Chapter 7
Spatial Mapping of Digital Shutdown in India

Abstract  Internet shutdown is a newer phenomenon which is predominantly found across the world when authorities and states take such decisions to shutdown the Internet for momentarily in view to maintain law and order situations or some other reasons. The Internet is important to run digital gadgets otherwise digital gadgets are worthless. The connectivity of social media and its business purely depends upon the flow and speed of the Internet. This chapter discussed spatial-digital mapping of digital shutdown in terms of freedom of speech, laws, political economy, surveillance and governance.

Keywords  Digital shutdown · Surveillance · Laws · Freedom of speech · Internet

7.1 Introduction

Let’s think you are visiting the adjacent town and suddenly a riot breaks out. What would be your ideal reaction on the situation? You would eventually think of taking shelter in the town or book a cab to your hotel to save yourself from riot. Or, let’s presume you are injured in the riot. Then your reaction would be to get to a hospital and to find a way through Google Maps or else. The most convenient was that you would have to inform your family members or else through WhatsApp or other available social media apps. Your main concern would be to reassure your family or else that you are safe.

The Internet which is often called net is a worldwide system of computer or networks—a network of networks in which users can get information from any other computer if they have permission. With its information revolution,1 it has changed a life like never before. The changes are all social, economic, political and to some extent an individual’s life. Coming to the above situation, what would you do if the state authorities and the administration have suspended Internet access for a moment

1Information revolution is the fourth crucial revolution in the human history that changed the lifestyle and livelihood (in case of COVID-19 global pandemic work from home is possible only due to information systems), after hunting and gathering, agricultural revolution, industrial revolution, information or communication revolution is the turning point in the development of human civilization.
to maintain law and order situations. This has resulted in a position of Internet
shutdown. Government intentionally disrupts the flow of the Internet in the sense
of Internet shutdown or removed some apps which agencies found fictitious. For
example, Government of India removed/blocked fifty nine apps that are controlled
by Chinese or run by them in the wake of Indo-China border clash.\(^2\)

In simpler terms, an Internet shutdown can be seen as the total disruption of access
to the Internet both mobile-based or broadband, in a particular region as directed by
the government. It can be explicit as well as implicit. It can be explicit when the state
suspects the Internet. An implicit side is when the state intentionally slows down
the speed of the Internet (Pandey and Tiwari 2020). The government has eventually
justified Internet shutdowns for various reasons, which includes stopping people
from sharing information or organizing protests. This can also be done and justified
when people are demonstrating peaceful protest. To hide fraud or shape outcomes,
the Internet is majorly shutdown during the elections. People often make out this
difference between intentional disruption and technical glitch in case of a shutdown
with the help of a variety of stakeholders.

In India, there is a distinction of getting through the maximum shutdowns in the
world. It is very uncertain as to when the first Internet shutdown was witnessed
in India. The state of Jammu & Kashmir is the best example of Internet shutdown
in India. It faces frequent shutdowns of all Internet and telecom services during
Independence Day and Republic Day since 2005. But since 2017, there has been
an alarming rise in the reports of shutdowns in the country. Twenty-two of India’s
twenty-eight states have faced Internet shutdown at least once. Rajasthan imposed
three shutdowns in three weeks to prevent cheating in public service recruitment
examination.\(^1\) The shutdown never discriminates with the sender and the content
of communication. It affects daily life with wrecking ball online communications
matters. Rajasthan police seek permission from the government to suspend Internet
services for two days, i.e. 14th–15th July 2018, to prevent cheating during the Police
Constable recruitment examinations.

On 21 September 2012, mobile Internet services were shutdown in the Kashmir
Valley on the pretext to protest a movie which hurt a few Islamic sentiments. Not
counting the routine suspension in Jammu & Kashmir, in 2014, three more shutdowns
were encountered in India. These shutdowns were again seen at the valley after
incidents of violence were encountered. Their main motive was to limit the spread
of rumours and misinformation online. Also most of the shutdowns implemented
between 2012 and 2018 were seen to prevent the spread of more violence after
several incidents of violence were encountered in a particular area (Nayak 2018).

In 2012, residents from the North-Eastern India got themselves in the middle of
a rumour when some miscreants tried in pretexts to evacuate from the Bengaluru
metropolitan city. The messages and posts that were circulated on WhatsApp and

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\(^2\)Indian authorities blocked fifty-nine Chinese apps in wake of Indo-China border issue when
Chinese army tried to encroach Indian Territory nearby Galwan valley in Ladakh region. For
details, [https://indianexpress.com/article/technology/social/tiktok-removed-play-store-india-bans-59-chinese-apps-6482706/](https://indianexpress.com/article/technology/social/tiktok-removed-play-store-india-bans-59-chinese-apps-6482706/). Accessed 30 June 2020.
other social media websites created a huge uproar and fear among the people. Even though no particular cases were registered the news created an atmosphere of fear and mistrust among the people. Both online and offline news circulation saw an impending violence environment among the people. Hundreds and thousands of people were seen rushing towards the airport and railway stations to return to their hometown. This created a stampede like situations in many places. The government implemented a blanket ban in the affected locality unlike shutdowns in Jammu & Kashmir Valley.

