



Zero-rated internet services: What is to be done?

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Introduction

Facebook recently celebrated the one-year anniversary of its non-profit initiative, Internet.org.² Facebook claims to have set up this initiative to help those in developing countries who cannot afford to access the Internet with a fixed-line or mobile data. The application provides users with access to what they term “basic internet services,” including Facebook, Facebook Messenger, and a suite of country specific websites related to education, finance, health, information, the marketplace, the news, and women’s issues. Though critics have argued that this does not constitute access to the ‘free and open’ internet it is a far more comprehensive offering than Facebook Zero, their stripped down application developed originally for feature phones and the application that introduced many mobile users to the internet. This provided access to the Facebook Zero app only, which did not have any video, image, or audio features. By mid-2015 Facebook had partnered with more than twelve mobile operators in seventeen countries to provide free usage of its Internet.org mobile application.

Facebook used the anniversary to highlight the initiative’s success. It reported that nine million people have begun using the Internet as a result of its efforts.³ Although this has been welcomed by some as a strategy to bring Internet users online for the first time, the introduction of Internet.org has unleashed a vociferous debate about its long-term impact, and similar offers for free Internet access.

Why is there so much debate surrounding Internet.org, a non-profit initiative ostensibly meant to help the world’s poor? Internet.org is just one manifestation of an increasingly popular and controversial marketing strategy, zero-rating. An application or website is described as zero-rated when a mobile operator does not count its usage against a user’s monthly data allotment, rendering its use effectively “free”.⁴ This practice is particularly controversial when a content provider, like Facebook, does not have to pay a mobile operator to offer their application for free. In this way, Facebook gains an advantage over other social media websites because the mobile operator essentially provides their Internet.org application and its associated services for free whereas users of other services have to pay for the required data to access Facebook and the associated services. The harms assumed to arise from this relate to potential anti-competitive practices in, and inhibition of, innovation and local participation.

Defence of zero-rating

Facebook, its mobile operating partners, and some outside observers, believe zero-rating will increase Internet access and foster increased innovation and greater competition among Internet content providers. They claim that zero-rating has the potential to expand Internet access among those who have never used the Internet and increase the amount of time

²“One Year In: Internet.org Free Basic Services,” *Facebook*, accessed August 5, 2015, <https://internet.org/press/one-year-in-internet-dot-org-free-basic-services>.

³“Internet.org: Myths and Facts,” *Facebook*, accessed August 5, 2015, <https://internet.org/press/internet-dot-org-myths-and-facts>.

⁴“Network Neutrality and Zero-rating,” *Barbara van Schewick*, accessed August 6, 2015, filing at Federal Communications Commission, <http://apps.fcc.gov/ecfs/document/view?id=60001031582>

existing Internet users, who spend far less time online than those in “always-online environments,” are able to spend online. Increased access, they believe, will then foster economic development for both small businesses and national economies.

Facebook has presented two strong but not independently verifiable or well-contextualized data points in a series of blog posts to show that its plan is working. Facebook observed an average increase of over fifty percent in the rate at which new users join mobile networks in locations where Internet.org was offered.⁵ Facebook also responded to fears that the application limits Internet companies’ ability to compete with Facebook and its content partners because new users will not be able to pay for real Internet access. Its data shows that more than half of those who have begun using the Internet through Internet.org are now paying for their own data.⁶ Facebook believes that Internet.org has succeeded at “showing people the value of the internet and helping to accelerate its adoption.”⁷

Critics of zero-rating

Proponents of the ‘open Internet’ and Net Neutrality worldwide claim that Internet.org sets a dangerous precedent that will ultimately limit Internet use and competition. They claim that zero-rating violates a prerequisite for Internet innovation and economic development, Net Neutrality. Net Neutrality is a principle which dictates that Internet data should be treated equally by service providers. Barbra van Schewick, Professor of Law and Faculty Director of the Center for Internet and Society at Stanford University, explains that zero-rating allows mobile operators and Internet Service Providers to “favor some applications over others and causes the same problems as technical forms of differential treatment,” like slowing down or blocking certain forms of data.⁸

Criticism of zero-rating has not been confined to the United States and other developed economies. India has seen some of the most vociferous debate to date about the merits of zero-rating. Over one million Indians sent letters to the Telecom Regulatory Authority of India (TRAI) in support of banning zero-rating as a part of the "Save the Internet" Campaign. Sunil Abrahams of The Center for Internet and Society identifies the harms of Network Neutrality violations as: “...one, censorship by private parties without legal basis; two, innovation harms because the economic threshold for new entrants is raised significantly; three, competition harms as monopolies become more entrenched and then are able to abuse their dominant position; four, harms to diversity because of the nudge effect that free access to certain services and destinations has on consumers reducing the infinite plurality of the Internet to a set of menu options. The first and fourth harm could result in the Internet being reduced to a walled garden.”⁹ TRAI has responded to this vociferous debate in India by publishing a public

⁵“One Year In.”

