Chapter 1
Mapping Digital Political Economy in India

Abstract Social media became inevitable and found everywhere irrespective of nature of growths, gender, age, religion, caste and class whether developed and developing or rural and urban or male and female or literate and illiterate or professional and non-professional. The human lives not only found around it rather thinking without social media is not apt in sense of not connected to the surrounding spatiality wherein lives were portrayed and represented in mundane themes including politics and economics.

Keywords Political economy · Social media · Spatial turn · India · Internet

1.1 Introduction

Social media is everywhere and everyone is on or dreaming of being on social media for different purposes: some want social relationships, news, movies, games and sports; while someone wants to enhance/start up their business; while some are interested to reach their voters for political purposes. Social media is a by-product of the information revolution that marked the best invention in the twenty-first-century world; however, each invention has its own specific importance. Information revolution made the communication medium easier and affordable. Social media is a tool that strengthens the communication medium (Boullance 2019).

Social media or social networking sites are often synonymous with each other. The expansion of smartphones and iPad has paved the way for social media in the country. In the short span of launch, social media started giving strong competition to the mainstream media particularly electronic and visual media, because it was dual communication systems and easy to operate and carry. The popularity of social media went up many times since the 2014 parliament election-when Prime Minister Shri Narendra Modi won the election wherein the role of social media was widely acknowledged. While the second turning point was 2016 when Reliance Jio announced free Internet data in specific recharge packaged in order to lure new customers, that subsequently forced Airtel (Communication business competitor to Reliance Jio in India) to announce the same policy to intact their customers, and such
competitive policy benefited the expansion of social media in the country. The business and expansion of social media were further designed under the Digital India\textsuperscript{1} programme in 2015. The number of social media users in India stood at 326.1 million in 2018. This increase is relatively lower as compared to the growth that occurred between 2016 and 2017. Nevertheless, the social network users in the country were expected to be almost 448 million in 2023.\textsuperscript{2} The subsequent technological progress made easy to access better speed on the Internet and uninterrupted social media business, shaped by both public and private organizations.

The study focused on spatiality, political economy and digital shutdown in India with reference to the social media sphere. Social media has developed as such a hinge in the last decade that carrying all issues altogether, everyone found their own interest that varied from entertainment to information to sports to news to politics. A user admired social media for different reasons. Politicians joined social media to connect with voters while celebrities joined to acknowledge their followers. Social media is the same for everyone but it behaved differently in different contexts. The business of social media is expanding everyday with new targets and achievement. This study dealt with three separate issues altogether: How social media is spatial too? Or, how spatial turn took place in the digital gadgets? Mapping the political economy of social media? How does shutdown affect daily activities or as a tool to control spatiality?

\section*{1.2 Mapping Political Economy of Social Media in India}

A political economy approach analyses the power relationships between politics, mediation and economics (Thomas \textsuperscript{2010}). The political economy of the social media includes several domains including journalism, activism, broadcasting, advertising, entertainment, infotainment video games, e-commerce and communication technology. The political economy of social media or traditional media is contested in the sense of public and private. The political economy is a complex interrelationship between culture, economy, social movements and state (Garnham \textsuperscript{2001}; Herman and Chomsky \textsuperscript{2001}). In India, social media established as industry, parallel to other industries, is developing programmes in order to do business to benefit other as well.

The nature of Indian media is growing in a ‘capitalist economic’ structure as laid down by Bennett’s (\textsuperscript{2007}) five points of discussion. Since the liberalization of the economy in 1991, the Indian media industry has never looked back. The facets of Indian media are transforming every day in the sense of building a promising

\textsuperscript{1}Prime Minister Narendra Modi launched digital India programme on July 1, 2015. The initiative includes plans to connect rural areas with high-speed Internet networks. Digital India has three main core components. These include: (1) the creation of digital infrastructure; (2) deliver digital services; (3) digital literacy.