The most recent reports of Internet shutdown when out of the eleven, seven were ordered in Jammu & Kashmir, while on two different occasions the state of West Bengal suffered the effects of shutdowns during this period. The other states that were snapped with this luxury were Uttar Pradesh and Odisha (Nayak 2018). In 2019 alone fifty-nine incidents have been reported. In Sept. 2018, the mark crossed a hundred. On average, India encounters ten shutdowns every month. Between 2012 and 2018, 125 shutdowns cases were reported in Jammu & Kashmir out of the 331 reported Internet shutdowns. It was the only state to encounter shutdowns in 2013–2014. The first case was reported in 2013 with around three in total that year. However, the shutdown process often follows the principle of secrecy whether in regard to implementation or restoration.

C. K. Hickey (2019) put forth his observation that ‘India is the World’s leader in Internet Shutdowns’ and shown shutdowns in Kashmir Valley through a graph how the number of shutdowns in the Kashmir Valley doubled each year from 2015 to 2018 and the track again increased in 2019 with fifty-three cases already encountered till August 2019 in the state. In the past three years the Internet has been suspended 159 times in the country. Internet shutdown is not an Indian phenomenon rather it is found in other developing countries too. The nation that follows in the list is Pakistan that is almost one-third of India’s cases from 2016 to 2018. Asia and Africa where Internet shutdowns are common unlike western world. Other countries in the list are Iraq and Syria with eight cases, Turkey (seven), D. R. Congo (five), Ethiopia (five), Iran (four), Chad and Egypt (three). The report is from the period Jan 2016 to May 2018. According to the Indian Council for Research on International Economic Relations (ICRIER), India lost almost around $3.04 billion from around 16,315 hours of International Internet shutdowns between 2012 and 2017 (McCarthy 2018).

Internet shutdowns have become an easy throwback to the state in the response of curfews, media clampdowns, etc. Problems which arise due to shutdown including disruptions in e-governance, e-commerce and e-banking are seen as collateral damage during public emergencies. Internet shutdowns are also seen as a way to not let people say or express their views. The latest Internet shutdown was in Jammu & Kashmir was imposed on 5 August 2019 (after the removal of Article 370) and that continued until April 2020 in the state; it was indeed the longest shutdown in the history of Internet shutdown in the world with people having no way to contact or communicate with the outside world. Internet or digital shutdown can be used interchangeably, without Internet digital gadgets are worthless or not operational. Internet shutdown has eventually become a regular phenomenon and often some territoriality is under lockdown for myriad reasons. The interruptions of the Internet often consider a hurdle
in the expressions of freedom or freedom of speech or somehow deprived from the right to free Internet, of course, the Internet emerged a basic essential to live a life in the twenty-first century (Nayak 2018).

Internet shutdowns are status quo positions that use of Internet services is not permitted by an order issued by an authorizing body. The decision specifies a particular location, specific length of time and ranged of days. Sometimes it could expand indefinitely unless favourable atmosphere returned or normally should return back. The Internet shutdown may vary or be limited to cellular Internet or broadband or both, depending upon the situations or decisions taken by concerned authority. Internet Freedom Foundation has identified six types of disruptions, ‘national internet, subnational internet, national mobile internet, subnational mobile internet, national app/service, and subnational app/service’. The major reasons for shutting down the Internet were law and order situations. Now some of the other major concerns are peace during festival processions as well as in some cases preventing cheating in exams.

In Darjeeling, West Bengal, there was a forty-five day Internet shutdown imposed due to political demonstrations, clashes and protests by activists who wanted to get a separate state. The other incident is from Nawada in Bihar where a forty day Internet shutdown was witnessed after communal clashes. The report also talked about how thirty-one days in Jammu & Kashmir stopped circulation images that showed alleged military abuse. The Internet shutdown was also witnessed in Saharanpur, Uttar Pradesh for twelve days to halt rumours of violent communal clashes. After Jammu and Kashmir, Rajasthan is the state which encountered the second highest Internet shutdowns in India, which was around sixty-seven cases in 2019. The major reason is because of which the Internet services were suspended in the wake of the Ayodhya Verdict. The public wanted to celebrate Eid-e-Milad-un-Nabi. In Maharashtra, Police asked the local Internet Service Providers (ISPs) in Malad to shut down the Internet, on the day of the Ayodhya Verdict. Aligarh, Uttar Pradesh ahead of the Ayodhya Verdict put off the Internet as a preventive measure. In August 2019, Sawai Madhopur district of Rajasthan was taken down with the privilege of the Internet as the communal tension broke out in the city.

