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What is Free about Free Basics?

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Abstract

Investigating how industry giants leverage power and increase inequalities, further straining the resources of the poor; a new 'digital ill' has risen: the emergence of the drug dealer of mobile broadband, Free Basics.

How can we achieve social justice and equality in digital development? Access to Information. Information is Freedom, Knowledge is Power! Information is largely contained on the internet, therefore, access to the internet provides both freedom and power. As such, universal access to the internet is both a target of the Sustainable Development Goals and parroted as essential by the World Bank's Digital Dividends Report. Free Basics shares the same goal, "connecting the world," but it is not connecting the world to all information. Free Basics provides free digital broadband content to its users in developing and deeply impoverished countries. The free content is very limited, Facebook and other self-selected corporations choose whether to participate and how much content they will provide. Net neutrality violations and price differentials are inequalities inherent to the foundation of Free Basics.

Specifically, this paper proposes to evaluate what free -- and freedom -- mean in light of Free Basics. Recently, founder Mr. Zuckerberg reported Free Basics just hit over twenty-five million users. Twenty-five million users will be trapped in a perpetual inequality by either never having access or the functioning capabilities to effectively use the internet. Development organizations, policymakers, and academics need to protect the vulnerable targets of Free Basics. The new Free Basics digital inequality needs to be defined to help shape effective International ICT policies.

Introduction

Approximately fifty-seven percent of the world's population, 4.3 billion people, do not have access to the Internet (The Broadband Commission for Digital Development, 2015). This gap in connectivity, internet inequality, is vast. The ubiquity of the internet turned access into a basic human need. Further solidifying this point, the United Nations Humans Rights Council established free and unfettered access to the internet is a human right (Futter & Gillwald, 2015).

The internet is a constantly evolving tool with new capabilities and applications that can help development efforts. Internet tools can provide users with endless education opportunities, spur job creation through innovation, and provide access to job applications, government services, and other benefits. Increasing global access to the internet is at the forefront of the Information, Communication, and Technology for Development (ICT4D) practitioners' agenda. Further, Information Communication Technologies (ICTs) are embedded in many of the Sustainable Development Goals because they are an effective catalyst to advance these goals (International Telecommunication Union [ITU], 2016).

ICT4D practitioners share a common goal, to provide all people with the freedom to access the internet and its tools. However, a looming debate exists over the best way to provide this access. Over the decades practitioners argued over the effectiveness of massive ICT deployments, such as One-Laptop-per-Child, versus carefully planned programs with limited scope (Toyama, 2010); or whether practitioners should only utilize local solutions for local problems as touted by leaders such as Dr. Dambisa Moya, versus the use of interventions from foreign sponsors such as the Bill & Melinda Gates Foundation (Provost, 2013).

Recently, a new mechanism surfaced in the ICT4D debates: zero-rated services. Zero-rated services are data subsidy programs offered by content providers, mobile providers, and other

telecommunications actors. Free Basics by Facebook¹ is one of the most known zero-rated services available. Free Basics was famously banned in India in 2016 because the service infringes on net neutrality principles, the notion all content should be treated fairly and equally without paid prioritization, blocking, or throttling of content. Free Basics and the alike are currently at the center of many policy debates; all the while it penetrated markets in over forty developing countries around the world (Internet.org, 2016a).

How effective are these “free” services in connecting the unconnected? Do they create a new type of inequality due to the limited content offered? What constitutes inequality? And, is “some” internet content better than “none”? The remainder of this paper will explore the definitions and lay a groundwork to discuss the merits of zero rated services, and specifically, Free Basics.

First this paper will define a framework to discuss digital inequality relevant to zero-rating. Next, the paper will explore common zero-rated structures available around the world. The paper will conclude with an examination of how the Free Basics model fits within the Digital Inequality framework.

Digital Inequality: A Framework

With the rise of the internet at the turn of the twenty-first century a new type of digital inequality emerged: the “information haves” and “information have-nots” (Attewell, 2001). The internet revolutionized the way we work, learn, communicate, and live our lives. Within the ecosystem three major mechanisms advance society: inclusion of information, increased efficiency, and new opportunities for innovation (The World Bank, 2016). The speed at which these three mechanisms advance society is faster than any technology that came before it. Those without access to the free open internet cannot realize the benefits and are left behind.

