fee.⁷⁶ It is an "initiative bringing together technology leaders, nonprofits and

2015), <https://internet.org/press/internet-dot-org-app-launches-in-colombia> [<https://perma.cc/9K62-QMQT>]; see also Anderson Antunes, *Mark Zuckerberg Meets with Brazil's President at the 7th Summit of the Americas, in Panama*, FORBES (Apr. 11, 2015, 12:40 AM), <http://www.forbes.com/sites/andersonantunes/2015/04/11/mark-zuckerberg-meets-with-brazils-president-at-the-7th-summit-of-the-americas-in-panama/#2d8672e18789> [<https://perma.cc/CWG8-LD6L>]; Josh Constine, *Indian Prime Minister Tells Zuckerberg Social Media Creates a New Form of Diplomacy*, TECHCRUNCH (Sept. 27, 2015), <http://techcrunch.com/2015/09/27/modiberg> [<https://perma.cc/6Y9K-2NGL>].

71. David Post, *Facebook, Internet.org, and the Net Neutrality Bugaboo*, WASHINGTON POST (Aug. 17, 2015), <https://www.washingtonpost.com/news/volokh-conspiracy/wp/2015/08/17/facebook-internet-org-and-the-net-neutrality-bugaboo> [<https://perma.cc/SV34-UQRE>].

72. There is evidence that this business model works. Facebook reports that "more than half of the people who come online through Internet.org are paying for data and accessing the internet within the first 30 days." *One Year in*, supra note 49. See also Anna Peel, *Facebook: More People Are Online Thanks to Internet.org*, VALUE WALK (July 27, 2015, 12:00 PM), <http://www.valuewalk.com/2015/07/facebook-more-people-are-online-thanks-to-internet-org> [<https://perma.cc/58AP-J4EU>] (quoting Facebook VP Chris Daniels as saying that users who join Internet.org subsequently "want to move on and experience more Internet").

73. See supra notes 36-41 and accompanying text.

74. See Press Release No. 13/2016, Telecom Regulatory Authority of India (Feb. 8, 2016), http://tra.gov.in/WriteReadData/PressRealease/Document/Press_Release_No_13%20.pdf [<https://perma.cc/4WQ5-N5H5>]; see also supra notes 58-60 and accompanying text.

75. Josh Constine, *Internet.Org's App with Free Access to Facebook, Google, Wikipedia, Local Info Launches in Zambia*, TECHCRUNCH (July 31, 2014), <http://techcrunch.com/2014/07/31/internet-org-app> [<https://perma.cc/89BV-ZGJN>]; Mirani, supra note 52; *Update to Internet.org Free Basic Services*, INTERNET.ORG (Sept. 24, 2015), <https://press.internet.org/2015/09/24/update-to-internet-org-free-basic-services> [<https://perma.cc/2SCT-Z2RT>].

76. *Who We Are*, INTERNET.ORG, <https://internet.org/about> [<https://perma.cc/VZL7->

local communities to connect the two thirds [sic] of the world that doesn't have [I]nternet access."⁷⁷ For example, among the free sites and services that Internet.org offered in India before it was shut down were Facebook, Messenger, BBC World News, Bing Search, and Wikipedia. In addition, it gave access to other home-grown sites that provided local weather, area and sporting news, classified ads for employment, information on health, maternal and child care, and even music.⁷⁸ To date Facebook has partnered with Airtel, Ericsson, and Nokia, among others, in this endeavor.⁷⁹ Currently, Internet.org is available to over a billion people in at least forty-two nations in Africa, Asia, and Latin America.⁸⁰ Those countries include Bangladesh, Colombia, Ghana, India, Indonesia, Kenya, Mexico, Nigeria, Pakistan, the Philippines, Senegal, South Africa, and Zambia⁸¹

Facebook's stated mission for the Internet.org/Free Basics platform is to bring connectivity to the part of the world's population that still lacks it.⁸² Many question the altruistic justification for this initiative, claiming that it is at bottom a market-expansion tactic.⁸³ For example, the rolling out of Internet.org in India in

JR65].

77. *Id.*

78. Rishi Alwani, *Facebook's Internet.org Comes to India: Everything You Need to Know*, NDTV GADGETS (Feb. 11, 2015), <http://gadgets.ndtv.com/internet/features/facebook-internetorg-comes-to-india-everything-you-need-to-know-659505> [<https://perma.cc/N28Y-656P>]. See also *Internet.org App Now Available in India*, INTERNET.ORG (Feb. 10, 2015), <https://internet.org/press/internet-dot-org-app-now-available-in-india> [<https://perma.cc/2349-UXXP>]. Internet.org does not give users access to an email service. The Internet.org offerings vary from country to country, and most are not as extensive as those that were available in India. This is the case, for instance, in Zambia and Colombia. *Internet.org App Launches in Colombia*, INTERNET.ORG (Jan. 14, 2015), <https://press.internet.org/2015/01/14/internet-org-app-launches-in-colombia> [<https://perma.cc/Z3MM-L8PT>]; Guy Rosen, *Introducing the Internet.org App*, INTERNET.ORG (Jul. 31, 2014), <https://press.internet.org/2014/07/31/introducing-the-internet-org-app> [<https://perma.cc/W8SN-ZWKB>].

79. See Ingrid Lunden, *Facebook-Led Internet.org Partners with Nokia on SocialEDU in Rwanda, Unilever in India, Ericsson on New Lab to Connect Developing Economies*, TECHCRUNCH (Feb. 24, 2014), <https://techcrunch.com/2014/02/24/facebook-led-internet-org-partners-with-nokia-on-socialedu-in-rwanda-unilever-in-india-ericsson-on-new-lab-to-connect-developing-economies> [<https://perma.cc/MRQ3-9V3Q>].

80. See Seema Sirohi, *Sorry Mark Zuckerberg, the World Bank Also Disagrees with You*, ECON. TIMES: LETTER FROM WASHINGTON (Jan. 16, 2016, 1:58 AM IST), <http://blogs.economictimes.indiatimes.com/letterfromwashington/sorry-mark-zuckerberg-the-world-bank-also-disagrees-with-you> [<https://perma.cc/E3SD-W8RH>].

81. *Where We've Launched*, INTERNET.ORG, <https://info.internet.org/en/story/where-weve-launched> [<https://perma.cc/F3XX-L5Q8>].

82. See *id.*; see also *Announcing the Internet.org Platform*, FACEBOOK NEWSROOM (May 4, 2015), <http://newsroom.fb.com/news/2015/05/announcing-the-internet-org-platform> [<https://perma.cc/FS8D-5AMY>].

83. See, e.g., Asif Imtiaz, *Nothing Altruistic About Facebook's Initiative to Spread the Internet*, U.S. FIN. POST (Jan. 6, 2014), <http://usfinancepost.com/nothing-altruistic-about-facebooks-initiative-to-spread-the-internet-11862.html> [<https://perma.cc/XBH5-XRD9>]; Shashidhar KJ, *Sunil Mittal Calls It Right: What Zuck Is Doing with Internet.org Isn't Philanthropy*, MEDIANAMA (Mar. 9, 2015), <http://www.medianama.com/2015/03/223-sunil-mittal-calls-it-right-what->

February 2015 sparked a wave of protest from digital rights activists around the world concerned with protecting net neutrality, freedom of expression, and privacy.⁸⁴ In a coordinated response to the public defense of Internet.org by Mark Zuckerberg,⁸⁵ dozens of global and national advocacy groups including Access, Bits of Freedom, and the Center for Media Justice took issue with Facebook's concept of net neutrality, claiming that it was not based on a "true" definition of the term.⁸⁶ They expressed concern "that access for impoverished people [was being] construed as justification for violations of net neutrality."⁸⁷ In their view, because the zero-rating underpinning Internet.org is "inherently discriminatory," it not only violates net neutrality but also "endangers freedom of expression and equality of opportunity by letting service providers decide which Internet services will be privileged over others, thus interfering with the free flow of information and people's rights *vis-a-vis* networks."⁸⁸

In response to the criticism that it was acting as a "gatekeeper" by choosing certain apps, services, and content over others, thereby creating a "two-tiered" Internet for users, Facebook announced in May 2015 that it was opening its Internet.org platform generally to "any low-bandwidth online service that meets its technical guidelines."⁸⁹

4. *Faux (or Non-Selective) Zero-Rating*

Faux zero-rating plans are those that seem to implicate net neutrality but in effect do not. In this model, a content provider partners with one or more telecom companies to offer limited amounts of free data to users in exchange for meeting certain conditions, such as viewing an advertisement or downloading an application. Users are free to use the complementary data as they choose. Because neither the content providers nor the telecoms decide what applications, services, or sites a subscriber accesses with his or her allotment of free data, faux zero-rating plans do not raise the discrimination or anti-competitive net neutrality concerns that "selective" or "true" zero-rating practices do.⁹⁰ Strictly speaking, they are not zero-rating at all, if zero-rating is defined as a practice that limits

zuck-is-doing-with-internet-org-isnt-philanthropy [https://perma.cc/4LDL-AUD5].

84. See *supra* notes 3, 14, and accompanying text.

85. See *supra* note 16 and accompanying text.

86. *Open Letter*, *supra* note 7.

87. *Id.*

88. *Id.*

89. John Ribeiro, *Facebook's Internet.org Opens Platform to Other Online Services*, COMPUTERWORLD (May 4, 2015, 4:56 AM), <http://www.computerworld.com/article/2917807/internet/facebooks-internetorg-opens-platform-to-other-online-services.html> [https://perma.cc/4TJ9-8HGV].

90. See Karl Bode, *Mozilla: If Facebook Really Wants to Help Developing Nations, It Should Ignore Zero Rating and Fund Real Internet Access*, TECHDIRT (May 15, 2015, 6:16 AM), <https://www.techdirt.com/blog/netneutrality/articles/20150507/10533030927/mozilla-if-facebook-really-wants-to-help-developing-nations-it-should-ignore-zero-rating-fund-real-internet-access.shtml> [https://perma.cc/YPE8-FTWJ].

consumer choice in accessing the mobile Internet, as it commonly is.⁹¹ Telecoms and content providers benefit from faux zero-rating plans by attracting new users to their brand, and/or to their specific hardware or software, while telecoms also benefit from offering customers the opportunity to enhance their data access, all without offending net neutrality.

Mozilla's so-called "equal-rating" strategies aimed at expanding markets while helping to close the digital divide in the developing world are a perfect example.⁹² In Mozilla's view, prevailing practices of "selective" zero-rating are the wrong answer to the right question of how best to promote greater connectivity in the developing world:

The correct answer is that all data is transmitted at the same price, whether that price is "zero" or anything else. This way, consumers pick the content they choose to access based on the quality of that content, not the financial power and business partnerships of the provider. This way, new entrepreneurs can still reach any and all users on the Internet, even if they are a few people working in a co-working space with no ability to subsidize data charges.⁹³

In furtherance of these strategies, Mozilla announced in May 2015 that it had partnered with Orange, a global telecom provider that operates in various African and Middle Eastern countries, to offer a low-cost Orange phone using the Firefox operating system in thirteen new markets.⁹⁴ The Klif phone, as it is called, costs about \$40 and comes pre-loaded with unlimited talk, text, and 500 MB of free data per month for six months.⁹⁵ This initiative presumably built upon Mozilla's experience in Bangladesh, where it has partnered with Grameenphone (owned by Telenor) to offer its users 20 MB of free data per day for Internet access if the customer first watches an advertisement.⁹⁶ In Mozilla's view, "[s]caling up arrangements like these could represent a long-term solution to the key underlying problems of digital inclusion and equality" without the negative consequences incurred by selective zero-rating practices.⁹⁷

Mozilla is not the only company innovating in this field. Since 2014, Jana, a

91. See Mitchell Baker, *Zero Rating and the Open Internet*, LIZARD WRANGLING: MITCHELL ON MOZILLA & MORE (May 6, 2015), <https://blog.lizardwrangler.com/2015/05/06/zero-rating-and-the-open-internet> [<https://perma.cc/6ZSN-XUYQ>] ("Zero-rating as practiced today is 'selective zero-rating for a few apps and websites; exclusion for the rest of the Internet.'"); see also *supra* note 7 and accompanying text.

92. Baker, *supra* note 91.

93. *Id.*

94. Denelle Dixon-Thayer, *Mozilla View on Zero-Rating*, MOZILLA (May 5, 2015), <https://blog.mozilla.org/netpolicy/2015/05/05/mozilla-view-on-zero-rating> [<https://perma.cc/N7ZB-VTEA>]; *Firefox OS Proves Flexibility of Web*, MOZILLA (Mar. 1, 2015), <https://blog.mozilla.org/blog/2015/03/01/firefox-os-proves-flexibility-of-web-ecosystem> [<https://perma.cc/563G-LFCE>] (noting that countries where the Klif phone will initially be offered are Egypt, Senegal, Tunisia, Cameroon, Botswana, Madagascar, Mali, The Ivory Coast, Jordan, Niger, Kenya, Mauritius, and Vanuatu).

95. Dixon-Thayer, *supra* note 94.

96. *Id.*

97. *Id.*

Boston-based company, has promoted its mCent app to much acclaim.⁹⁸ The app encourages users to access third-party sites or services free of charge by crediting their data plans for doing so.⁹⁹ Users are thus “awarded airtime for a number of different kinds of activities, including downloading and using apps, taking surveys, watching videos, signing up for a service, and/or participating in contests.”¹⁰⁰ The content providers who partner with mCent, such as Twitter and Amazon, as well as local music and texting services, pay Jana to make their applications available for subscribers to test out through mCent.¹⁰¹ It is projected to have upwards of thirty million users in the developing world.¹⁰²

Likewise, the India and Silicon Valley-based start-up Marvin employs a strategy to reward customers with free data when they access content online through Marvin’s application, Gigato. Like mCent, Gigato combines aspects of sponsored data and faux zero-rating.¹⁰³ Its corporate customers pay to have their sites and services advertised on a user’s phone through strategically placed content and advertisements.¹⁰⁴ When a consumer accesses the third-party sites, Gigato credits the user’s data plan directly.¹⁰⁵ The subscribers can then use the data credits to access whatever Internet content they choose. As advertised, “Gigato provides free unrestricted Internet data for your Android. Use the apps you love and get megabytes recharged to your prepaid account.”¹⁰⁶

B. National Perspectives on Internet Access and Net Neutrality

In this subpart we turn our attention to the regional and national contexts in which net neutrality policies like zero-rating are implemented. The subpart is divided into three sections. The first focuses on marshaling key statistical indicators for a sample of ten countries organized by region (Africa, Asia, Europe and North America, and South America). They were selected using criteria aimed at putting together a functional cross-section of global experiences viewed from

98. See Parmy Olson, *This App Is Cashing in on Giving the World Free Data*, FORBES (July 29, 2015, 2:03 PM), <http://www.forbes.com/sites/parmyolson/2015/07/29/jana-mobile-data-facebook-internet-org> [https://perma.cc/S2M3-RR6].

99. See Rossini Public Knowledge Paper, *supra* note 23, at 7.

100. *About Us*, M-CENT (2016), <http://mcent.com/about-us> [https://perma.cc/256Z-MRA7].

101. See Olson, *supra* note 98.

102. See Alexander Howard, *Gigato Tried to Make Internet Access Affordable with Data Rebates*, HUFFINGTON POST (July 31, 2015, 7:28 PM ET), http://www.huffingtonpost.com/entry/gigato-app-data-rebates_55bbb899e4b0d4f33a02b5ed [https://perma.cc/N5JL-X9SC].

103. *Id.*

104. See Rossini Public Knowledge Paper, *supra* note 23; see also Surf More. Save More., GIGATO, <http://www.gigato.com> [https://perma.cc/WZ5T-MA56].

105. Rossini Public Knowledge Paper, *supra* note 23.

106. *Gigato Application*, GOOGLE PLAY (Sept. 29, 2015), <https://play.google.com/store/apps/details?id=com.gigato.market> [https://perma.cc/PU6D-XRDN].

both a quantitative and qualitative perspective. The criteria applied were regional representation; policy or practice relating to net neutrality and zero-rating; status as a developed country, developing country, or least developed country;¹⁰⁷ and levels of democratic and Internet freedom. The quantitative indicators selected provide a cross-section of each country's developmental status in social, economic, and political terms, and include figures for fixed and mobile Internet coverage. Together this data paints a broad but useful panorama of the different domestic settings in which zero-rating takes place around the world. The second section then shifts to a thematic perspective, looking at the various barriers to Internet access as they manifest in countries with low connectivity. The final section aims to score a deeper understanding of how zero-rating is being addressed by governments in different domestic contexts through three country case studies.

1. *Background and Context*

There are currently at least sixty states that actively authorize some form of zero-rating in practice.¹⁰⁸ But there is a growing number that have banned it or are in the process of doing so. Notably, the Council of Europe recently adopted net neutrality guidelines that could restrict zero-rating throughout Europe,¹⁰⁹ though effective implementation of those protections by member States remains a concern.¹¹⁰ In addition, the following countries have or have had laws that either

107. For a more detailed description of the typology of country development utilized throughout this Article, see *infra* Table 3 and *infra* notes 125-127; see also *Composition of Macro Geographical (Continental) Regions, Geographical Sub-regions, and Selected Economic and Other Groupings*, U.N. STATISTICS DIV. (Oct. 31, 2013), <http://unstats.un.org/unsd/methods/m49/m49regin.htm#developed> [<https://perma.cc/9MCQ-738U>].

108. See *Are You in the Zone?*, GOOGLE FREE ZONE, <http://googlefreezone.com> (India, Nigeria, Philippines, Sri Lanka, and Thailand); Drossos, *supra* note 29 (United States); Mims, *supra* note 44 (Argentina, Mexico); *Facebook Zero*, WIKIPEDIA, http://en.wikipedia.org/wiki/Facebook_Zero [<https://perma.cc/47LN-SX9L>] (Bangladesh, Cameroon, El Salvador, Fiji, France, Germany, Greece, Georgia, Guinea, Indonesia, Kosovo, Malaysia, Morocco, Myanmar, New Zealand, Pakistan, Panama, Philippines, Poland, Qatar, Suriname, Trinidad and Tobago, Tunisia, United Kingdom, Zimbabwe); *Internet.org*, WIKIPEDIA, http://en.wikipedia.org/wiki/Internet.org#cite_note-13 [<https://perma.cc/T6SP-EPTD>] (Colombia, Ghana, Guatemala, India, Kenya, Philippines, Tanzania, and Zambia); *Wikipedia Zero*, *supra* note 31.