In 2012, the Internet shutdown cases in India stood at just three. The number eventually grew over time. In 2013, the cases increased by five, in the next two years it tripled to fifteen. The number increased to seventy-nine by 2017 and one hundred and thirty-four by 2018. There are states like Karnataka, Telangana, Chhattisgarh, Himachal Pradesh, Mizoram and Kerala who have not experienced any Internet shutdown activities in 2019. Apart from them every state has gone through shutdown at least once in 2019.

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3 Internet freedom foundation comes with frequently asked question on Internet shutdowns; in a brief they tried to explain the shutdowns and its nature and dimensions. Available at: https://internetfreedom.in/shutdowns-faq/. Accessed 15 June 2020.

4A communal dispute was a contentious issue between Hindu and Muslims for more than one century and had witnessed many communal riots and caused both lives and property.
7.2 Undermining Freedom of Expression/Speech

The most recent and perfect example of how Internet shutdown affects the people and their rights could be understood as such suffering that how people of Jammu & Kashmir crossed through such digital grief during the last six months of Internet shutdown from August 2019 to April 2020. However, the Internet could only be accessed using 2G on verified SIMs. As the J&K state’s ‘special status’ is removed, it is pulled down into being two union territories. As soon as this happened, all communication lines were cut. Phones, Internet and even landline communications were snapped. They are reported that WhatsApp accounts are being automatically deactivated because of the users being inactive for the past four months (Dixit, 2019). ‘To maintain security and limit data retention, WhatsApp accounts generally expire after 120 days of inactivity’, a spokesperson from Facebook told BuzzFeed News. The spokesperson from WhatsApp informed, ‘when that happens, those accounts automatically exit their WhatsApp groups. People will need to be re-added to groups upon regaining access to the Internet and joining WhatsApp again (Dixit 2019)’. This makes one wonder how people are denied their right to express their opinion on such an important matter. A rule that has been said to revoke for the people of a particular community is eventually denied to express their own voice on the issue. Freedom of expression and opinion and the right to peaceful assembly is a fundamental right of an individual that can’t be denied at any possible hindrance in the name of free Internet access. The people are not given the basic right of expressing their concerns or telling people of their problem.

Henceforth, freedom of speech, of the press, of association, of assembly and petition—this set of guarantees comprises what we refer to as freedom of expression. Without it, other fundamental rights, like the right to vote, would wither and die. This rule is eventually revoked when the Internet is shutdown for your basic needs. You are put up in isolation with no contact with the people outside. The Internet is supposed to be a tool that connects people around the world. The shutdown in turn takes away this basic function of the Internet. The Internet helps us to respect our human rights, mainly freedom of speech and freedom of expression. When the authorities shutdown the Internet, people thrive to communicate with people they love, they can’t even visit a doctor during an emergency or even run their businesses. Both these rights are recognized by the Universal Declaration of Human Rights—it is the government’s duty and responsibility to respect them and respect the citizen’s enjoyment of them. The Internet is basically a common tool of communication with family, friends, access and sharing knowledge. By disabling all means of communication, it is considered as a potential human rights violation. In terms of national security, rights such as free speech can be restricted and at the same time it need to follow three-part test in Article 19(3) of the International Covenant on Civil and Political Rights (ICCPR), including meeting proportionality and necessity criteria. The United Nations Human Rights

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5International Covenant on Civil and Political Rights (ICCPR), Article 19(3). More on limitations to freedom of expression. For more, https://www.article19.org/pages/en/limitations.html. Accessed 15 June 2020.
Council (UNHRC) has ‘unequivocally condemned’ the Internet shutdowns across the world.

A 2017 report by the Special Rapporteur to the Human Rights Council states how users are mentally affected by the Internet shutdown. The United Nations Human Rights Council condemned the network disruptions and measures taken by the states to halt online access and dissemination of information on 1st July 2016. The resolution also points out how this same standard of protection should be put up in the offline world. ‘Curbing Internet services violate basic human rights and does irreversible economic and social damage to common citizens of the state’, said by Burhaan Kinu. However, Centre promulgated a ‘Temporary Suspension of Telecom Services (Public Emergency or Public Safety) Rules, 2017’ which provided a legal mechanism for disrupting Internet access in August 2017. A Human Rights Council (HRC) adopted a resolution by consensus in 2016 that ‘condemns unequivocally measures to intentionally prevent or disrupt access to or dissemination of information online in violation of international human rights law’.