\textsuperscript{2}In 2016, Reliance Jio announced 1.5 GB free Internet data to their subscribers who switched to Reliance Jio, that given a turn and boost in the business of smartphones. After Reliance, almost all ISPs companies had no option rather to announce the same scheme in different looks for business compatibility and competition. For details, https://www.statista.com/statistics/278407/number-of-social-network-users-in-india/. Accessed 25 June 2020.
relationship between viewers and the media industry in materialistic ways. The small and marginal media offshoots have vanished or have been replaced by something bigger or in shape of social media outlets. All media organizations jumped into the social media business to reach out audience. The era of media houses in India has set the stage and is doing business primarily in the line of profit and not out of a sense of public service. However, the struggle between media and the state has transformed over time and both have set their own domain of preferences (Moinuddin 2017). Social media have potential to bring politics, culture and economics all together to do business where private or corporates are edged upon public organizations. Such patterns are deciphered in mundane interpretations.

Social media emerged as a phenomenon that has strong imprints upon mind and/or in other words, social media has intrinsic effects on the function of brains (Greenfield 2014). The emergence of social media has created a two-way to many-to-many communication system empowering the consumer to connect, create, share and produce media content like never before throughout world history. Social media has become a major tool for people irrespective of the field they are in. For a student, it appears to be a way to be cool in their group. Similarly, for a company, it is a way to expand their business growth.

In India, social media emerged as a business sector and played an important role in the growth. From election campaigns to protests to entertainment to movies, people are gradually shifting towards social media for different reasons. Mark Deuze (2007) correctly said how we are no longer living with technology but in it. The medium has eventually become from being cyber world geek buzz to one of the major platforms for business, influencers, companies, organizations that seek greater reputation and space in this wide world at a price that everyone can afford.

Mahua Venkatesh (2019) reported a news on The Print (online edition) where she covered the rise and fall of Orkut. She exemplified the story of social media that was born in India in 2004 with the birth of Orkut. It became one of the major arenas for all people as they could connect with people all over the world through a click. It was seen as a major way to connecting with your current friends, friends that were long-forgotten friends and an amazing platform to make new friends too. She further quoted that ‘Orkut was a pioneer among social networking sites and it also marked the rise in internet users in India and a few other countries… it did very well in the early days, cashing in on the early internet users’, technology analyst Prasanto Kumar Roy told, The Print (Venkatesh 2019). Its parent company, Google, seeing the advancement of Orkut at such a high level was forced to launch the platform in various languages which included Hindi, Kannada, Telugu, Marathi, Bengali and Tamil (Venkatesh 2019). Matt Peterson (2011) put forth another aspect that around 20.44% of people were found to be using Orkut in India. It was the 12th most viewed website in India at one point of time. Most users were found to be from Brazil and India; the major age bracket that the consumers fall into were from 18 to 25.

Orkut was launched just 10 days before Mark Zuckerberg gave us his technology that changed the history of social media, Facebook, although it became accessible to people beyond Harvard only after 2006. After 6 years of domination in India, Orkut had its first major challenge when Facebook came to India in late 2009. Orkut gave
its best competition to Facebook but eventually in 2010 Facebook inched ahead in a way that the former couldn’t ever reach. The main reason for Orkut’s demise is Google and its inefficiency to promote the medium. Orkut even though lived a short life in India. But the memories it has attached to people have eventually stayed fresh in the Indian audience forever (Venkatesh 2019). According to Statista 2020, there are around 280 million Facebook users in India alone, and to some extent, it is the leading country in terms of Facebook audience demography. Apart from India, there are other countries with more than 100 million Facebook users: the United States, Indonesia and Brazil with 190 million, 130 million and 120 million Facebook users, respectively. Facebook came with a ‘wall’ concept that was at one point thought to be an alien concept but it eventually became popular. According to Statista 2020, as a surge in social media, Facebook had shown the highest traffic at around 86% among social media platforms followed by Instagram 5% and YouTube 3.2% in April 2020 in India. The popularity of social media companies has consistently attracted more in comparison with the last quarter of the financial year. The other social media networking sites like WhatsApp, Instagram and YouTube are far behind Facebook in terms of volume of traffic. In 2018, around 24% population accessed the social networks and the rate will further anticipate with time and expansion of digital infrastructure in the rural belts in the country. Mark Zuckerberg himself said how India is very important in Facebook’s history. According to echoVME news, about 71% of India’s population aged between 18 to 34 years use Facebook alone. In 2015, out of 112 million users on Facebook in India, around 99 million are phone users. The percentage from male to female ranges from 76 to 24%. According to The Next Web, 19% of India’s population uses the platform compared to 73% in the United States that equals around 241 million active users in India, compared to 240 million in the United States.

