

LAD CASE STUDY

Differential Pricing for Internet Services in India

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LAD

ABOUT LAD

The Leadership Academy for Development (LAD) trains government officials and business leaders from developing countries to help the private sector be a constructive force for economic growth and development. It teaches carefully selected participants how to be effective reform leaders, promoting sound public policies in complex and contentious settings. LAD is a project of the Center on Democracy, Development and the Rule of Law, part of Stanford University's Freeman Spogli Institute for International Studies, and is conducted in partnership with the Johns Hopkins School of Advanced International Studies.

Introduction: Why Regulate?

On August 10, 2015, RS Sharma was appointed chairman of the Telecommunications Regulatory Authority of India (TRAI). An educated and enthusiastic technologist, Sharma holds a PhD from IIT Delhi, a master's degree in Computer Science from UC Riverside and was said to wake up early in order to brush up on his coding skills before work. Sharma was considered to be "a man of principle" who "knew what he was talking about," according to one former colleague who had worked with Sharma at the Department of Electronics and Information Technology.

Before taking the helm at TRAI, Sharma served as Director General & Mission Director at Unique Identification Authority of India (UIDAI) where he was responsible for the implementation of Aadhaar, controversial biometric system that created a database of sensitive data on nearly every Indian citizen. At TRAI, Sharma again found himself in the middle of a very public debate about how Indians would experience the internet that launched a relatively obscure government regulator into the spotlight.

Sharma had taken over the regulatory authority from Rahul Khullar, a much respected civil servant with ill-health. Before retiring, Khullar initiated a consultation process on over-the-top services. Over-the-top services refer to applications and services which are accessible over the internet and ride on networks including social media, search engines, streaming platforms and e-commerce platforms. As is customary in TRAI consultations, the regulatory authority first released a pre-consultation paper outlining the various arguments associated with the topic as a means to spark debate and initiate the public discussion process. In this case, the consultation was meant to consider the implications of the growth of internet services/Apps/OTTs and whether or not changes are required in the regulatory framework.

At the center of the debate was the principle of net neutrality. Net neutrality exists when telecom operators are mandated to treat all internet traffic on an equal basis. For example, in an internet with net neutrality, when a user watches a video or sends a message, the data used in that operation is recorded by the ISP (internet service provider) and counted against the users' data cap. Violations of net neutrality occurs when a piece of internet content is treated more favorably than others. For example, if a piece of content is zero-rated, meaning that content is excluded from data counts, then net neutrality is violated. In the preceding years, India had witnessed multiple efforts by different companies to enact zero-rated programs. Most prominently, in February 2015, Facebook partnered with Reliance Communications to launch Internet.org in India. The program would allow users to access 34 services without data charges.

Faced with the unraveling debate over zero-rating and differential pricing, Sharma was forced to consider fundamental questions about internet governance through a multi-stakeholder balancing act in which a diffuse user group was pitted against a highly organized and motivated business community. TRAI's recommendation would have implications for how over a billion people could access and use the internet for generations to come.

Telecommunications Regulatory Authority of India – History, Reputation and Practice

The Telecom Regulatory Authority of India was established by the Telecom Regulatory Authority of India Act of 1997 with a mandate to regulate telecommunication services, adjudicate disputes, dispose appeals, and protect the interest of the service providers as well as the consumers.ⁱ TRAI has long been considered an independent body with largely deserved reputation as being the most consultative and inclusive regulatory agency in India. However, TRAI is not a completely independent regulator. Under section 25 of the Act, the Government has the power to issue directions which are binding to TRAI. TRAI is also funded by the Government. Most significantly, the recommendations made by the TRAI itself are not binding.

TRAI has two functions: regulation and recommendation. In its regulatory capacity, TRAI is required to ensure that all telecommunications service providers comply with the terms and conditions of license agreements, ensure revenue sharing, and maintain interconnection between telecom service providers. In its recommendatory role, TRAI acts as a technical body that makes nonbinding policy recommendations to the Government.

TRAI is mandated to be transparent in its regulatory and advisory roles. As a result, TRAI follows an open multi-stakeholder process in developing recommendations.ⁱⁱ The process is initiated either by TRAI or at the request of the Government. It is common practice for private stakeholders, like telecom service providers and their associations, to approach the regulator about pending issues or concerns.