An Internet shutdown is much bigger than just the perimeter of disconnection from your favourite social media sites like WhatsApp, Facebook or Twitter. It restricts students from getting education opportunities. Platforms like Coursera or edX or major YouTube channels cannot be accessed by students. During an Internet shutdown, students are restricted for access to information, fellowships, education programmes among other educational activities. Students are eventually left out to communicate with people or students apart from their society. The shutdown eventually results in people from around the world getting cut off from the region. You can just have assumptions and rely on news agencies (which some may argue are run by the authorities and their ideologies) for information. The people affected have no way to communicate with the outside world. They can’t tell their stories, their sufferings or their needs. The government which guarantees you the basic fundamental rights, in the process of Internet shutdown, takes it away. The voices raised against such Internet shutdowns in both local and global platforms are not deterred the government to avoid shutdowns in future rather government made necessary changes in the existing laws to clampdowns in future as well. The spatiality of shutdowns encompassed more new areas in the lists which has been reported from all

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6United Nations, General Assembly, Human Rights Council, Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development, Thirty-second session, Agenda item 3, 27th June 2016. Available at: https://www.article19.org/data/files/Internet_Statement_Adopted.pdf. Accessed 3 July 2020.

7He is a senior photojournalist at Hindustan Times (New Delhi), daily newspaper.

8For details, UN Human Rights Council Resolution A/HRC/32/L.20, July 2016. Available at: https://www.article19.org/data/files/Internet_Statement_Adopted.pdf. Accessed 3 July 2020.

9UNHRC in their universal periodic review went reiterated their non-tolerance on against human rights violations. ‘The Universal Periodic Review (UPR) is a unique process which involves a review of the human rights records of all UN Member States. The UPR is a State-driven process, under the auspices of the Human Rights Council, which provides the opportunity for each State to declare what actions they have taken to improve the human rights situations in their countries and to fulfil their human rights obligations’. For details, https://www.ohchr.org/en/hrbodies/upr/pages/uprmain.aspx. Accessed 15 June 2020.
directions north, south, east and west in the country. However, authorities are unable to forward rational justification except politically motivated arguments behind such shutdowns (Nayak 2018).

The shutdowns are explicit illustrations of caging voices and expressions; it is an unfortunate practice that is gradually institutionalizing in some countries including India. Why state muzzle to free expressions and voices? Why state ever want passive citizens? Why state unable to digest their criticisms? Why does the state often fail to create a benevolent relationship among people rather directly or indirectly provoke one section or community against others? Internet shutdown is not a solution in fact it needs more deliberation and participation between all stakeholders to minimize or restrain it.

7.3 Surveillance Tool for the State

The government of India’s Department of Telecommunication notified the state governments to not issue any Internet ban if there is no question of ‘public emergency’ or ‘public safety’. The digital shutdown has become a silent weapon for the state to dilute the voices of the people. In Assam, the ‘internet ban’ because of the protests of the Citizenship Amendment Act (CAA) in 2019 is one of the prime case studies to figure out how the state uses the tool of banning the Internet to oppress the voice. The people of Assam have been fighting for a state which doesn’t discriminate. With the coming of the CAA and National Register of Citizens (NRC) they would become a ‘minority community’ in their own state. But their voices were oppressed as the Internet was banned in the state. With the state curfew, Section 144 implemented in the state, mobile towers shutting off, the citizens have no way to communicate with the masses. This is how it becomes a very comfortable surveillance tool for the state. The state again banned the Internet for their own personal gain. Movie telecasting and taking the right of the people to choose their own version of entertainment. Also, the immediate banning of TV news channels and mobile Internet after the execution of Afzal Guru on 9 February 2013 till 15 February 2013. The state’s shutdown was actually to see the citizens do not indulge in any violent activities or get influenced by any external factor. Though most bans were put up in the Kashmir Valley, this one was put up in the entire state of Jammu & Kashmir. During 2014, after a morphed picture of a Muslim religious shrine was circulated in the city of Vadodara mobile Internet was blocked for three days. The shutdown was then implemented just for the circulation to stop. The state uses it as a surveillance tool where they take it upon themselves to stop people from spreading news. They banned the Internet as they were unable to stop the public from circulating messages that were not based on public interest. In the same year, both the mobile as well as broadband Internet was banned after lynching video of a rape accused goes viral in Nagaland for forty-eighty hours. This becomes a state’s go to measure whenever they find a time where they can’t stop the citizens by propagating a news or the measure. Both Surat and Ahmedabad were again under the scanner in August 2014,
after a mega rally led by Hardik Patel seeking Other Backwards Caste (OBCs)\textsuperscript{10} status for the Patel community got into focus. The Internet ban again enforced by the state prohibiting the citizen to take part in a protest or raise their voices on the same points out how the digital shutdown eventually becomes a helping tool for the state. It helps them to keep the public in check. Similarly during the riots in Haryana in 2016, Jhajjar, Panipat, Sonipat, Hisar, Rohtak, Jind and Bhiwani faced a ban on the Internet in subsequent to the Jat reservation protest. The riot took a huge overturn when it went violent at another level which resulted in the state taking this step. In Meghalaya’s Garo hills Internet was again stopped in the name of preventing inflammatory messages during the Garo Hills Autonomous District Council (GH-ADC) elections. One may see this as a measure of the state to stop people from spreading unfavourable agendas and other ideologies. In Bokaro, Jharkhand, during \textit{Ram Navami} Internet services were temporarily halted to prevent the spreading of communal fear and hatredness in 2018. This was a way to make the authorities ban the Internet just on ‘suspicion.’ The state then uses this privilege on their own. The effects and the objective are not really important on this. After a person was shot dead by the police, mobile Internet services were shut down in Jaisalmer and Barmer for forty-eight hours as the community member of the Bandh community was killed. Under section 5 of the Telegraph Act in Bhadrak, Odisha witnessed communal violence over derogatory remarks about Hindu deities. ‘Yesterday a person uploaded an objectionable document on Facebook which hurt the sentiments of a particular community. We are keeping a close eye on the situation’ (Nayak 2018).

