Special Issue: Inquiring into Technoscience in India

By The People: How 'clicktivism' helped shape net neutrality in India

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DIALOGUE
Science, Scientists, and Society

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Abstract. In March 2015, the Telecom Regulatory Authority of India (TRAI) released a consultation paper inviting responses and comments from the public to recommendations that private telecom operators be allowed to charge extra for third-party internet-based applications and services. This was in response to certain telecom companies deciding to charge internet-based voice calls at the rate of voice calls, paving the way for differentiating between kinds of content transferred *via* the internet using mobile phones. In response, an unprecedented online movement inundated the TRAI website, seeking to overturn the recommendations, and laying the groundwork for what has come to be seen as robust net neutrality laws.

The movement was magnified online by a group of artists, journalists, technologists, lawyers, and policy experts who came together under the Save The Internet campaign and encouraged internet users in India to take part in the consultation process. TRAI received over a million responses. It was this public outcry that defeated some of the most powerful players in the digital realm – from telecom companies to Facebook, leading to the net neutrality laws that now exist in India.

This paper will attempt to chart the evolution of net neutrality in India, focusing on how the net neutrality regulations came to be. In so doing, the paper hopes to understand how a leaderless citizen movement helped shape policy within a highly technical space, normally considered the domain of 'experts.' As more and more 'users' of the internet are transformed into 'consumers' of internet-related products, the lines demarcating 'consumers,' 'citizens,' 'users,' and 'data subjects' are becoming increasingly blurred. In moments such as the public debate on net neutrality, not only did the 'citizen' aspect of internet users come to the fore, it also allowed for the observation of participatory democracy in action.

Keywords. Net neutrality; clicktivism; Save the internet

Introduction

India, it has been acknowledged (BBC News 2018), has one of the most progressive net neutrality laws in the world. This is not something that either the government or the 'experts' can take sole (or combined) credit for. The consultation paper that the Telecom Regulatory Authority of India (TRAI) had put out for suggestions in March 2015 as 'recommendations' to the government were dangerously in the opposite end of what is seen as 'progressive.' A 118-page document, the TRAI recommendations would have opened the floodgates for differential pricing of data in wireless internet devices such as mobile phones. The recommendations were to also allow telecom companies to throttle the internet speeds of certain websites, and enable certain others to have a 'zero-rating' (no data usage will be charged for such internet browsing). Essentially, this would have allowed large multinational companies such as Facebook to ensure that a growing population of first-time internet users would restrict their internet usage to their website alone, allowing them to have exclusive access to the data that these users generated. By making it harder for people to access other websites, companies such as Facebook would have monopolised the internet usage of those new to the internet.

Table 1 NetNeutrality in India: A Timeline

October 2014: Mark Zuckerberg visits India
December 2014: Airtel changes its service terms for 2G and 3G data packs to exclude VoIP data from the set amount of free data.
10 February 2015: Facebook, in partnership with Reliance, launches Internet.org in 6 states in India.
27 March 2015: TRAI releases the Consultation Paper On Regulatory Framework for Over-the-top (OTT) Services.
April 2015: Airtel launches Airtel Zero, their own zero rating platform.
11 April 2015: Save the Internet and AIB release a Net Neutrality explainer.
24 April 2015: Last day for responses and comments to TRAI's consultation paper. They receive more than a million responses.
9 December 2015: TRAI issues another Consultation Paper on 'Differential Pricing for Data Services.'
30 December 2015: Last day for responses to the second consultation paper. More than half a million responses received.
08 February 2016: TRAI bars telecom service providers from charging differential rates for data services.
28 November 2017: TRAI releases Recommendations on Net Neutrality.
11 July 2018: Department of Telecommunications approves TRAI recommendations on Net Neutrality.

In India, the number of internet users (as reported in December 2019) is more than 560 million (Statista 2020b). India is second only to China in terms of the number of internet users. But since companies such as Facebook continue to be banned in China, that makes India the largest resource in the world for data mining. Given that the rate of penetration of the internet was about 50% in 2020 (Statista 2020a), the sheer number of people who remain to be connected to the internet are seen by companies as a massive resource. This essentially means that India now has vast and untapped resources of data. And the large multinational technology companies of Silicon Valley have had their eye on it for a while.

A Brief (American) History

Even though the term 'network neutrality' was coined by Tim Wu in 2003 to discuss the idea of a fair internet 'in a competitive innovation environment' (Wu 2003), the discussion around anti-discrimination legislation has been around since at least the 1940s, when the Hush-A-Phone company took on AT&T in the USA (Young 2016). Hush-A-Phone ended up winning a landmark case in court against a large and monopolistic AT&T.

The Hush-A-Phone was a small device that could be attached to the speaking end of a telephone to enable a user to have some privacy at the fixed-line phones that were around in the 1920s. The device was not a permanent attachment and could just be slipped on and off the mouthpiece of a phone. Essentially, it worked like cupping hands around one's mouth while speaking into a phone to allow a speaker to speak quietly without others in the room being able to hear them (Popular Mechanics 1941). At the time, in the USA in the 1940s, AT&T held a near-monopoly on all aspects of telephonic communication in the USA, including telephone equipment and network services (Wu 2010). As the popularity of the Hush-A-Phone device began to increase, AT&T began warning consumers that the use of the add-on device could result in the termination of services.

Fig 1 An advertisementfor Hush-A-Phone

Hush-A-Phone and its president, Harry C Tuttle then took the matter to the Federal Communications Commission (FCC 2010). After having failed to reach a conclusion in the initial stages of the hearings, the FCC took several years before ruling in favour of AT&T in December 1955. This decision was challenged in a US Court of Appeals which came down heavily on the opposite side of the issue, stating in their judgement, 'To say that a telephone subscriber may produce the result in question by cupping his hand and speaking into it, but may not do so by using a device…is neither just nor reasonable' (Hush-A-Phone Corporation v. United States 1956; Young 2016). Sadly, even though Tuttle won the case, Hush-A-Phone could not recover and eventually shut down. The landmark ruling, however, laid the foundation for further discussion in telecommunication law and the manner in which future issues would be handled.