¹ operated under the name Internet.org until 2015

The World Bank's 2016 Digital Dividend Report succinctly discusses the potential limitless power of a free and open internet. Connectivity yields the digital dividend, the return realized on digital investment of growth, jobs, and services. Digital exclusion widens when those digital dividends cannot be realized.

This paper builds on the existing digital divide frameworks, to create a model that includes digital inequality rising from zero-rated mobile internet subscriptions. The framework developed for this paper is two pronged: *access* and *effective web use*. The access component covers connecting the unconnected, and effective web use examines the ability of users to utilize the full internet as a resource. Generally, zero-rated mobile internet plans expand access, but do not promote effective web use.

Access

Many people are disconnected even though mobile technology spread around the world faster than all technological innovations that came before it, in both the developed and developing world. Globally, approximately two billion people are without access to mobile phones and approximately four billion people do not have access to the internet (The Broadband Commission for Digital Development, 2015).

A large number of "information have-nots" remain despite the recent improvements in connectivity. The ITU published the 2016 facts and figures of ICT penetration rates throughout the world further detailing the landscape. The results of the ITU study show developing countries are still at a significant disadvantage: depicted in the graphic below, close to eighty-four percent of households in developed countries have the internet in the home, versus only forty-one percent of households in developing countries.

Percentage of households with Internet access

Almost two-thirds of households in the Americas are connected, compared with half of all households globally. Almost 1 billion households in the world have Internet access, of which 230 million are in China, 60 million in India and 20 million in the world's 48 LDCs.

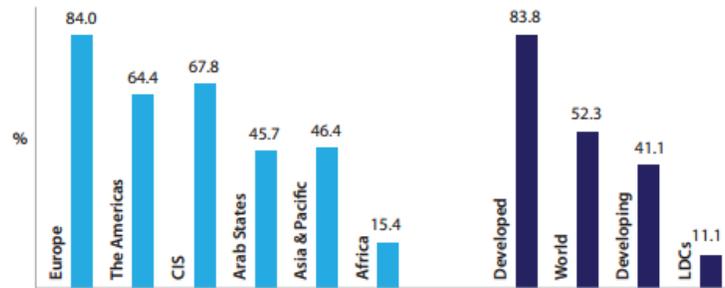


FIGURE 1: ITU ICT 2016 FACTS AND FIGURES

Access to the internet is an essential part of solving the Sustainable Development Goals (SDGs) and access to ICTs has become the nervous system of development (United Nations Economic and Social Council, 2015). As a result, new connectivity goals were set as targets throughout the SDGs. For example, within the Infrastructure Goal (No. 9) a key target set aims to “significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.” The United Nations assigned an early due date, in 2020, because access is a key component to meet many of the other SDGs and to realize the total vision set for 2030. These subtleties prove the proliferation of ICTs is an essential component to reducing internet access gaps.

Effective Web Use

The second key component of the Digital Inequality framework is effective web use. The theoretical reason effective web use is an element of this framework is rooted in Sen’s capability approach: Individuals’ abilities to convert the same resources into valuable functionings vary greatly. In order to find freedom within development, people require access to as much of a resource as each individual needs to convert it into a tool that provides: 1) each individual with overall freedom, and 2) so each individual can derive the maximum benefit (Sen, 1999).

Effective web use is essential for all individuals to derive the maximum digital dividend. Technology has the power to act as a catalyst to increase progress towards achievement of development goals, such as improvement of worker productivity, increased educational opportunities, and better healthcare services. However, these gains cannot be realized if users do not have the freedom to turn the internet into a tool that is valuable to them. Digital dividends, as defined by the World Bank report, cannot be realized unless users have the freedom to use the internet freely and openly. Users need more than access, they must possess the knowledge to use the resource effectively, understand the full potential of the resource, and have the freedom to choose how they utilize the resource.

Digital inequality driven by differences in web use, how individuals use the internet, is an important facet of the digital divide. DiMaggio, Hargittai, and colleagues recognized the importance of web-use early in the history of the internet. In 2004, they laid a framework of digital inequalities emerging from varied web use in five key ways:

1. Quality of hardware, software, and network connection
2. Autonomy of use
3. Skill
4. Availability of social support
5. Extent and quality of use

Of these five points, all but the first point, quality of tools, can be realized with proper education and if users' access to the internet is not constricted in any way. Many dimensions of differences exist in how users utilize internet tools, such as differences in geo-location, socioeconomic status, gender, and age. Examination of these dimensions reveal large differences in how groups use the internet and these differences deepen digital exclusion (Hargittai & Hsieh, 2013; Rice & Pearce, 2015).