109. *Council of Europe Gets Tough on Net Neutrality*, *supra* note 20 ("The guidelines are not legally binding but will almost certainly result in legislation that follows its lead being passed across Europe. The council is separate from the European Union, but it is influential, being made up of foreign ministers and other politicians from 47 member states.").

110 Tim Berners-Lee, Lawrence Lessig, and Barbara van Schewick, *Four Days to Save the Open Internet in Europe: An Open Letter*, WEB FOUNDATION (July 14, 2016), <http://webfoundation.org/2016/07/four-days-to-save-the-open-internet-in-europe-an-open-letter> [<https://perma.cc/6UVQ-7JXU>] [hereinafter *Berners-Lee Open Letter*]; Kari Bode, *Europe's Flimsy Net Neutrality Rules Go Live, Are Actually Worse than No Rules at All*, TECHDIRT (May 5, 2016, 3:28 AM), <https://www.techdirt.com/blog/netneutrality/articles/20160503/09471634331/europes->

do not permit or expressly ban zero-rating practices: Chile, Brazil, Norway, Netherlands, Finland, Iceland, India, Estonia, Latvia, Lithuania, Malta, Japan, and Slovenia.¹¹¹ Several countries that only discouraged zero-rating in the past now prohibit it.¹¹² Significantly, not one of the countries that currently prohibits zero-rating is located in Africa. Chile, Brazil and now India are the only developing nations to ban zero-rating to date, though enforcement is lax and the practice continues.¹¹³ In order to better understand the profiles of each set of countries—those that permit zero-rating and those that do not—this section compiles key indicators measuring the social, economic, and political conditions in a cross-section of ten countries from the principal regions of the world. It organizes the data into a series of illustrative tables, each organized to highlight critical factors in the analyses to follow in subsequent Parts of this Article, as explained below.

Table 1 summarizes the current status in general terms of the selected countries' efforts to regulate net neutrality and zero-rating, organized by region, as follows:

fimsy-net-neutrality-rules-go-live-are-actually-worse-than-no-rules-all.shtml
[<https://perma.cc/PWK9-W8VA>].

111. States that banned before India chose to do so in February 2016: Chile, Brazil, Norway, Netherlands, Finland, Iceland, Estonia, Latvia, Lithuania, Malta, Japan, and Slovenia. See Romit Guha & Gulveen Aulakh, *Zero Rating: What Are Countries Doing About It*, TIMES OF INDIA (Apr. 21, 2015, 5:51 PM IST), <http://timesofindia.indiatimes.com/tech/tech-news/Zero-rating-What-are-countries-doing-about-it/articleshow/47001571.cms> [<https://perma.cc/G6T3-3GLE>]; Layton & Elaluf-Calderwood, *supra* note 23; see also Rossini *Public Knowledge Paper*, *supra* note 23, at 39 (finding that recently enacted net neutrality protections in Brazil do not allow for zero-rating exceptions).

112. For states that discourage zero-rating and where wireless companies do not practice it, see David Meyer, *Pro-net Neutrality Norway Advises Carriers to Avoid Zero-Rating*, GIGAOM (Nov. 18, 2014, 4:10 PM PDT), <https://gigaom.com/2014/11/18/pro-net-neutrality-norway-advises-carriers-to-avoid-zero-rating> [<https://perma.cc/GF4R-95P5>] (Norway, Finland, Sweden, Estonia, Lithuania, Latvia, Malta, and Iceland—of these countries all but Sweden now have laws against zero-rating).

113. See Int'l Telecomm. Union, *Country Classifications by Region and Development Status*, <http://www.itu.int/ITU-D/ict/definitions/regions> [<https://perma.cc/M8GK-RCFF>]; see also Rossini *Public Knowledge Paper*, *supra* note 23, at 16-20 (Chile); 39-46 (Brazil); U. N. Statistics Div., *supra* note 107. For a discussion of the current panorama in India, see *infra* Part V.

TABLE 1: NET NEUTRALITY & ZERO-RATING CONTEXT BY REGION

Country	Region	Net Neutrality	Zero-Rating
South Africa	Africa	Not regulated	Permitted
Zambia		Not regulated	Permitted
India	Asia	Not regulated	Banned
Malaysia		Not regulated	Permitted
Netherlands	Europe	Regulated by law ¹¹⁴	Banned
Slovenia		Regulated by law ¹¹⁵	Banned
Canada	North America	Regulated by administrative agency ¹¹⁶	Banned
United States		Regulated by administrative agency ¹¹⁷	Permitted in certain cases
Chile	South America	Regulated by law ¹¹⁸	Banned*
Colombia		Regulated by law ¹¹⁹	Permitted

*Zero-rating is banned by law but tolerated in practice.

Table 2 presents data on fixed and mobile broadband Internet access for these same countries. The statistics are ordered to highlight the percentage of fixed broadband subscriptions in each country, moving downwards from lowest to highest levels of penetration.

114. See *infra* Part II.B.2.e.

115. Ken Wieland, *Mobile Operators in Slovenia Fall Foul of Net Neutrality Rules*, MOBILE WORLD LIVE (Jan. 26, 2015), <http://www.mobileworldlive.com/mobile-operators-slovenia-fall-foul-net-neutrality-rules> [https://perma.cc/E79K-GY8M].

116. News Release, Gov't of Canada, Archived - CRTC Continues to Set the Course for the Future of Television with Let's Talk TV Decisions (Jan. 29, 2015), <http://news.gc.ca/web/article-en.do?nid=926529> [https://perma.cc/9PWG-KLRC].

117. See *infra* Part II.B.2.g.

118. See *infra* Part II.B.2.a.

119. See *infra* Part II.B.2.b.

TABLE 2: FIXED & MOBILE BROADBAND INTERNET ACCESS

Country	Region	2014 Fixed Broadband subscriptions (per 100 people) ¹²⁰	2013 Mobile Broadband subscriptions (per 100 people) ¹²¹	2014 Mobile Cellular subscriptions (per 100 people) ¹²²	2014 Internet Users (per 100 people) ¹²³
Zambia	Africa	0.14	0.7	67	17.3
India	Asia	1.24	3.2	74	18.0
South Africa	Africa	3.21	25.2	150	49.0
Malaysia	Asia	10.14	12.5	149	67.5
Colombia	South America	10.27	7.9	113	52.6
Chile	South America	14.08	35.6	133	72.4
Slovenia	Europe	26.55	41.8	112	71.6
United States	North America	30.37	92.8	98	87.4
Canada	No Data	**34.38	41.0	83	87.1
Netherlands	No Data	41.02	62.3	116	93.2

** Canada's fixed broadband access data was not available for 2014, so the data from 2013 has been presented in its place.

Contrasted with the fixed broadband access statistics are those showing mobile phone coverage and wireless broadband subscriptions. European and North American countries have considerably higher fixed broadband penetration than those in other regions (South Korea and Japan being notable exceptions in Asia). But the data for mobile cellular coverage are largely comparable across regions, with especially high levels (more than 100%) in a number of Asian,

120. *Fixed Broadband Subscriptions (per 100 People)*, THE WORLD BANK (2016), <http://data.worldbank.org/indicator/IT.NET.BBND.P2> [https://perma.cc/EH9H-87DL].

121. *See Country Profile*, INT'L TELEGRAPH UNION, <http://www.itu.int/net4/itu-d/icteye/CountryProfile.aspx> [https://perma.cc/PSV4-PW9H].

122. *Mobile Cellular Subscriptions (per 100 People)*, THE WORLD BANK (2016), <http://data.worldbank.org/indicator/IT.CEL.SETS.P2/countries> [https://perma.cc/ZF77-WVZB]. Mobile cellular subscriptions are defined as those that provide voice communication access to public mobile telephone service using cellular technology. *Id.*

123. *Internet Users (per 100 People)*, THE WORLD BANK (2016), <http://data.worldbank.org/indicator/IT.NET.USER.P2> [https://perma.cc/9Y5B-9NT9]. Internet users are defined as people who have access to the worldwide network. *Id.*

African and South American States. Notably, South Africa has the highest mobile coverage of the ten countries studied, yet the third lowest fixed broadband penetration. Also worth highlighting is the substantial difference between mobile *broadband* access, which is still relatively scarce in developing countries, and mobile cellular access in those same countries, which, as pointed out already, can be very high and on par with their more developed European and North American counterparts. It is important to recall here that the zero-rating plans described in the prior section are all accessed through cellular (non-smartphone) telephones and do not require broadband coverage.

Table 3 below highlights each country's gross domestic product (GDP) per capita in ascending order from lowest to highest. It contrasts the GDP data with each country's developmental and inequality rankings according to the United Nations Development Programme (UNDP). Looking at Tables 2 and 3 together, it appears—unsurprisingly—that per capita GDP correlates strongly with overall Internet usage, and in particular fixed broadband penetration. Interestingly, mobile coverage and, to a lesser extent, mobile broadband penetration show little correlation with GDP per capita or income inequality; for example, Chile has the highest mobile broadband penetration of any of the countries studied outside of Europe and North America, despite having a middling GDP per capita and the third highest income inequality of the group.

TABLE 3: GDP & HUMAN DEVELOPMENT INDEX STATISTICS

Country	Adult Literacy Rate (in percent) ¹²⁴	2014 GDP per capita ¹²⁵	GINI Inequality Index ¹²⁶ (0 is "perfect equality"; 100 is "perfect inequality")	2014 UNDP Human Development Index Rank (out of 187 countries) and Range Standing ¹²⁷
Zambia	84	4086.00	55.6	141 (Medium)
India	69	5,833.30	33.9	135 (Medium)
South Africa	93	13,046.20	63.4	118 (Medium)
Colombia	94	13,046.40	53.5	98 (High)
Chile	97	22,333.10	50.5	41 (Very High)
Malaysia	No Data	24,714.80	46.3	62 (High)
Slovenia	100	29,917.00	25.6	25 (Very High)
Canada	No Data	44,088.50	33.7	8 (Very High)
Netherlands	No Data	47,130.70	28.0	4 (Very High)
United States	No Data	54,629.50	41.1	5 (Very High)

Finally, Table 4 reviews several indicators reflecting each country's levels of democracy and political freedom, corruption, and Internet freedom, specifically. Generally speaking, the European and North American countries display stronger tendencies in these areas than most of the countries from the other regions. It is noteworthy that the countries in our study that have banned zero-rating possess the highest possible levels of democracy (9 or 10 out of 10). Additionally, most of the zero-rating banning countries score well on the Corruption Perception Index, with the exception of India and possibly Slovenia.

124. *Adult Literacy Rate, Population 15+ Years, Both Sexes (%)*, THE WORLD BANK (2016), <http://data.worldbank.org/indicator/SE.ADT.LITR.ZS> [https://perma.cc/3ZD6-X26F] (reflecting the most recent statistics published by the World Bank: 2009-2013).

125. *GDP per Capita, PPP (Current International \$)*, THE WORLD BANK (2016), <http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD> [https://perma.cc/D9W7-JB5A]. According to the World Bank, "PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States." *Id.*

126. *GINI Index*, THE WORLD BANK (2016), <http://data.worldbank.org/indicator/SI.POV.GINI> [https://perma.cc/EPZ6-23TJ] (reflecting the most recent statistics published by the World Bank: 2009-2013).

127. *Human Development Reports: Table 1: Human Development Index and Its Components*, U.N. DEV. PROGRAMME: HUMAN DEV. REPORTS (2015), <http://hdr.undp.org/en/data> [https://perma.cc/S5B2-ARFV].

TABLE 4: INDICES ON DEMOCRACY, FREEDOM & CORRUPTION

Country	2015 Freedom House Index (1 is “most free”; 7 is “least free”) ¹²⁸	2015 Freedom House Internet Freedom Score (0 is best, 100 is worst) ¹²⁹	2014 Polity IV Democracy Index (out of 10) ¹³⁰	2014 Corruption Perception Index ¹³¹ (0 is “highly corrupt”; 100 is “very clean”)
Malaysia	4	“Partly Free” – 43	6	52
Colombia	3.5	“Free” – 32	7	37
Zambia	3.5	“Partly Free” – 40	7	38
India	2.5	“Partly Free” – 40	9	38
South Africa	2	“Free” – 27	9	44
Slovenia	1	NO DATA	10	58
Chile	1	NO DATA	10	73
United States	1	“Free” – 19	10	74
Canada	1	“Free” – 16	10	81
Netherlands	1	NO DATA	10	83

2. Barriers to Connectivity

No one disputes the persistence of a vast gulf between the world’s population that enjoys access to an Internet connection and the population that does not, nor the fact that most of that digitally enfranchised population live in developed countries. The total number of Internet users has grown rapidly over the past two decades to over three billion today, of which nearly eighty percent reside in developed countries.¹³² “[D]eveloping countries [on the other hand] are home to about ninety percent of the four billion people not yet using the Internet.”¹³³ So, for example, “[w]hile Europe has an Internet penetration rate of over seventy-five

128. *Freedom in the World 2015*, FREEDOM HOUSE, <https://freedomhouse.org/report/freedom-world/freedom-world-2015#.VaP1gF9VhBc> [<https://perma.cc/D3M4-G5JG>].

129. *2015 Freedom on the Net*, FREEDOM HOUSE, <https://freedomhouse.org/report/freedom-net-2015/table-country-scores> [<https://perma.cc/DRA3-ZWVK>].

130. *Polity IV Annual Time Series, 1800-2013*, INTEGRATED NETWORK FOR SOCIETAL CONFLICT RESEARCH (2014), <http://www.systemicpeace.org/inscrdata.html> [<https://perma.cc/LT8X-6QMB>].

131. *2014 Corruption Perception Index*, TRANSPARENCY INTERNATIONAL (2016), <http://www.transparency.org/cpi2014/results#myAnchor1> [<https://perma.cc/K6US-8GS7>].

132. *Id.*

133. Stanford Study, *supra* note 23, at 3.

percent, only about [twenty percent] of African households are connected.”¹³⁴ This is true of other places as well: India and Indonesia, two of the world’s most populous nations, have Internet user rates of under twenty percent.¹³⁵ These statistics speak not just to the existence of a digital divide *between* States, but also *within* them. The technical, political, social, and economic conditions for the digital divide *globally* are merely an aggregation of the causes behind the digital divide *domestically*, which separates the digital “haves” from the “have-nots” within a given society. Not surprisingly, then, because developing countries have the largest proportions of digitally disenfranchised people, to whom the great social, economic, political and cultural benefits offered by an Internet connection are not accessible, they are the front lines in the struggle to close both divides.¹³⁶

Generally, the barriers to connectivity prevailing in most developing countries fall into two types: “hard” and “soft.” Hard barriers are those external factors that shape whether technical access to an Internet connection exists or can be exercised in a particular society. Examples of such factors are a lack of physical infrastructure, the quality of connections to the Internet in places where they exist, and the high cost of access in low-income countries.¹³⁷ Soft barriers, on the other hand, are those that limit the personal capacity of potential users or their incentives to access an Internet connection where one is available or offered, such as education and literacy levels.¹³⁸ “Hard” and “soft” barriers to connectivity combine to perpetuate the digital divide within countries and globally, though much more attention is generally paid to hard barriers.

A number of factors act as hard barriers to increased Internet connectivity in developing countries, mostly relating to lack of technical infrastructure, high cost, and accessibility. High levels of public and private investment are required to create a working wired Internet system, the political and economic conditions for which are not commonly present. For example, with few submarine cables leading to African countries in general, creating fixed connectivity is expensive, perhaps prohibitively so for the poorest States.¹³⁹ This helps explain why the wired broadband access in Zambia is less than one percent of the population; even in South Africa, the richest country in Sub-Saharan Africa, barely above three

134. *Id.*

135. See Stanford Study, *supra* note 23, at 3; *Internet Users*, *supra* note 123 and accompanying text in Table 2.

136. See MOZILLA STUDY, *supra* note 23, at 5.

137. See ALLIANCE FOR AN AFFORDABLE INTERNET, THE 2015-16 AFFORDABILITY REPORT, http://a4ai.org/affordability-report/report/2015/#poverty_income_inequality_and_the_case_of_mistaken_affordability [<https://perma.cc/3Z3H-9N43>]; INTERNET SOCIETY, LIFTING BARRIERS TO INTERNET DEVELOPMENT IN AFRICA: SUGGESTIONS FOR IMPROVING CONNECTIVITY 16 (2013), <http://www.internet-society.org/doc/lifting-barriers-internet-development-africa-suggestions-improving-connectivity> [<https://perma.cc/AU5F-5GKC>] [hereinafter INTERNET SOCIETY]; Stanford Study, *supra* note 23, at 5.

138. MOZILLA STUDY, *supra* note 23, at 6; Stanford Study, *supra* note 23, at 5.

139. INTERNET SOCIETY, *supra* note 137, at 7.

percent of the population is connected in this way.¹⁴⁰ This is due to the fact that large numbers of the rural population live a long distance from the closest node on a fiber network.¹⁴¹ And while a recent increase in submarine cables has helped with the spread of the Internet in some parts of the African continent, landlocked countries are now forced to rely on a stake in a cable landing station in a neighboring country.¹⁴² In short, “there is significant evidence that there are insufficient cross-border terrestrial connections in Africa, and that those available are not fully exploited.”¹⁴³

Other regions of the world face similar challenges, keeping fixed Internet access at low, even negligible levels. In India, less than two percent of the population enjoys wired access; in Malaysia and Colombia, that figure barely exceeds ten percent; by contrast, wired subscriptions in developed countries surveyed above was closer to a third, on average.¹⁴⁴ Part of the problem for developing countries resides in extending connectivity to rural areas, which can be vast. In China, sixty-three percent of the offline population is rural.¹⁴⁵ In India, approximately forty-five percent of the rural population live without electricity.¹⁴⁶ Even where it is available, wired broadband access may be too expensive. A monthly broadband subscription costs about sixty dollars in Australia and Mozambique.¹⁴⁷ However, the average yearly gross income in Australia is 50,000 U.S. dollars; in Mozambique, it is less than 500. A broadband plan with a speed of 25 to 50 Mbps in Mexico City was 123.73 U.S. dollars on average in 2014, while in Amsterdam it was only 43.53 U.S. dollars.¹⁴⁸ Yet Mexico has a GDP per capita of 10,325.6 and the Netherlands has one of 52,172.2. And these figures obviously do not include the related expenses associated with wired access of purchasing an Internet-enabled device, such as a personal computer or tablet. For these reasons, wired broadband penetration is low to negligible in many developing countries, where it is generally reserved for the urban and economic elites.¹⁴⁹

The pervasive lack of physical infrastructure, plus the expense of getting wired access where it exists, increasingly leads people in developing countries to use mobile phones to access the Internet.¹⁵⁰ But there are significant obstacles to

140. See *supra* note 120 and accompanying text in Table 2.

141. INTERNET SOCIETY, *supra* note 137, at 8.

142. *Id.* at 5-7.