The second case that bears reiterating in this context is that of the Carterfone. The Carterfone was a device that allowed users to attach a two-way radio transmitter/receiver to their telephone, extending its reach across large areas, such as in large oil fields where managers and supervisors needed to stay in touch (Lasar 2017). The device, invented by Thomas Carter, reportedly sold almost 3,500 units between 1955 and 1956. AT&T and General Telephone, at

the time, challenged the use of such interconnecting devices. The FCC then ruled that just as in the case of the Hush-A-Phone where it was deemed lawful for a device to be connected mechanically to the phone, it would be lawful for a device to be connected electronically to a telephone as well. This decision then led to several other innovations in what has come to be known as 'customer-premises equipment' such as answering machines, modems, fax machines, etc. (Lasar 2017).

It is in this context that the net neutrality debates of the 2010s must be viewed. The history of such legislation has been important in the way that the public debates around network neutrality have been presented – both to the decision-makers and the general public at large.

In his 2003 paper on network neutrality, Tim Wu has argued that 'a maximally useful public information network aspires to treat all content, sites, and platforms equally. This allows the network to carry every form of information and support every kind of application.' Essentially, he argues that in order to be an even playing field, network operators and broadband carriers should adopt the principle of 'police what you own.' Wu writes, 'absent evidence of harm to the local network or the interests of other users, broadband carriers should not discriminate in how they treat traffic on their broadband network on the basis of inter-network criteria' (Wu 2003).

The Indian Scenario

In late 2014, the use of VoIP (Voice over Internet Protocol [1]) apps such as Viber, Google Hangouts, Skype, etc. was becoming popular on mobile phone devices. Just as the Hush-A-Phone device was a physical add-on to the AT&T telephone instrument, VoIP services were added to regular internet use on the mobile device; sometimes transmitting voice and sometimes images and video, using the same internet connection that allowed access to websites and other mobile phone applications. This use of the internet on mobile phones resulted in the telecommunications services company Airtel feeling that these apps were eating into their revenue pie by allowing free voice calls over the internet. In this pre-Jio era, mobile voice calls were still limited and charged by duration. Airtel added the following to the 'terms and conditions' of their 2G and 3G data plans (Dixit 2014):

> 'All internet/data packs or plans (through which customer can avail discounted rate) shall on
> be valid for internet browsing and will exclude VoIP (both incoming/outgoing). VoIP over dat
> connectivity would be charged at standard data rates of 4p/10 KB (3G service) and 10p/10 KB
> (2G service).'

[1] VoIP apps essentially allow voice data to be transmitted over the internet, using the phone's internet connection.

Not only were they going to charge for calls made over the internet, but they were also bringing back charging for incoming calls (which had been free for quite some years then).

At around the same time, the net neutrality debate had been raging in the USA as well. In 2010, the FCC had approved the 'Open Internet Order' that essentially disallowed cable and telephone service providers from preventing access to certain websites (FCC 2010). While some hailed these rules as a move in the right direction – towards net neutrality – there was also outrage from those who believed the move could thwart innovation (Gustin 2010). But it wasn't until 2014 that the term net neutrality really entered the popular lexicon in the USA. This was in no small part due to the efforts of civil society — and the television host John Oliver, who did a detailed deep dive into the issue on his show *Last Week Tonight With John Oliver* (Last Week Tonight 2014). The show aired on 1 June 2014, in which John Oliver asked viewers to submit comments to the FCC, in favour of net neutrality. So successful was this call for action that by 4 June 2014, the FCC site crashed by the sheer volume of submissions, and the FCC had to put out a tweet acknowledging that they were 'experiencing technical difficulties with our comment system due to heavy traffic' (McDonald 2014).

At this time, large technology firms such as Google, Amazon and Facebook had supported net neutrality rules in the USA and had even signed a letter supporting net neutrality (Last Week Tonight 2014).

Also in 2014, Facebook founder Mark Zuckerberg visited India, met the Prime Minister, and tried to lobby for the launch of Internet.org –Facebook's zero-rating platform. In October 2014, Zuckerberg visited a small village in Rajasthan called Chandauli (Bhatia 2016), where a community internet program had been set up earlier that year to teach members of the village basic internet skills. He then met the Prime Minister, Narendra Modi, in Delhi. Throughout the trip, Zuckerberg focussed on the idea that more people without the internet should be given access to this life-altering window to the world. He spoke about how access to the internet should be free and how much people like the villagers of Chandauli would benefit from such a policy.

Sure enough, Facebook had just such a plan ready. In August 2013, Facebook – along with Ericsson, MediaTek, Nokia, Opera, Qualcomm, and Samsung – had launched the platform Internet.org with the slated mission of 'making Internet access available to those who cannot currently afford it' (Constine 2013). Zuckerberg had even written a 'mission statement' titled 'Is Connectivity a Human Right.' In it, Zuckerberg (2013) wrote of the lofty ideals of taking the internet to the poorest (Schroeder 2013):

> 'The unfair economic reality is that those already on Facebook have way more money than th
> rest of the world combined, so it may not actually be profitable for us to serve the next few
> billion people for a very long time, if ever. But we believe everyone deserves to be connected.

Essentially, in Internet.org, Facebook was hoping to create a platform in which certain 'basic' services would be provided free of cost to mobile phone users (in partnership with a telecom company providing mobile internet services).

The idea was to create what has come to be known as a 'walled garden' of apps (Vincent 2015) that would be free to use for customers; that is, no data charges would be levied if the consumer visits Facebook and other partner apps and sites, but anything outside this bouquet would be charged.

It was this platform that the Facebook founder was arguing for in Chandauli and when he met Prime Minister Narendra Modi in 2014. The visit mostly received positive press coverage (Sharma 2014; Singh 2014; Soni and Mallya 2014), and much was made of the idea of connecting the rural poor in India to the internet. Zuckerberg even went so far as to suggest that he would help create a Clean India mobile app for the Prime Minister's Swachh Bharat Mission (ET Bureau 2014); the app never really came about, but the promise did make for good press coverage.