Social media eventually got its grip stronger in India’s history with the launch of Twitter in 2009. It rocked the Internet history in India as soon as it was launched. It changed the trend from ‘making friends’ to ‘gaining followers’. Social networking websites have also been created for the purpose of initiating friendships between strangers (Acquisti and Gross 2006).

According to the International Journal of Advanced Research Foundation, India is right now in a golden period of social media growth ever since 2013 and the trend continues till 2020 at least. The government and various organizations are

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3The trajectory of Facebook users is increased across the world. In India, no doubt Facebook remains front-runner and first preference. If the number of Facebook users considered as demography, it would be fourth largest country in the world with 280 million Facebook users. For details, https://www.statista.com/statistics/268136/top-15-countries-based-on-number-of-facebook-users/. Accessed 15 June 2020.

4EchoVME news studied the Facebook demographic structure in India. The news reported that major chunk of youth who are in their middle aged used Facebook and maximum of them used Facebook through smartphone. The study further pointed out that maximum of users was female. For details, echoVME news (2015) Complete Demographic Statistics of Facebook Users in India—An echoVME Report. Echo VME, Chennai, 5 June 2015. Available at: https://echovme.in/blog/complete-demographic-statistics-of-facebook-users-in-india-an-echovme-report/. Accessed 15 June 2020.
trying very hard to make the Indian population get on the Internet express. *Economic Times* published the Kantar IMRB data as: ‘India’s Internet users are expected to reach 627 million in 2019, by rapid Internet growth in rural areas. Internet usage in the country has increased by half a billion people for the first time, pegged at 566 million, driven by rural Internet growth and usage. In its ICUBE 2018 report that tracks digital adoption and usage trends in India, it noted that the number of Internet users in India has registered an annual growth of 18% and is estimated at 566 million as of December 2018, 40% overall Internet penetration, it observed. It projected a double-digit growth for 2019 and the number of Internet users will reach 627 million by the end of this year. Of the total user base, 87% or 493 million Indians are defined as regular users, having accessed the Internet in the last 30 days. Nearly 293 million active Internet users reside in urban India, while there are 200 million active users in rural India. The report found that 97% of users use smartphones as one of the devices to access the Internet’. The number increased in every quarter in both rural and urban areas when the use of social media multiplied in comparison with the same business quarter of the financial year. The surge of social media completely depends upon the expansion of infrastructures of the Internet. 4G Internet facilitates the flow of social media among users.

As per the ICUBETM 2019 report, about 84% of users access the Internet for entertainment purposes. Th year 2019 witnessed a surge in over the top (OTT) (Netflix, Prime TV). This trend is expected to continue in 2020 and COVID-19 lockdown would not deflect the growth trend. More children added on the Internet than ever before at 38% growth; school going children segment in the age group of 15 years or below added on the Internet usage. Access to online education, webinar and information, social media, gaming and entertainment is driving behind in the surge of Internet adoption. During lockdown, the only accessible medium for entertainment was social media where most of them stuck with digital gadgets including work from home. According to ICUBETM 2019 report, there was a growth of more than 60% in the daily Internet users in the last one year; almost 9 out of 10 active Internet users were accessing the Internet daily owing to entertainment and communication needs. Rural India registered a 45% growth in the monthly active Internet users in 2019. It is now estimated that there are 264 million Internet users in rural India, and this is expected to reach 304 million in 2020. Vernacular videos are the underlying factors for the Internet boom in rural areas. In future, more children and housewives will be the new Internet adopters in the coming year and after. Of course, entertainment was the primary source of consumption that pulled the individual. The expansion of digital infrastructures across the rural areas somehow made them enabled to connect with the Internet and social media. The digital divide is quite high in the country when urban India shows almost covered with digital infrastructures while two-thirds of the rural areas are still awaiting the same. The available 3Vs (video, voice and