⁶Ibid.

⁷ Ibid

⁸“Network Neutrality and Zero-Rating,” Letter to the Federal Communications Commission. Re: Ex Parte Letter, GN Docket No. 09-191, GN Docket No. 14-28, February 19, 2015, accessed August 7, 2015, <http://apps.fcc.gov/ecfs/comment/view?id=60001018565>.

⁹“Multiple Aspects Need to Be Addressed as the Clamour Grows for Network Neutrality,” accessed July 29, 2015, <http://cis-india.org/internet-governance/blog/dna-april-16-2015-sunil-abraham-multiple-aspects-need-to-be-addressed-as-the-clamour-grows-for-network-neutrality>.

discussion paper on zero-rating and called for public comment,¹⁰ which closed at the end of August amidst renewed calls by Open Internet proponents for a ban claiming that zero-rating implemented for the purpose of bringing the marginalised online can still be harmful.

The United Nations Human Rights Council has established that citizens have a right to unfettered Internet access. Many nations are working to help their citizens to realise this right. Critics argue that zero-rating could put this right at risk. For example, van Schewick warns that zero-rating sets a precedent where low-income American families will be shuttled into “walled gardens’ – cutting them off from free information and full participation” on the Internet.¹¹

Would it not bring those who might otherwise have remained offline online? Facebook’s data suggests that over half of new Internet users are not getting stuck within a “walled garden,” because they are paying for data usage. Arguments in favour of zero-rating services providing a gateway to the open Internet have also raised concerns about the poor being lured onto paid services that they can ill-afford. Several of these operators do however provide alerts and voluntary cut-offs, or permissions to continue notifications, as self-regulation means to probably avoid formal consumer protection regulation.

Understanding some of these aspects requires further research. Tracking data which would be required for billing purposes, and so collected anyway by operators, could be made available by them to assess the wider impact of such services on access to the open Internet. In particular, data on free and paid use as well as expenditure as a portion of household expenditure would prove valuable.

Further, zero-rating for Internet uptake still “allows ISPs to tilt the market in favour of specific applications and to ‘pick winners and losers’ on the Internet.”¹² Tilting the market could stifle competition from local social networks, application developers, and content providers who cannot afford to pay providers for zero-rating their content, or who do not have the market share or eyeballs on their products to make it attractive enough to operators to provide free data for their services.

Zero-rating as a late-entrant strategy to gain market share

Zero-rating is a relatively new tactic for South African operators. Cell-C became the first mobile operator to offer South Africans access to Internet.org at the end of August 2015. Cell-C will provide its customers with zero-rated, or free, access to Facebook’s mobile phone website from July to the end of August of this year and its Internet.org mobile application for one year from September 2015 until the end of August 2016. Cell-C’s agreement with Facebook comes five years after MTN (the second largest operator) offered a different free Facebook service, Facebook Zero and Wiki Zero. However, zero-rated Facebook and Internet.org are not the same as Facebook Zero.. Facebook Zero was aimed at the feature phone market and users

¹⁰“Net Neutrality Debate in India: Here Are All the Arguments You Need to Know,” *The Indian Express*, accessed August 13, 2015, <http://indianexpress.com/article/technology/social/net-neutrality-in-india-licensing-to-zero-ratings-its-a-complicated-debate/>.

¹¹“Network Neutrality and Zero-Rating.”