143. *Id.* at 7.

144. See *supra* note 120 and accompanying text in Table 2.

145. See *supra* note 120 and accompanying text in Table 2.

146. INTERNET SOCIETY, *supra* note 137, at 23.

147. Mark Graham, *Broadband Affordability*, GEONET (Sept. 7, 2014), <http://geonet.oii.ox.ac.uk/blog/broadband-affordability-2> [<https://perma.cc/SP6C-R27W>].

148. OPEN TECH. INST., *THE COST OF CONNECTIVITY 2014* 17 (Oct. 2014), https://static.newamerica.org/attachments/229-the-cost-of-connectivity-2014/OTL_The_Cost_of_Connectivity_2014.pdf [<https://perma.cc/T4T3-VYR3>].

149. MOZILLA STUDY, *supra* note 23, at 5-6.

150. INTERNET SOCIETY, *GLOBAL INTERNET REPORT 2015: MOBILE EVOLUTION AND THE DEVELOPMENT OF THE INTERNET* 24,

mobile access too:

On the infrastructure side, despite clear gains in coverage in recent years [. . .] a number of people continue to lack access: 10% of the global population lack access to basic voice and text services, and roughly 30% lack access to 3G/4G mobile broadband internet. Pertinently, the vast majority of these uncovered populations are low income and live in the rural regions of Asia and Sub Saharan Africa.¹⁵¹

Cost continues to be another important barrier.¹⁵² Even where mobile access is more available than fixed broadband, it is still expensive compared to local incomes.¹⁵³

On average, mobile broadband costs in developing countries are twice as much as those in developed countries.¹⁵⁴ In developing countries, people can pay “between 8–12 percent of their average monthly income on mobile connectivity, and that is often just for voice and text.”¹⁵⁵ In Zimbabwe or the Democratic Republic of Congo, for example, the average data plan is equivalent to 100% of the country’s monthly GNI.¹⁵⁶ Similarly, in a place like India, the average person would need to work 17 hours to afford a 500MB mobile data plan, in comparison to the three hours of minimum wage it would take in the United States to get unlimited data for a month.¹⁵⁷ In Zambia, the 500MB mobile data plan will cost

http://www.internetsociety.org/globalinternetreport/assets/download/IS_web.pdf [<https://perma.cc/BT48-N9Y2>]; *Offline and Falling Behind: Barriers to Internet Adoption*, MCKINSEY & CO. (Sept. 2014), http://www.mckinsey.com/insights/high_tech_telecoms_internet/offline_and_falling_behind_barriers_to_internet_adoption [<https://perma.cc/2HMW-R4AW>]; MOZILLA STUDY, *supra* note 23, at 5-6. While just one quarter of users in developed countries access the Internet primarily through a mobile phone, in countries like Egypt and India the numbers are much higher at seventy percent and fifty-nine percent respectively. MOZILLA STUDY, *supra* note 23, at 5-6.

151. MOZILLA STUDY, *supra* note 23, at 6.

152. *See id.* Lack of infrastructure, and even electricity outages, can impair cellular coverage. West, *supra* note 49, at 3-4. Also, not all connections are of the same quality. While ninety-four of the rural population in the Netherlands is covered by at least a 3G mobile network, only one percent is covered in Zambia. INT’L TELECOM. UNION, MEASURING THE INFORMATION SOCIETY REPORT 8 (2014), http://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2014/MIS2014_without_Annex_4.pdf [<https://perma.cc/4GY6-RFPH>].

153. Diana Carew, Progressive Policy Inst., Zero-Rating: Kick-Starting Internet Ecosystems in Developing Countries 1 (Mar. 2015), <http://www.progressivepolicy.org/issues/economy/zero-rating-kick-starting-internet-ecosystems-developing-countries> [<https://perma.cc/A73F-5YND>].

154. Int’l Telecom. Union, ICT Facts and Figures 4 (May 2015), <http://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2015.pdf> [<https://perma.cc/NP3B-T4XH>].

155. Carew, *supra* note 153, at 3.

156. Lisa Mahapatra, *Data Plans: Developed Countries Have the Most Affordable Mobile Broadband Plans*, INT’L BUS. TIMES (Oct. 11, 2013, 6:24 AM EDT), <http://www.ibtimes.com/data-plans-developed-countries-have-most-affordable-mobile-broadband-plans-map-1421680> [<https://perma.cc/JM7T-6JFF>].

157. Nathan Eagle, *How to Make the Internet Free in Developing Countries*, TECHCRUNCH (June 1, 2015), <http://techcrunch.com/2015/06/01/how-to-make-the-internet-truly-free-in->

200 times what a gallon of milk would cost on average.¹⁵⁸ Compare this to the Netherlands, where a bundle of 500MB and unlimited calls and texts will cost 25 Euros per month and the minimum wage for a 36-40 hour workweek is 351.85 euros.¹⁵⁹

In sum, in the context of both wired broadband and mobile phone Internet access, high cost is major obstacle for most consumers in the developing world. In the case of mobile access, it is arguably the primary one. Most people do not have the resources to afford an expensive data plan and pay the fees attached to accessing the Internet on a basic or feature phone, much less a pricey smartphone.¹⁶⁰ Fortunately, smartphones are rapidly becoming more affordable, and there is little doubt that they represent the future of mobile connectivity in the developing world.¹⁶¹ What may be most surprising, however, is that even when people do have access to an Internet connection, they may choose not to use it, or be incapable of doing so. These are the soft barriers to access.

The lack of literacy in different forms is a roadblock to many users. Users who lack digital literacy, for example, may experience “unfamiliarity with or discomfort in using digital technologies to access and use information.”¹⁶² But if a potential user is also unable to read and write, connecting to the Internet will be that much more difficult.¹⁶³ Literacy rates in this regard tend to be lower—though not always substantially so—in the developing countries surveyed than the developed ones.¹⁶⁴ Another barrier is relevance: people are less likely to connect to the Internet if they do not see or understand its usefulness to them. This arises, for instance, where there is insufficient content that appeals to them or relates to their day-to-day lives.¹⁶⁵ Additionally, businesses in developing countries with low levels of mobile connectivity have few incentives to invest in providing online services precisely because there are so few Internet-accessing customers.¹⁶⁶ These factors combine to form a status quo of “low connectivity

developing-countries [<https://perma.cc/NEM4-TXW4>].

158. See *infra* notes 169-200.

159. *Bundle Offers*, LYCAMOBILE, <http://www.lycamobile.nl/en/bundle> [<https://perma.cc/5DGD-JZNW>]; *Minimum Wage*, GOV'T OF THE NETHERLANDS, <https://www.government.nl/topics/minimum-wage/contents/amount-of-the-minimum-wage> [<https://perma.cc/B3R6-ZAEU>].

160. West, *supra* note 49, at 2.

161. See MOZILLA STUDY, *supra* note 23, at 6-11.

162. MCKINSEY & CO., *supra* note 150, at 4.

163. *Id.*

164. See *supra* Table 3 note 124. While some technologies, such as text-to-speech or voice recognition can facilitate the navigation even for illiterate users, most users who do not have the basic level of language proficiency necessary will find it difficult to engage with the Internet in a meaningful way. MCKINSEY & CO., *supra* note 150, at 42.

165. INTERNET.ORG, STATE OF CONNECTIVITY: 2014: A REPORT ON GLOBAL INTERNET ACCESS 30 (2014), https://fbnewsroomus.files.wordpress.com/2015/02/state-of-connectivity_3.pdf [<https://perma.cc/7H36-MALH>]; West, *supra* note 49, at 5. Obviously, if access is not available in local languages, that too will further discourage access.

166. Carew, *supra* note 153, at 3.

equilibrium” which can be difficult to overcome.¹⁶⁷ The proliferation in developing countries of mobile phone users in general, and smartphone users in particular, will not be as effective in closing digital divides as it could be, unless it is coupled with relevant local content offerings, and digital literacy programs aimed at new subscribers.¹⁶⁸

3. *Three Approaches to Zero-rating*

The foregoing discussion uses quantitative data to illustrate the different contexts in which net neutrality policies and zero-rating practices take place around the world. In this section we focus specifically on three of the countries examined above, each reflecting a different approach to zero-rating. The countries are Zambia, Chile, and the United States. Each country study integrates the economically, politically, and technologically relevant data from the preceding section with additional information about how net neutrality in general, and zero-rating in particular, have been addressed.

a. *Zambia*

One example of a developing nation that embraces zero-rating is Zambia. Zambia is a Southern African nation with a weak democratic system. It is a presidential republic, but through much of its independent history, Zambia has been controlled by a single political party, the United National Independence Party (UNIP). Zambia went through a period of decentralization in the early 1990s and has been undergoing economic reforms since the early 2010s.¹⁶⁹ The political climate in Zambia, however, is not fully free according to Freedom House’s 2016 Freedom in the World Report.¹⁷⁰

As far as human development is concerned, Zambia is lagging, despite a significant increase in its Human Development Index (HDI) ranking from 2012 to 2013. As noted above in Part II.B (Table 3), in 2013 Zambia was in the bottom of the medium development range with a ranking of 141 out of 187 nations by HDI.¹⁷¹ In 2012, however, it had ranked 163 with a lower HDI score than the average for “low development” countries, as well as for the sub-Saharan nations.¹⁷² In any event, the country’s GDP per capita is the lowest of any of the

167. *Id.*

168. MOZILLA STUDY, *supra* note 23, at 34-35.

169. *Zambia Among World’s Fastest Growing Economies—World Bank*, LUSAKA VOICE (Apr. 16, 2013), <http://lusakavoice.com/2013/04/16/zambia-among-worlds-fastest-growing-economies-world-bank> [<https://perma.cc/WU4R-ZSXL>].

170. *Freedom of the Press: Zambia 2016 Scores*, FREEDOM HOUSE (2016), <https://freedomhouse.org/report/freedom-world/2016/zambia> [<https://perma.cc/DA8C-MJSV>].

171. *See supra* note 127 and accompanying text.

172. U.N. Dev. Programme, *Human Development Report 2013: The Rise of the South: Human Progress in a Diverse World: Zambia* 2,

States surveyed;¹⁷³ for this reason, among others, the United Nations continues to list Zambia as one of the world's 48 "least-developed" countries as of 2014.¹⁷⁴

Zambia allows for zero-rating: it was the first country in which Facebook rolled out Internet.org in July 2014.¹⁷⁵ The country apparently does not yet have a concrete legal or policy framework when it comes to net neutrality.¹⁷⁶ In general, net neutrality is not (yet) regulated in many African countries.¹⁷⁷ The Internet Service Providers' Association has stated that net neutrality is a "non-issue" in countries like South Africa.¹⁷⁸ Some argue that net neutrality laws address the quality of access and that only becomes relevant when there is a larger quantity of access.¹⁷⁹ They state this as the reason that net neutrality laws have not spread further throughout Africa.¹⁸⁰ While opponents of tighter net neutrality regulation in African countries do concede that zero-rating will make it harder for startups and easier for big names to dominate the market, they believe that "bad access trumps no access every single day of the week."¹⁸¹

Internet.org operates in Zambia through Airtel, a private telecommunications provider.¹⁸² In addition to services such as Facebook, Messenger, AccuWeather, Google Search, and Wikipedia, Internet.org gives Zambians access to UNICEF's website for health and nutrition, including info on HIV/AIDS (Zambia uReport); other applications include a sports website, an independent news service, and a women's rights app.¹⁸³ Wikimedia Zero

<http://hdr.undp.org/sites/default/files/Country-Profiles/ZMB.pdf> [<https://perma.cc/MNY7-BNCS>].

173. See *supra* note 125 and accompanying text.

174. See *supra* notes 125-129 and accompanying text (discussing the United Nations current LDC criteria and list).

175. Rosen, *supra* note 78.

176. See *Freedom on the Net 2015: Zambia*, FREEDOM HOUSE, <https://freedomhouse.org/report/freedom-net/2015/zambia> [<https://perma.cc/R396-WTAJ>] (detailing legal framework that applies to Internet regulation in Zambia, with no mention of net neutrality norms).

177. Gareth van Zyl, *Is Net Neutrality a "Non-Issue" in Africa?*, IT WEB AFRICA (Aug. 18, 2014), <http://www.itwebafrica.com/telecommunications/155-zambia/233382-is-net-neutrality-a-qnon-issueq-in-africa> [<https://perma.cc/VWL4-TZYD>].

178. "Net Neutrality" a Non-Issue in South Africa for the Present, Says ISPA, INTERNET SERVICE PROVIDERS ASSOC. (Aug. 11, 2014), <http://ispa.org.za/press-release/net-neutrality-a-non-issue-in-south-africa-for-the-present-says-ispa> [<https://perma.cc/J4XD-AZGD>].

179. Steve Song, *Net Neutrality in Africa*, MANY POSSIBILITIES (May 7, 2014), <https://manypossibilities.net/2014/05/net-neutrality-in-africa> [<https://perma.cc/6JR2-RL3H>].

180. *Id.*

181. *Id.*

182. *Id.*; *Company Overview of Airtel Networks Zambia Plc*, BLOOMBERG BUS. (OCT. 10, 2016, 11:11 AM ET), <http://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapid=21731344> [<https://perma.cc/9KWD-VT7C>].

183. Mat Honan, *Facebook-Backed Nonprofit Brings Free Internet to Zambia*, WIRED (July 31, 2014, 3:00 AM), <http://www.wired.com/2014/07/internet-org-zambia> [<https://perma.cc/MZL7-C2G7>]; see also Rosen, *supra* note 78.

currently does not operate in Zambia.¹⁸⁴ The arrival of Internet.org is significant because, historically, Zambia has had low Internet penetration rates. Between 2010 and 2014, Zambia increased Internet user percentage by over 50 percent, but that brought the total up to only 15.4 percent of the population.¹⁸⁵ By some accounts it has reached as high as seventeen percent.¹⁸⁶ In its territory, Zambia only has four secure servers per one million people.¹⁸⁷ As of 2010, only 1.3 percent of the population has Internet access at home, and less than 4 percent have a computer at home.¹⁸⁸ However, over fifty percent of households have a mobile-cellular telephone.¹⁸⁹ For these reasons, Zambia ranks 144 out of 166 countries ranked in the International Telecommunication Union's Information and Communications Technology Development Index.¹⁹⁰

Although Zambia's telecommunications sector is limited, it is in a period of growth. It has had a single privately owned ISP since the 1990s, but other private companies are starting.¹⁹¹ Moreover, the telecommunications regulator, the Zambia Information and Communications Technology Authority, is nominally independent.¹⁹² Its mission includes regulation, monitoring, standard setting, and promoting competition in the telecommunications sector.¹⁹³ One of its strategic goals is to promote universal access in the population.¹⁹⁴ Unfortunately, Zambia is one of the most corrupt of the countries surveyed, tied with India and only marginally better than Colombia.¹⁹⁵ Overall, Transparency International ranks it 85 out of 175 countries in the world.¹⁹⁶

There are two main obstacles to increased Internet connectivity in Zambia:

184. See *Mobile Partnerships*, *supra* note 31.

185. *Internet Users*, *supra* note 123.

186. *Freedom on the Net 2015: Zambia*, *supra* note 176.

187. *Emerging Nations Embrace Internet, Mobile Technology*, PEW RES. CTR. (Feb. 13, 2014), <http://www.pewglobal.org/2014/02/13/emerging-nations-embrace-internet-mobile-technology> [<https://perma.cc/K7PQ-WYVU>]; *Secure Internet Servers (per 1 Million People)*, WORLD BANK (2016), <http://data.worldbank.org/indicator/IT.NET.SECR.P6> [<https://perma.cc/GH96-L85L>].

188. *Country Profile*, INT'L TELEGRAPH UNION, *supra* note 121.

189. *Id.*

190. *MIS 2014 Report Charts*, Table 2.1, INT'L TELEGRAPH UNION (2016), <http://www.itu.int/en/newsroom/Pages/wtis14-mis-images.aspx> [<https://perma.cc/HGG6-LDD7>].

191. *Zambia*, PRICEWATERHOUSECOOPERS (2015-16), <http://www.pwc.com/zm/en/industries/telecommunications.jhtml> [<https://perma.cc/4K2X-TEE3>].

192. *Id.*

193. *About Us*, ZAMBIA INFO. & COMM. TECH. AUTHORITY (2015), http://www.zicta.zm/index.php?option=com_content&view=article&id=49&Itemid=92 [<https://perma.cc/DL7F-E23D>].