The state, therefore, takes this as a surveillance tool for all their ongoing matters. From matters of ‘suspicion’ to ‘national security’, one may say how this becomes a means for the government to suppress voices. Government uses this as a very easy way out to empower the people of the country. Digital shutdown eventually works on how not to spread any ‘fake news’ which might circulate on trending topics. Fake news is one of the easiest ways to propagate an audience and influence them on their own issues. Around ninety-six per cent of Indian Internet users access the Internet over mobile networks (Nayak 2018). Governments most of the time do not acknowledge shutdowns. In 2018, out of two-hundred reported incidents, only seventy-seven got government’s notice. And once they did, they used this as an umbrella term to justify them despite knowing what the details and nuances actually happened.

\textbf{7.4 The Legal Aspects of Shutdowns}

The legal aspects of shutdown can be understood in two parts. The older laws were operationalized till August 2017, where there was a regulatory vacuum that made people wonder how these shutdowns were eventually carried out. Governments could shutdown the Internet under three vague laws with varying degrees of unsuitability:

\textsuperscript{10}In India, OBCs get 27\% reservation in education and employment.
section 144 of the Code of Criminal Procedure (CrPC), section 69A of the Information Technology Act and section 5(2) of the Telegraph Act. Prior to 2017, Internet shutdown often ordered under section 144 of the CrPC, 1973. The media reports often do not mention the laws and provisions under which the shutdowns were imposed. The CrPC is a collection of laid procedural laws that govern under Indian Penal Code, 1860 (Nayak 2018). The core aspects of section 144 found relevance of Internet shutdowns (Appendix A).

In absence of proper guidelines to imposed and revoked shutdowns made uproar across the civil society activists, authority, judiciary and political circles. There were no exact laws to enforce Internet shutdowns rather the same is governed by Telecom Suspension Rules prior to 2017. The procedure to suspend telecom services in the case of public safety or public emergency was interpreted from Section 5(2) of Telegraph Act 1855, while the law was not really a part of the Act or Rules. This obnoxious law was notified under section 7 of The Telegraph Act, 1855, under provisions of the Temporary Suspension of Telecom Services (Public Emergency or Public Safety) Rules, 2017 (Nayak 2018). The competent authorities which have the power to give directions under these rules are:

- For Central government, the Secretary in the Ministry of Home Affairs
- For State government, the Secretary to the State Government incharge of the Home Department.

However, in some unfavourable circumstances the order might be issued by an officer at the rank of Joint Secretary. Also, the rules mention that in such unfavourable circumstances a competent authority needs to confirm the order which if fails would cease to exist. A review committee (Appendix B) would be set up where they shall receive the order that is being passed by the competent authority. Both the laws used for shutdowns seem authoritarian by nature, neither the explicit reasons were mentioned nor exclusively the stakeholders were given positions in the committee. In fact, shutdowns are unlike complete iron laws where representatives were neither included nor considered to take consent in such sensitive issue. The promulgation of shutdown laws is closed in its configurations and power was assigned to authority from presiding to review the stock of situations, whatever.