¹²Ibid.

enjoyed only some of the basic functionality of the Facebook website. Cell C's Internet.org offers free basic listed internet services through an application on a device.¹³ Moreover, Cell-C is subsidising access to a wider range of Internet content through sites included in the Internet.org application. Cell-C is also offering free access to a fuller Facebook product via the Facebook application and Internet.org from the 1st of July to the 31st of August 2015. These include posting and viewing images and messaging but not videos and calling capabilities. From the 1st of September 2015, accessing free Facebook will only be through the Internet.org application. On Facebook, users will only be able to view posts without images, access Facebook messenger, access all listed sites, and view static information on the Internet.org application.¹⁴ Cell-C has also offered its users a zero-rated WhatsApp messaging application since September 2014. It announced that one million users utilised the WhatsApp voice application between 13 July and 19 July 2015 in order to demonstrate the popularity of the promotion.¹⁵

While MTN was the first to offer Facebook for free, as dominant market player, Cell-C's embracing of zero-rated Facebook and WhatsApp needs to be understood in the context of an entrenched duopoly market, into which it entered as the third entrant; the increasingly price competitive market in which the dominant operators are price setters; its relation to the fourth mobile market entrant - that has been able to exploit the economies of scale of its fixed line incumbent owner to consistently offer the lowest prices. This kind of innovative marketing collaboration presents one of the few ways in which smaller market players can increase their market share and competitiveness in the market.

This raises serious questions about regulatory intervention of the kind being proposed in India which would require the such zero-rated services not be exclusive. While such a measure might lower the barriers to entry for local players, it would also undermine the competitive strategy of, in this case, a marginal market player.

Impact on the broadband market

Policy-makers and researchers should track whether South African zero-rating offerings increase after Internet.org arrives on August 31. Facebook and its supporters might tell South Africans that fears about zero-rating are overblown precisely because zero-rating will be "limited". After all, zero-rating does not appear to have played a major role to date in South Africa's mobile operator market. Moreover, most African companies that offer Internet.org are invariably dominant operator challengers. Zero-rating Internet.org is currently offered for free by operators in Ghana, Kenya, Malawi, Senegal, Tanzania, and Zambia. Airtel, Zambia's second largest operator with thirty-seven percent of the market share, offers Internet.org. MTN, which has the largest share of the Zambian market at forty-eight percent, does not. The prospect of a zero-rating explosion, and the harmful side effects that may ensue, is lessened if the practice only continues among a smaller subset of mobile operators. Fewer operators

¹³ Cell-C Internet.org Terms and Conditions: <https://www.cellc.co.za/dl/cms/downloads/internetOrg-2015.pdf>. 29 October 2015. Accessed at a later date to confirm initial findings.

¹⁴Ibid

¹⁵"WhatsApp Voice Calling a Hit on Cell C," accessed August 12, 2015, <http://mybroadband.co.za/news/cellular/132950-whatsapp-voice-calling-a-hit-on-cell-c.html>.

using zero-rating would mean fewer mobile plans that only provide limited Internet access, which “Open Internet” proponents fear. If the status quo is maintained, regulators might feel more comfortable allowing zero-rating for Internet uptake purposes.

However, recent telecommunications industry trends suggest that there is potential for the expansion of zero-rating practices in South Africa. Usage of zero-rating has taken off among ISPs and mobile operators worldwide.¹⁶ Digital Fuel Monitor, which studies mobile internet competitiveness, reported over 100 cases of zero-rating by November 2014. EU and OECD mobile operators provided zero-rated access to either a suite of Internet services or individual websites.¹⁷ Even countries that have blocked zero-rating are under pressure to allow the practice. For example, Verizon, a dominant player in America’s ISP and mobile markets, recently requested permission to exempt zero-rating from the United States Federal Communications Commission’s 2010 Open Internet Rules.¹⁸ Finally, Facebook’s aggressive efforts to expand Internet.org’s reach, and gain market share in unsaturated markets, may help to spread and normalize zero-rating practices in South Africa. It marked the initiative’s anniversary by announcing that it will partner with any operator, including multiple operators in a single country, willing to offer the application for free. The announcement creates a window of opportunity for dominant operators, like Telkom, and other mid-market and smaller operators, to zero-rate Internet.org if they attempt to “keep up” with Cell-C.

Impact on South African consumers

Understanding the impact of zero-rating and the arrival of Internet.org in South Africa is important because of the country’s particular reliance on mobile phones and the appeal that social media sites hold for users.

Many South Africans are looking to access the Internet for the first time through a mobile phone. Research ICT Africa (RIA) has found that mobile phones, and particularly social media applications such as Facebook, have become major drivers of Internet uptake.¹⁹ RIA’s 2011/2012 Household and Individual User Survey found that only 33.7 percent of South Africans used the Internet. The World Bank’s 2013, and most recent, data placed South African Internet usage at 48.9 percent. These figures indicate that most South Africans have yet to go online at all, much less become full participants in the Internet economy. South Africans who begin to use the Internet in 2015 are more likely to access the web for the first time on a mobile phone in order to use a site like Facebook than on a laptop or desktop computer in order to send an e-mail.