TRAI's process begins with a consultation paper released which describes the policy issue in detail and raises specific questions. Anyone can submit comments in response to the consultation paper and submit counter-comments in response to comments sent by any other actor. The consultation paper sets a time window in which the comments are to be submitted. Once the time window ends, all comments are uploaded to the TRAI website. Thereafter, a time window is opened for receiving counter-comments in response to any comments. After the comment period closes, all counter-comments are also published on the TRAI website. In the comments, actors respond to questions raised by TRAI at the end of their initial consultation paper.

Once the consultation process is closed, TRAI publishes its recommendation and final ruling which is almost always adopted by the Government. All TRAI decisions are accompanied with an explanation and argument for action (or inaction) but no public feedback is invited on the final document. In the decision, TRAI summarizes the comments received and incorporates the arguments. While all comments and counter-comments are put online, there is very little visibility about the process by which a consultation is initiated and how recommendations are developed.

Most of issues TRAI considers are extremely technical and participation is limited. Past TRAI consultations include Quality of Service standards for Cellular Mobile Telephone Service, Interconnection Usage Charges, and the Proliferation of Broadband through Public Wi-Fi Networks. For the most part, comments in response to the consultation papers are from the telecommunications operators, consumer interest groups, and a cohort of specialized experts.

These include the four largest telecommunication firms—Bharni Airtel, Vodafone, Idea, and Reliance Communication—as well as The Cellular Operators Association of India (COAI) and the Association of Unified Telecom Service Providers of India (AUSPI). TRAI consultation papers are only available in English and translations are not published in the other national languages of India.

The Internet in India

India has both the second largest population and second largest internet user base in the world. In 2014, there were 302 million total internet users of a population of 1.3 billion.ⁱⁱⁱ Internet penetration in India exploded from 5.1% of the population in 2009 to 21% in 2014. However, internet adoption in India was neither equitable nor typical. A mere 99 million were broadband subscribers and India's internet usage was mobile based with 21% of the population accessing the internet on their phones at least once a month. Moreover, 65% of internet usage came from in urban areas from which 94% of internet users accessed it via a smartphone.^{iv}

As the internet was largely accessed through phone connections, cellular data is the lifeblood of Indian connectivity. In 2014, the cost of one GB of mobile data was ₹270 or 4% of Indian per capita income pricing cellular internet in India significantly above neighboring Pakistan and Sri Lanka, as well as fellow BRIC countries South Africa and Brazil (see figure 1).^v An average user on Airtel's network (India's largest telecom operator) used just 622 megabytes (MB) of data in a month.^{vi} The key question, therefore, was whether the cost of data was prohibitive to further internet penetration or whether there were other barriers such as infrastructure and knowledge that presented more an immediate impediment.

In 2014, social media penetration in India hovered at a mere 8%.^{vii} However, experts and reports predicted a social media boom in the coming years. One study predicted that by 2021, there would be around 358.2 million social network users in India, a significant increase from 2014, when the figure stood at about 142 million. Even with such a meager slice of the population, hovering at just over 90 million users, Facebook was the most popular social media site placing India among the largest Facebook user base in the world.^{viii}

As the gatekeepers of the internet, the telecommunication industry was dominated by four large players: Bharni Airtel, Vodafone, Idea, and Reliance Communication. In 2014, Bharni was moving far ahead of the pack at 251,000 customers followed by Vodafone at 190,000, Idea at 170,000 and Reliance at 102,000 (see figure 5). Of the four dominant telcos, only Reliance had experienced a decrease in user growth in the past five years (see figure 4). Over the preceding years, the telcos had seen their core business—data usage and revenue from text and calls—plummet because of the intrusion of social media and internet communication services.^{ix} Moreover, the telecoms firms were deeply in debt from building the still underdeveloped communications infrastructure. In short, the telcos were desperate for the next wave of growth. In zero-rating content, the telcos saw a new way to entice customers by leveraging their diversification and forming new partnerships.