194. *Id.*

195. See *supra* Table 4.

196. *Corruption Perceptions Index 2014: Results*, TRANSPARENCY INT'L (2016), <https://www.transparency.org/cpi2014/results> [<https://perma.cc/UZZ6-RXZS>]; see *supra* Table 4.

the first is economic, and the second relates to infrastructure. As Zambia is a Least Developed Country (LDC), national incomes are very low, and it is difficult for individuals to spend money on Internet access rather than other pressing necessities. For instance, while a gallon of milk in Zambia will cost the equivalent of about 4.6 U.S. dollars, a mobile Internet data bundle of 500MB for 30 days will cost approximately 20 U.S. dollars.¹⁹⁷ Additionally, Zambia has a high tax burden on Internet access—the ratio of tax payments to mobile operator revenue is a high fifty-three percent.¹⁹⁸ Infrastructure limitations also hinder increased access. Since Zambia is a landlocked nation, it does not have access to submarine cables, which can increase competition and bring down prices.¹⁹⁹ In order to get access to these cables, Zambia would have to rely on coastal neighbors, which is not feasible in all situations.²⁰⁰

b. *Chile*

Chile was the first nation in the world to adopt a net neutrality law in 2010.²⁰¹ It is a South American country with a strong democratic system based on popular elections and a multi-party political system. It operates on a presidential system with laws enacted by congress and implemented by the president. Freedom House scores Chile as “Free” with top scores in both Civil Liberties and Political Rights,²⁰² whereas Press Freedom is categorized as only “partly free” based in part on a lack of competition in the media market.²⁰³ Corruption levels are relatively low, especially by regional standards. Transparency International (TI) ranks it 21 out of 175 countries in terms of corruption, tied with Uruguay for the lowest levels in South America.²⁰⁴ Despite middle of the road GDP per capita, Chile ranks highly overall in human development. According to the UNDP, it is 41 out of 187 nations and has the highest human development in South America.²⁰⁵

197. See *Cost of Living in Zambia*, NUMBEO (2016), http://www.numbeo.com/cost-of-living/country_result.jsp?country=Zambia [<https://perma.cc/QQN8-L43B>]; see also *MTN Zambia Mobile Internet Data Sheet*, GITHUB GIST, <https://gist.github.com/smaboshe/2880253> [<https://perma.cc/47G4-FX8Z>].

198. MCKINSEY & CO., *supra* note 150, at 41.

199. *Id.* at 47.

200. *Id.*

201. Lauren Walker, *How Is Net Neutrality Working for the Countries That Have It?*, NEWSWEEK (Sept. 10, 2014, 4:00 PM ET), <http://www.newsweek.com/how-net-neutrality-working-countries-have-it-269632> [<https://perma.cc/6SNZ-D65C>].

202. *Freedom in the World: Chile 2014 Scores*, FREEDOM HOUSE (2016), <https://freedomhouse.org/report/freedom-world/2014/chile#.VSa7FFPF-hw> [<https://perma.cc/7KZU-LDGA>].

203. *Freedom of the Press: Chile 2014 Scores*, FREEDOM HOUSE (2016), <https://freedomhouse.org/report/freedom-press/2014/chile#.VcEBXvNVhBc> [<https://perma.cc/7ESE-F895>].

204. TRANSPARENCY INT'L, *supra* note 196; see *supra* Table 2.

205. *Chile: Human Development Indicators*, U.N. DEV. PROGRAMME: HUMAN DEV. REPORTS (2015) <http://hdr.undp.org/en/countries/profiles/CHL> [<https://perma.cc/57R6-XVKZ>]; see

As far as economic development, the United Nations classifies Chile as a developing economy with high income (advancing from upper middle income status in 2014).²⁰⁶ Chile became a member of the Organization of Economic Cooperation (OECD) in 2010—the organization's first member in South America.²⁰⁷ However, Chile also has high inequality, as evidenced by The World Bank scoring Chile at 50.8 in terms of GINI (where 0 is perfect equality and 100 is perfect inequality).²⁰⁸

As noted, in 2010 Chile was the first nation in the world to adopt a net neutrality law,²⁰⁹ banning most kinds of zero-rating. At a normative level, the provisions established by the law create a “blanket” bar to practices that violate net neutrality.²¹⁰ Chile's net neutrality laws state that ISPs will not be able to “arbitrarily block, interfere, discriminate, hinder or restrict content, applications or legal services that users perform in their networks.”²¹¹ Initially, the law's prohibition on discrimination was applied to commonly zero-rated social media applications like Twitter, WhatsApp and Facebook.²¹² In 2014, the Subsecretaría de Telecomunicaciones de Chile (Subtel), the telecommunications regulator, announced that such services were no longer allowed, subjecting any company

International Human Development Indicators, U.N. DEV. PROGRAMME: HUMAN DEV. REPORTS (2015), <http://hdr.undp.org/en/countries> [<https://perma.cc/PNT6-5NSX>] (map showing Argentina as next ranked nation in South America at number forty-nine).

206. Country Classification, U.N. (2014), http://www.un.org/en/development/desa/policy/wesp/wesp_current/2014wesp_country_classification.pdf [<https://perma.cc/BK9C-5EAY>].

207. *Chile Signs up as First OECD Member in South America*, ORG. FOR ECON. CO-OPERATION & DEV. (Nov. 1, 2010), <http://www.oecd.org/chile/chilesignsupasfirstoecdmemberinsouthamerica.htm> [<https://perma.cc/HWS9-2EKW>]; *Members and Partners*, ORG. FOR ECON. CO-OPERATION & DEV. (2016), <http://www.oecd.org/about/membersandpartners> [<https://perma.cc/MR8F-EQ6M>].

208. *GINI Index (World Bank Estimate)*, WORLD BANK (2016), <http://data.worldbank.org/indicator/SI.POV.GINI> [<https://perma.cc/4AFH-4LQL>].

209. *Ley No. 20.543, Consagra el Principio de Neutralidad en la Red Para Los Consumidores y Usuarios de Internet, General de Telecomunicaciones*, BIBLIOTECA DEL CONGRESO NACIONAL DE CHILE (18 Ago. 2010), <http://www.leychile.cl/Navegar?idNorma=1016570&buscar=NEUTRALIDAD+DE+RED>; Walker, *supra* note 201.

210. Subsecretaría de Telecomunicaciones, Gobierno de Chile, Circular No. 40/DAP 13221 /F-51 (Apr. 14, 2014), http://www.subtel.gob.cl/transparencia/Perfiles/Transparencia20285/Normativas/Oficios/14oc_0040.pdf [<https://perma.cc/JYB8-M9C7>]; Walker, *supra* note 201.

211. *Chile: First Country to Legislate Net Neutrality*, GLOBAL VOICES (Sept. 4, 2010, 2:49 PM GMT), <https://globalvoices.org/2010/09/04/chile-first-country-to-legislate-net-neutrality> [<https://perma.cc/3X4N-U8VF>].

212. Glyn Moody, *Chile Bans Free Delivery of Social Media Services to Uphold Net Neutrality*, TECHDIRT (June 16, 2014, 2:11 PM), <https://www.techdirt.com/articles/20140603/05442127439/chile-bans-free-delivery-social-media-services-to-uphold-net-neutrality.shtml> [<https://perma.cc/639J-QYEP>]; *Ley de Neutralidad y Redes Sociales Gratis*, SUBSECRETARIA DE TELECOMUNICACIONES (May 27, 2014), <http://www.subtel.gob.cl/noticias/138-neutralidad-red/5311-ley-de-neutralidad-y-redes-sociales-gratis> [<https://perma.cc/KC62-2V4C>].

that utilized them to fines.²¹³ Internet.org was similarly shut down.²¹⁴ While net neutrality activists were pleased by Chile's approach, others called the practice shortsighted.²¹⁵ Citing Chile's high rate of mobile phone usage and relatively low wired and mobile internet usage, opponents argue that the Chilean plan lacked "nuance" and would hamper the growth of Internet access in the country.²¹⁶

In practice, however, Chile's net neutrality law today only bans zero-rating by mobile operators of social media apps and services offered as promotional or commercial schemes.²¹⁷ Some forms of zero-rating continue to exist or be permitted by Subtel, including zero-rated social media platforms.²¹⁸ Notably, Subtel issued an opinion stating that Wikipedia Zero did not violate the terms of the law, or Subtel's interpretations of its net neutrality protections.²¹⁹

Unlike most other developing countries, Chile has significant Internet penetration. As of 2013, over sixty-six percent of the country has Internet access, and it has ninety-four secure servers per one million people.²²⁰ Nearly seventy percent of the population accesses the Internet daily,²²¹ confirming that Chile faces relatively few specific barriers to Internet connectivity. As of 2011, over forty percent of households had Internet access in their homes.²²² The country's infrastructure suffered a hit from the February 2010 earthquake, but combined public and private efforts have invested in rebuilding.²²³ Although over ninety percent of Chileans own a cell phone, only thirty-nine percent own a smartphone.²²⁴ However, fifty-five percent of eighteen to twenty-nine year old Chileans have a smartphone, suggesting the breakdown is generational.²²⁵ Finally, the telecommunications sector in Chile is privatized.²²⁶ As we have seen,

213. David Meyer, *In Chile, Mobile Carriers Can No Longer Offer Free Twitter, Facebook or WhatsApp*, GIGAOM (May 28, 2014, 3:28 AM CDT), <https://gigaom.com/2014/05/28/in-chile-mobile-carriers-can-no-longer-offer-free-twitter-facebook-and-whatsapp> [<https://perma.cc/AB43-URND>].

214. *Rossini Public Knowledge Paper*, *supra* note 23, at 17-18.

215. Leo Mirani, *When Net Neutrality Backfires: Chile Just Killed Free Access to Wikipedia and Facebook*, QUARTZ (May 30, 2014), <http://qz.com/215064/when-net-neutrality-backfires-chile-just-killed-free-access-to-wikipedia-and-facebook> [<https://perma.cc/A7FE-SHFG>].

216. *Id.*

217. *Rossini Public Knowledge Paper*, *supra* note 23, at 19-20.

218. *Id.* See, e.g., *Redes Sociales en tu Plan*, CLAROCHILE, <http://www.clarochile.cl/portal/cl/pc/personas/movil/redes-sociales/#04-redes-sociales-en-tu-plan> [<https://perma.cc/G6TB-GG7A>].

219. *Id.*

220. *Internet Users (per 100 People)*, *supra* note 123; *Secure Internet Servers (per 1 million people)*, *supra* note 187.

221. *Emerging Nations*, *supra* note 187.

222. *Core Indicators on Access to and Use of ICT by Households and Individuals (Excel)*, INT'L TELECOMM. UNION (2016), <http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx> [<https://perma.cc/5CLS-DKKH>] [hereinafter *Core Indicators*].

223. *Id.*

224. *Emerging Nations*, *supra* note 187.

225. *Id.*

226. See *Rossini Public Knowledge Paper*, *supra* note 23, at 15-20 (describing Chile's

Subtel regulates the industry, including issuing licenses and promulgating standards.²²⁷

c. *United States*

The United States ranks as a free democratic country and the world's largest economy. Recent revelations regarding mass government surveillance have raised concerns regarding privacy and Internet freedom.²²⁸ Corruption is relatively low (the country comes in 17th out of 175 nations according to TI).²²⁹ According to the Human Development Report, the United States is a developed nation. It has high human development, ranking 5th of 166 nations.²³⁰ Moreover, the United States has the highest human development score in the Americas.²³¹

The United States does not prohibit zero-rating, but a pro-net neutrality bias requires that such practices be reviewed to safeguard against potentially unfair or harmful consequences.²³² In its 2015 Open Internet Order, the FCC adopted a framework for regulating the Internet that is strongly protective of net neutrality in several respects.²³³ First, the FCC defined the scope of its new Rules as applying to "both fixed and mobile broadband Internet access service."²³⁴ Second, the FCC enacted three bright-line rules that go to the heart of net neutrality protections: no blocking;²³⁵ no throttling;²³⁶ and no paid prioritization.²³⁷

regulation of the private telecom companies in that country).

227. *Id.*

228. *Freedom on the Net: United States 2014 Scores*, FREEDOM HOUSE (2016), <https://freedomhouse.org/report/freedom-net/2014/united-states> [<https://perma.cc/ML68-24RG>].

229. TRANSPARENCY INT'L, *supra* note 196; *see supra* Table 2.

230. *United States: Human Development Indicators, Human Development Reports*, U.N. DEV. PROGRAMME: HUMAN DEV. REPORTS (2015), <http://hdr.undp.org/en/countries/profiles/USA> [<https://perma.cc/LFN4-ZNTB>].

231. *See supra* Table 3.

232. *See* Arturo J. Carrillo & Dawn C. Nunziato, *The Price of Paid Prioritization: The International and Domestic Consequences of the Failure to Protect Net Neutrality in the United States*, GEO. J. INT'L AFF. (SUMMER 2015) 98, 98, <http://journal.georgetown.edu/cyber-v> [<https://perma.cc/DA7K-QZRB>].

233. *Net Neutrality: President Obama's Plan for a Free and Open Internet*, WHITE HOUSE, <http://www.whitehouse.gov/net-neutrality> [<https://perma.cc/XCJ6-AN3W>].

234. 2015 Open Internet Order, *supra* note 1, at ¶ 25.

235. *Id.* ¶ 112 ("A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not block lawful content, applications, services, or nonharmful devices, subject to reasonable network management.").

236. *Id.* ¶ 119 ("A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not impair or degrade unlawful Internet traffic on the basis of Internet content, application, or service, or use of a non-harmful device, subject to reasonable network management.").

237. *Id.* ¶ 125 ("A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not engage in paid prioritization. 'Paid prioritization' refers to the management of a broadband network provider's network to directly or indirectly favor some traffic over other traffic, including through use of techniques such as traffic shaping,

Finally, the FCC devised a way to reach other types of conduct that may not come under the bright-line rules by establishing its “no unreasonable interference/disadvantage standard.”²³⁸ Under this rule, ISPs cannot unreasonably interfere with or disadvantage either end users’ ability to use and access broadband service or Internet content or edge providers’ ability to make such content available to end users.²³⁹ In other words, the FCC decided that it would not apply a bright line rule to flatly prohibit sponsored data or “zero-rating” plans, but would instead evaluate these on a case-by-case basis under the “no unreasonable interference/disadvantage standard.”²⁴⁰

Internet penetration is high across the United States, ranging from metropolitan to rural areas. In 2014, the US far outranked all other countries examined by the OECD in Internet coverage, with a total of 100,192,000 fixed and wireless broadband subscriptions.²⁴¹ Regarding subscriptions per 100 people it came in 16th, with Korea and New Zealand being the only non-European countries to have a higher number of fixed and wireless subscriptions.²⁴² Eighty-four percent of the country has access, with sixty-eight percent of adults accessing through mobile connections and seventy percent of households having high-speed broadband.²⁴³ Currently, the access and scope of zero-rated services depend on different private mobile carrier options. T-Mobile, for instance, exempts specific music apps for zero-rating under some of its data plans, but not others.²⁴⁴

C. Concluding Observations

In this second Part, I reviewed the different types of private sector zero-rating practices and organized them into four basic categories: single-site; compound; sponsored data; and faux/non-selective. I presented empirical data relating to Internet access, net neutrality and zero-rating around the world, as well as the specific socio-economic and political contexts in which those issues

prioritization, resource reservation, or other forms of preferential traffic management, either (a) in exchange for consideration (monetary or otherwise from a third party), or (b) to benefit an affiliated entity.”).

238. *Id.* ¶ 136. (“Any person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not unreasonably interfere with or unreasonably disadvantage (i) end users’ ability to select, access, and use broadband Internet access service or the lawful Internet content, applications, services, or devices of their choice, or (ii) edge providers’ ability to make lawful content, applications, services, or devices available to end users. Reasonable network management shall not be considered a violation of this rule.”).

239. 2015 Open Internet Order, *supra* note 1, at ¶ 136.

240. *Id.* ¶ 152.

241. OECD Broadband Portal, ORG. FOR ECON. CO-OPERATION AND DEV. (Feb. 19, 2016), <http://www.oecd.org/sti/broadband/oecdbroadbandportal.htm> [https://perma.cc/JK4G-9F5V].

242. *Id.*

243. *Freedom on the Net: United States 2014 Scores*, *supra* note 228.

244. Brad Molen, *On T-Mobile, You Can Now Stream Music Without Hurting Your Data Plan*, ENGADGET (June 18, 2015), <http://www.engadget.com/2014/06/18/t-mobile-uncarrier-6> [https://perma.cc/V5GG-BLFJ]; see also *supra* notes 60-62 and accompanying text.

exist. This included a survey of the various barriers to connectivity, especially the high costs associated with Internet access in the developing world, which is an essential piece of the zero-rating puzzle. And, by viewing all this data through the lens of three representative case studies, I hope to have conveyed a better sense of the primary approaches considered or adopted by countries around the world as they attempt to regulate net neutrality and zero-rating. Now we are ready to turn to the international law framework.

III. "NEW" PERSPECTIVE: THE INTERNATIONAL LAW FRAMEWORK

As important as it is to maintaining an open and free Internet, the principle of net neutrality is much more than that. Today, it is a well-established rule of international human rights law, an essential element of the rights to freedom of expression and non-discrimination online. But, how did it become so? No human rights treaty mentions the term "net neutrality," which was famously coined by U.S. law professor Tim Wu only in 2003.²⁴⁵ More to the point: why does it matter? What is significant about the evolution of net neutrality from a U.S.-based normative principle and proposed policy priority, to a human rights rule binding on States? Why should—indeed, must—defenders and critics of net neutrality alike understand the human rights implications of that rule today? Those are the questions to be addressed here, among others.

In this Part, I trace the evolution of net neutrality as a human rights norm before situating it within the legal frameworks for analyzing such rights. It is divided into three subparts. In the first, I respond to the question, "How did net neutrality become a norm of international human rights law?" This initial subpart looks at how net neutrality rose to become an integral part of freedom of expression, which is defined as the rights to impart, seek and receive information, on the one hand, and the right to Internet access or "connectivity" on the other. The second subpart outlines the contemporary legal frameworks involved, including non-discrimination norms and their effect on freedom of expression rights as applied. It also sets out the exceptions regime established in human rights law for determining when restrictions on fundamental rights by States are permitted. In the third and final subpart, I answer the question of why it is important, if not necessary, that we treat net neutrality as what it undisputedly has become: a multi-faceted norm of modern human rights law.

A. *How Net Neutrality Became a Norm of International Human Rights Law*

Net neutrality did not begin as a human right. Decades ago, the concept of an "open" or data neutral network was built into the nascent Internet by design.²⁴⁶

245. Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. ON TELECOMM. & HIGH TECH. L. 141, 141 (2003).