While many examples of the digital inequalities from lack of effective web use exist, socioeconomic status is one salient example that transcends the developed and developing world. Recent studies examined how people use the internet and found users' abilities were closely related to their

economic status. The findings agree with the general correlational linkages between income deprivations and capability deprivations seen throughout development (Sen, 1999; Poushter, 2016). Those with a higher socioeconomic status tend to be more skilled and tend to use the internet for many purposes, whereas those of lower socioeconomic status are less comfortable using the web for multiple purposes (Hargittai & Hsieh, 2013; Hargittai & Walejko, 2008).

In the coming years, many new users will be introduced to the internet as we progress towards meeting the new SDG goals and targets. Low income households will be a prominent socioeconomic group new to the internet – for example, in the past year alone households with the internet grew from 34% to 41% in developing countries and from 9.5% to 11% in the least developed countries (ITU, 2016; Hargittai & Hsieh, 2013). In order to ensure freedom within digital development and derive the maximum digital dividend, these new users must have the free and open internet with the option to learn how to effectively use it.

New Tool Promises to Increase Access

Zero-rating is a new tool in mobile broadband data plans. Zero-rating offers users a new dimension of internet access by providing users with access to certain data and applications free of charge. This mechanism may have the potential to help meet the Sustainable Development Goal connectivity targets, by providing users with free internet content and connecting the unconnected, but the true efficacy of the zero-rating programs are not proven.

Zero-rating offerings are structured in a variety of ways by internet service providers (ISPs) and the edge providers (EPs), content producers such as Facebook, Wikipedia, bloggers, and YouTube. Below, a chart summarizes the major flavors of zero-rating structures that exist in the global marketplace. The chart below is preceded with a detailed description of these structures. The section concludes discussing the compound zero-rating structure, the method employed by Free Basics.

TABLE 1

Zero-Rating Structures Overview			
Zero-Rating	Overview	Access Increased?	Effective Use
False	Customers work for content and are not restricted in what content they view.	Yes	Unlimited
Sponsored	EP pays ISP to offer free content and customers can view free content without counting against data caps.	Yes	Limited
Categorical	ISP offers entire data type for free (e.g. Video, Music) and customers can consume free content without counting against data caps.	Yes	Limited
Single Site	EP does not pay to zero-rate content. Watered down versions of websites can be viewed without counting against consumer data caps.	Yes	Highly Limited
Compound	EP may or may not pay to zero-rate content. Free content from multiple providers are bundled in the same application. Watered down versions of websites can be viewed without counting against consumer data caps.	Yes	Highly Limited

False Zero-Rating

False Zero-Rating is a simple work-for-content model. End-users earn free data in exchange for watching an advertisement or other content. For example, in Kenya users can fill out a survey for Shangaza and receive 1GB of free data from mobile carriers MTN, GLO, Airtel, Vodafone, or Safaricom (Shangaza, 2015). Users can use the earned free data credits on any content, not limited to specific mobile content or applications. This model does not violate net neutrality principles, nor does this model widen the internet access gap.

Sponsored Data Zero-Rating

ISPs and EPs use Sponsored Data, another form of zero-rating, to supplement data plans with some zero-rated content. In this model edge providers pay ISPs to zero-rate their content. Two of the most competitive ISPs in the United States, AT&T and Verizon Wireless, offer Sponsored Data plans to customers.

Both AT&T and Verizon Wireless offer similar plans. Certain post-paid subscribers (credit eligible customers who pay their bill at the end of the monthly billing cycle) can view free content, they are alerted content is zero-rated when they see the sponsored icon: either an “AT&T Sponsored Data” icon or “Free Bee” icon appears on web pages or applications. Verizon advertises sponsored data can include up to thirty seconds of video, up to thirty minutes of audio streaming, free application downloads, and free data to use applications and/or mobile web.

Both mobile providers require the user subscribes to a post-paid 4G/LTE data plan (Verizon, 2016; AT&T, 2016). Pre-paid customers are not eligible to participate, and arguably have the most to gain from receiving zero-rated services because pre-paid customers tend to be users from low income households without sufficient credit history to be eligible for post-paid plans.