Facebook's Connectivity Efforts

In August 2013, Mark Zuckerberg published a post to his Facebook page, titled “Is Connectivity a human right?” Answering in the affirmative, Zuckerberg unveiled his plan to connect the world using Facebook as an emissary of the internet. Zuckerberg wrote that “it may not actually be profitable for us [Facebook] to serve the next few billion people for a very long time, if ever. But we believe everyone deserves to be connected.”

Zuckerberg's announcement earned him a glowing CNN interview with Chris Cuomo, and most other outlets followed suit. Few dissenting voices had a different view of the motivation behind Zuckerberg's mission to connect. Some astute observers were quick to point out that “it's more lucrative to have more people using the Internet and the Web in their daily lives for all the companies involved in the initiative.”^x

In the week following the initial post, Facebook announced the creation of Internet.org. Along with Samsung, Qualcomm, Ericsson, Nokia, Opera and MediaTek, Internet.org was launched to reduce the cost of internet access, make apps that are more efficient in their data usage, and form partnerships with local operators and companies on new business models for providing internet access. Notably, other tech giants and telecommunications firms, such as Google, Apple, Microsoft and Twitter who have a keen interest in ensuring connectivity, refused to join internet.org. To some, the absence suggested the companies never believed in the philanthropic nature of Facebook's proposition. Namely, that Facebook was merely providing the means to connect to the internet, not a ramp to Facebook in particular. If successful, Facebook may be able to monopolize the internet by acting as a gatekeeper to potentially over a billion users.

Facebook's endeavours, according to public documents, were premised on a particular theory of change. For Facebook, cost was the most significant barrier to the internet. The argument follows that most people who are not yet on the internet are actually already covered by 2G or 3G networks. Facebook would therefore act as a conduit to connect people to the services already available. Those basic digital services would be entirely text-based and therefore inexpensive, such that shouldering the connectivity costs would be reasonable, especially insofar as Facebook tech allows for more efficient traffic.

Facebook would partner with telcos willing to incur a temporary loss in order to attract more customers. Ultimately, Facebook argued, Internet.org would be profitable for the telecommunications firms. Attracted by “free internet,” customers would be drawn to the operators that partnered with Facebook thereby offsetting the cost of lost data revenue with new subscriptions. Moreover, by offering free access to those data-lite versions of basic services, Internet.org would ultimately condition users to want to full access. Eventually, Facebook assured, free basics users would become full-fledged customers.

In July 2014, Facebook announced the launch of the Internet.org app in Zambia in partnership with Airtel Zambia – a subsidiary Airtel, an Indian global telecom company owned by Sunil Mittal. The app offered Airtel subscribers to “browse a set of useful health, employment and local information services without data charges.” The initial version of the app had 13 services which notably included: four US companies (Accuweather, Google Search, Facebook,

Messenger); three health and development services (two linked to UNICEF - Facts for Life and Zambia Ureport – and one resulting from a public-private partnership led by USAID and Johnson and Johnson - the Mobile Alliance for Maternal Action); two local job portals; one app from a local civil society organization dedicated to women’s rights (WRAPP); and the Zambian e-governance app (eZe Library). Following the launch in Zambia, a handful of other countries followed suit, including Tanzania and Kenya in October and November 2014, and Ghana in January 2015.^{xi}

A Muddled Launch

It is no coincidence that Facebook hosted its Internet.org Summit in New Delhi in October 2014. As the second most populated country in the world with only 15% of its population online in 2014, India offered an opportunity for tremendous user growth. At the summit, Zuckerberg offered a 1-million-dollar award to whichever app, website or service best served the needs of four underserved groups in India –women, students, farmers, and migrant workers.^{xii} As part of his trip, Zuckerberg met with Prime Minister Narendra Modi and visited a computer center in Chandauli – a visit that would land him a *TIME* Magazine cover with the laudatory headline: “Half the world is not enough. Mark Zuckerberg plans to get every human online.”^{xiii} A few months later, it was announced that the Internet.org app would become available in six Indian states in partnership with Reliance Communications. This version of Internet.org initially had 34 services, including several local news services in Hindi and English.^{xiv}