Even then, there was some criticism about Facebook's seeming philanthropy. Nikhil Pahwa of Medianama wrote critically about the dream that Zuckerberg was selling to India (Pahwa 2014). Arguing that while 'internet for all' was indeed a noble dream, this was not what Zuckerberg was pitching. Pahwa wrote,

> '...What Zuckerberg means by internet for all, is essentially Facebook for all, along with a few non-profit services thrown in to give it the appearance of philanthropy, and maybe a few co-opted competitors to make it appear as if it isn't about Facebook only.'

But this was not yet a popular opinion. It was only some technology activists and journalists on the technology beat who argued against Facebook's plans. Just about four months after Zuckerberg's India visit, Facebook launched Internet.org in India in partnership with Reliance Communications (Facebook Newsroom 2015). The app was launched in six states – Tamil Nadu, Maharashtra, Andhra Pradesh, Gujarat, Kerala, and Telangana – mostly in south India, with partners including mainstream news media sites, job search sites, sports, dictionaries, and even Wikipedia. The criticism around the launch was limited to the same circles of experts. Facebook argued that 40% of users converted to full-fledged data plans within a month of joining Internet.org, but as has been reported, these numbers could not be verified (Bhatia 2016).

The Response to TRAI

In this backdrop, TRAI released a consultation paper on OTT (Over the Top) services (TRAI 2015) in March 2015. Sections of the media pitched this development as a brewing battle between Telecom Service Providers (TSPs) and OTT players such as WhatsApp, Skype, Viber,

etc. (Baburajan 2015; Tribune 2015). This 118-page document was opened for comments from the public. According to TRAI, the paper set out to consider whether changes were required in the current regulatory framework that enabled all internet data to be treated in the same way. The recommendations in the paper essentially allowed for differential pricing of OTT services. The paper also set out a whopping 20 questions for which it sought detailed answers from the public. It was at this stage that some activists, lawyers, and journalists took it upon themselves to first simplify the dense and incomprehensible document and then try to do something about it.

It is important to note here that the consultation paper released by the TRAI was a deeply technical policy paper, written in dense language that made it hard for a layperson to understand. The length of the paper (118 pages) was already a deterrent, and if it had not been for the news buzz already created around it by Facebook and Airtel, there may have been no public or media response to it at all. The fact that a response to the paper required answering 20 questions was another deterrent to responding; for it is difficult for any lay person to take the time and make the effort to answer so many questions of a serious and, quite frankly, boring nature. As with most policy papers put out by the government, it is reasonable to assume that the only responses would have been by activists and NGOs that worked on the issue — essentially, experts.

Even as activists, lawyers, and journalists were coming together in a loose coalition under the 'Save The Internet' banner; many politicians, including Chief Minister of Orissa Naveen Patnaik (IANS 2015), MP Tathagata Sathpathy (Varma 2015), and Congress Vice President Rahul Gandhi (Mukherjee 2015) had come out strongly in support of the principles of net neutrality, either through letters to TRAI or social media posts, or both. Given the attention that the debate around net neutrality was garnering around the world and the viral John Oliver video, it is reasonable to argue that it was an issue that several social media users in India were already peripherally aware of.

The Save The Internet campaign was a loose coalition, built mostly through word of mouth included moderators of Reddit India forums, technology policy advocacy groups, and even members of a comedy group (Mishra 2015). It would be the comedy group that would finally hit the nerve and manage to mobilise more than a million emails to TRAI. Save The Internet had created a simplified version of the consultation paper, and also prepared answers to all 20 questions, based on their own discussions. Their website allowed a user to click a link to create an email in their default mail client to TRAI with pre-loaded responses to all 20 questions. The user could then change or alter the answers as they saw fit, or just email it as is. It was a way of reducing the amount of work that a user would have to do in order to engage with the policy forum established by TRAI.

By the first week of April, the issue of net neutrality took on a prominent space in news cycles and social media, as many start-ups began to take sides. The telecom major Airtel had launched 'Airtel Zero' – their own zero ratings walled garden – which had for partners companies such as Flipkart and as many as 150 start-ups. Other start-up founders such as

Zomato's Deepinder Goyal and PayTM's Vijay Shekhar Sharma took a pro-net neutrality stand (Mishra 2015).

On 11 April, the comedy group All India Bakchod (AIB)[2] released their net neutrality explainer video with a call to action directing viewers to the Save The Internet website to send the email to TRAI (AIB 2015). The video was a 9-minute explainer done in the style of John Oliver's Last Week Tonight, replete with jokes and satire; and done in English, which made it accessible across the country, especially to urban, English-speaking internet users.[3] The Save The Internet campaign had originally hoped for a modest target of 15,000 responses sent to TRAI, arguing against the recommendations in the consultation paper (Mishra 2015); but the campaign went on to be a massive, runaway success, having garnered 100,000 responses within 2 days of the AIB video going live. Eventually, due to the viral social media campaign, over a million responses were sent to TRAI with answers to all 20 questions, urging it to reconsider the recommendations to implement differential pricing for OTT services.

The movement eventually culminated in 2018, when the Department of Telecommunications approved TRAI's recommendations on net neutrality (BBC News 2018), (albeit with some exceptions) promising to prevent 'any form of discrimination or interference,' including 'blocking, degrading, slowing down, or granting preferential speeds or treatment to any content.'

Policy, technoscience, and social activism

It is quite clear from the events of 2015, and by reading the TRAI recommendations that the Indian government (acting through TRAI) had decided initially to implement differential pricing, and end net neutrality in India. It was only the public outcry and the unprecedented manner of the public response to the consultation paper that eventually led to the reversing of the original policy recommendation, and the 2016 ruling by TRAI prohibiting discriminatory tariffs. The ruling (TRAI 2016) was welcomed by activists around the world who had been arguing for neutral rules for mobile phone networks.

Many writers have written of how the mobile phone has come to represent the zeitgeist of present day India (Jeffrey and Doron 2013; Mukherjee 2019; Prasad 2018), signifying the aspirations of everyone from those at the lowest end of the social spectrum to those in the topmost echelons of power. Shiela Jasanoff (Jasanoff 2015) has called this collective understanding of the amalgamation of the social with the technological 'sociotechnical imaginaries.'[4] She writes of

[2] The group has since been dissolved after coming under a cloud amidst sexual harassment allegations on members of the group in 2018. In 2015, however, AIB were one of the most popular Indian comedy troupes, making a particular brand of comedy that appealed to young, urban, upwardly mobile, digital natives in India.