Critics of the sponsored data zero-rating structure claim these models are blatantly anti-competitive because they engage in the practice of prioritizing and advantaging their own content and vertically integrated partners. Large corporate entities have an unfair advantage over smaller companies without the same budget allowances. Further, sponsored data directly violates net neutrality rules (Wood, 2016; Public Knowledge, 2016). While under this model users have unrestrained access to the full internet, they are encouraged/manipulated to use the free content over the non-zero-rated content which is perceived as being “paid.”

Zero-Rating For an Entire Category of Applications

Another form of zero-rating is categorical. Some ISPs offer a zero-rating program for entire categories of applications. For example, this model would allow any video service, any social media site, or any music service to zero-rate data. The U.S. Carrier T-Mobile utilizes this method zero-rating all participating video edge providers, the program is entitled Binge On. Binge On is nuanced², however, any

² Binge On may directly violate the US Open Internet Order (net neutrality rules). The service throttles video content “on the basis of internet content, application, or service.” Binge On is a default setting, and when

edge provider that works to meet the technical requirements is eligible to operate on and join the Binge On application.

Zero-rating categorically does not violate net-neutrality as deeply as other plans because consumers have choice over content and edge provider services.

Single-Site or Service Zero-Rating

Single-Site or service zero-rating offers end users free access to limited content. This model was a precursor to compound zero-rating, discussed below. Under the single-Site or service zero-rating offers edge providers do not pay for their content to be zero-rated. The single-site services provide content related to their application for free, but vary the amount of free content available and in most cases offer watered down versions of the edge provider’s product (Carrillo, 2016). The most notable single-site zero-rated applications include Wikipedia Zero, Google Free Zone, and Facebook Zero:

TABLE 2

Zero-Rated Single Sites	
Provider	Free Content
Wikipedia Zero (Wikimedia Foundation, 2016)	Full free access all the free knowledge on Wikipedia.
Google Free Zone (Mybroadband, 2013)	Free Access to limited suite of Google products including: Google Plus, Gmail, and Google Search. (discontinued)
Facebook Zero (Wikipedia, 2016)	Provides text-only Facebook content, all other media content is subject to data usage.

Critics of these services argue the single-site users misunderstand what the internet is, and only define the internet as the single-site zero-rated service used (for example, people will refer to Facebook as the internet). This is a problem because poor people targeted by single-site zero-rating miss the opportunity to the convert the resource into a useful tool and find full functioning value. Further, critics

customers have Binge On enabled, all video data is slowed down regardless of whether the data is zero-rated or not. Finally, the Binge On platform does not prevent non-partners from taking advantage of the system and intentionally zero-rating non-partner content.

charge that this phenomenon is occurring because these large companies, such as Facebook, Google, and Wikipedia, actively try to give the impression that they are the “internet” (Wood, 2016). Most importantly, single-site zero-rating only offers limited to users content (through a type of prioritization and blocking) violating net-neutrality principles.

Compound Zero-Rating

Compound zero-rating programs are plans between edge providers and mobile broadband providers or ISPs to offer a bundle of free content to consumers. The content provided is watered down applications or websites. Compound plans differ from single-site or single service models in that multiple-sites or multiple services are bundled together; and compound plans differ from sponsored data plans in that the edge-providers may or may not directly pay ISPs.

Free Basics by Facebook is the most salient example of Compound Zero-Rating. Free Basics has reached over twenty-five million customers in over forty countries (Internet.org, 2016a; Internet.org, 2016b). Free Basics opened the platform to any developer who would like to join, making the bundle of services as large as the number edge-providers who choose to participate, including the services of local developers.

This zero-rating structure is arguably the most controversial zero-rating program. Proponents of Free Basics claim the purpose of compound zero-rating is to “connect the world” and claim net neutrality principles are not violated. Conversely, critics argue “connecting the unconnected” is a false veil and zero-rating is a system to work around net neutrality rules, so all content is *not* free and open, it is subject to paid prioritization, blocking, or throttling. Free Basics was recently center stage when it was at the center of policy debate in India; ultimately, the Telecom Regulatory Authority of India banned all zero-rated services for the inherent violations of net neutrality.