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5*Economic Times* (Delhi edition, 6 March 2019). Available at: [https://economictimes.indiatimes.com/tech/internet/internet-users-in-india-to-reach-627-million-in-2019-report/articleshow/68288868.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst](https://economictimes.indiatimes.com/tech/internet/internet-users-in-india-to-reach-627-million-in-2019-report/articleshow/68288868.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst). Accessed 15 June 2020.
vernacular) features of 4G made the Internet popular among users. These features drive higher engagement of users in the past few financial quarters. Internet of things (IoT) and smart devices will make the Internet as much a household phenomenon in the next few years where every individual will be a potential user. The IoT-enabled sensor market in India is grown at a CAGR of 62.96% to reach a value of INR 81.07 billion by 2024, from INR 4.83 billion in 2018. The portal further reported that IoT-installed units in India are increased from 60 million devices in 2016 to 1.9 billion devices by 2020. Similarly, mobile-connected machine-to-machine (M2M) modules are also expected to reach 112 million by 2022. In line with the Government of India’s vision of a ‘Digital India’, the Department of Electronics and Information Technology (DEITY) launched India’s first draft on IoT Policy in 2016. The policy is considered a strong foundation in coming years in the country. Moreover, National Digital Communications Policy (NDCP) 2018 was anticipated to set futuristic goals and undertaken crucial policy initiatives to address the problem of communications and access to digital services in India.

According to the Internet and Mobile Association of India, the goals set for 2022 are crucial policy initiatives that will address the associated issues in the sector. The new decade is expected to witness the next wave of ‘Digital India’ aided by the recent COVID-19 pandemic that has catalysed the speed at which the already connected consumer is getting further connected with devices, education, webinar, payments, e-medicine and e-governance. The numbers are constantly changing and estimated to grow by 351.4 million Internet users in the country by the end of 2019. On average, Indian users spend 2.4 h on social media a day in comparison with the global average of 2.5 h a day. Nearby 290 million active social media users in India access social networks through their mobile devices. Around 86% of social media users engaged in mundane ways on their social channels. However, around 42% of the total Internet

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6 Nowadays, the production and usage of the Internet of Things (IoT) devices that include laptops, smartphones, smart gadgets, smart watches, smart home décor light, smart door lock, smart and digitalized vehicles and almost all of these are used majorly today. By estimation, there are around 7.62 billion humans by the year 2021 and by comparison, if we count them, there may be around 20 billion IoT smart devices by the same year. There are possibilities that in the coming years the demand of IoT is going to surge for various reasons across the world but at the same time, in opposite, there are also possibilities that the waste of IoT are too going to increase in our planet. Of course, that needs to think how to solve such waste of IoT in coming decades and need to learn lives accordingly with radioactive equipment.

7 An estimation of IoT business in India was prepared by IoT-enabled Sensors Market in India 2019, the preliminary reports made projections and potential of IoT goods in the country. Available at: https://www.prnewswire.com/news-releases/iot-enabled-sensors-in-india-market-technology-and-competitive-insights-2019-2024-301006743.html. Accessed 19 June 2020.

8 The projection of number of IoT units in the household and the number is going to surpass the total population of India in next few years. Available at: https://www.prnewswire.com/news-releases/iot-enabled-sensors-in-india-market-technology-and-competitive-insights-2019-2024-301006743.html. Accessed 18 May 2020.

9 The Hindu published projections made by Global Web Index’s Social Media Trends 2019 report. Available at https://www.thehindu.com/news/national/how-much-time-do-Indians-spend-on-social-media/article29201363. Accessed 15 June 2020.
users comprised of women. Among Indian states, Bihar is found out to have the highest growing Internet users across both rural and urban areas of 35% over last year. Life without social media is unimaginable; it is something one cannot really live without. Mark Zuckerberg once said, ‘When you give everyone a voice and give people power, the system usually ends up in a really good place’. The craze for smartphones was not to call and connect someone else; rather, the enthusiasm was to use 1.5 GB free Internet data provided in stipulated package by Internet Service Providers (ISPs)—Reliance Jio, Airtel and others in different business packages. Henceforth, the launch of the Jio fixed-line broadband service called Giga fibre added further in the Internet penetration across the country. Interestingly, demonetization in late 2016 did not deter the users; rather, the number increased up to 50% in 2019. That shapes the Internet consumption in the country. While we talk about the growth of social media in India, we just can’t ignore the fact how it revolutionized the political campaigns in modern times. In India, Bharatiya Janata Party (BJP) used the social media platforms to greater extent in comparison with other political parties. PM Narendra Modi used social media to access the voters and to make governance easy in government. His team began with a website, then moved on to a YouTube channel, then Facebook and Twitter accounts, then Google Hangouts and then to live webcasts of his speeches before finally adding WhatsApp as another tool to connect with voters. And now, NaMo app (NaMo TV during 2019 parliament election) facilitates PM Narendra Modi to access party leaders and to speak his own mind. In today’s time, most of the political parties and politicians and voters have understood the importance of social media. The dynamism of social media is completely dependent on the Internet; in the absence of better Internet infrastructures, the trajectories of digital business would not be fulfilled.