If anyone wants to see humanitarian perspective in the promulgated shutdown laws, I think, the way the structure of laws is created would demotivate the person or agency. Almost six months of shutdown in Jammu & Kashmir from August 2019 to March 2020 forced me to think that, why the state are accumulating such authority? Why not consider rights to the Internet unlike other rights? What is the use of digital gadgets and other communication technology, if there is no Internet? Why not stakeholders were included in the decision-making whether to shutdown or withdrawal of shutdown? Every shutdown has some way or other way of financial disbursements, an important part of implementation.
7.5 Digital Economy of Shutdown

The Internet drives a multitude of businesses in this modern world, and its shutting eventually has its own repercussions. In his report Darrell M. West (2016) estimated that Internet shutdowns cost countries over $2.4 billion a year. The Brookings Institution report further unveiled the economic losses in following countries include $968 million in India, $465 million in Saudi Arabia, $320 million in Morocco, $209 million in Iraq, $72 million in the Republic of the Congo, $69 million in Pakistan, $48 million in Syria and $35 million in Turkey.

In 2012, the World Bank analysed that ‘ten percentage point increase in fixed broadband generating a 1.35% increase in per capita GDP for developing countries and 1.19% increase for developed countries’ (Minges 2015). The United Nations passed a resolution to intact ‘promotion, protection and enjoyment of human rights on the Internet’. The resolution specifically ‘[c]ondemns unequivocally measures to intentionally prevent or disrupt access to or dissemination of information online in violation of international human rights law and calls on all states to refrain from and cease such measures’. Few independent researchers, from University of Washington has identified six hundred six occasions in between 1995 and 2011 where 99 different governments deliberately ‘interfered’ with the normal operation of the Internet. The study by Darrel M. West where we combine studies from various authors, he estimated economic impact for six different types of digital shutdowns using the following formulas (Appendix C).

Of course, such economic losses are not meagre rather shadows negative imprint upon all financial transactions. Internet shutdown hampered a chain of business where so many nodes and networks worked together as a flow chain, so it affects everyone who is on the chain.

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11 Vice president and director of Governance Studies and founding director of the Centre for Technology Innovation at Brookings.

12 Max Metzger, “UN Extends Human Rights to Online World,” SC Magazine, July 13, 2016. [https://www.washingtontimes.com/news/2016/jul/1/un-human-rights-council-unequivocally-condemns-int/](https://www.washingtontimes.com/news/2016/jul/1/un-human-rights-council-unequivocally-condemns-int/), last accessed, June 15, 2020.

13 McKinsey Global Institute, “Internet Matters: The Net’s Sweeping Impact on Growth, Jobs, and Prosperity”, May 2011 (Studying a report based on Boston Consulting Group (BCG), they compiled a data based on the Internet expenditure and investments and they are found to be constituted 12.4% of the United Kingdom’s GDP, compared to 8% in South Korea, 6.9% in China, 5.6% in India and Japan, 5.4% in the United States, 4.2% in Mexico, 4% in Germany, 3.8% in Saudi Arabia, 3.7% in Australia, 3.6% in Canada, 3.5% in Italy, 3.4% in France, 3.3% in Argentina, 2.8% in Russia, 2.5% in South Africa, 2.4% in Brazil, 2.3% in Turkey and 1.5% in Indonesia.).
7.6 Digital Governance During Shutdown

The authorities restricted access to various social media platforms including Facebook, WhatsApp, and Twitter when the Internet shutdown was imposed. People eventually found themselves in the middle of all these crises and not being able to contact their loved ones. The Internet has become an essential utility that powers various activities including business, health, education, journalism, and communications. Of course, apps are made to access services such as Google Pay, Paytm, PhonePe, Location Tracker, etc., which are often hooked on them on a daily basis. Internet shutdowns affect people and their daily activities in a big way. It creates a silent online atmosphere that disrupts people's daily routines.

As the advancement of the Digital India campaigns, most of the businesses have moved towards online business models, operational through apps. It is evident that businesses suffer even for a few hours when the Internet is down. For example, an Amazon delivery person cannot contact Amazon if there is an issue with the address. At delivery, the customer wants to make payments through certain payment gateway operators, but that is not possible. Even a one-day shutdown can cause big distress in people's lives.