246. JACK GOLDSMITH & TIM WU, WHO CONTROLS THE INTERNET?: ILLUSIONS OF A BORDERLESS WORLD 23-25 (2006).

This “openness” encompassed not just engineering in terms of software and standards, but also the liberal values of free speech and egalitarianism derived from the milieu in which the Internet was created.²⁴⁷ The “open Internet” was meant to guarantee the free, unregulated flow of information from “end-to-end,” that is, without substantial interference during the transmission of data from one “intelligent” user to another, over the “dumb” pipes or physical network.²⁴⁸ “One consequence of this design is a principle of non-discrimination among applications.”²⁴⁹ Another consequence was the meteoric growth and success of the Internet as a communications network.²⁵⁰ Not surprisingly, early activists heralded the Internet as a great liberating force, not least because “cyberspace” was viewed as inherently free of the types of territorial boundaries, government regulation and economic control that plagued other communications systems.²⁵¹ It has since become abundantly clear that this is no longer the case, if it ever was.²⁵²

Though the concept was already present, the term net neutrality did not exist in discussion of Internet policy until 2003. It was born in the midst of a debate raging in the United States over how to best ensure “open access” to the Internet through regulation in light of the advances in broadband services at the turn of the century.²⁵³ The concern was that allowing the integration of ISP and content provider services by cable companies would lead to a disruption of the “end-to-end” principle that, as just noted, had proven indispensable to the extraordinary growth of the Internet.²⁵⁴ While promoters of “open access” proposed structural remedies aimed at preserving the Internet’s natural architecture (i.e. prohibiting the proposed mergers),²⁵⁵ Tim Wu proposed instead the adoption of a policy directive—net neutrality—that was the “concrete expression of a system of belief about innovation.”²⁵⁶ In so doing, he gave a proper name to the non-discriminatory character of the “end-to-end” principle at the core of the “open”

247. Mark A. Lemley & Lawrence Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. Rev. 925, 930 (2001); see also GOLDSMITH & WU, *supra* note 246, at 19.

248. Lemley & Lessig, *supra* note 247, at 930-31. On the unregulated nature of the early Internet, see also LAWRENCE LESSIG, CODE: VERSION 2.0 1-82 (2006) [hereinafter LESSIG, CODE].

249. Lemley & Lessig, *supra* note 247, at 931.

250. *Id.*

251. GOLDSMITH & WU, *supra* note 246, at 17-21.

252. See LESSIG, CODE, *supra* note 248, Ch. 3; see generally GOLDSMITH & WU, *supra* note 246 (describing the evolution of a territorially bound “bordered” Internet subject to traditional political and economic forces); EVGENY MOROZOV, THE NET DELUSION: THE DARK SIDE OF INTERNET FREEDOM (2012) (debunking the myth of “cyber-utopianism,” the belief that the internet is essentially a liberating, countervailing force to authoritarian regimes).

253. See Lemley & Lessig, *supra* note 247, at 930; Wu, *supra* note 245, at 141.

254. Lemley & Lessig, *supra* note 247, at 931.

255. *Id.*

256. Wu, *supra* note 245, at 145. By prohibiting discrimination in the provision of broadband services and content, regulators could ensure that the competitive “playing field” remained level or “meritocratic” for application developers wanting to access those networks, regardless of who controlled them.

Internet. In other words, Wu sought to shift the terms of the U.S. debate about how best to preserve the virtues of the “open” Internet away from a discussion of the need for structural remedies towards one focused on normative policy-making and the pro-competition principle of net-neutrality.²⁵⁷ He succeeded.²⁵⁸

It is unlikely that the academic proponents of net neutrality principles in the United States during the decade of the 2000s could have foreseen the international impact of their creation. Yet by 2015, the concept of a data-neutral network based on the “end-to-end” principle, as well as the term net neutrality itself, had been largely “uploaded” into human rights law and discourse.²⁵⁹ Relative to the formation of international law generally, this evolution occurred in the blink of an eye. Essential to framing this process were definitive statements by the United Nations’ primary human rights bodies confirming the convergence of human rights and the digital realm. Most notably, the United Nations Human Rights Council in June 2012 adopted its landmark resolution on “[t]he promotion, protection and enjoyment of human rights and the Internet,” in which it established that “the same rights that people have *offline* must also be protected *online*, in particular freedom of expression, which is applicable regardless of frontiers and through any media of one’s choice.”²⁶⁰ A year before, in September 2011, the UN Human Rights Committee issued an updated General Comment on ICCPR Article 19 in which it expressly established that the Covenant’s protections were equally in force for all “Internet-based modes of expression.”²⁶¹ While the Human Rights Council’s resolution in itself does not possess any normative force, it is hugely significant as a unanimous decision by the UN’s premier human rights institution not just to recognize this convergence, but to urge it forward as well. Though not as high profile as the Council’s

257. At the time, Wu was less concerned with the preserving the architectural purity of the open Internet than he was promoting a form of “Darwinian competition” in which “only the best survive.” Wu, *supra* note 245, at 142.

258. No need to look further for evidence of this than the FCC’s 2015 Open Internet Order adopting precisely the type of net neutrality principle posited by Wu in 2003. See 2015 Open Internet Order, *supra* note 1.

259. See, e.g., Luca Belli, *End-to-End, Net Neutrality and Human Rights*, in NET NEUTRALITY COMPENDIUM: HUMAN RIGHTS, FREE COMPETITION AND THE FUTURE OF THE INTERNET 13, 22-23 (Luca Belli & Primavera De Filippi eds., Springer 2015).

260. Human Rights Council Res. 20/8, U.N. Doc. A/HRC/20/L.13, at ¶ 1 (June 29, 2012), <http://www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session20/Pages/ResDecStat.aspx> [<https://perma.cc/BFA4-RQLJ>] (emphasis added). In a prior resolution from 2011, the HRC had already made reference to the importance of safeguarding the freedom of expression rights of journalist and media workers on the Internet as part of a more general statement about media freedoms. G.A. Res. 66/184, at 2-3 (Dec. 22, 2011). At the same time, Internet governance and the importance of digital technologies for development has long been a subject of attention in the United Nations, which spearheaded the WSIS process and sponsored regular Internet Governance Forums. See, e.g., Human Rights Council Res. 12/16, U.N. Doc. A/HRC/RES/12/16 (Oct. 2, 2009).

261. U.N. Human Rights Comm., General Comment No. 34, International Covenant on Civil and Political Rights, ¶¶ 12, 15, 39, 43, & 44, U.N. Doc. CCPR/C/GC/34 (Sept. 12, 2011) [hereinafter HRC GC 34].

resolution, the Human Rights Committee's revised General Comment 34 is arguably the weightier statement, because it is imbued with legal force.²⁶²

Yet neither the Human Rights Council's resolution nor the Human Rights Committee's General Comment mentions net neutrality *per se*. The first official recognition of net neutrality's incorporation into international human rights law was the June 2011 Joint Declaration on Freedom of Expression and the Internet issued by the United Nations Special Rapporteur on Freedom of Opinion and Expression; the Organization for Security and Cooperation in Europe (OSCE) Representative on Freedom of the Media; the Organization of American States (OAS) Special Rapporteur on Freedom of Expression; and the African Commission on Peoples and Human Rights' Special Rapporteur on Freedom of Expression and Access to Information (hereinafter "Joint Declaration").²⁶³ Among the principles set out in the Joint Declaration is the terse imperative that "[t]here should be no discrimination in the treatment of Internet data and traffic, based on the device, content, author, origin and/or destination of the content, service or application."²⁶⁴ No rationale is given to explain how or why this principle was now a norm of human rights on the Internet.²⁶⁵ A more thorough discussion of net neutrality's relationship to freedom of expression did not appear until December 2013, when the Inter-American Commission's Special Rapporteur published her report entitled *Freedom of Expression and the Internet*.²⁶⁶

Building on the Joint Declaration she signed, the OAS Special Rapporteur on Freedom of Expression, Catalina Botero, observed in her 2013 Report that "[n]et neutrality is part of the original design of the Internet . . . [and] is fundamental for guaranteeing the plurality and diversity of the flow of information."²⁶⁷ Interpreting the American Convention on Human Rights, the Special Rapporteur

262. The Committee's interpretations of the ICCPR's provisions are, under the treaty itself, authoritative, and as such obligate States to comply. International Covenant on Civil and Political Rights art. 40, Dec. 16, 1966, 1976 U.N.T.S. 999 [hereinafter ICCPR].

263. Joint Declaration, *supra* note 9.

264. *Id.* ¶ 5(a).

265. The preamble notes that the subject matter of the Joint Declaration was "discussed . . . together with the assistance of ARTICLE 19, *Global Campaign for Free Expression* and the *Centre for Law and Democracy*." *Id.* What is clear is that net neutrality had figured prominently for several years prior in the advocacy work carried out by international NGOs like Article 19 and others. See, e.g., DYNAMIC COAL. ON NETWORK NEUTRALITY, THE VALUE OF NETWORK NEUTRALITY FOR THE INTERNET OF TOMORROW 2 (Luca Belli & Primavera De Filippi eds., 2013), <http://www.networkneutrality.info/sources.html> [<https://perma.cc/8TYT-W53Q>]; Luca Belli, Council of Europe Multi-Stakeholder Dialogue on Network Neutrality and Human Rights ¶¶ 16, 17 (2013), <http://mailman.edri.org/pipermail/nncoalition/attachments/20130704/17c53a01/attachment-0001.pdf> [<https://perma.cc/ZQ5Y-RE9N>]. So it is fair to assume that this work, as well as the specific consultation with the NGOs, shaped the Joint Declaration.

266. CATALINA BOTERO, OAS SPECIAL RAPPOREUR ON FREEDOM OF EXPRESSION, FREEDOM OF EXPRESSION AND THE INTERNET (2014), http://www.oas.org/en/iachr/expression/docs/reports/2014_04_08_Internet_ENG%20_WEB.pdf [<https://perma.cc/6FSP-R583>] [hereinafter OAS SPECIAL RAPPOREUR REPORT].

267. *Id.* ¶¶ 27-28.

affirmed categorically that respecting net neutrality “is a necessary condition for exercising freedom of expression on the Internet pursuant to the terms [of the Convention’s] Article 13.”²⁶⁸ Curiously, neither of the UN Special Rapporteur’s 2011 reports on freedom of expression and the Internet (one to the Human Rights Council, the other to the General Assembly) mentions, much less discusses, net neutrality.²⁶⁹ Nor has the African Commission’s Special Rapporteur Faith Pansy Tiakula apparently pursued the topic in her subsequent publications or advocacy.²⁷⁰

Following the lead of her OAS counterpart, the OSCE’s Representative on Freedom of the Media, Dunja Mijatović, similarly continued to advocate for net neutrality as a core principle of human rights. In June 2014, in response to the U.S. Federal Communications Commission’s proposed rules to regulate net neutrality, the OSCE Representative published a report citing the Joint Declaration that concluded “that the FCC’s Proposed Rules threaten the free flow of information on the Internet and endanger freedom of expression and freedom of the media values.”²⁷¹ In her presentation of the report, Mijatović observed that “[t]he Internet was conceived as an open medium with the free flow of information as one of its fundamental characteristics. . . . This should be guaranteed without discrimination and regardless of the content, destination, author, device used or origin.”²⁷²

At a minimum, it is evident from the foregoing that the process of uploading the principle of net neutrality into official human rights *discourse* globally is well underway.²⁷³ Somewhat less apparent is exactly how, as a technical matter, this

268. *Id.* ¶ 25. Article 13 of the American Convention states that “[e]veryone has the right to freedom of thought and expression. This right includes freedom to seek, receive, and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing, in print, in the form of art, or through any other medium of one’s choice” and that

the right of expression may not be restricted by indirect methods or means, such as the abuse of government or private controls over newsprint, radio broadcasting frequencies, or equipment used in the dissemination of information, or by any other means tending to impede the communication and circulation of ideas and opinions.

American Convention on Human Rights art. 13, Nov. 22, 1969, 114 U.N.T.S. 148-49.

269. *See infra* notes 284-296 and accompanying text.

270. *See* African Commission on Human and Peoples’ Rights, *Special Rapporteur on Freedom of Expression and Access to Information* (Nov. 18, 2015), <http://www.achpr.org/mechanisms/freedom-of-expression> [https://perma.cc/5JAZ-VY6C].

271. Dawn C. Nunziato, Org. for Sec. & Coop. in Europe, *The U.S. Federal Communications Commission’s Proposed Rulemaking in the Matter of Protecting and Promoting the Open Internet* 3 (2014), <http://www.osce.org/fom/119819> [https://perma.cc/BQP3-EJR7].

272. Press Release, OSCE, OSCE Representative Warns that U.S. Proposed Rules on Net Neutrality Can Hurt Online Media Freedom (June 16, 2014), <http://www.osce.org/fom/119822> [https://perma.cc/TMD7-PYGB].

273. *See, e.g.*, LUCA BELLI & MATTHIJS VAN BERGEN, COUNCIL OF EUR., *PROTECTING HUMAN RIGHTS THROUGH NETWORK NEUTRALITY: FURTHERING INTERNET USERS’ INTEREST, MODERNIZING HUMAN RIGHTS AND SAFEGUARDING THE OPEN INTERNET* 3 (2013), <http://www.pdf-archive.com/2016/03/01/report-belli-van-begren-net-neutrality-cdmsi-2013/preview/page/1> [https://perma.cc/J9DC-32WC]; OAS SPECIAL RAPPORTEUR REPORT,

principle integrates fully into the international law framework for human rights. Certainly by now it seems obvious that “the purpose of this principle is to ensure that free access and user choice to use, send, receive or offer any lawful content, application or service through the Internet is [sic] not subject to conditions, or directed or restricted, such as blocking, filtering or interference.”²⁷⁴ This was an important part of what the UN Human Rights Council and Human Rights Committee intended to cover when they affirmed the extension of human rights law into the digital realm, though neither body mentioned net neutrality by name. But is that the extent of the convergence of net neutrality and human rights law? What other dimensions or ramifications are there to incorporating net neutrality into freedom of expression’s panoply of rights? Are there other human rights that might be implicated too? A handful of academics and civil society commentators have started to explore the legal justifications behind the status of net neutrality as a norm of human rights.²⁷⁵ But more theorizing is needed in this direction if the foundations of net neutrality as a norm of human rights are to be secured.

B. *Net Neutrality and Contemporary Human Rights Law*

The human rights law foundations supporting a net neutrality norm are not well understood. In this respect, I seek to clarify three premises in this subpart. First, by outlining the international law framework governing freedom of expression and its several constituent rights, it becomes clear that net neutrality reacts with more than just the right to impart or access information without restrictions. In particular, the right to access the Internet, or “connectivity,” is an equal normative imperative to the realization of freedom of expression. Second, to appreciate how net neutrality operates as a guarantor of freedom of expression requires understanding how the distinct non-discrimination rules built into human rights law are separately natural receptors of that principle as well. And third, regardless of whether one prefers to view net neutrality primarily as a function of expression or as a non-discrimination norm, it is a norm of human rights that, as such, is subject to the exceptions regime established by international law for determining the permissible limits States can impose on fundamental rights. This means that, like all such rights, it is not absolute.

Before turning to the discussion at hand, it is necessary to briefly recall the scope of a State’s duty to respect and guarantee respect for human rights under international law. It is well settled that States must do three things to comply with their human rights obligations. First, they must act in good faith to adopt the laws

supra note 266. By “official” human rights discourse I am referring to that produced by inter-governmental human rights organizations and their experts charged with providing authoritative interpretations of international human rights law.

274. OAS SPECIAL RAPporteur REPORT, *supra* note 266, ¶ 25.

275. See, e.g., CDT REPORT 2013, *supra* note 25; DYNAMIC COAL. ON NETWORK NEUTRALITY, THE VALUE OF NETWORK NEUTRALITY FOR THE INTERNET OF TOMORROW (Luca Belli & Primavera De Filippi eds., 2013), <http://www.networkneutrality.info/sources.html> [<https://perma.cc/8TYT-W53Q>] [hereinafter DYNAMIC COAL. REPORT].

and other measures necessary to implement and give effect to those human rights they are bound to respect.²⁷⁶ Second, they must ensure that their agents do not violate human rights directly through their actions or omissions, and if they do, provide adequate and effective remedies for victims to redress those transgressions.²⁷⁷ Third, States have an affirmative duty to guarantee the enjoyment of human rights to all persons in their territory or under their jurisdiction, which means they must act diligently to prevent abuses by third parties, and provide adequate and effective remedies whenever private actor abuses occur.²⁷⁸ In this latter respect:

[T]he positive obligations on States . . . to ensure [human] rights will only be fully discharged if individuals are protected by the State, not just against violations of [these] rights by its agents, but also against acts committed by private persons or entities that would impair the enjoyment of [these] rights in so far as they are amenable to application between private persons or entities. There may be circumstances in which a failure to ensure [human] rights as required by [international law] would give rise to violations by States . . . of those rights, as a result of States . . . failing to take appropriate measures or to exercise due diligence to prevent, punish, investigate or redress the harm caused by such acts by private persons or entities.²⁷⁹

1. *Freedom of Expression in International Law*

Few rights are as defined with such particularity as freedom of expression. Article 19 of the ICCPR, for example, affirms the right “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 . . .

276. See U.N. Human Rights Comm., General Comment No. 31, The Nature of the General Legal Obligation Imposed on States Parties to the Covenant, ¶ 3, U.N. Doc. CCPR/C/21/Rev.1/Add.13 (May 26, 2004) [hereinafter HRC GC 31]; see also Organization of African Unity, African [Banjul] Charter on Human and Peoples' Rights art. 1, *opened for signature* June 27, 1981, 1520 U.N.T.S. 123 [hereinafter Banjul Charter on Human Rights] (entered into force Oct. 21, 1986); Organization of American States, American Convention on Human Rights art. 1, Nov. 22, 1969, O.A.S.T.S. No. 36, 1144 U.N.T.S. 123 (entered into force July 18, 1978); Council of Europe, Convention for the Protection of Human Rights and Fundamental Freedoms art. 1, *opened for signature* Nov. 4, 1950, 213 U.N.T.S. 222 [hereinafter European Convention on Human Rights] (entered into force Sept. 3, 1953).