1.2.1 Mapping Political Economy of Internet in India

Over the past 15 years, the information communication technology (ICT) revolution has driven global development in an unprecedented way in the country. With immense progress in technology, the Internet and its services have led to the creation of new markets. The Internet has become a breathing tool for people now. If you want to buy your weekly vegetables or read your hourly news, everything is available on your phone 24*7. With the introduction of the World Wide Web (www) and subsequent multimedia content expansion, the number of net users exploded. In fact, the Internet has grown much more quickly than any other medium in history (Jorgenson and Vu 2016).

10Outlook released Kantar IMRB report titled the Twenty-First Edition of ICUBE (2019, March 7). Available at: https://www.outlookindia.com/newsscroll/kantar-imrb-releases-the-twentyfirst-edition-of-icube-report/1491589. Accessed 15 June 2020.
11For all his remark and quotes. Available at: https://www.brainyquote.com/authors/mark-Zuckerberg-quotes. Accessed 25 June 2020.
With the launch of the Education Research Network (ERNET) in 1986, the Internet breathed its first air in India—initiated by the Department of Education (DoE) with the funding support of United Nations Development Program (UNDP) and Government of India. The first publicly available Internet was launched in August 1995 by state-owned Videsh Sanchar Nigam Limited (VSNL). The first cybercafé was launched by Leela Mumbai Hotel in 1996. It charged INR 800 for an hour session at that time. Webdunia (Internet world) was the first Hindi portal in India’s Internet history. Over the years, many websites and online portals were introduced for the Indian public like IRCTC and eBay; among banking sectors, ICICI Bank was the first who opened their website in 1997.

As per the KPMG survey 2017, India has the third-largest Internet user base in the world. Internet users in India rose from 189.6 million (2014) to 503 million until (2017). By 2020, the Indian e-commerce industry is expected to reach $34 billion with 200 million users transacting online. India’s youth demographics will lead to India’s Internet and entrepreneurship. A key landmark in the growth of the Internet in India is when the government allowed private Internet Service Providers (ISPs) which eventually set up the Internet infrastructures. The Internet eventually has changed the way a person learns, shopping, lives, works and even the way you connect.

According to IAMAI and KANTAR IMRB report, 2016, it is estimated that India has 432 million Internet users by December 2016. The only thing setting it back is that it didn’t take into account the effect and impact of demonetization. The IMRB report also pointed out the growth of the Internet in India from 278 million in 2014 to 450–465 million in 2017. From October 2015 to October 2016, the Internet use in urban India grew by 7%. Out of the total population, around 51% of them were daily users who were part of the Internet at least once a day. In rural India, they are not far behind from their urban counterpart. Nearby 48% of the users were found to use the Internet daily, while around 140 million or around 83% used the Internet once a month. The most prolific users of the Internet in both areas were the younger generation. The demographics remained almost the same, just the gender ratio is found out to be slightly better in urban India. The analysis also pointed out that about 69% of them used the Internet for online communication while 68% used it for social networking in urban India. In rural India, about 39% of them used it for entertainment and around 34% for social networking sites.

Moreover, Internet and Mobile Association of India, 2017, report talks about mobile Internet and how it has revolutionized the Internet industry. With an introduction of 5G, public Wi-Fi and other infrastructure models, mobile services will just

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12 ERNET is a sister organization within Ministry of Electronics & Information Technology (MeitY), Government of India, to enhance the education research networks in the country. For details, https://ernet.in/content/about-us. Accessed 15 June 2020.