RIA also found that the price of data was a major barrier to internet uptake. Local market forces might make Internet.org and other zero-rated applications more appealing than they would be in countries where greater shares of the population already have access to the

¹⁶ Ibid.

¹⁷ Antonios Drossos, “The Real Threat to the Open Internet Is Zero-Rated Content,” *World Wide Web Foundation*, accessed August 6, 2015, http://webfoundation.org/wp-content/uploads/2015/02/The-_real-_threat_open_internet_zerorating_logos.pdf.

¹⁸ “Network Neutrality and Zero-Rating.”

¹⁹ Ibid.

Internet and mobile phones. South African policy-makers, regulators, and non-profit organisations can help assess whether the benefits that Facebook promotes or concerns that “Open Internet” advocates raise are more likely to become reality.

Far more needs to be understood about the use of zero-rated services in order to determine whether there are positive consumer welfare outcomes. Although some indicators and early public data suggests Internet.org will successfully drive Internet uptake, verification of this will be required. Internet.org is not completely free: Cell-C requires users to purchase airtime in order to access Facebook and Internet.org for free. And then there is the cost of devices and SIMS that price-sensitive users would notice more easily. The cost of a phone and data might still be prohibitive for the very population Facebook wants to help. Moreover, many South Africans use multiple SIM cards at any given time and switch between operators as they see fit. As a result, the “new users” Facebook claims were joining mobile networks at faster rates could already have mobile service and Internet access. Facebook can move this argument forward by simply making its underlying data publicly available (as part of its Open Data commitment) and allow researchers to verify its claims about the benefits of zero-rating.

Research needs to be undertaken to consider the possibility that Cell-C’s offering will lay the groundwork for a new “digital divide” between those who have unlimited access to Internet content and those who have limited access to zero-rated content. Some will argue that some Internet access is better than no Internet access. Moreover, Facebook data suggests that new Internet users are not trapped within a new “digital divide.” However, the fact that new users can access other websites may not be sufficient. The RIA 2011/2012 South African Household and Individual Access and Use Survey suggests that low-income South Africans may come online and then choose to spend money on mobile data that should be spent on essential goods, such as food and education. Zero-rated applications might help attract new Internet users while not harming those users’ overall wellbeing. In countries where there is a competitive mobile sector, the movement to ban zero-rating may paradoxically preventing the very thing that competition is meant to achieve: choice.

Finally, regulatory bodies must guard against the possibility that operators will rely on zero-rating as a part of their business models. Barbara van Schewick warns that “If ISPs can charge application providers to be zero-rated, they would have an incentive to lower monthly bandwidth caps or increase the per-byte price for unrestricted Internet use in order to make it more attractive for application providers to pay for zero-rating.”²⁰ But van Schewick’s charge is exaggerated: Digital Fuel Monitor has documented ISPs which have zero-rated their own “data-hungry” **on-demand film stores and mobile TV** and have either lowered the maximum amount of bandwidth users can purchase or increased the prices for data usage.²¹ We do not know if these ISPs have adopted a zero-rating strategy in order to compete against dominant operators, nor can we assume that the business strategies adopted in the Global North – where bandwidth is comparatively limitless – can be applied to business models looking to bring users onto the Internet for the first time in the Global South.

²⁰Ibid.

²¹Ibid.

More research is needed to establish if this is a strategy being used by new entrants or ISPs hoping to compete against dominant operators. Researchers need to investigate whether data prices could increase and make it harder for South Africans who currently access the Internet to pay for unfettered usage and to link this to the competitive environment in each country.

It may be convenient to defend Internet.org on the grounds that “some” Internet access is better than “no” Internet access. However, this tradeoff does not reflect the nature of the situation at hand in its totality. The real trade-off is between expanding Internet uptake and setting a precedent that will make it harder for users to freely access the Internet. Researchers and policy-makers should first determine whether Internet.org is effective and then weigh its impact against concerns about general consumer welfare for South Africans on both sides of the “digital divide.”