[3] The number of English speakers in India, according to the 2011 census, is 129 million (roughly 10.6% of the population) (Census of India 2011). The number of internet users in India in 2014 was approximately 233 million (Internet Live Stats 2016).

the 'myriad ways in which scientific and technological visions enter into the assemblages of materiality, meaning, and morality that constitute robust forms of social life.' The mobile phone has managed to become ubiquitous in everyday life; penetrating every layer of India's many social and cultural hierarchies – from the poorest shantytowns to the richest celebrities. The mobile phone is as much a communication device as a symbol of an India that hoped to be a superpower in the world. The internal workings of the mobile phone and the telecommunication networks that make mobile phones viable, however, are not something that users of the phone are expected to concern themselves with. They form the 'black box' of technology.[5] — the embedded socio-economic patterns in both the content of technology itself and the processes and policies that make them possible.

Policy discussions are often seen as the domain of 'experts' and something in which laypersons have little to contribute (Wynne 1996); especially in matters of 'technology' since it is assumed that specialised knowledge is required to be able to engage with matters of technical and technological complexities. Wynne gives the example of discussions around the environment, in which even activists and NGOs take on the language of the scientific discourse, shifting the conversation from the social movements that environmentalism originated in. The net neutrality debate is similar. The initial conversations around Facebook's 'walled garden' approach to the internet was debated only among 'experts' – journalists who covered the tech beat or activists who worked on the issue; very often, they were themselves engineers and coders familiar with the intricacies of the issue.

The movement that coalesced around Save The Internet was initiated by a loose coalition of the aforementioned journalists and activists but eventually became a massive movement of so-called 'lay persons.' The underlying notion behind the online movement was that everyone who uses the internet had a stake in how it was run, and it encouraged the non-expert to learn about these issues.

Harry Collins and Robert Evans in their book *Rethinking Expertise* (Collins and Evans 2007) speak of a 'ubiquitous expertise' which includes 'all the endlessly indescribable skills it takes to live in a human society.' They extrapolate this idea to include 'abilities that people acquire as they learn to navigate their way through life'. I will extend this formulation into the online realm to argue that for internet users, knowing how to use the internet and connected devices tends to become a 'way of life' as well. Following Collins and Evans further, I make the distinction that the 'folk wisdom' in which ordinary people have a 'contributory knowledge' to know how the internet works, is different from the knowledge of the 'experts' in the domain. The 'ubiquitous' and 'tacit' knowledge that the ordinary user of the internet has is not the same as

[4] Jasanoff defines sociotechnical imaginaries as 'collectively held, institutionally stabilized, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology'(Jasanoff 2015).

[5] Scholars within STS have viewed technology as socially constructed, and therefore open to the same kinds of interpretations, political influences, and other effects as society itself. STS scholars such as Donald MacKenzie and Judy Wajcman have argued that the 'black-box' of technology must be opened, to allow the embedded socio-economic patterns in both the content of technology itself and the processes of innovation to be uncovered and scrutinized (MacKenzie and Wajcman 1999). According to this argument, referred to as the Social Shaping of Technology, technology does not develop according to an organic, inner technical logic but is actually a social product; one that has been moulded by the conditions of its creation and use.

that of the technical specialists but is enough to be able to understand the broad strokes of the intricacies of how the internet works.

AIB's explainer, grounded as it was in entertainment values, managed to simplify the dense and jargon-heavy language that had been used by TRAI, to explain the problem to non-experts. The overwhelming response to the explainer put paid to the idea that the technical know-how on the issue was somehow too complicated for the ordinary internet user to understand. A social and political imagination, therefore, had been co-produced, as Clark Miller (Miller 2015) posits, using technoscientific ideas and organisation. It helped, of course, that the movement was largely online and required nothing more of its participants than two clicks on a website. To the million people who ended up sending emails through the Save The Internet platform, not only was the imaginary of a 'neutral' network and therefore a 'free' internet a compelling idea; but it also squared neatly with the way that the utopian idea of online social networks operate – allowing a virtual coming together of people in order to make a positive difference to everyone's lived realities (Benkler 2006).

The strength of the movement is exemplified by the second round of consultations that TRAI initiated in December 2015. This time, TRAI made it much more complicated for people to leave responses to the new consultation paper. People could not simply send an email to TRAI; but had to register an account with the mygov.in website, put in a password, verify the account by clicking an emailed link; then find the consultation paper on the website, and leave a comment on it by going to the 'Comment' tab. By the end of the year, Indian netizens once again left more than 600,000 responses on the consultation paper in favour of net neutrality (PTI 2015); proving that the initial massive response was not a flash in the pan, but that it was an issue that most people actually cared about.

This unprecedented public response to a policy proposal is also an important moment in the understanding of a 'digital citizen' (Isin and Ruppert 2015). In an age of ubiquitous surveillance, operationalised mostly through applications best used on a mobile phone (Lyon 2018), the individual (as a user, a citizen, a digital subject, as well as a consumer) is constantly shaped and re-shaped by the many technologies that she is surrounded by. On social media, every user carefully curates their own profile in order to show them in the best light, while at the same time, viewing and absorbing the profiles, posts, and cultural cues from everyone else in their networks. Zygmunt Bauman has spoken of the modern-day citizen as living in a 'liquid modern' world, simultaneously as both a consumer and a commodity (Bauman 2007). In the liquid modernity of social media, the viral spreading of the net neutrality video was ironic, in that it used Facebook to mobilise opinion in what was essentially a fight against companies such as Facebook.