277. See American Convention on Human Rights, *supra* note 276, art. 25; European Convention on Human Rights, *supra* note 276, art. 13; HRC GC 31, *supra* note 276, ¶¶ 8, 15.

278. See, e.g., HRC GC 31, *supra* note 276. This affirmative duty under international human rights law contrasts sharply with the primarily negative one imposed on government actors by the First Amendment in the United States. See DAWN C. NUNZIATO, VIRTUAL FREEDOM: NET NEUTRALITY AND FREE SPEECH IN THE INTERNET AGE 2, 23 (2009).

279. HRC GC 31, *supra* note 276, ¶ 8; see also Application of Convention on Prevention and Punishment of Crime of Genocide (Bosn. & Herz. v. Serb. & Montenegro), Judgment, 2007 I.C.J. 43, ¶ 166 (Feb. 26) (finding that there is a due diligence obligation for States “to employ the means at their disposal . . . to prevent persons or groups not directly under their authority from committing” acts of genocide).

choice.”²⁸⁰ This language mirrors that of Article 19 of the Universal Declaration of Human Rights [hereinafter “UDHR”].²⁸¹ Substantially similar language is found in Article 10 of the European Convention on Fundamental Rights and Freedoms, and Article 13 of the American Convention on Human Rights.²⁸² Moreover, many if not most nations in the world have adopted norms protecting free speech and expression in their constitutions.²⁸³ Freedom of expression enjoys near universal acceptance worldwide, not least because it is correctly viewed as an enabler of several other basic human rights. These include not just the corollary rights to hold opinions and religious beliefs without interference, but others as well, such as the right to education, the right to freedom of association and assembly, the right to full participation in social, cultural and political life, and the right to social and economic development.²⁸⁴

Traditionally, freedom of expression has been broken down into several constituent elements, namely: (1) the right to impart or express information and ideas generally; (2) media rights; (3) the right to seek and receive information and ideas generally; and (4) the right to access information “held by public bodies.”²⁸⁵ In particular, it is important to highlight the importance of media pluralism, which States are bound to promote by taking “appropriate action [. . .], to prevent undue media dominance or concentration by privately controlled media groups in monopolistic situations that may be harmful to a diversity of sources and views.”²⁸⁶

Since the rise of electronic communications, the foregoing framework of freedom of expression has evolved to accommodate the transmission and receipt of information and ideas via the Internet. As noted in the preceding section, it is settled that the constituent rights comprising freedom of expression will today apply to all “internet-based modes of communication.”²⁸⁷ What this means as a practical matter is that “[a]ny restrictions on the operation of websites, blogs or any other internet-based, electronic or other such information dissemination system, including systems to support such communication, such as internet service providers or search engines, are only permissible to the extent that they

280. ICCPR, *supra* note 262, art. 19(2).

281. G.A. Res. 217 (III) A, Universal Declaration of Human Rights, at 19 (Dec. 10, 1948).

282. American Convention on Human Rights, *supra* note 276, art. 13; European Convention on Human Rights, *supra* note 276, art. 10.

283. *See, e.g.*, TOBY MENDEL ET AL., UNESCO SERIES ON INTERNET FREEDOM, GLOBAL SURVEY ON INTERNET PRIVACY AND FREEDOM OF EXPRESSION 74-92 (2012).

284. Frank La Rue (Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression), *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression*, ¶ 61, U.N. Doc. A/66/290 (Aug. 10, 2011) [hereinafter *SR GA Report 2011*].

285. HRC GC 34, *supra* note 261, art. 19 ¶¶ 11, 18. Each of these is described more fully in General Comment No. 34. Media rights, for example, are described in more detail in ¶¶ 13-17, 37-42.

286. *Id.* ¶ 40.

287. *Id.* ¶ 12.

are compatible with paragraph 3 [of Article 19].”²⁸⁸ I’ll come back to the exceptions regime below.

It is likewise helpful to recall here that the State responsibility regime summarized at the outset of this subpart specifically “requires States to ensure that persons are protected from any acts by private persons or entities that would impair the enjoyment of the freedoms of opinion and expression to the extent that these . . . rights are amenable to application between private persons or entities.”²⁸⁹ States have an affirmative duty, therefore, to adopt measures and act diligently to ensure that freedom of expression rights are protected from private actor conduct that might impinge on the enjoyment of those rights by others.²⁹⁰

Rounding out the panoply of freedom of expression rights relating to net neutrality is the newest dimension of the right to access information: connectivity.²⁹¹ Put simply, “[g]iving effect to the right to freedom of expression imposes an obligation on States to promote universal access to the Internet.”²⁹² This positive obligation means that for States to meet their duty to respect and fulfill the right to freedom of expression, they must guarantee that all people within their territory have access to “the means necessary to exercise this right, which [today] includes the Internet.”²⁹³ Accordingly, the UN Human Rights Committee has called upon States “to take all necessary steps to foster the independence of . . . new media . . . such as internet and mobile based electronic information dissemination systems . . . and to ensure access of all individuals thereto.”²⁹⁴ Connectivity is thus “essential” to realizing freedom of expression.²⁹⁵

The good faith duty incumbent on States to work diligently towards the effective implementation of freedom of expression is equally as relevant to progressively realizing other fundamental rights too, such as the rights to education, health, socio-economic development, and political participation.²⁹⁶ It

288. *Id.* ¶ 43.

289. *Id.* ¶ 7.

290. See *supra* notes 278-279 and accompanying text.

291. There does not appear to be a universally accepted definition of connectivity in international law or practice. “Connectivity” is understood here as access to any kind of Internet connection that provides full or partial access to services, applications and information available online. See *SR GA Report 2011*, *supra* note 284, Part IV.

292. *Joint Declaration*, *supra* note 9, ¶ 6(a); see also Human Rights Council Res. 20/8, U.N. Doc. A/HRC/20/L.13, at ¶ 1 (June 29, 2012), <http://www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session20/Pages/ResDecStat.aspx> [<https://perma.cc/BFA4-RQLJ>].

293. See *SR GA Report 2011*, *supra* note 284, ¶ 61.

294. HRC GC 34, *supra* note 261, ¶ 15 (emphasis added); see also OAS SPECIAL RAPPORTEUR REPORT, *supra* note 266, ¶ 11 (“It is important for all regulation to be based on dialogue among all actors and to maintain the basic characteristics of the original environment, strengthening the Internet’s democratizing capacity and fostering universal and nondiscriminatory access.”).

295. See *SR GA Report 2011*, *supra* note 284, ¶ 61.

296. Human Rights Council Res. 20/8, U.N. Doc. A/HRC/20/L.13, at ¶ 1 (June 29, 2012), <http://www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session20/Pages/ResDecStat.aspx> [<https://perma.cc/BFA4-RQLJ>]; see also *infra* notes 318-331 and accompanying text. On the

is for these reasons that the top experts of four major human rights legal systems stressed in 2011 that, at a minimum, States are required to “[p]ut in place regulatory mechanisms—which could include pricing regimes, universal service requirements and licensing agreements—that foster greater access to the Internet, including for the poor and in ‘last mile’ rural areas.”²⁹⁷ In modern times, it is difficult to overstate the transcendental role that connectivity as an integral part of freedom of expression plays in the realization of human rights generally.

2. *Non-discrimination in International Law*

Non-discrimination is a first order principle of international human rights law. “Non-discrimination, together with equality before the law and equal protection of the law without any discrimination, constitute a basic and general principle relating to the protection of human rights.”²⁹⁸ It is for this reason that, once again mirroring the UDHR, the ICCPR establishes that States are obligated “to respect and to ensure to all individuals within [their] territory and subject to [their] jurisdiction the [human] rights recognized . . . without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.”²⁹⁹ At the same time, “all persons are equal before the law and are entitled without any discrimination to the equal protection of the law.”³⁰⁰ This provision prohibits “discrimination under the law and guarantees to all persons equal and effective protection against discrimination on any ground,” or based on any kind of distinction of the types listed above.³⁰¹ Anti-discrimination principles substantially similar to these appear in every universal and regional human rights treaty.³⁰² So, to the extent that net neutrality is best understood as a principle of non-discrimination applied to users’ rights to request, receive, or impart data or information online, it meshes organically with the core non-discrimination norms of international human rights law.

Unlawful discrimination of any type is a negation of human equality and dignity. Under international human rights law it is defined as any

distinction, exclusion, restriction or preference which is based on any ground such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, or *other status*, and which has the purpose or

duty of States to implement their basic human rights obligations, see, e.g., ICCPR, *supra* note 262, art. 2(2).

297. *Joint Declaration*, *supra* note 9, ¶ 6(e)(i).

298. U.N. Human Rights Comm., General Comment No. 18, Non-Discrimination, ¶ 1, U.N. Doc. HRI/GEN/1/Rev.1 (July 29, 1994) [hereinafter HRC GC 18].

299. ICCPR, *supra* note 262, art. 2; *see also* HRC GC 18, *supra* note 298, ¶ 1.

300. ICCPR, *supra* note 262, art. 26.

301. HRC GC 18, *supra* note 298, ¶ 1.

302. *See e.g.* Banjul Charter on Human Rights, *supra* note 276, art. 2; American Convention on Human Rights, *supra* note 276, art. 24; European Convention on Human Rights, *supra* note 276, art. 14.

effect of nullifying or impairing the recognition, enjoyment or exercise by all persons, on an equal footing, of all rights and freedoms.³⁰³

But not all discrimination is *per se* illegal. International law differentiates between negative and positive discrimination. The “principle of equality sometimes requires States parties to take affirmative action in order to diminish or eliminate conditions which cause or help to perpetuate discrimination prohibited [by international law].”³⁰⁴ For this reason, “[n]ot every differentiation of treatment will constitute [unlawful] discrimination, if the criteria for such differentiation are reasonable and objective and if the aim is to achieve a purpose which is legitimate under the [international law].”³⁰⁵

The remaining question is what counts as “other status” for purposes of determining what additional distinctions might lead to negative (or positive) discrimination. Of relevance is the fact that international human rights law recognizes distinctions based on *economic* status or criteria, and evaluates whether their purpose or *effect* is to nullify or impair the exercise or enjoyment of other human rights.³⁰⁶ So, for example, the UN Human Rights Committee found that Iceland’s legal differentiation between two groups of fishermen, one of which was forced to pay exorbitant catching fees to the other to whom the State had granted permanent, exclusive quota-based licenses for historical reasons, constituted an unlawful distinction based on unreasonable “property entitlement privileges.”³⁰⁷ On the other hand, as noted above, where such a distinction is based instead on “reasonable and objective” criteria, and is intended to advance a valid State aim, it can be deemed to reflect a “legitimate differentiation” under international law.³⁰⁸ So, for instance, a State could adopt temporary tax breaks for low-income workers in a critical but depressed sector of the economy, say, construction.³⁰⁹ Even though the measures would discriminate against similarly situated workers in other sectors that did not receive the tax breaks, the State arguably would be pursuing a legitimate aim (bolstering an important sector of its economy and advancing socio-economic rights) by utilizing objective criteria (focusing on low-income, depressed sector workers) to adopt reasonable measures (tax breaks of

303. HRC GC 18, *supra* note 298, ¶ 7 (emphasis added).

304. *Id.* ¶ 10.

305. *Id.* ¶ 13.

306. See Haraldsson v. Iceland, U.N. Human Rights Comm., Communication No. 1306/2004, ¶ 10.3, U.N. Doc. CCPR/C/91/D/1306/2004 (Oct. 24, 2007), http://www.worldcourts.com/hrc/eng/decisions/2007.10.24_Haraldsson_v_Iceland.htm [<https://perma.cc/NH8A-PM2X>].

307. *Id.* ¶¶ 10.3-10.4. (“The Committee concludes that . . . the property entitlement privilege accorded permanently to the original [fishing] quota owners, to the detriment of the [other fishermen], is not based on reasonable grounds.”).

308. See *supra* notes 304-305 and accompanying text.

309. See, e.g., Brandsma v. Netherlands, U.N. Human Rights Comm., Communication No. 977/2001, ¶¶ 6.3-6.4, U.N. Doc. CCPR/C/80/D/977/2001 (Apr. 1, 2004), <http://www1.umn.edu/humanrts/undocs/html/977-2001.html> [<https://perma.cc/YV53-YBWV>].

limited duration) to meet that aim.³¹⁰ Such a policy would likely not violate the non-discrimination obligations imposed by international human rights law.

3. *The Exceptions Regime for Freedom of Expression*

Human rights norms in general, and freedom of expression in particular, are not absolute.³¹¹ Human rights law expressly permits certain restrictions on the right to freedom of expression that “respect . . . the rights or reputations of others” or advance “the protection of national security, or of public order . . . , or of public health or morals.”³¹² These are, generally speaking, legitimate aims that will justify State action when acting to curtail fundamental human rights such as expression.³¹³ But, of course, there may be others. We saw how States can in limited circumstances apply positive discrimination to address the social and other consequences of prior invidious discrimination.³¹⁴ In addition to pursuing a legitimate goal, a State seeking to limit freedom of expression must ensure that any restrictions are “provided by law,” “necessary” to meet that aim, and “proportional.”³¹⁵ The existence of this exceptions regime, however, is not a blank check: “[W]hen a State party imposes restrictions on the exercise of freedom of expression, these may not put in jeopardy the right itself.”³¹⁶ In other words, exceptions must remain exceptional, and cannot become the rule.³¹⁷

Each element of the exceptions framework merits further explanation. The legitimate aims States can pursue are stipulated in international law.³¹⁸ Here, it is worth highlighting the objective of protecting or advancing *other people’s rights* as a basis for restricting a given norm. Defamation laws are classic examples of hard

310. *Id.* The Human Rights Committee did not reach the case on the merits, finding it inadmissible for lack of evidence that the tax payment schemes at issue were substantially comparable. *Id.* However, the HRC’s discussion of the underlying issues suggests that it might otherwise have found such a scheme to advance the State’s legitimate aim in a permissible manner. *See id.* ¶¶ 4.6-4.7.

311. A good example is ICCPR, *supra* note 262, art. 20, which explicitly enumerates a series of offensive forms of expression that States *must* curtail in order to meet their obligations under the treaty. (“1. Any propaganda for war shall be prohibited by law. 2. Any advocacy of national, racial or religious hatred that constitutes incitement to discrimination, hostility or violence shall be prohibited by law.”).

312. ICCPR, *supra* note 262, art. 19(3); *see also* HRC GC 34, *supra* note 261, ¶¶ 28-32.

313. *See* Frank La Rue (Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression), *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression*, ¶ 28, U.N. Doc. A/HRC/23/40 (Apr. 17, 2013) (“The framework for article 17 of the ICCPR enables necessary, legitimate and proportionate restrictions to the right to privacy by means of permissible limitations.”).

314. *See supra* notes 303-304 and accompanying text.

315. ICCPR, *supra* note 262, art. 19(3); HRC GC 34, *supra* note 261, ¶¶ 24-26, 33-34; *SR GA Report 2011*, *supra* note 284, ¶ 15.

316. HRC GC 34, *supra* note 261, ¶ 21.

317. *Id.* (“[T]he relation between right and restriction and between norm and exception must not be reversed.”).

318. ICCPR, *supra* note 262, arts. 19, 20.

limits imposed on freedom of expression to protect the reputation of others.³¹⁹ And just as “legitimate differentiation” in favor of historically disadvantaged groups can affirmatively advance the goals of non-discrimination,³²⁰ so too can freedom of expression rights be curtailed to promote the freedom of expression rights of others.³²¹ Thus, for example, “it may be permissible to protect voters [who wish to express their political opinions] from forms of expression that constitute intimidation or coercion”³²² In practice, States are typically given leeway in determining what policies they can adopt to advance or meet specific goals within the general categories of legitimate aims identified.³²³

Assuming that a State’s goal is to advance a legitimate aim recognized by international law, any proposed restriction on freedom of expression must not only be provided by law, but also necessary and proportional. This is meant to set a high bar for recognizing a small set of narrowly tailored measures.³²⁴ Generally speaking, such restrictions should be enacted into formal law through a transparent and participatory political process.³²⁵ In any case, such laws “must be

319. HRC GC 34, *supra* note 261, ¶ 47 (“Defamation laws must be crafted with care to ensure they comply with paragraph 3 and that they do not serve, in practice, to stifle freedom of expression.”).

320. *See supra* note 308 and accompanying text.

321. *See* HRC GC 34, *supra* note 261, ¶ 28 (“The term ‘rights’ includes human rights as recognized in the [ICCPR] and more generally in international human rights law The term ‘others’ relates to other persons individually or as members of a community.”).

322. *Id.* Obviously this implicates the distinct Article 25 right to vote as well, without diminishing the relevance of the political expression that is realized through voting. *See* Shchetko v. Belarus, Communication No. 1009/2001, ¶ 7.4, U.N. Doc. CCPR/C/87/D/1009/2001 (July 28, 2006), <http://www1.umn.edu/humanrts/undocs/1009-2001.html> [<https://perma.cc/78SC-GYKP>] (“The Committee recalls that under article 25(b), every citizen has the right to vote, and that in order to protect this right, States parties to the Covenant should prohibit any intimidation or coercion of voters by criminal laws and that such laws should be strictly enforced (4). The application of such laws constitutes, in principle, a lawful limitation of the right to freedom of expression, necessary for the respect of the rights of others.”); Svetik v. Belarus, Communication No. 927/2000, ¶ 7.3, U.N. Doc. CCPR/C/81/D/927/2000 (July 30, 2004), <http://www1.umn.edu/humanrts/undocs/html/927-2000.html> [<https://perma.cc/BR6N-VDHF>] (stating the same proposition).