Opposition to the program from a variety of stakeholder groups emerged swiftly. In March 2015, speaking at the Mobile World Congress in Barcelona where Zuckerberg initially unveiled Internet.org two years earlier, Vodafone’s CEO Vittorio Colao reportedly said about Internet.org that “it is almost like Zuckerberg does philanthropy, but with my money.” Criticism even followed suit from Airtel’s chief Sunil Mittal, who partnered with Internet.org in Africa, saying Facebook should do ‘philanthropy’ if they stop charging for mobile internet. The proposition of shouldering the cost of free services that generated more traffic for Facebook in the hopes of attracting more customers was not particularly attractive to telecommunications firms that were steadily growing. Facebook’s argument that it would help attract new users was more persuasive to telcos that were bleeding subscriptions like Reliance in India. Moreover, while criticizing Facebook’s zero-rated scheme, many of telecommunications firms were developing their own decidedly non-philanthropic zero-rated schemes that would directly compete with Internet.org, including Airtel which launched Airtel Zero in partnership with a popular e-commerce site Flipkart.

A month after the launch of Internet.org in India, on March 27, 2015, TRAI released a highly technical and verbose 118-page consultation paper on the “Regulatory Framework for Over-the-top services.” The consultation paper considered a laundry list of issues but two primary questions were considered: one, whether internet communication companies (e.g. whatsapp) and/or non-communication (e.g. Youtube) require licensing; two, whether telecom operators should be able to shape traffic by using differential pricing for certain websites, either by slowing access to some (and speeding to others) or making access more expensive to some sites than others.

The consultation paper did not offer a ruling on the matter of net neutrality. However, in key areas, the paper signaled a willingness to abridge the concept, noting that “banning all discrimination is overinclusive and restricts the evolution of the network.” For many, the paper parroted the arguments made by telecommunications firms indicating that the process had been “bought.”

For a group a coalition, lawyers, activities and journalists, the consultation paper was a call to action. Upon reading the consultation paper, journalist Nikhil Pahwa remembers thinking, “we’re f***ed.” Within days, Pahwa had launched a slack channel from which he organized an online community of activists, journalists and lawyers similarly dedicated to defending network neutrality. What started as a slack group came to be known as the Save the Internet (STI) campaign.

Borrowing strategies successfully used by net neutrality activists in the US, STI spread their message on social media using similar hashtags such as #savetheinternet, #netneutrality. In particular, the activists were inspired by the episode of *Last Week Tonight* in which John Oliver urged viewers to submit comments on net neutrality directly to the FCC. The segment proved so viral that the FCC’s website crashed. STI sought to replicate Oliver’s success by working with a popular Mumbai-based comedy group, All India Bakchod (AIB). The first in a series of videos by AIB was released on April 11th, garnering over a million views within three days. By April 13th, STI had set up “savetheinternet.in” which contained an online tool with pre-drafted answers defending net neutrality that could be sent by email to TRAI. Within 12 days, savetheinternet.in facilitated over a million TRAI email submissions.

Meanwhile, Facebook invested in a massive advertising campaign, both online and offline replete with billboards throughout the country, as well as ads and op-eds in newspapers. The PR campaign played up the philanthropic nature of Internet.org emphasizing that it would bridge the digital divide and combat digital inequality. In a Facebook post, a Hindustan Times article, and a Times of India piece, Zuckerberg argued that “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.”^{xv}

Responding to criticism that it was using Internet.org to choose winners and losers, Facebook relaunched Internet.org on May 4th as an “open program for developers to easily create services that integrate with Internet.org.”^{xvi} The update meant that anyone who met a set of technical requirements could be included in the program. Facebook also emphasized that unlike similar zero-rated schemes like Airtel Zero, the sites do not pay to be included.

The update did little to outwardly quell the public opposition from STI, though it did splinter the movement internally. Some members of the STI campaign felt that the move had eased some of their net neutrality concerns. One former STI member noted that while he remains opposed to zero-rated schemes generally, “Internet.org was different” and that “neutral technical criteria” meant that it did not violate the principle of network neutrality.

At TRAI, there was a general perception that the OTT consultation paper was too broad and the response too vitriolic to proceed. At the same time, however, many at TRAI felt that the STI campaign had blown the consultation paper out of proportion. The paper was not a ruling, after all. It was merely a collection of the arguments TRAI had heard and an exposition on the debates that would ensue during the consultation process. Furthermore, some at TRAI felt that the STI campaign was “inorganic.” Khullar, the TRAI chairman, allegedly called STI “fake.” When the consultation ended on May 8th, TRAI had been flooded with responses from all of the major telecommunications firm and major consumer protection lobbies. The debate was just getting started.