Citizens versus Facebook

Even as pro-net neutrality opinions poured into TRAI, Mark Zuckerberg attempted to reclaim some space by writing an op-ed piece insisting that he was pro-net neutrality (Zuckerberg 2015). He tried to argue that Facebook was being philanthropic by bringing those who didn't have the internet to the wonders of the medium and that those who opposed it were actually making worse the digital divide that he was trying to bridge. All through 2015, Facebook lobbied the Indian government to ensure that their zero-rating plan (now rechristened Free Basics) didn't fall through. When Indian Prime Minister Narendra Modi travelled to the US in September 2015, he visited Facebook's Menlo Park headquarters in a much-publicised event (Bhatia 2016). In October, Zuckerberg visited India again, this time even speaking at a Town Hall event at the Indian Institute of Technology (IIT) Delhi to much adulation (Rajan 2015).

The technology giant was trying to position itself as a champion of connectivity, and the media blitzkrieg that followed attempted to convince the masses and the government of it. There were television and print ads, massive billboards around the country, and a concerted lobbying effort through backchannels to convince the regulator to not rule against Facebook. Estimates suggest that Facebook spent about Rs. 300 crores on advertising around Free Basics in India (Choudhary 2016). They even ran a counter-campaign on Facebook where with one click, an email in support of Free Basics could be sent to the TRAI. Essentially, Facebook was trying to reformulate the idea of net neutrality as 'giving everyone access to the internet' as opposed to Save The Internet's campaign of 'everyone should be able to access everything on the internet.' Even as Facebook tried to manoeuvre itself through the nuance, it transpired that the average person on the internet did not find it hard to parse it. Facebook's attempts to get users of the network to send emails to TRAI backfired eventually. The responses sent to TRAI through the Facebook campaign were red-flagged and TRAI disparaged their tactics as 'crudely majoritarian and orchestrated' (Quint 2016).

Journalist Rahul Bhatia has written of how executives at Facebook managed to rub many influential people the wrong way, including Nitin Pai of the Takshashila Foundation and Vijay Shekhar Sharma, owner of PayTM. Parallels with colonialism were drawn for what Facebook was trying to do to the Indian internet (Bhatia 2016). It is a sentiment echoed by Sharad Sharma of iSPRIT (developers of India Stack). Lauren Smiley (Smiley 2016) quotes him as having said, 'Let anyone in the world come and operate in this market, but there are certain rules necessary to operate, so India doesn't become a digital colony.' While in many countries those backing net neutrality have been seen as more 'liberal' minded, in India the issue did not become polarised on those lines. To explain this, Revati Prasad (Prasad 2018) has argued that the 2015 public mobilisation was, in fact, a manifestation of the kind of 'technopolitics that resonated within the broader narrative of technocultural nationalism' that has been pervading India since the rise of the BJP in 2014. She posits that the Save The Internet collective is, by their own definition, 'geeks and enthusiasts from various fields: technology, law, journalism, design, policy' (Save The Internet 2015). This, coupled with the ruling dispensation's emphasis on

a vision of India as a global technological power to be reckoned with, made it harder to accept what Bhatia senses to be Facebook 'talking down' to India in the course of lobbying for Free Basics. What began as a small question of telecom policy eventually found resonance as a movement for freedom from monopolisation by large foreign firms.

Since the movement was largely online-only, and conversations about it took place mostly in English, it is fair to make the assumption that many of those who took part in it belonged to the same urban, English speaking public that had so overwhelmingly voted the BJP to power in 2014. Moreover, those who participated in the movement belonged to the same class of people who set up Save The Internet — people who belonged to the higher end of the privilege spectrum in India, many of whom refer to themselves as 'apolitical' (Prasad 2018). This must be flagged because it means that the movement then cannot be seen as a collective of *all citizens* of India. Those who took part in it were those whose relative bargaining power in the larger scheme of things is already far greater than the vast majority of the billion-plus citizens of India. These people are the self-professed 'geeks'— thought leaders of the technopolitical ideals of the nation.

Even though there was some nuanced internal disagreement between those who set up the Save The Internet webpage,[6] they were able to generate a broad consensus within the coalition itself and then among the larger public that used the internet in India. Prasad uses Christopher Kelty's formulation of a 'recursive public' to explain how a group of like-minded individuals such as Save The Internet can come together. Kelty, in his ethnographic work around online music transfers involving Napster and the Recording Industry Association of America (RIAA), has written how the internet can influence the social imaginaries of the public sphere itself. In this, he defines the recursive public as 'a group constituted by a shared, profound concern for the technical and legal conditions of possibility for their own association' (Kelty 2005). It was this form of recursive ideation that allowed a leaderless coalition to transcend their nuanced disagreements to create a single, simple idea that a movement could coalesce around.

The idea of 'citizen science' as theorised by scholars such as Alan Irwin and Brian Wynne (Irwin 1995; Irwin and Wynne 1996; Wynne 1996) includes the participation of the public in scientific matters that directly affect society. In *Citizen Science: A Study of People, Expertise, and Sustainable Development*, Irwin (Irwin 1995) posits that there are two ways of looking at 'citizen science': one that 'evokes a science which assists the needs and concerns of citizens' and another which 'implies a form of science developed and enacted by citizens themselves.' I argue that in setting up Save The Internet and the resulting public outpouring, both forms of citizen science find expression. In parsing through and explaining the concept of network neutrality and differential pricing, Save The Internet was bringing expertise to the public domain in order to, as Irwin defines it, 'assist the needs and concerns of citizens.' At the same time, by choosing to participate in the movement and making it a watershed in public

[6] Pranesh Prakash of the Centre for Internet and Society owned the 'savetheinternet.in' website that became the centre of the online movement; and even though he agreed to allow the collective to use the domain name, he has publicly acknowledged that he disagreed on several nuances of net neutrality principles with others in the group (Mishra 2015; Vijayakumar 2015).

consultation, net neutrality in India became 'a form of science developed and enacted by citizens themselves.'

The net neutrality moment was a defining moment for the collective idea of a digital citizen. As individuals on the internet, we constantly navigate through several identities – of users (of streaming platforms, ride-sharing applications, news websites, etc.), consumers (as buyers on online marketplaces), and data subjects (whose every online move yields data for brokers and internet firms to profit from). As merely a data point in the mill of big data, the individual as a data subject is no longer a citizen with rights and entitlements that she can demand from her government. As a user on an online platform such as Facebook or Uber, she is tied in by the 'Terms and Conditions' that she has had to agree to in order to use the platform. As a consumer of news, shared rides, or even groceries, the user is also now simultaneously a product that yields data exhaust – a 'behavioural surplus' (Zuboff 2019) for the digital platform. Rarely if ever, in online life, does one get to live the identity of a rights-bearing political citizen who has the ability to demand change.