In the state of Telangana, Dipak Birolia, a cotton bales trader, shared his story of how the long-term digital shutdown in his city affected his export business. He shared his side of the story of how he had to travel around forty kilometers every day to generate e-way bills and access the Internet to ensure that his goods are transported. He said, 'I have been to Patan Bori village in neighbouring Yavatmal district in Maharashtra to get an eWaybill for the cotton bales I needed to transport' (Singh 2017). There are few digital businesses that affect mainly like e-commerce, job portal websites, e-banking applications, e-trading, and online trading are solely dependent on the Internet. They are mostly based on customer/subscribers services. With a ban on the Internet, they suffer with various economic existences. Internet shutdown affects education in a big way where students nowadays for extending their knowledge take into account a number of platforms like edX, Byju’s, and Coursera; suspension of the Internet services also has psychological impact on the masses. People are nowadays too much dependent on sites like WhatsApp, Instagram, Facebook, etc. As the Internet shutdown prevails, people go into psychotic depression where they can’t really contact the outside world. We are so engrossed into the Internet that this creates a sense of loneliness just a few hours or days without it.

The most harmful and dangerous effect of digital shutdown is the effect it creates on the health industry. Digital media or the Internet is an indispensable service in the industry. The patients' records are mostly handled upon the hospital’s database which Internet shutdown makes difficult to access. Moreover, many times, the doctors or e-medicine often take a consultation from the Internet or even their peers which they do through social media apps. Internet shutdown makes it difficult for them to communicate. Also, medicines being ordered online therefore people can’t really take advantage of that. Many surgical instruments and life-saving drugs are ordered...
and shipped through various parts of the world. The global lockdown amid COVID-19 pandemic has given chance to realize the importance of being online. Apart from the manufacturing sector, service sectors managed to survive during COVID-19 lockdown because of online for example, online classes, work from home and other facilities, viz. delivery of household goods.

The Internet became a lifeline in the twenty-first-century world. Thinking beyond the Internet is hard to conceive when especially you are unable to do financial transactions, business, meeting, connections and communication. It is true that every government wants to muzzle the Internet and wants to use it accordingly to what extent that is favourable to them or authorities. But, it needs to be treated unlike other natural resources where every citizen has equal power on such resources (Pandey and Tiwari, 2020). The Internet should belong to everyone and Internet services should be improved like electricity, drinking water, road, transportation, etc.

### 7.7 Conclusion

Internet shutdown is now a daily feature of the authorities/government across the world. Social media runs through the Internet. The Internet is crucial to move the communication between the spatial layers in the society. Across the world, including South Asia, the free flow of the Internet has been restricted purposefully when administration found some oddness in the governance. The Internet became crucial in governance and it can be read as digital shutdown to restrict the Internet or controlled purposefully.

Internet shutdown is a new draconian phenomena and sign of a strong state where civil liberty and others rights of citizens are infringed and almost secluded into nothing important than territorial laws irrespective of spatial issues and diversity. The frequency of shutdowns is gradually reported from globe and used as a new weapon by the state machinery whenever and wherever they are needed, imposed upon the territoriality. Internet shutdown became a popular measure by state machinery amid the crisis, in fact, first and foremost priority of state machinery.

Of course, Internet shutdowns pose some serious questions that need to be answered, why is shutdown necessary? What is the nature and pattern of digital authoritarianism? How and at what extent freedom of individuals can be withheld under such digital shutdown? Why can’t we infer the Internet as fundamental rights of people? What social-psychological impacts during shutdown?

### Appendix A

- The District Magistrate, a sub-divisional magistrate or any other Executive Magistrate whose powers are given especially by the state government to issue order under this section.
The issuing authority has to be satisfied as to have a sufficient ground for ordering anything under this section and that should also have an immediate prevention or speedy remedy is desirable.

The order issued under Section 144 must be in writing, stating facts of the case and served to apply legal procedure.

The order so issued and served can ‘direct any person to do or abstain from a certain act’ or ‘to take certain order with respect to certain property in his possession or under his management’.

The order can ask anyone to do or restrict them to do anything. The order can also ask the person to perform any actions which may be with respect to any property they manage.

In the issuing authority’s view, the order must be ‘likely to prevent, or tends to prevent, obstruction, annoyance or injury to any person lawfully employed, or danger to human life, health or safety, or a disturbance of the public tranquillity, or a riot or an affray’. 14

**Appendix B**

The Review Committee shall comprise of:

- Where it is constituted by the Central Government- Cabinet Secretary, and Secretaries of Legal Affairs and the Department of Telecommunication;
- Where it is constituted by State Government- Chief Secretary, Secretary Law or Legal Remembrancer In-Charge, Legal Affairs and Secretary to the State Government (other than the Home Secretary). 15

The review committee has to meet within five working days of the issuance of order and record findings on suspension order under the provisions of sub-section (2) of section 5 of the Indian Telegraph Act. The suspension of telecom services is done nowadays under ‘Temporary Suspension of Telecom Services (Public Emergency or Public Safety) Rules, 2017’. However, there are several areas of concern surrounding these rules.