13 A study by KPMG in India and Google enabled us to map the digital business trajectories and potential areas. For details, see https://assets.kpmg/content/dam/kpmg/in/pdf/2017/01/Impact-of-internet-and-digitisation.pdf. Accessed 17 June 2020.

14 Internet and Mobile Association of India. Available at: https://cms.iamai.in/Content/ResearchPapers/15c3c84c-128a-4ea9-9cf2-a50a6d18f21c.pdf. Accessed 15 June 2020.
be about Internet services. In terms of life stages, the data had six broad categories of usage and category the highest percentage being of young men who are prolific on almost all services like text chat, social networking and audio/video streaming. School and college going students are also the other categories according to the report that fits in all services.

Both young men and older men have greater prosperity in using social media sites; the older generation is lacking a bit in the audio/video streaming. Working women have the highest propensity for social networking, while non-working women are more inclined towards text chat. By 2018, the number of users on the Internet reached 500 million as per the report by the Internet and Mobile Association of India. Further, a report published in Economic Times (Delhi edition, 20 February 2018) focuses on urban–rural digital divide. The future growth policies, therefore, must focus on bridging the digital divide that exists between urban and rural India today. Kantar IMRB’s i-Cube 2018 report analysed how the trend of digital adoption and the number of Internet users grew by 18%. Considerably about 40% of Internet penetration was estimated by December 2018. The report highlights the probability of this figure going into double-digit growth by 2019. The demographic access shows around 7% growth in urban India, touching the 300 million user mark in 2018. Across both the areas, Bihar had the highest growth of nearly 35% followed closely by Odisha. The report also points out how the ‘gender gap’ in the family is bridging by Internet. Women took about 24% of the total Internet users which proves how they are in turn equally engaged over the Internet as men.

In the above, there were three reports and each report was presented empirically when projections were presented in terms of numbers that varied over the years. The growth of digital history in India is a decade old phenomenon that encompassed more than half of the population in the country. The urban localities received almost 100% digital services while rural areas were still looking to get digital infrastructures in order to access the Internet that revolutionized the communication systems. Of course, it is time taking technologies, but at the same time it also provides valuable global information in varied shapes and sizes. There are pros and cons of each invented technology—social media is not impartial from such perspectives but we cannot undermine social media that how it revolutionized the society (Appendix A).

Since the expansion of Internet, infrastructures and consumption of social media increased among the users. The users should receive the correct information whether territorial extent of country or other geospatial maps thereafter, and need a specialized institution to look after all such in the information age.

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15 Internet and Mobile Association of India. Available at: https://cms.iamai.in/Content/ResearchPapers/15c3e84c-128a-4ea9-9cf2-a50ad18f21c.pdf. Accessed 15 June 2020.

16 For details (Economic Times, February 20, 2018, Delhi edition), https://economictimes.indiatimes.com/tech/internet/internet-users-in-india-expected-to-reach-500-million-by-june-iamai/artseshow/63000198.cms. Accessed 29 June 2020.

17 Kantar IMRB’s i-Cube 2018 report made projections of gradual penetration of internet in the society in two different proportional segments in both rural and urban locality. For details, https://assets.kpmg/content/dam/kpmg/in/pdf/2017/01/impact-of-internet-and-digitisation.pdf. Accessed 15 June 2020.
1.3 Spatial Mapping of Internet in India

The other most significant yet overshadowed part of the Internet family is ‘Spatial Mapping’. 3D reconstruction or spatial mapping is all about to create a 3D map of the environment. It is used for motion planning, realistic blending, the ‘real’ and ‘virtual’ world (Soja 1996). ‘Geospatial’ is often associated with a particular location. Geospatial technology has made inroads into both public and private sectors in India. Major sectors that are part of the technology are telecommunication, oil and gas, forestry, mining, public safety, logistics, infrastructure and agriculture.\(^{18}\) There are four recognizable components of the geospatial market: software, hardware, data and services.