The individual as a 'digital citizen' is, as Engsin Isin and Evelyn Ruppert define it, a 'political subject that arises from acting through the internet' (Isin and Ruppert 2015). The digital citizen is an interesting counterpoint to the other framing of individuals on the internet as data subjects (defined by the EU GDPR 2020 as 'any person whose personal data is being collected, held or processed'). Individuals slide through many of these multiple and fluid identity markers every day. Users become consumers become data subjects as they wander the online world, navigating through screens and voice assistants all day. In Bauman's liquid modern world, where 'human bonds tend to lead through and be mediated by the market for consumer goods' (Bauman 2007), it becomes important to find, define, and operationalise the rights-bearing and rights-demanding political individual as a digital citizen.

In countries such as India, where inequalities of income, caste, and gender spillover from offline to online (and indeed, *vice versa*), the idea of the digital citizen is certainly a problematic one, given how the disparities in internet access exacerbate existing inequalities. I have argued elsewhere in a different context (Subramanian 2020) that a majority of Indian citizens tend to get left out of those social media circles that pass for the 'public sphere' due, in large part, to social barriers such as caste, class, gender, ease with English; and structural barriers such as poverty, access to the internet, and when there is access, bandwidth. This allows the online space to become yet another space of exclusion in which the voices of those with access – to the internet, superior speeds, and the 'tacit knowledge' of navigating the online space – to become amplified. Most often, these are people on the higher ends of both the class and caste spectrums.

Even so, the net neutrality consultation process must be seen as a moment of online civil political action taken by digital citizens acting as political beings with rights and not simply as users of social media, who are also inadvertently data subjects. It must be flagged that this action was taken by the privileged elite — those with access to the internet and to a discourse largely taking place in English. Nevertheless, it was a sign of the coming of age of the Indian

digital citizen, who managed to use the very social media platforms that they were fighting against, to their own advantage.

Conclusions

The story of how net neutrality laws in India came to be passed has been written as a David versus Goliath story, in which a small plucky band of digital citizens came together to defeat the nefarious aims of the big telcos and Silicon Valley's technology oligarchs. While there may be some truth to the narrative, it remains indisputable that the telecom scenario in India has changed drastically since 2015 when the net neutrality debates were at their peak.

The introduction of Reliance's Jio dramatically altered the Indian telecommunications scenario. Reliance Jio was officially launched at the end of 2015. At the time, there were nine private sector wireless providers; while in 2020 there were only three – Jio, Bharti-Airtel, and Vodafone-Idea (Block 2019). Jio brought with it cheaper and cheaper mobile and data plans across the board, and recently, the Competition Commission of India has approved Facebook's plan of buying a 9.99% stake in Reliance Jio (Singh 2020). Whether or not the rules of net neutrality are maintained in the sort of oligarchical market that the Indian telecom sector currently is, and whether a similar social movement taking up cudgels against a monopolistic Indian company is even possible; the paradigm of neutrality has become firmly entrenched in the regulations in India. However, Facebook's Free Basics or Internet.org platform has been launched in several other developing countries around the world including Bangladesh, Indonesia, Guatemala, Bolivia, South Africa, Ghana, Egypt, and the Philippines (Internet.org 2015).

The manner in which a niche question of telecom policy came to capture the imagination of the public is a tale of how laypersons seized the idea of free internet, juxtaposed with the sociotechnical imaginary of India as a technological leader in the world, and embraced their identities as digital citizens in order to effect real change in the country. The participatory nature of the consultation and the overwhelming response of (a section of) the Indian public to the issue underlines the importance of democratic processes in the online space, and the need to operationalise yet another online identity – that of digital citizens – alongside the other more familiar identities of users, consumers, and data subjects.

The existence of the rights-bearing political citizen, who has a voice and is allowed to disagree with her elected government has been seen to be undermined by the emergence of the user and the data subject. As more and more people become comfortable with the online space, the public sphere has also begun to shift online. The implications of such a profound transformation of the individual into a data subject and the shifting of the public sphere online has several kinds of political repercussions, which have led writers such as Jeremy Bartlett 2018 to conclude that the ascendency of the digital perhaps signals the end of meaningful representative democracy as we know it. The events that led up to the net neutrality rules

being enacted in India can perhaps provide hope that in some cases, it is possible for digital citizens to use social media and other new forms of the public sphere to continue to act collectively and effectively to bring about meaningful change in society.

References

1. BBC News. 2018, July 12. India adopts 'world's strongest' net neutrality norms. *BBC News*. https://www.bbc.com/news/world-asia-india-44796436
2. Statista. 2020b. *Most internet users by country*. Statista. https://www.statista.com/statistics/262966/number-of-internet-users-in-selected-countries/
3. Statista. 2020a. *India—Internet penetration rate 2020*. Statista. https://www.statista.com/statistics/792074/india-internet-penetration-rate/
4. Wu, T. 2003. Network Neutrality, Broadband Discrimination. *Journal of Telecommunications and High Technology Law*, *2*, 141.
5. Young, L. 2016, August 16. *The Battle Over Net Neutrality Started With the 1920s-Era 'Hush-A-Phone'*. Atlas Obscura. http://www.atlasobscura.com/articles/the-battle-over-net-neutrality-started-with-the-1920s-era-hushaphone
6. Popular Mechanics. (1941, February). Voice Silencer on Telephone Lets You Talk in Secret—Popular Mechanics (Feb, 1941). *Modern Mechanix*. http://blog.modernmechanix.com/voice-silencer-on-telephone-lets-you-talk-in-secret/
7. Wu, T. 2010. *The Master Switch: The Rise and Fall of Information Empires*. Knopf Doubleday Publishing Group. https://books.google.co.in/books?id=6Dp4FoEEo6IC
8. FCC. 2010, December 23. *Preserving the Open Internet; Final rule*. Federal Communications Commission. https://www.fcc.gov/document/preserving-open-internet-final-rule
9. Hush-A-Phone Corporation v. United States, 238 F.2d 266 (United States Court of Appeals, District of Columbia Circuit 8 November 1956). https://casetext.com/case/hush-a-phone-corporation-v-united-states
10. Lasar, M. 2017, December 13. *Any lawful device: Revisiting Carterfone on the eve of the Net Neutrality vote*. Ars Technica. https://arstechnica.com/tech-policy/2017/12/carterfone-40-years/
11. Dixit, P. 2014, December 24. *Airtel wants you to pay extra for using Skype, Viber, more*. https://www.hindustantimes.com/tech/airtel-wants-you-to-pay-extra-for-using-skype-viber-more/story-