Impact on South African content providers

Whether broadband providers make use of zero-rating and whether South Africans sign up for zero-rating plans can also affect South African content providers’ ability to compete with more established providers. A content provider is either a website or application that provides Internet content. Facebook and Internet.org could decrease, rather than bolster, the benefits broader internet usage might have for economic development. Mitchell Baker, Chair of the Mozilla Foundation, a non-profit organization dedicated to promoting openness, innovation, and opportunity on the Internet, has argued that:

Selective zero-rating is arguably bad for the long-term opportunities and inclusion for the people it is designed to serve. It pre-selects what’s available, directing people to where others want them to go. It is bad for economic inclusion. It is bad for the ability of new entrepreneurs to grow onto the global scale. It is bad for the long-term health of the Internet. Zero-rating as practiced today is ‘selective zero-rating for a few apps and websites; exclusion for the rest of the Internet.’²²

Baker may be more certain than most about the impact that Zero-rating may have. But she does flag one potentially negative outcome of the proliferation of free Facebook offerings. The determination of what is subsidised could potentially stifle competition in local content development. This concern should be particularly relevant in countries like South Africa, where the Internet economy is not yet, but can be, a great source of economic growth. The Internet Society has found that the Internet Economy only contributed two percent to South Africa's GDP in 2011 and will only reach 2.5 percent in 2016.²³ South Africa lags far behind both developed nations, where the average contribution of the Internet Economy was 4.1percent in 2010, and even developing markets, where the contribution to GDP by the Internet Economy was 3.6percent in 2011.²⁴ Companies are not the only ones who can use zero-rated products to determine who will succeed and who will fail in the Internet. The possibility that new users

²² Mitchell Baker, “Zero Rating and the Open Internet,” *Lizard Wrangling-Mitchell on Mozilla & More*, May 6, 2015, accessed July 21, 2015, <https://blog.lizardwrangler.com/2015/05/06/zero-rating-and-the-open-internet/>

²³Nicola Mawson, ItWeb news editor, Johannesburg, June 9, 2015, “SA’s Internet Economy Lags Peers,” *ITWeb Technology News*, accessed June 23, 2015, http://www.itweb.co.za/index.php?option=com_content&view=article&id=143793.

²⁴Ibid.

accept anything less than unfettered Internet access could dissuade entrepreneurs from entering the Internet economy.

Moving forward: keeping an eye on operators and users

Cell-C and Facebook hope to increase Internet uptake in South Africa. Operators like Cell-C derive much of their revenue from data services, and offering Internet.org is reflective of a strategy which uses zero-rating to increase market share. The success of Cell-C's promotion and its impact on the health of the Internet in South Africa will depend on the type of zero-rated promotions that are offered and who they are meant to serve. Through its various zero-rated arrangements with dominant and smaller operators, Facebook is building its new user base outside of the saturated markets in the North. Research should focus on the four groups that could potentially influence or be impacted by zero-rating: ISPs and mobile operators, how ISPs and mobile operators choose to use the tool; how users are impacted by the tool; and whether content providers are able to compete. South African policy-makers and regulators should focus on what types of promotions operators present and how South Africans use them in order to determine the costs and benefits they offer providers, users, and content producers. Ultimately, the greatest challenge may be to decide which benefits and interests of each group must be protected and which should be sacrificed in the interest others.

In the wake of the Net Neutrality and zero-rating furore in India, the recent Communication Policy Research Conference (CPRSOUTH 2016) convened a Special Issues Panel on the issue. The Panel included Senior Researchers from the Oxford Internet Institute, LIRNEasia, and RIA, as well as former regulators and competition commissioners. While there was no consensus, there was some cohesion around the following two ideas: that competing and potentially conflicting public interest considerations should be weighed before any public policy or regulatory intervention was undertaken (certainly no ground swell support for outright bans being lobbied for in India); that economic regulation (and certainly consumer welfare considerations) needed to be part of that balancing of public interests and should be undertaken only when the practice was an abuse of dominance and thus deemed anti-competitive. New complementary relationships that might appear exclusive (usually for a limited period of time) but which enhanced affordable access and increased the viability or market share of late entrants and marginal market players, thereby improving the competitiveness of markets, should not be dealt with too blunt a regulatory instrument. There was also a collective view that outcomes of such competition regulation, or forbearance, of zero-rated services should be considered in relation to potential unintended outcomes in new dynamic and multi-sided markets and in relation to innovation and content diversity, particularly by extending the barriers to entry to domestic start-ups and in regulatory responsiveness to (artificial) scarcity claims.