The government of India commemorates 2016 as ‘geospatial year’ in order to encourage the use of geospatial data, products, services and solutions (GDPSS). Government brought two consecutive bills, National Geospatial Policy (NGP) in April 2016 and Geospatial Information Regulation Bill in May 2016, respectively. The NGP will facilitate ease of doing business related to geospatial data. Both the policies enabled all government departments to catalogue, maintain and update the geospatial data in a phased manner to facilitate easy and uninterrupted access. The Geospatial Information Regulation Bill, 2016, aims to regulate geospatial information by requiring a licence to acquire, disseminate, distribute or publish geospatial information. In the making of this geospatial information, there are usually three kinds of activities that are involved, namely:

1. Number of spectrums that are used;
2. Satellite imagery (images taken from satellites);
3. Temporal resolution (time taken by two clicks from the same geographical area).

At present, the Indian geospatial sector stands at $4 billion which is expected to reach $20 billion by 2025. As per the National Spatial Data Infrastructure, Department of Science & Technology, Government of India, is the nodal department who prepared the soft maps with geographical accuracy to suit the demand. The agency has much specialized calibre to produce an image of around 25 cm resolution with ground accuracy. All the prepared images or maps are equipped with a Geographical Information System (GIS) and Global Positioning System (GPS) with real-time map.

Digital India aims to establish end-to-end geospatial electronics delivery systems as part of Mission Mode Projects in e-Governance domain and envisages “National GIS Mission” as core foundation of location-based electronic delivery of services for planning and governance.\(^{19}\) Out of the 29 states in India, only 14 states and 3 UTs (out of the 9 UTs) followed the ICT policies, mainly remote sensing, geographical information or GIS. Three Indian states (Karnataka, Andhra Pradesh and Tamil Nadu) have state GIS Policy followed as part of the Indian geospatial economy study.

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\(^{18}\)M. M. K. Sardana, “An Overview of Geospatial Industry in India”, https://isid.org.in/pdf/DN1804.pdf. Accessed 27 June 2020.

\(^{19}\)For details, visit https://www.bharatmaps.gov.in. Accessed 15 June 2020.
Adopting geospatial solutions would benefit the nation. Better asset management, productivity gain and cost savings, and improved information sharing with the location would take India to digital high at another level. The territorial variations often require such precise technology to demarcate the boundary between two similar biomes or biodiversity. The draft policy enabled both the government and nodal agency to conduct study under geospatial media and communications for better utilization of geospatial resources, identification, codification and geotagging of natural resources. In the age of social media, the circulation of correct maps, images, territorial boundaries, international borders, state boundaries, the extent of biodiversity and location of natural resources required a specialized agency who caters such necessary to keep intact the sovereignty. The spatiality should be mapped with modern gizmos and precise technology that enables it to produce geospatial maps.

That revolution put forth the process of digitalization in every segment of existence from lives to business to administration to defence to health to technologies. The expansion of digitalization has laid the foundation of ‘digital culture’20 (Miller 2011b) when people across the section and communities are using digital gadgets to negotiate their cultural attributes. In the past, the flow of information was ‘costs and time’ compression is taking process and it was quite exhausted to some extent (Adams 2009). Since digital gadgets are at their popular stage in the world, digital-time compression is another turn when digital is synonymous with time when time is compressed in such a way that in a fraction of a minute an e-mail can travel from New Delhi to New York or California. The spatial distance between two distant locations are brought closer in shape of virtual distance or one can send or receive an email, in a fraction of minute, because of digital gadgets that embodied with social media and fast Internet speed—all together they shaped the spatial turn as spatial-digital compression—when distance between two distant locations has become closer or almost negligible at social media platform, when time and space both compressed together in the digital gadgets and therefore, as a result, an email can travel within less than a minute from New Delhi to New York or California. We produced digital technologies that somehow control the time. Time is crucial factor in the spatiality. Time decides the distance or vice versa, how long time will take place to reach such and such distance. The digital gadgets are able to control time and distance at the same moment. That needs a separate research to understand how and at what extent virtual turn in daily activities is shaping the spatiality in context to spatio-temporal compression and spatio-digital compression. The spatial turn is not restricted to spatiality; rather, it constructs the digital spaces as social media.