Consultation, Take Two

When RS Sharma, a career bureaucrat and noted technocrat, replaced Rahul Khullar as the Chairman of TRAI in August 2015, he inherited an unfinished consultation that pitted an internet savvy coalition of education young lawyers, journalists and activists against powerful multinational telecommunication and communication companies with a vested interest in dismantling net neutrality. Having proven himself a competent and loyal civil servant as the steward of the Aadhaar program, Sharma had the trust and respect of the Prime Minister's office and the bureaucracy which he now commanded. As an semi-independent agency, Sharma could conceivably pursue the course he thought most suitably fit TRAI's mandate.

However, the grounds of the debate were still shifting. In September, Facebook officially rebranded Internet.org to Free Basics and commenced a PR campaign that included promotional videos and more billboards promoting the benefits of the program. The billboards read, “Save Free Basics,” “Support A Connected India” and “India supports Free Basics,” and “the more we connect, the better it gets.” Later in the month, Prime Minister Narendra Modi became the first world leader to visit Facebook's new campus. Pointedly, Modi said he wanted to connect all India's villages to the internet but made no mention of Free Basics. The following month, Zuckerberg traveled to India where he toured the Taj Mahal and held a town hall at the Indian Institute of Technology where he claimed that “If you really have a mission of connecting every person in the world you can't do that without connecting people in India.”^{xvii} Following Zuckerberg's visit, in November 2015, Facebook made Free Basics available throughout the whole country.

On December 9th, Sharma's TRAI released a new consultation paper on “Differential Pricing for Data Services” without offering a verdict or decision on the OTT consultation initiated by the previous TRAI chairman. The differential pricing consultation paper took a decidedly different tone—far less technical and verbose—and demonstrated a clear understanding of practical issues at play. In discussing the principles underlying regulation, the paper read, “two key principles of tariff regulation emerge in this regard—first, the principle of non-discrimination and second, transparency. Regulation must strive to seek a balance between ensuring wider access to the internet, and the manner in which such wider access is provided does not violate these principles.”^{xviii} In evaluating Free Basics, Airtel Zero or any other zero-rated program, TRAI would look at whether the scheme was non-discriminatory, transparent, not anti-competitive, non-predatory, non-ambiguous and not misleading.

While the Indian media framed the issue as one concerning net neutrality, Facebook tried to turn the debate into a popular referendum about Free Basics in particular. Facebook used its own platform to encourage users to send an email to TRAI stating “I support Free Basics and digital equality for India” through an auto-fill template. The template did not address any of the specific questions raised by TRAI’s consultation paper. There were numerous reports of abuse. Some users automatically signed the petition to TRAI, including cases where dead people were shown as having signed the petition.^{xix}

In an attempt to combat the Facebook onslaught, STI resurrected their own template response and sought partners to promote it on their sites. One notable partner was PAYTM, Indian e-commerce payment system and digital wallet company, that linked the STI petition page to confirmation and waiting pages. “Our numbers shot up from there,” Pahwa recalled.

TRAI received 1.8 million comments on the consultation paper. It marked the most responses in the history of TRAI’s consultations. In the press, Sharma noted, “these responses are not helpful at all...but we felt ignoring them is not a solution given that we have received the highest ever responses on a consultation paper, which shows that the issue is important to people. Voices of such a large number of people should not go unheard.”^{xx} After seeing the wave of responses (and having to sift through them all), Sharma decided to push back the consultation deadline to January 15.

After the submission deadline, Sharma made his displeasure at Facebook’s tactics known directly. Summoning Anki Das, Facebook’s South Asia head, Sharma reportedly berated her about Facebook’s misleading campaign. On January 18th, TRAI released a letter saying it was concerned about Facebook’s “self-appointed spokespersonship” on behalf of millions of Indians specifically the automated lobbying campaign in support of Free Basics. The regulatory authority said that the lobbying campaign had “the flavor of reducing this meaningful consultative exercise” into “a crudely majoritarian and orchestrated opinion poll.”