14Living in Digital Darkness: A Handbook on Internet Shutdowns in India accessed at https://sflc.in/sites/default/files/reports/Living%20in%20Digital%20Darkness%20-%20A%20Handbook%20on%20Internet%20Shutdowns%20in%20India%2C%20May%202018%20-%20by%20SFLC.in.pdf, accessed 15 June 2020.

15Living in Digital Darkness: A Handbook on Internet Shutdowns in India accessed at https://sflc.in/sites/default/files/reports/Living%20in%20Digital%20Darkness%20-%20A%20Handbook%20on%20Internet%20Shutdowns%20in%20India%2C%20May%202018%20-%20by%20SFLC.in.pdf, accessed 15 June 2020.
Firstly, the rules give you an oversight of the suspension by a single Review Committee, which comprises members of the executive. This comprises the impartiality and independence of apparent conflict of interest carried out by a single arm of government machinery.

Secondly, new rules failed to accommodate the principle of transparency. Considering that TSPs offering Internet services in the country do not consistently issue notifications before shutdowns are imposed, users in affected areas are often caught unaware and have little to no time to make arrangements to mitigate the impact of shutdowns.\(^\text{16}\)

The Supreme Court in Hukam Chand Shyam Lal v. Union of India and Others (hereinafter Hukam Chand)\(^\text{17}\) has elaborated on the meaning of these terms—‘public emergency’ and ‘public safety’—in the context of section 5. In the facts of the case, certain telephones in a hotel in Delhi were being used to facilitate illegal forward trading. The Administrator of Delhi authorized the police to take temporary possession of the telephones, on the grounds that ‘public emergency exists and that the continuation of ‘satta’ at the aforesaid premises through the telephones given above is prejudicial to public interest’.\(^\text{18}\)

**Appendix C**

- National Internet Shutdown Costs = National GDP * Duration (measured as per cent of the year based on number of days the Internet was shut down) * Extent of Digital Economy (measured by the percentage of that nation’s economy derived from the digital economy) + the multiplier effect of the disrupted digital economy.
- Subnational Internet Shutdown Costs = National GDP * Duration (measured as per cent of the year based on number of days the Internet was shut down) * Extent of Digital Economy (measured by the percentage there have been very few publications examining the economic impact of Internet disruptions, in part due to the challenges in identifying disruptions and collecting relevant economic data. Internet shutdowns cost countries $2.4 billion last year of that nation’s economy based on the digital economy) * Extent of Population Affected (measured by the percentage of the country that is in the neighbourhood, city or state affected by the shutdown) + the multiplier effect of the disrupted digital economy.
- National Mobile Shutdown Costs = National GDP * Duration (measured as per cent of the year based on number of days the Internet was shut down) * Extent of Digital Economy (measured by the percentage of that nation’s economy based on...
the digital economy) * Extent of Mobile Penetration (measured as the percentage of the country having mobile subscriptions) + the multiplier effect of the disrupted digital economy.

- Subnational Mobile Shutdown Costs = National GDP * Duration (measured as per cent of the year based on number of days the Internet was shut down) * Extent of Digital Economy + the multiplier effect of the digital economy (measured by the percentage of that nation’s economy based on the digital economy) * Extent of Population Affected (measured by the percentage of the country that is in the neighbourhood, city or state affected by the shutdown) * Extent of Mobile Penetration (measured as the percentage of the country having mobile subscriptions) + the multiplier effect of the disrupted digital economy.

- National Free App Shutdown Costs = National GDP * Duration (measured as per cent of the year based on number of days the Internet was shut down) * Free Digital App GDP Impact (measured by Erik Brynjolfsson and JooHee Oh at 0.23 of one per cent of national GDP)19 + the multiplier effect of the disrupted digital economy.

- Subnational Free App Shutdown Costs = National GDP * Duration (measured as per cent of the year based on number of days the Internet was shut down) * Extent of Population Affected (measured by the percentage of the country that is in the neighbourhood, city or state affected by the shutdown) * Free App GDP Impact + the multiplier effect of the disrupted digital economy.19

- How India lost the most amount of money with losing US$968 million. The second highest country that lost a good amount of money by Internet shutdown is Saudi Arabia losing more than US$465 million. Leading examples of countries that lost money included US$69 million in Pakistan, US$465 million in Saudi Arabia, US$320 million in Morocco, US$209 million in Iraq and US$116 million in Brazil. These disruptions lasted 753 days in total across all countries. The total amount that was lost in the process was around US$2 billion in the past year. The type of disruption that is the cost of Internet shutdown is mostly by specific National App and other services which had around cost of US$1 billion, national Internet ($294.9 million), leading by subnational mobile Internet ($934.6 million), subnational Internet ($91.5 million), national mobile Internet ($60.9 million) and subnational disruptions of specific apps and services ($8.5 million).

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