wdKf8Xpbo9jZMdcboyFrzK.html

12. Gustin, S. 2010, December 21. *FCC Passes Compromise Net Neutrality Rules | WIRED*. Wired. https://www.wired.com/2010/12/fcc-order/
13. Last Week Tonight, H. 2014, June 1. *Net Neutrality: Last Week Tonight with John Oliver (HBO)—YouTube* [YouTube]. Net Neutrality: Last Week Tonight With John Oliver (HBO). https://www.youtube.com/watch?v=fpbOEoRrHyU
14. McDonald, S. N. 2014, June 4. John Oliver's net neutrality rant may have caused FCC site crash. *Washington Post*. https://www.washingtonpost.com/news/morning-mix/wp/2014/06/04/john-olivers-net-neutrality-rant-may-have-caused-fcc-site-crash/
15. Bhatia, R. 2016, May 12. The inside story of Facebook's biggest setback | Rahul Bhatia. *The Guardian*. https://www.theguardian.com/technology/2016/may/12/facebook-free-basics-india-zuckerberg
16. Constine, J. 2013, August 21. Facebook And 6 Phone Companies Launch Internet.org To Bring Affordable Access To Everyone. *TechCrunch*. http://social.techcrunch.com/2013/08/20/facebook-internet-org/
17. Schroeder, S. 2013, August 21. *Mark Zuckerberg Aims to Bring Net Access to Everyone With Internet.org*. Mashable. https://mashable.com/2013/08/21/mark-zuckerberg-internet-org/
18. Vincent, J. 2015, May 4. *Facebook invites everyone inside its Internet.org walled garden*. The Verge. https://www.theverge.com/2015/5/4/8542131/interner-org-net-neutrality-platform-developers
19. Sharma, R. 2014, December 9. *Mark Zuckerberg's Chandauli Visit Was Part Of His Bigger Plan To Connect The World*. Business Insider. https://www.businessinsider.in/mark-zuckerbergs-chandauli-visit-was-part-of-his-bigger-plan-to-connect-the-world/articleshow/45392663.cms
20. Singh, S. R. 2014, October 10. *Zuckerberg gets a taste of rural India*. Business Line. https://www.thehindubusinessline.com/info-tech/social-media/Zuckerberg-gets-a-taste-of-rural-India/article20884478.ece
21. Soni, A., and Mallya, H. 2014, October 12. *Mark Zuckerberg's tryst with India, Modi and 'Chandauli'*. YourStory.Com. https://yourstory.com/2014/10/mark-zuckerberg-india-narendra-modi
22. ET Bureau. 2014, October 11. Mark Zuckerberg promises PM Narendra Modi mobile app for Clean India. *The Economic Times*. https://economictimes.indiatimes.com/tech/internet/mark-zuckerberg-promises-pm-narendra-modi-mobile-app-for-clean-india/articleshow/44779335.cms
23. Pahwa, N. 2014, October 10. What Mark Zuckerberg didn't say about Internet.org. *MediaNama*.

https://www.medianama.com/2014/10/223-zuckerberg-india-internet-org/

24. Facebook Newsroom. 2015, February 10. *Internet.org App Now Available in India | Facebook Newsroom*. https://newsroom.fb.com/news/2015/02/internet-org-app-now-available-in-india/
25. TRAI. 2015. *Consultation Paper On Regulatory Framework for Over-the-top (OTT) services—Consultation Paper No.: 2/2015*. Telecom Regulatory Authority of India. https://main.trai.gov.in/sites/default/files/OTT-CP-27032015.pdf
26. Baburajan K. 2015, March 30. Telecoms to lock horns with OTT players as TRAI brings consultation paper. *TelecomLead*. https://www.telecomlead.com/telecom-services/telecoms-to-lock-horns-with-ott-players-as-trai-brings-consultation-paper-57067
27. Tribune. 2015, April 27. *Telcos bat for licence regime for WhatsApp, Skype*. Tribuneindia News Service. https://www.tribuneindia.com/news/nation/telcos-bat-for-licence-regime-for-whatsapp-skype/72992.html
28. IANS. 2015, April 16. Odisha CM bats for net neutrality. *Business Standard India*. https://www.business-standard.com/article/news-ians/odisha-cm-bats-for-net-neutrality-115041601396_1.html
29. Varma, V. 2015, April 18. Tathagata Satpathy, an MP from Odisha, lends support for net neutrality. *The Indian Express*. https://indianexpress.com/article/india/india-others/tathagata-satpathy-mp-from-odisha-lends-support-for-net-neutrality/
30. Mukherjee, A. 2015, April 22. *Rahul Gandhi bats for Net neutrality without being on social media*. India Today. https://www.indiatoday.in/india/story/rahul-gandhi-net-neutrality-social-media-twitter-facebook-249763-2015-04-22
31. Mishra, A. K. 2015, May 9. *India's Net neutrality crusaders*. Livemint. https://www.livemint.com/Sundayapp/FJQWrDereqsC3zGIEspGqI/The-people-who-want-to-save-the-Internet.html
32. AIB. 2015, April 11. *AIB: Save The Internet*. https://www.youtube.com/watch?time_continue=547&v=mfY1NKrzqi0&feature=emb_logo
33. TRAI. 2016. *Prohibition of Discriminatory Tariffs For Data Services Regulation 2016*. TRAI, Government of India. https://trai.gov.in/sites/default/files/Regulation_Data_Service.pdf
34. Jeffrey, R., and Doron, A. 2013. *Cell Phone Nation*. Hachette India.
35. Mukherjee, R. 2019. Imagining Cellular India: The Popular, the Infrastructural, and the National. In A. Punathambekar & S. Mohan (Eds.), *Global Digital Cultures: Perspectives from South Asia* (pp. 76–95). University of Michigan Press. www.jstor.org/stable/j.ctvndv9rb.7
36. Prasad, R. 2018. Ascendant India, digital India: How net neutrality advocates defeated Facebook's