Next Steps

TRAI’s ruling would have far reaching implications for how over a billion people would use and experience the internet. Facebook, India and the world were eagerly waiting for a verdict.

The consultation energized a group of digitally native, globalized middle class. Rallying around the cause of net neutrality, STI was able to internationalize the issue while anchoring their arguments in a nationalistic discourse. The net neutrality crusaders cast Facebook’s efforts as a direct challenge to PM Modi’s Digital India. Launched in 2015, Digital India sought to “transform India into digital empowered society and knowledge economy.”^{xxi} Dismantling net neutrality, therefore, was framed as favoring large, international corporation over the interests of local Indian startups.

The digital activists also tapped into postcolonial rhetoric. Allowing Facebook unfettered and discriminatory access amounted to a new form of “digital colonization,” argued STI. As

Facebook doubled down on a PR scheme which centered around providing for those who could not provide for themselves, the argument gained traction. Nearing the end of the consultation period, the media had begun to turn against Free Basics. Whereas *TIME* magazine celebrated the boldness of Zuckerberg's plan to connect the world in December 2014, *The Economist* ran in April 2016 a cover story with the title "Imperial Ambitions."^{xxii}

Weighed against the net neutrality concerns, Sharma would need to wrestle with the contention that differential pricing could help the telecommunications firms expand access to undersevered communities and crawl out of debt. The Cellular Operators Association of India (COAI), an industry association of mobile service providers, telecom equipment, internet services providers, argued that TRAI's recommendation should facilitate the expansion of affordable broadband services to "a vast mass of unconnected and low net usage citizens." Zero-rating, they argued, would allow for "more participation on the internet."^{xxiii}

The key question, therefore, is whether differential pricing schemes actually led to more internet usage of the kind a TRAI would want to encourage. Facebook clearly answered in the affirmative. But as one STI defector noted, Facebook never provided any real data to prove the claims veracity. In the absence of data, Sharma would have to regulate on principle.

Sharma's decision would need to resonate with TRAI's mandate to protect the interest of the service providers as well as the consumers while promoting growth of the telecom sector. As the debate raged on, it was clear that the consultation process had unearthed more questions that it answered:

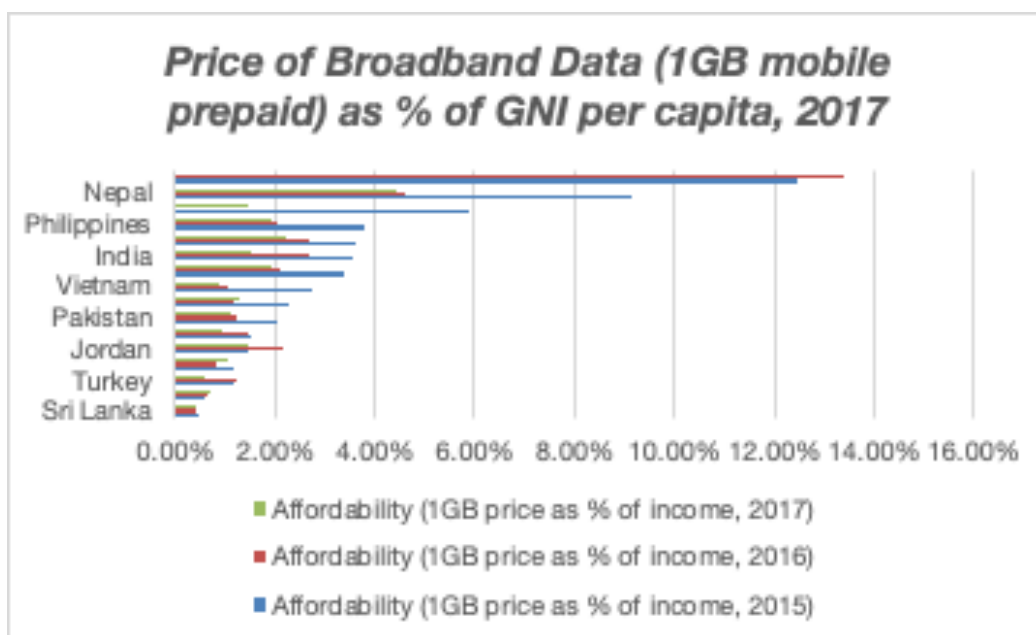
Should network neutrality be enforced at all costs with zero exceptions? Are there half-way measures such as case by case neutrality violations that are acceptable?