323. *See* Hertzberg v. Finland, Communication No. 61/1979, ¶ 10.3, U.N. Doc. CCPR/C/OP/1 (Apr. 2, 1985), <https://www1.umn.edu/humanrts/undocs/newscans/61-1979.html> [<https://perma.cc/BV6H-TR3G>] (recognizing “a certain margin of discretion [that] must be accorded to the responsible national authorities” in deciding whether to broadcast discussions related to homosexual relations in national media); *see also* ANDREW LEGG, *THE MARGIN OF APPRECIATION IN INTERNATIONAL HUMAN RIGHTS LAW: DEFERENCE AND PROPORTIONALITY* 41 (Oxford Univ. Press 2012) (“There are no clear cases in the Inter-American Court of Human Rights (IACtHR) and the United Nations Human Rights Committee (UN HRC) that reject the margin of appreciation as resulting in relativism about human rights.”); Markus Schmidt, *Coming to Grips with Indigenous Rights*, 10 HARV. HUM. RTS. J. 333, 338 (1997) (book review) (interpreting HRC decisions as based on the margin of appreciation rationale).

324. *See* HRC GC 34, *supra* note 261, ¶ 35.

325. *See* Frank La Rue (Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression), *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression*, ¶ 24, U.N. Doc. A/HRC/17/27

formulated with sufficient precision to enable an individual to regulate his or her conduct accordingly”³²⁶ They must also be accessible to the public.³²⁷ In addition, to be “necessary,” legally enacted limits must be “directly related to [meeting] the specific need on which they are predicated,”³²⁸ i.e., they must be effective at doing what they are intended to do. A restriction is not indispensable, and thus “violates the test of necessity[,] if the protection could be achieved in other ways that do not restrict freedom of expression.”³²⁹ Finally, any steps taken by States to limit expression, even if legitimate and necessary, cannot be “overbroad.”³³⁰ Proportionate measures are those that are “appropriate to achieve their protective function” and “the least intrusive amongst those [available].”³³¹

In sum, the foregoing sections have clarified the technical grounds upon which net neutrality’s formal incorporation into international law as a human rights norm are premised. Specifically, I have shown that freedom of expression is composed of various constituent norms, several of which react with net neutrality. In addition to the “classical” right to impart or access information, the right to access the Internet—connectivity—is today essential to the full realization of freedom of expression. Moreover, I explained how the non-discrimination principles built into human rights law interact with freedom of expression, and why they too are natural receptors of net neutrality. Finally, I outlined the frameworks that govern when and how States may enact legitimate exceptions to freedom of expression and non-discrimination rules. This exposition of the exceptions regime under international law explains why neither freedom of expression nor non-discrimination norms are entirely exempt from State-imposed restrictions that advance legitimate State aims, such as the advancement or protection of the rights of others. Any such limits, however, must not only be enacted in law, but must also be demonstrably necessary and well-tailored to achieving the lawful ends identified.

C. *Why International Human Rights Law?*

Why does it matter that net neutrality is today a consolidated norm of international human rights law? With few exceptions, most discussions to date of zero-rating have centered on the economic, social, and technical implications of allowing or prohibiting such practices in a given country.³³² Though some attention has been paid to net neutrality as a norm that promotes and protects human rights,³³³ this perspective has not yet been fully extended to zero-rating.

(May 16, 2011).

326. HRC GC 34, *supra* note 261, ¶ 25.

327. *Id.*

328. *Id.* ¶ 22.

329. *Id.* ¶ 33.

330. *Id.* ¶ 34.

331. *Id.*

332. *See supra* note 23 and accompanying text.

333. *See, e.g.,* CDT REPORT 2013 and DYNAMIC COAL. REPORT, *supra* note 275 and

As it turns out, re-framing net neutrality and zero-rating as human rights issues leads to a range of significant consequences.

There are a number of substantive and strategic advantages to invoking the human rights legal framework in this regard. First, under human rights law, net neutrality is defined in human-centric rather than data-centric terms.³³⁴ This shift is not merely semantic because it portends important implications for that norm's implementation, especially in terms of connectivity. In particular, it means that zero-rating practices as transgressions of net neutrality can no longer be discussed in all-or-nothing terms. Instead, these practices have to be viewed as proposed limits on *some* people's freedom of expression (understood as net neutrality) intended in substantial part to enhance the freedom of expression rights of *others* (i.e. through expanded access). Second, as explained in the prior subpart, this re-framing places net neutrality issues squarely within a universally recognized normative framework that imposes clear legal obligations on a majority of States.³³⁵ Safeguarding net neutrality thus becomes a duty incumbent on governments, rather than merely a compelling or controversial policy alternative. This ensures that discussions about how to limit net neutrality like those taking place in the United States, Europe, Mexico, and a host of other countries transpire within the same, universally applicable regime established by international law, promoting greater normative consistency across the board.³³⁶

Last but not least, for all the foregoing reasons, the human rights framework provides structure and rigor to what often are heated contests of unmoored dogma: net neutrality absolutism clashing with the inviolability of the marketplace. Evaluating net neutrality regulation as a function of the State's duties under international law opens practical pathways for constructively debating zero-rating, because it establishes normative parameters that apply equally to all sides engaged in the discussions. People stop talking *past* each other, and start talking *to* each other. At the same time—and this is critical—the human rights approach is the only one that expressly accounts for all the others. Those who view net neutrality as a sacred network principle will pay little heed to what the economists and free market advocates say; others who critique net neutrality as a malleable priority preference may prioritize competition, consumer choice, or the

accompanying text.

334. See *supra* notes 276-279 and accompanying text.

335. The ICCPR has 168 State Parties, encompassing over 85% of the world's population. See *Chapter IV Human Rights: 4. International Covenant on Civil and Political Rights*, UNITED NATIONS TREATY COLLECTION, https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-4&chapter=4&clang=_en [<https://perma.cc/BQ6H-9B6F>]. In addition, the Universal Declaration of Human Rights is considered a source of customary international law, which would cover the remaining UN member States in substantially similar fashion. See, e.g., Office of the High Commissioner of Human Rights, *Digital Record of the UDHR* (Feb. 2009), <http://www.ohchr.org/EN/NEWSEVENTS/Pages/DigitalrecordoftheUDHR.aspx> [<https://perma.cc/ZW9H-PL5M>].

336. The Council of Europe has taken this approach. See *Council of Europe Gets Tough on Net Neutrality*, *supra* note 20.

public interest. In other words, the prevailing perspectives—social, economic, technical—that characterize the net-neutrality and zero-rating debates do not easily accommodate each other, if at all. Very few pay anything more than lip service to human rights.

Human rights law is different: it is the unifying “theory of everything.” All other approaches have a place in the normative framework as quantitative and qualitative *inputs* for the analysis of the State’s obligations to promote and protect the rights of their people. Data on whether or not zero-rating practices advance or hinder meaningful Internet access are integral to the analysis of the *necessity* of the proposed measures. Market studies of the impact of zero-rating practices on innovation, competition, and user experience will factor into the analysis of whether the zero-rating practices authorized are *proportional*. Issues of policy are folded into the discussion of what constitutes a *legitimate aim* of States seeking to restrict freedom of expression by curtailing net neutrality through differential pricing (or other means). As I will show in the final Part, whether one is evaluating the legitimacy of the State’s objectives, or the nature of differential pricing and its impact on net neutrality, all relevant data—social, economic, political, technical—will play a role and be balanced against countervailing factors also recognized by the human rights framework. The same cannot be said of any other approach.

IV. TOWARDS A HUMAN RIGHTS ANALYSIS OF ZERO RATING

Human rights can be invoked by advocates on all sides of the net neutrality and zero-rating debates. Those who defend an essentially unqualified concept of net neutrality insist that people’s rights to receive or impart information and ideas freely should rarely if ever be compromised (though most admit the need for a few exceptions, for example, to reasonably manage the network or protect its integrity). They believe that maintaining a near blanket prohibition on any differentiation in the handling of Internet traffic, and preserving the purity of the “end-to-end” principle, is the best—if not the only—way to truly preserve the integrity and unbound potential of the network.³³⁷ For these reasons, among others, they prefer to seek alternatives to zero-rating in the developing world that can advance the laudable goal of increasing full connectivity without sacrificing network neutrality. Proponents of zero-rating practices, on the other hand, frequently justify their position by pointing to the daunting digital divide and the imperative to empower the masses of unconnected people living primarily in the

337. See, e.g., Susan Crawford, *Zero for Conduct*, BACKCHANNEL (Jan. 7, 2015), <https://medium.com/backchannel/less-than-zero-199bcb05a868#e248c9qfz> [<https://perma.cc/SJ9S-N84R>] (“The aim of net neutrality is to preserve the Internet as the crucial open sidewalk for communication that it has become. The reason that the Chinese, Russian and Cuban governments fear open Internet more than anything else is that it allows users to gather and speak to one another. . . . Linking and building are fundamental attributes of the Internet—innovation and speech without permission—and that must not be compromised away.”).

developing world by any means available. In this more pragmatic view, the ends justify the means: the best way to improve the situation of those disenfranchised people, they say, is to ensure their right to access at least some of the Internet in the first place, as an onramp to fuller Internet access, thus enabling them to exercise their freedom of expression and enjoy the benefits of other human rights as well, even if that means curtailing net neutrality through zero-rating.³³⁸

As a rule, when advocates for either side make express reference to human rights in support of their arguments, those references tend to be cursory at best. Even when digital rights advocates invoke human rights more formally, the supporting analysis is either lacking or deficient. This Article has addressed such normative gaps by clarifying the operation of the applicable human rights legal framework; that was the object of Part III. In this final Part, I consider that framework *in context* with reference to the empirical data presented in Part II. In particular, I review the key elements of the exceptions regime—legitimate aim, necessity, and proportionality—to better illustrate how they would apply in country-specific conditions like those described in Part II.B. To achieve this, I draw from prior discussion of other key topics, namely the typology of zero-rating practices and the barriers to connectivity. This should deepen the understanding of how human rights analysis applies to these issues.

A. *Legitimate Aim*

States are increasingly under pressure to close the global digital divide. The United Nations' Sustainable Development Goals commit States to "[s]ignificantly increas[ing] access to information and communications technology and striv[ing] to provide universal and affordable access to the Internet in least developed countries by 2020."³³⁹ Whether a State's aim to do so is legitimate or not when proposing restrictions on net neutrality, such as differential pricing, will depend on that country's social, economic, and political conditions. States with high levels of connectivity, whether wired or mobile or both, will face different challenges than those with large percentages of their population on the wrong side of the digital divide. Most States in this latter category are developing countries, where the vast majority of unconnected people live.³⁴⁰ It is therefore easier for a country such as Zambia, where less than twenty percent of its people have Internet access, to claim that by promoting zero-rating it is advancing a legitimate State aim, i.e., promoting connectivity, than for the United States to do so, given its access rate of nearly ninety percent.³⁴¹ The key to understanding the legitimate aim element,

338. See, e.g., Jessi Hempel, *Inside Facebook's Ambitious Plan to Connect the Whole World*, WIRED (Jan. 19, 2016), <http://www.wired.com/2016/01/facebook-zuckerberg-internet-org> [<https://perma.cc/4DZ6-NP8Q>].

339. *Sustainable Development Goals 9.c*, UNITED NATIONS SUSTAINABLE DEV. KNOWLEDGE PLATFORM, <https://sustainabledevelopment.un.org/sdg9> [<https://perma.cc/5D6L-6N3C>] (last visited July 31, 2016).

340. See *supra* notes 132-166 and accompanying text.

341. *Freedom on the Net: United States 2014 Scores*, *supra* note 228.

however, is not Internet penetration rates *per se*, but the barriers to connectivity that keep them low in many countries.

To advance a legitimate aim, a developing country's zero-rating policies must address the principal barriers to connectivity. Primary among these is the relatively high cost of accessing data via Internet on wired and mobile platforms. One reason Internet access is far greater in developed countries is its relative affordability. As a rule, such countries have higher per capita incomes and lower inequality rates than developing ones. Wired and mobile penetration rates are also high, as more people can afford the necessary hardware and data plans. There are few hard barriers to connectivity for most. And there are fewer "soft" barriers as well, such as low literacy and education levels, that can keep people off the Internet even where access is affordable. In short, the barriers to connectivity are simply not as high in developed countries, if they exist at all, as they are in most parts of the developing world. It follows that governments in developed countries will generally face an uphill battle to justify restricting net neutrality to allow for zero-rating as a means of enhancing connectivity.³⁴²

It should be evident by now that generating greater opportunities to connect for the digitally disenfranchised sectors of society can substantially advance the realization of freedom of expression and other basic human rights in any country marked by a significant digital divide.³⁴³ The benefits of increasing access in the developing world are too well established to bear repeating here. For these reasons, zero-rating plans, though discriminatory for economic reasons, might still constitute a "legitimate differentiation" under human rights law if they meet the other elements of the exceptions regime test.³⁴⁴ Developing States with digital divides that choose to promote this goal will likely have a legitimate aim. Expanding Internet access is no less essential to realizing freedom of expression and other basic human rights than ensuring the general right to impart or receive information in a non-discriminatory manner, which is what net neutrality does. So the main challenge for most States struggling to bridge their domestic digital divide by promoting greater connectivity will be whether the proposed means are necessary *and* proportionate, as well as prescribed by law.

342. *Bernes-Lee Open Letter*, *supra* note 110 ("In advanced economies like those in the European Union, there is no argument for zero-rating as a potential onramp to the Internet for first-time users."). This does not mean that developed countries could not justify zero-rating practices by pointing to other potentially legitimate aims including, perhaps, advancing non-harmful forms of public and private sector zero-rating that advance the public interest or well-being without unduly impacting competition, innovation, or expression.

343. *See supra* notes 132-200 and accompanying text.

344. *See supra* note 304 and accompanying text. (citing HRC GC 18, *supra* note 298, at ¶ 7 for the proposition that "[t]he 'principle of equality sometimes requires States parties to take affirmative action in order to diminish or eliminate conditions which cause or help to perpetuate discrimination prohibited [by international law]'").

B. Necessity

Necessity is a factual question. What restrictions are indispensable to tackling a recognized problem or challenge *in a given context* will turn on: (a) the extent to which they are effective; (b) the nature of the problem addressed; (c) the existence of viable alternatives; and (d) the effectiveness of those alternatives. It is important to note that “necessary” does not mean “exclusive,” especially where the challenges faced are substantial and/or complex. A related issue is who is best positioned to determine when a particular measure is “necessary” to meet the objectives sought, and when it is not. For purposes of the ensuing discussion, references to “zero-rating practices” will refer to those described in the typology presented above in Part II.A.

There is evidence that zero-rating practices can increase the number of people accessing at least parts of the Internet, and sometimes the full Internet, by lowering the cost of access.³⁴⁵ “For example, in less than a year, Facebook’s zero-rating initiative Internet.org . . . won more than 9 million [new] users.”³⁴⁶ According to Facebook, more than half of these users went on to pay for additional access to the Internet within thirty days of joining.³⁴⁷ Certainly a large number of governments have bet on this approach being true in practice when promoting or condoning zero-rated platforms as a means of promoting connectivity, and thereby development.³⁴⁸ Few critics of zero-rating dispute that offering reduced cost or free access to some Internet services can work in favor of increasing mobile subscriptions and some connectivity. Instead, most critics focus their attention on the perceived *harms* generated by such practices—the creation of “walled gardens” for users or the impact on competition—which they claim outweigh the potential benefits.³⁴⁹ Regardless, there is no question that more empirical research is needed to confirm the circumstances under which zero-rating practices can be effective in overcoming the crucial barrier of high access costs, the extent of that effectiveness, and the countervailing consequences of adopting such practices.³⁵⁰

The very same is true of the faux or non-selective zero-rating practices that purport to facilitate public connectivity at reduced cost without offending net neutrality, perhaps even more so.³⁵¹ As of this writing, there is little data or analysis available on the impact and effectiveness of zero-rating *alternatives* as such, though important initiatives are underway to change that. For example,

345. See *One Year In*, *supra* note 49.

346. Stanford Study, *supra* note 23, at 5.

347. See *One Year In*, *supra* note 49.

348. See *supra* note 33 and accompanying text; see also, e.g., Anita Babu, *Zuckerberg to Visit India on Oct. 28, First After Internet.org Rebranding*, BUS. STANDARD (Oct. 17, 2015), http://www.business-standard.com/article/current-affairs/zuckerberg-to-visit-india-on-oct-28-first-after-internet-org-rebranding-115101600998_1.html [<https://perma.cc/JDS7-H5XB>].

349. See *Open Letter*, *supra* note 7.

350. See Thakur, *supra* note 23.

351. See, e.g., TRAI Consultation Paper, *supra* note 20, ¶ 18.

Mozilla is researching the effects of its “equal rating” initiatives in the field.³⁵² Another example is provided by community networking, which advocates say expands full connectivity in both rural and urban areas.³⁵³ These initiatives, to answer the questions posed by the necessity prong of the exceptions regime, would have to ascertain the positive and negative consequences for freedom of expression of implementing a particular zero-rating *alternative* in a given local context, and comparing those outcomes to similar ones obtained for zero-rated practices conducted in the same or similar context. There is no other way to know whether zero-rating practices achieve greater, similar, or lesser levels of connectivity than those that “could be achieved in other ways that do not restrict freedom of expression.”³⁵⁴

The upshot is that we are a long way from being able to say with any certainty that zero-rated connectivity-enhancing approaches are significantly more or less effective at closing the digital divide in a particular setting than any of the current alternatives. Add to this the sheer magnitude of the social, economic, political, and cultural challenges facing States in the developing world that seek to establish access to the Internet for their people,³⁵⁵ and it becomes impossible to exclude *ab initio* any presumptively viable approach as unnecessary, even if it offends net neutrality. Moreover, there is good reason to believe that the principal problem addressed—closing the digital divide in those countries where it is most prevalent—is substantial and complex enough to require an amply diversified response.³⁵⁶ For these reasons, it is not possible at this point to simply dismiss zero-rating practices as unnecessary or dispensable on the grounds that they are either not effective enough, or that there are better alternatives available that can achieve the same or better results. This means that the most fertile ground for critics of zero-rating measures in these situations is that offered by the evaluation of proportionality.

C. Proportionality

At the heart of the proportionality element is the balance between advancing the legitimate aim identified and the human rights cost of achieving it.³⁵⁷ If a proposed restriction on freedom of expression advances such an aim effectively enough to be considered necessary, the question becomes whether it has been

352. See MOZILLA STUDY, *supra* note 23, at 3.

353. See FGV, *Community Networks: Lesson [sic] Learned from International Experiences*, YOUTUBE (May 19, 2016), https://www.youtube.com/watch?v=YOBKAHESqUM&list=PLspVbtJ_9_HrzUOanp-fhyLKeabZLWxTM&index=6 [https://perma.cc/2F6C-JYWS].