Free Basics. *Media, Culture & Society*, *40*(3), 415–431. https://doi.org/10.1177/0163443717736117

37. Jasanoff, S. 2015. Future Imperfect: Science, Technology, and the Imaginations of Modernity. In S. Jasanoff & S.-H. Kim (Eds.), *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power*. University of Chicago Press.
38. Wynne, B. 1996. May The Sheep Safely Graze? A reflexive View of the Expert-Lay Knowledge Divide. In S. Lash, B. Sczerszynski, & B. Wynne (Eds.), *Risk, Environment and Modernity: Towards a new ecology* (pp. 44–83). Sage Publications.
39. Collins, H., and Evans, R. 2007. *Rethinking Expertise*. University of Chicago Press.
40. Miller, C. A. 2015. Globalizing Security: Science and the Transformation of Contemporary Political Imagination. In S. Jasanoff & S.-H. Kim (Eds.), *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power*. University of Chicago Press.
41. Benkler, Y. 2006. *The wealth of networks: How social production transforms markets and freedom*. Yale University Press.
42. PTI. 2015, December 20. *6 lakh comments on Trai's second net neutrality consultation paper*. Hindustan Times Tech. https://tech.hindustantimes.com/tech/news/6-lakh-comments-on-trai-s-second-net-neutrality-consultation-paper-story-O5GBhMNpNAa1jcArdF6dDP.html
43. Isin, E., and Ruppert, E. 2015. *Being Digital Citizens*. Rowman & Littlefield Publishers.
44. Lyon, D. 2018. *The Culture of Surveillance: Watching as a Way of Life*. Wiley.
45. Bauman, Z. 2007. *Consuming LIfe*. Polity Press.
46. Zuckerberg, M. 2015, April 17. *Mark Zuckerberg to HT: Net neutrality and universal connectivity must co-exist*. Hindustan Times. https://tech.hindustantimes.com/tech/news/mark-zuckerberg-to-ht-net-neutrality-and-universal-connectivity-must-co-exist-story-oViWLaARpJ5q5Pk5P4eCbL.html
47. Rajan, N. 2015, October 28. Mark Zuckerberg at IIT-Delhi: Highlights of Facebook townhall. *The Indian Express*. https://indianexpress.com/article/technology/social/live-facebook-ceo-mark-zuckerbergs-townhall-at-iit-delhi/
48. Choudhary, V. 2016, January 8. *Facebook spends around Rs300 crore on Free Basics ad campaign in India*. Livemint. https://www.livemint.com/Consumer/oMmTd2g4CkwErMNRoedVMJ/Facebook-spends-around-Rs300-crore-on-Free-Basics-ad-campaig.html
49. Quint. 2016, January 21. *Free Basics Row: TRAI Red Flags Facebook's 'Orchestrated Poll'*. The Quint. https://www.thequint.com/technology/2016/01/21/free-basics-row-trai-red-flags-facebooks-

orchestrated-poll

50. Smiley, L. 2016, February 1. *How India Pierced Facebook's Free Internet Program*. Wired. https://www.wired.com/2016/02/how-india-pierced-facebooks-free-internet-program/
51. Save The Internet. 2015, April 21. *About Us*. https://web.archive.org/web/20160608132224/http://blog.savetheinternet.in/about/
52. Kelty, C. 2005. Geeks, Social Imaginaries, and Recursive Publics. *Cultural Anthropology*, *20*(2), 185–214.
53. Irwin, A. 1995. *Citizen Science: A study of people, expertise and sustainable development*. Routledge.
54. Irwin, A., and Wynne, B. 1996. *Misunderstanding science? The public reconstruction of science and technology*. Cambridge University Press.
55. Zuboff, S. 2019. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. PublicAffairs.
56. EU GDPR. 2020. What is a data subject? *EU GDPR Compliant*. https://eugdprcompliant.com/what-is-data-subject/
57. Subramanian, V. 2020, July 10. *How the TikTok phenomenon democratised online space in India*. Moneycontrol. https://www.moneycontrol.com/news/opinion/how-the-tiktok-phenomenon-democratised-online-space-in-india-5531431.html
58. Block, D. 2019, February 1. *How Reliance Jio is monopolising the telecom sector*. The Caravan. https://caravanmagazine.in/reportage/government-helping-reliance-jio-monopolise-telecom
59. Singh, M. 2020, June 24. India approves Facebook's $5.7 billion deal with Reliance Jio Platforms. *TechCrunch*. https://social.techcrunch.com/2020/06/24/india-approves-facebooks-5-7-billion-deal-with-reliance-jio-platforms/
60. Internet.org. 2015, October 23. Where we've launched. *English*. https://info.internet.org/en/story/where-weve-launched/
61. Bartlett, J. 2018. *The People Vs Tech: How the internet is killing democracy (and how we save it)*. Ebury Publishing.
62. Census of India. 2011. *Census of India 2011: Language*. Census of India. https://www.censusindia.gov.in/2011Census/C-16_25062018_NEW.pdf
63. Internet Live Stats. 2016. *India Internet Users*. https://www.internetlivestats.com/internet-users/india/
64. MacKenzie, D. A., and Wajcman, J. 1999. *The Social Shaping of Technology*. Open University Press.

65. Vijayakumar, S. 2015, May 9. Definition of Net Neutrality should be flexible: Pranesh Prakash. *The Hindu*. https://www.thehindu.com/business/Industry/pranesh-prakash-on-definition-of-net-neutrality/article7188661.ece

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1. Fig 1: ArsTechnica *https://arstechnica.com/tech-policy/2017/12/carterfone-40-years*