What role should the public play in decisions over technical issues that are wont to be dominated by stakeholders with a vested interest?

How does a regulator commence a consultation process that addresses the concerns of all those affected, not just those with the means and resources to be heard? Did TRAI do enough to "consult" the millions of Indians who would have used net neutrality violating program?

What role should data play in public consultations? Should bureaucrats regulate based on theories of imagined discrimination?

Figure 1: Price of Broadband Data in Asia-Pacific Countries (2015-2017)



Source: Alliance for Affordable Internet

Figure 2: Broadband Internet Users in India (2015)

Particulars	Wireless	Wireline	Total Wireless + Wireline
Total Subscribers (Million)	969.89	26.59	996.49
Urban Subscribers (Million)	555.71	21.47	577.18
Rural Subscribers (Million)	414.18	5.12	419.31
Overall Teledensity	77.27	2.12	79.38
Urban Teledensity	143.08	5.53	148.61
Rural Teledensity	47.78	0.59	48.37
Share of Urban Subscribers	57.30%	80.73%	57.92%
Share of Rural Subscribers	42.70%	19.27%	42.08%
No. of Broadband Subscribers(Million)	83.68	15.52	99.20

Source: TRAI Annual Report (2014-2015)

Figure 3: Internet Users in India

[Subscribers in Millions]

Segment			Category	Internet Subscribers		% Growth
				Mar - 2014	Mar-2015	
A.	Wired		Broadband	14.86	15.52	4.45%
			Narrowband	3.64	3.55	-2.46%
			Total	18.50	19.07	3.09%
B.	Wireless	Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT)	Broadband	0.40	0.44	11.00%
			Narrowband	0.04	0.03	-15.82%
			Total	0.44	0.48	8.55%
		Mobile Wireless (Phone + Dongle)	Broadband	45.61	83.24	82.48%
			Narrowband	187.04	199.57	6.70%
			Total	232.65	282.81	21.56%
Total Internet Subscribers			Broadband	60.87	99.20	62.96%
			Narrowband	190.72	203.15	6.52%
			Total	251.59	302.35	20.18%

Source: TRAI Annual Report (2014-2015)

Figure 4: Telecommunication Revenue and Usage

Telecom Financial Data (QE Mar-15)	
Gross Revenue(GR) during the quarter	Rs. 65227 Crore
% change in GR over the previous quarter	1.99%
Adjusted Gross Revenue (AGR) during the quarter	Rs. 45158 Crore
% change in AGR over the previous quarter	3.60%
Share of Public sector undertaking's in Access AGR	10.88%
Monthly Average Revenue Per User (ARPU) for Access Services	Rs. 122
Revenue & Usage Parameters (QE Mar-15)	
Monthly ARPU GSM Full Mobility Service	Rs. 120
Monthly ARPU CDMA Full Mobility Service	Rs.108
Minutes of Usage (MOU) per subscriber per month GSM Full Mobility Service	383 Minutes
Minutes of Usage (MOU) per subscriber per month CDMA Full Mobility Service	265 Minutes
Total Outgoing Minutes of Usage for Internet Telephony	245 Million
Data Usage of Mobile Users (for the QE Mar-15)	
Data Usage per subscriber per month - GSM	89.06 MB
Data Usage per subscriber per month - CDMA	278.22 MB
Data Usage per subscriber per month – Total(GSM+CDMA)	99.46 MB

Source: TRAI Annual Report (2014-2015)