354. HRC GC 34, *supra* note 261, ¶ 33.

355. See *supra* notes 126-165 and accompanying text.

356. See Arturo J. Carrillo, Comment on Differential Pricing for Data Services [in India] 6 (Dec. 30, 2015) (unpublished manuscript) (on file with author).

357. For a detailed discussion of the nature and role of proportionality in human rights adjudication, see LEGG, *supra* note 323, Ch. 7.

configured appropriately, such that the positive gains from enacting it outweigh the negative consequences sufficiently to justify the curtailment of that underlying right. "When assessing the proportionality of a restriction on freedom of expression on the Internet, the impact of that restriction on the ability of the Internet to deliver positive freedom of expression outcomes must be weighed against its benefits in terms of protecting other interests."³⁵⁸

In other words, proportionality can only be determined with reference to a particular situation and specific circumstances. Exceptions that sweep too broadly may threaten to "swallow the rule,"³⁵⁹ while those that deliver minimal or negligible benefits will be unlikely to advance a legitimate aim. Finally, for such measures to pass muster under this legal standard, they should be the least intrusive available to ensure the desired ends.³⁶⁰ If they are not, the balance would tip *against* the legality of such a measure. In sum, once the other elements of the exceptions regime are met, whether a proposed zero-rating practice is proportionate or not is a factual question of relative balance between its pros and cons.³⁶¹

There are several factors to keep in mind when engaging in the balancing analysis of proportionality, which is where much if not most of the zero-rating debate in the developing world should focus. General factors include the *type* of zero-rating practice at issue, its particular *configuration*, and the perceived *benefits* it can bring in relation to the legitimate aim sought;³⁶² the *nature of the Internet access* and content provided; the existence and *comparable effectiveness* of non-net neutrality offending alternatives; and any other *negative consequences* of that zero-rating practice on users' enjoyment of their basic human rights.³⁶³ The Center for Democracy and Technology has developed a complementary framework of more specific factors that serve to better identify "the potential benefits and harms" of particular zero-rating arrangements.³⁶⁴ These include the principle of non-exclusivity, a presumption against sponsored data plans, attention to privacy and data security, providing technical assistance and training in local markets, transparency and regulation.³⁶⁵ The function of this framework can be summarized as follows:

With respect to edge providers, the overriding concern is the potential for market distortion as edge providers are either excluded from preferential

358. *Joint Declaration*, *supra* note 9, ¶ 1(b).

359. *See supra* note 317 and accompanying text.

360. *See supra* note 329 and accompanying text.

361. *See LEGG*, *supra* note 323, at 181 (describing proportionality as a legal test centered on "assessing side effects" of a proposed restriction).

362. *See supra* Part II.A.

363. *See LEGG*, *supra* note 323, at 181 (The "legal proportionality test [entails] . . . the assessment of the side effects, means, and even ends of state action.").

364. CTR. FOR DEMOCRACY & TECH., ZERO RATING: A FRAMEWORK FOR ASSESSING BENEFITS AND HARMS 1 (2016), https://cdt.org/files/2016/01/CDT-Zero-Rating_Benefits-Harms5.pdf [<https://perma.cc/K8AM-TUG5>].

365. *Id.* at 22-23.

arrangements or coerced to modify their content and services to benefit from them. Thus, whether arrangements are exclusive (particularly exclusive to affiliates of the network operator), sponsored, or limited to particular sources or types of content and applications are all highly relevant considerations. For users, the ability to maintain the control of the content and services they access or create via the Internet is the overriding consideration. User choice in selecting zero-rated content, the availability and cost of metered content, and the transparency of zero-rating arrangements are significant factors in determining whether zero rating can spur broadband adoption and access to the open Internet. Finally, whether zero rating will serve as an on-ramp to “full” Internet access or a roundabout of curated offerings that users exit only at great effort and expense, if at all, depends on some fundamental attributes of the broadband market: existing levels of adoption and deployment, competition, and digital literacy and education.³⁶⁶

To understand how such factors operate, we must examine them in context. Take the example of Zambia, profiled in Part II.B.3. One of the principal criticisms of the Internet.org/Free Basics platform operating in Zambia, a compound zero-rating practice, has been that it offers only limited access to certain select sites and services on the Internet as curated by Facebook (in partnership with Airtel, the local telecom), creating an Internet “for poor people.”³⁶⁷ Critics say that, in addition to violating net neutrality in principle, this model of compound zero-rating creates an invidious “walled-garden,” which is “absolutely inappropriate” because it “creates a synthetic ‘online’ experience for users that isn’t the Internet.”³⁶⁸ They claim, moreover, that in developing countries like Zambia, zero-rating platforms such as Internet.org/Free Basics can have prejudicial economic consequences by “empower[ing] market concentration, restrict[ing] local innovation and . . . reduc[ing] user choices.”³⁶⁹ All these compelling concerns can be placed on the “negative and potentially negative consequences” side of the proportionality scale. But they must be contrasted and weighed against the countervailing “positive and potentially positive consequences” on the other.

And there are palpable benefits to consider. According to Facebook, a year after the roll-out of Internet.org in Zambia, with its emphasis on granting access to a range of basic services sites of interest to the public,³⁷⁰ the goal of increased connectivity had been substantially advanced, there and elsewhere:

Internet.org brings new users onto mobile networks on average over 50% faster after launching free basic services [than before they were launched], and more than half of the people who come online through Internet.org are paying for data and accessing the internet within the first 30 days. These points show that

366. *Id.* Executive Summary.

367. See Honan, *supra* note 183.

368. Crawford, *supra* note 337.

369. Pedro Henrique Soares Ramos, Towards a Developmental Framework for Net Neutrality: The Rise of Sponsored Data Plans in Developing Countries 4 (Mar. 31, 2014) (2014 TRPC Conference Paper), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2418307 [<https://perma.cc/G356-645E>].

370. See *supra* footnote 183 and accompanying text.

Internet.org is not only a successful tool in helping bring people online, but it is successful in showing people the value of the internet and helping to accelerate its adoption.³⁷¹

Facebook is not the only one saying that zero-rating platforms like Internet.org can have positive effects on increased connectivity rates,³⁷² or that they may not be as harmful to innovation, competition and user choice as the naysayers claim.³⁷³ And while access is limited to a suite of selected sites offering free basic services, these services have been geared towards local needs and content.³⁷⁴ It can also be noted that, in response to concerns about Internet.org's impact on local competition and innovation, Facebook made changes to the platform's specifications to make it non-exclusive and more accessible to service providers and application designers, in order "to work with as many mobile operators and developers as possible to extend the benefits of connectivity to diverse, local communities around the world."³⁷⁵ This was intended to reduce the harm to competition and innovation that a closed platform would have.

The balancing of pros and cons required by proportionality can only be carried out in relation to the underlying problem addressed and the obstacles to resolving it. In the case of Zambia (and other developing countries), this means the domestic digital divide and barriers to connectivity. Despite improvement in recent years, Zambia is still ranked by the United Nations as one of the "least-developed" countries in the world.³⁷⁶ Internet penetration rates are dismal: less than two percent of the population has wired Internet access at home, and it is unlikely that the hard barriers to increased connectivity will allow for much improvement on that front. On the other hand, the total number of Internet users is around fifteen percent, thanks to much higher mobile phone coverage among the population. Even so, there is a substantial gap between that fifteen percent, and the sixty-seven percent that have mobile phones generally, suggesting an opportunity to narrow the divide by promoting greater mobile connectivity.³⁷⁷ This is where the compound zero-rating platform Internet.org/Free basics has stepped in.

In the Zambian context, it is therefore possible to argue from a human rights law perspective that, in light of the country's deep connectivity crisis, the benefits in terms of increased access offered by Internet.org/Free Basics, although limited to select services, still outweigh the disadvantages of that zero-rating practice, making it an appropriate, and thus proportional, measure under the

371. *One Year In*, *supra* note 49; see also *Facebook's Internet.org App Offers Free Internet Access in Zambia*, BGR (Aug. 18, 2014), <http://www.bgr.in/news/facebooks-internet-org-app-offers-free-internet-access-in-zambia> [<https://perma.cc/A2AL-EKV9>].

372. See *supra* note 345 and accompanying text.

373. Layton & Elaluf-Calderwood, *supra* note 23, at 28-32.

374. See *supra* note 183 and accompanying text.

375. See *One Year In*, *supra* note 49.

376. See *supra* notes 125-129 and accompanying text (discussing the United Nations current LDC criteria and list).

377. See *supra* notes 122 & 185 and accompanying text.

circumstances. This argument is premised on an acceptance that the Internet.org/Free Basics platform increases access among the digitally disenfranchised in Zambia, and benefits them in meaningfully relevant ways, despite not immediately offering the full Internet to everyone who subscribes. On this view, some Internet, with the possibility of more Internet, is still better than no Internet at all, at least for the time being.³⁷⁸ Both hard and soft barriers to connectivity are surmounted, as both the numbers of users and their online experience increase.³⁷⁹ Facebook's efforts to optimize the openness of the platform have also lessened the negative impact of curtailing net neutrality. And, crucially, an advocate claiming that Internet.org/Free Basics is a proportional restriction on net neutrality in Zambia can credibly argue that no better, less intrusive alternatives to that type of compound zero-rated platform currently exist. If these premises hold, the pro-human rights argument in support of Internet.org/Free Basics in Zambia, and other developing countries like it, is incontrovertible.

D. Zero-Rating in Context

The foregoing subparts underscore the importance of evaluating net neutrality and its zero-rated exceptions in context. The situation in Zambia reflects one pole of the human rights spectrum of analysis because it qualifies as a "Least Developed Country" with high barriers to connectivity. For the reasons discussed above, Zambia is most likely complying more effectively with its international human rights obligations by *permitting* zero-rating practices than it would be by *banning* them. On the other end of that spectrum are developed countries like the Netherlands and the United States, which ban and partially allow zero-rating, respectively. In those countries, both home and mobile Internet access is affordable and ubiquitous.³⁸⁰ Net neutrality protections are strong, and exceptions narrowly defined, at least in the case of the Netherlands.³⁸¹ In that country, there are few barriers to connectivity as a practical matter, so any rationale to support imposing restrictions on net neutrality must be grounded in some *other* aim recognizable as legitimate, in addition to the requirement that the

378. This is not an uncommon view in developing countries. See Liezel Hill & Andres R. Martinez, *Kenya Says That Access Trumps 'First World' Problem of Net Neutrality*, BLOOMBERG BUSINESS (Feb. 24, 2016, 8:54 AM EST), <http://www.bloomberg.com/news/articles/2016-02-24/kenya-says-access-trumps-first-world-issue-of-net-neutrality> [<https://perma.cc/CU6Y-EZ7X>].

379. The Kenyan Minister of Information, Communications and Technology Joe Mucheru observes that "people who don't have any access to the Internet often don't understand its value. Access to services like Free Basics brings that awareness, and they're often then willing to pay to get access to more tools and information." *Id.*

380. See *supra* notes 228-244 and accompanying text; see also David Mayer, *Dutch and Slovenian Regulators Nail Carriers over Net Neutrality*, GIGAOM (Jan. 27, 2015, 3:04 AM CDT), <https://gigaom.com/2015/01/27/dutch-and-slovenian-regulators-nail-carriers-over-net-neutrality> [<https://perma.cc/B2U2-HMXQ>].

381. See *Rossini Public Knowledge Paper*, *supra* note 23, at 35.

means be necessary and proportionate to achieve that legitimate aim. Thus, for example, reasonable measures for Internet traffic management that impinge on net neutrality are nonetheless accepted (like in most countries) as a justified because they are necessary, proportionate, and limited in time.³⁸² In short, the Netherlands is most likely complying more effectively with its international human rights obligations by *prohibiting* zero-rating than by *permitting* it.

Still unclear is how the United States' new rules allowing for "sponsored data" will be interpreted by the FCC.³⁸³ When are sponsored data or zero-rated plans not based on "unfair" or "unreasonable" discrimination in contravention of net neutrality? Past FCC practice supports the claim made by some experts that limited exceptions to pricing controls with clear public interest or consumer benefits may survive the FCC's case-by-case scrutiny where little or no negative impact on competition or consumer choice is perceived.³⁸⁴ A different question is whether such plans would survive a human rights analysis.³⁸⁵

Then there is the middle ground between the two poles. States like Slovenia and Chile, which manifest features of both developing and developed countries, make for harder cases.³⁸⁶ Here, the analysis required by international human rights law is more complicated because, among other reasons, the factors to balance tend to even out. For example, Chile enjoys relatively high levels of Internet access and affordability leading to substantial penetration rates, though not as high as those in developed countries like the Netherlands, which bans zero-rating more categorically.³⁸⁷ Some barriers to connectivity remain, though they are lower than those found in most developing countries. Even so, inequality levels in Chile are high, and significant sectors of its society remain unconnected.³⁸⁸ The telecoms sector is privatized and highly competitive, expanding consumer choices. It is thus difficult to say whether zero-rating practices, to the extent they are being permitted in Chile, could be justifiable

382. See *Council of Europe Gets Tough on Net Neutrality*, *supra* note 20.

383. See *supra* note 240 and accompanying text. To date, complaints have been brought or threatened against sponsored data plans by Comcast (Stream TV), Verizon (FreeBee), and T-Mobile (Binge On), among others. See Daniel A. Lyons, *Usage-Based Pricing, Zero-Rating, and the Future of Broadband Innovation*, 11 FREE ST. FOUND. PERSP., no. 1, Jan. 4, 2016, at 1, 8, <http://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=2011&context=lsfp> [<https://perma.cc/P7PN-MJHM>] (arguing that the FCC should not interpret its net neutrality protections too narrowly in relation to innovative practices involving zero-rating that benefit consumer choice but do not result in anti-competitive harm).

384. See *supra* note 69 and accompanying text. Veteran U.S. communications law experts repeatedly point to the FCC's allowance for toll free numbers as an example of how the public interest can successfully drive policy exceptions to telecommunication pricing rules. Toll free numbers are frequently paid for by sponsoring companies to allow consumers to communicate for "free" with businesses. See *What is a Toll Free Number and How Does it Work?*, FCC (Nov. 3, 2015), <https://www.fcc.gov/consumers/guides/what-toll-free-number-and-how-does-it-work> [<https://perma.cc/5SBN-8ZC2>].

385. See Carrillo & Nunziato, *supra* note 232.

386. See *supra* Part II.B.

387. See *supra* note 111 and accompanying text.

388. See *supra* Part II.B.3.b (Chile country case study).

under the human rights regime without looking at them on a case-by-case basis in light of the framework outlined above. The point here is not to offer a definitive statement of Chile's (or any other country's) compliance with its human rights obligations. Rather, the idea is to illustrate how a more rigorous analytical framework can be applied to such policy questions to enhance their constructive consideration. This "new" perspective on net neutrality and zero-rating similarly lays the groundwork for deeper normative research and consideration of these issues.

V. CONCLUSION: HAVING YOUR CAKE AND EATING IT TOO

It turns out that, under certain circumstances, zero-rating can be compatible with net neutrality understood as a norm of human rights. In other words: sometimes, you *can* have your cake and eat it too. But that normative reality does not, in itself, respond to the underlying question of *when* the requisite conditions are met in a given country, or by *which* particular zero-rating arrangements, so as to justify the practice in this way. For that, one must engage with the human rights law framework as outlined and developed above. In the Introduction, I invoked the contentious net neutrality debates in India during 2015 to illustrate the zero-rating conundrum in action. Despite some progress, India continues to be an ideal case study of the challenges involved in regulating net neutrality effectively.

The initial question provocatively posed in the Introduction was whether Facebook in India could "have its cake and eat it too" by promoting its zero-rated Internet.org/Free Basics platform while simultaneously holding itself out as a champion of net neutrality. India's regulator decided in February 2016 that it could not by banning all differential pricing by telecoms, thereby pulling the plug on Internet.org/Free Basics and similar offerings.³⁸⁹ Surprisingly, however, the Indian regulator soon thereafter executed an embarrassing "flip-flop" by issuing two new net neutrality-related consultations,³⁹⁰ which advocates believe threaten to reintroduce zero-rating "through the back door."³⁹¹ If nothing else, this "confused" approach to regulating net neutrality in general, and zero-rating in particular, confirms that the question of what arrangements might constitute acceptable restrictions on net neutrality in the Indian context has yet to be decided.³⁹² It also means that India continues to struggle with the zero-rating conundrum.

A better way of reformulating the initial question posed is whether India, in

389. See *supra* note 21 and accompanying text.

390. Manu Kasuhik, *TRAI's Web of Confusion*, BUS. TODAY (July 31, 2016), <http://www.businesstoday.in/magazine/focus/the-telecom-regulator-must-first-simplify-its-processes-before-dealing-with-net-neutrality/story/234769.html> [https://perma.cc/4L5P-T3X5].

391. Parminder Jeet Singh, *Free Basics, Now Through the Back Door*, THE HINDU (July 5, 2016), <http://www.thehindu.com/opinion/op-ed/parminder-jeet-singh-india-and-facebook-free-basics-now-through-the-backdoor/article8807948.ece> [https://perma.cc/35QB-2Z22].

392. Kasuhik, *supra* note 390.

deciding to prohibit differential pricing and private sector zero-rating, is maximizing the enjoyment by its people of basic human rights like freedom of expression, and thus adequately complying with its international human rights obligations. Based on the international law framework outlined in prior Parts and India's yawning digital divide,³⁹³ the answer is probably no. This "new" perspective supports the position that by reframing the debate on net neutrality in human rights terms, regulators and advocates in India and elsewhere would gain a more consistent and comprehensive approach to evaluating the issues. This, in turn, would foster more constructive debates and, ultimately, better policymaking. The Indian regulators' recent *volte-face* might just signal an opportunity to reevaluate India's position in those terms.

393. See *supra* Table 2. (indicating that in India, less than twenty percent of the population has Internet access of any kind).