Discussion: Compound Zero Rating and the Digital Divide

Since zero-rated services emerged the net neutrality debate encapsulated them. The newer compound zero-rated data plans are more nuanced, and still hotly debated: are users exploited? And without the freedom to use the internet, is digital exclusion more pervasive? The first half of this paper laid a foundation of useful definitions to inform the debate. The remainder of this paper demonstrates how Free Basics and similar programs are a new power and new digital-ill in ICT development.

Next, the paper will explore compound zero-rating (primarily using Free Basics as the example) through the two-pronged framework; first examining the effect on access, and second, examining whether the model contributes to effective web use.

Access: Zero-Rating Improves, But Not as Much as We Think

Free Basics by Facebook is a mechanism in the marketplace with a claim it is connecting the unconnected and increasing digital inclusion. Free Basics is supposed to increase internet access across the developing world, but the number of newly connected users remains unclear. Globally, access to the mobile internet improved since Free Basics was introduced in 2014. Free Basics reports it connected over twenty-five million new internet users, and claim approximately fifty percent of Free Basics subscribers sign up for full data plans within thirty days of use.

Independent researchers were unable to corroborate Free Basic's findings. Through interviews conducted with mobile carriers, researchers found Free Basics appears to be a tool for users who are already using the internet and supplementing free data as needed (O'Donovan & Frenkel, 2016), revealing at least a portion of the "newly connected" users aren't new to the internet at all. In one study, researchers found consumers sign up for Free Basics to exploit the free content, and subsequently subscribe to additional data as needed, this is in part evidenced by the commercials for Free Basics that do not target the "poor" but instead target students and the millennial generation (Raghavendra, 2016), seen below in Figure 2 (Music Rupert Fernandes, 2015).



FIGURE 2: IMAGES FROM TWO FREE BASICS ADS AIRED IN TWO DIFFERENT COUNTRIES

While it does appear there are newly connected subscribers, the true number of new connections gained remains unclear. The Free Basics media campaign is misleading, based on independent findings it can be concluded the organization is simply checking the “access” box without a clear picture of who is subscribing and benefiting from the service. The Free Basic’s media campaign is a digital development ill, the service misrepresents the organization’s success while branding itself a leader in connecting the unconnected population.

Effective Web Use

Users’ ability to effectively use the web determines, in part, the level of freedom they have to live a life they value. Free Basics provides limited content to users in developing countries, but does not provide them with the freedom to find full value to use the resource. Next, the constraints on user freedom will be discussed.

THE WALLED GARDEN EFFECT

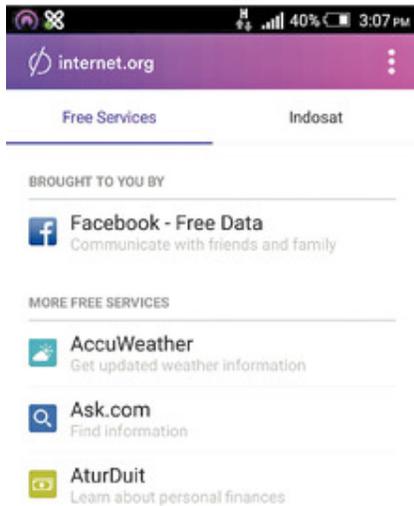
Free Basics creates a Walled Garden. The Walled Garden Effect is the natural containment of users to stay within a certain space. Internet users exposed to limited web content through zero-rating are encouraged to stay within the free limited content because all other data becomes “paid for.” This model violates net neutrality principles and does not lead to effective web use. Lack of net neutrality, access to the free and open internet, hinders users’ abilities to effectively use the web.

The Walled Garden contributes towards creating a new type of digital inequality: the internet “kind-of-haves”. These users are definitely better off with limited exposure to the internet. It provides them with an opportunity to connect with family members, access some local weather or news, and access some basic world information. The depth of information available remains limited. Some estimate users can only reach .02 percent of all content on the internet (Elgan, 2016), even if we assumed the amount of content available was two percent it is still extremely limited. Free Basics confines users to a space that does not contribute to deep learning, new job opportunities, or advanced ICT skills. The barriers to other websites limit users from maximizing the freedom they have to live a life they value, including for example, finding delicious recipes. The following example demonstrates these limitations: an Indonesian woman searched for a recipe on the Ask Jeeves’ Free Basics (Internet.Org) application facing a difficult decision, to pay or not get what she sees. The figure below (Purnell & Yuniar, 2015) is a screenshot of her experience:

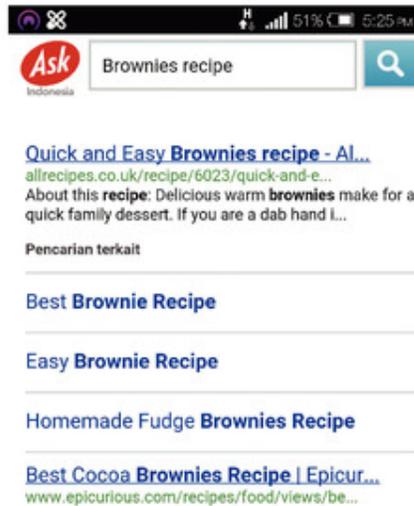
Facebook's Free Web Access App

Facebook teams up with telecom operators in developing countries to provide free Web access via a special smartphone app and browser for feature phones.

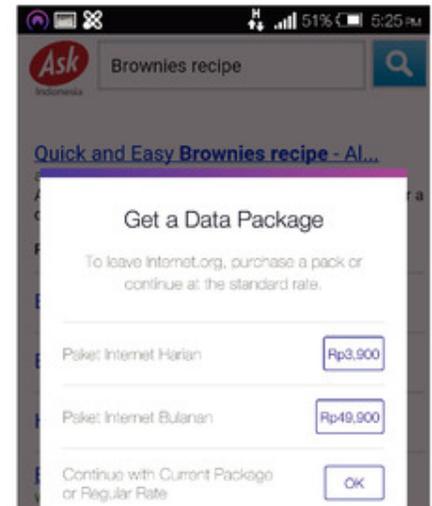
1. In Indonesia, users are given access to Facebook, the company's Messenger app, Wikipedia, job listings and more.



2. Information like weather and sports news is also available. Google is not on the platform, but users can search Ask.com.



3. When users click to view websites outside the platform, they are prompted to pay for the data.



Photos: Resty Woro Yuniar/The Wall Street Journal

THE WALL STREET JOURNAL.

FIGURE 3 FREE BASICS - PAY FOR DATA

As seen the figure above, users are faced with a decision to use a new recipe by paying for data. The user was denied the freedom to use the internet freely. The triviality of the search and utility to be gained is of no importance – each person has the right to achieve whatever functioning will give their life value in a clear way, instead of presenting users with a teaser and choice.

HOW USERS DEFINE THE INTERNET

The Walled Garden Effect has an impact on how users define the internet. Users have the tendency to most heavily use the first web services they learn, and commonly stay confined to these services. Education at a young age is the major catalyst to advancing a society in any sector, whether it be healthcare, history, language, or IT skills.

The first lessons and first experiences with the internet should not be a limited internet. Teaching people who are new to the internet through an application like Free Basics provides them with a poor education from the start. Some emerging reports reveal users define the internet as Facebook (Mirani, 2016). As discussed above, this is a dangerous precedent to set - the poor people targeted by Free Basics are missing the opportunity to convert the full open and free internet into a functioning tool and receive the full digital dividend.

Free Basics users are limited to view certain content and are contained within a Walled Garden. The threat of the Walled Garden Effect can potentially leave Free Basics users in a perpetual state of limited access. Advocates of Free Basics point out many Free Basics subscribers upgrade to data plans within thirty days of signing up; however, (and if as discussed above this fact is true) once users are exposed to the curated sites they tend to stay within in them. Whether it is a simple recipe search or quest for deep learning, the Walled Garden created by Free Basics does not provide the tools necessary to realize the digital dividend.

Conclusion: The Drug Dealer of Mobile Broadband?

Compound zero-rated services, when fit into the zero-rating digital inequality framework, reveal a new corporate power in digital development. Free Basics and partners are the drug-dealers of mobile broadband because they provide users with a taste of the internet without providing freedom for users to utilize the internet in the way that makes them whole. Digital development goals cannot be achieved by wetting the palate of eager internet users, or by encouraging users to stay within the newly constructed walled gardens.

Compound zero-rating does not subsidize mobile broadband and the internet in a meaningful way. Users are not provided with free equitable access to achieve development goals. Instead, users are

tempted to buy up into new services, they have less chances to effectively using the web and digital inclusion efforts turn into digital exclusion tragedies.

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