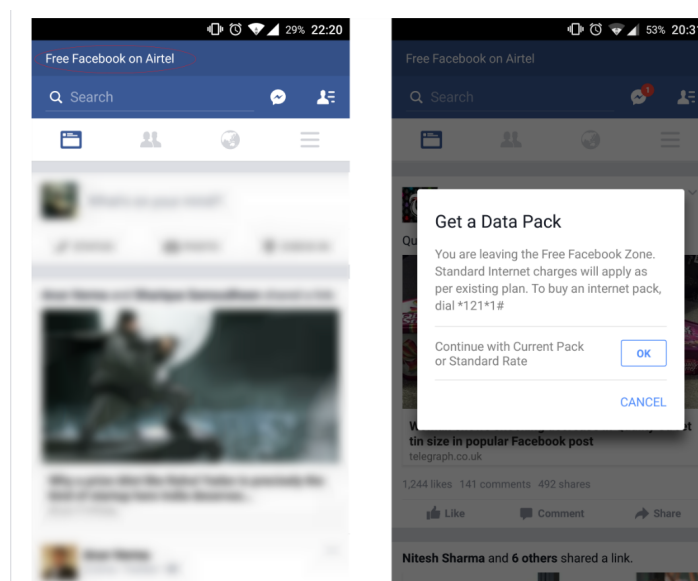
Figure 5: Four Largest Indian Telecommunications Firms' Subscriber Base from 2010-2015

(Subscriber base in millions)

Service Providers	2010-11	2011-12	2012-13	2013-14	2014-15	%age growth/ reduction over FY 2014
Bharti	162.20	181.28	188.20	205.39	226.02	10.04
Vodafone	134.57	150.47	152.35	166.56	183.80	10.35
Idea	89.50	112.72	121.61	135.79	157.81	16.22
Reliance	135.72	153.05	122.97	110.89	109.47	-1.28

Source: TRAI Annual Report (2014-2015)

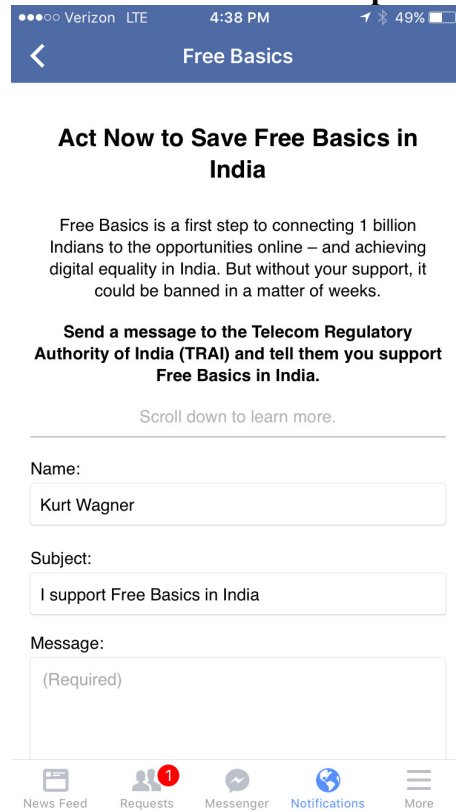
Figure 6: Free Basics Example in Africa on Airtel Network



Facebook's header shows promotion of free Facebook on Airtel

Source: IAMWIRE

Figure 7: Facebook's Auto-fill template for TRAI

A screenshot of a mobile phone screen showing a Facebook message template. The status bar at the top shows 'Verizon LTE', '4:38 PM', and '49%' battery. The header is a blue bar with a back arrow and the text 'Free Basics'. The main content area has a title 'Act Now to Save Free Basics in India' followed by a paragraph: 'Free Basics is a first step to connecting 1 billion Indians to the opportunities online – and achieving digital equality in India. But without your support, it could be banned in a matter of weeks.' Below this is a bold instruction: 'Send a message to the Telecom Regulatory Authority of India (TRAI) and tell them you support Free Basics in India.' A link 'Scroll down to learn more.' is present. The form fields are: 'Name:' with 'Kurt Wagner', 'Subject:' with 'I support Free Basics in India', and 'Message:' with '(Required)'. The bottom navigation bar shows icons for News Feed, Requests (with a red notification badge), Messenger, Notifications, and More.

Source: Vox

Figure 8: Facebook's Free Basics Billboard in India



Source: Newsweek

Endnotes

- i <https://cis-india.org/telecom/resources/trai-act-1997>
- ii https://cyber.harvard.edu/sites/cyber.harvard.edu/files/Publish_Ana%20Stefanija%20and%20Rishabh%20Dara.pdf
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