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20Digital culture is unlike other cultural traits when an individual supposes to consuming or using more ICTs gadgets in order to enhance or be compatible in and around the spatiality at best. For more, see Miller V (2011). Understanding Digital Culture. Los Angeles: Sage.
1.4 Spatial Turn in Social Mediasphere

What is a spatial turn? In the past, there were various moments when academicians imply the word ‘turn’ as a suffix to attribute to look back from where they are coming in order to retrospect. Since the late 1980s and early 1990s, the spatial turn has become popular among geographers. The quantitative turn in history in the 1960s, a linguistic and cultural turn of the 1980s in history and literature were noted as well as a turning point to corroborate a newer dimension in the discipline.

Barney Warf and Santa Arias (2008) argued that new spatial thinking related to globalization has changed the lens through which we view space. Specht (2018) argues that geography, media and communications have been closely linked since the sixteenth century. Arias (2010) analysed the importance of spatial studies as interdisciplinary where exchanges of thoughts shape the spatial turn in newer dimensions. He further pointed out that analysis of space and spatiality has strengthened scholarship, built bridges, stimulated debates and provided a more effective and holistic engagement with issues of social and political relevance. Being a student of spatial science, the imagination of spatiality often travels beyond imagination into how space and place do matter in the virtual world. Falkheimer (2006) tries to understand the relations between journalism and advertising as places where such places are often shown by some images. Thelander (2006) analysed the mediation of place and nature in travel advertisements that are often represented in stereotypical manner as a recreational resource.

Thielmann (2010) argues that every discipline has its own domain areas, for geography, ‘locative’, or with the prefix ‘geo’ often attached and studied as geoart, geosurveillance or geocaching. Within this context, recent geographical and phenomenological studies on mobile media or digital media practise the re-materialization of place as ‘spatial turn’, a cultural, humanistic and media turn acknowledged in geography. R. Kitchen et al. (2018) exemplify spatial media as those technologies that are helping people to make maps or locations by using GIS and GPS. Spatial media are technologies that enable spatial coordinates accurately.

Within the ambit of spatial turn, when I started to map the spatiality of social media was not an easy walk rather nothing less than wilderness in the forest. First, I had been encountered with the unavailable geography literature, which was on either geographies of (mass) communication or media studies that dealt with two different domains. Second, issues of social media were easy to talk on the tea table, contrarily much complex in research conceptualization. Third, data collected from social media was both laborious and costly, and needed much time to process data. The research has given me a chance to ‘locate’ the constructions of both space and place in imagination, through cognitively and sensory.

Social media is a digital sensor which works differently for different purposes—news, job, entertainment, sports, movies, videos, politics, social and many more to suit the odd versions. Each version has a specific subject and built purposefully but almost all versions are common in such sense that all are about to show spatiality in different contexts. Social media is embedded with layers of information and each
layer is supposed to show composite mosaics wherein each bit of information either seeking or delivering specific spatial works. For example, Facebook or Instagram, the nature of these social media is entertainment in two different ways when Facebook is about to display the spatiality which has been uploaded by the users for the public to sense the spatiality in mundane ways. The viewers who are not familiar with such shared photos or cuisines or attires or politics might involve into imagination to know the spatiality or wandering into space that often posed various challenges, but, if the viewers are being familiar with the uploaded photos or issues, that might have given them a sense of place wherein he/she already been there. In case of, first time visualizing such shared photos, then imagination would have infinite along with feeling of spaces where challenges, imagination, contestations and struggles are often encountered. In case of familiar shared stuff known on social media might give a sense of place wherein everything is known and predictable, aware and acquainted. Similarly, on Instagram, shared photos are always tendered in binary sense either space or place, if acquainted, aware, acknowledged, and cognizance would give a sense of place while in contrary, if the shared photos are posed as challenges, wandering, imagination, contestations and conflicts would give a sense of space. The uploaded or shared stuff across the social media including Facebook or Instagram or others including over-the-top (OTT) media, Netflix, Prime TV, etc., are primarily disclosing the spatial relationship in various contexts. Let us review the same in a sensorial sense whether silence or voice that how sense works through social media to map the virtual spatiality, cannot deny nonexistence in mind in various shapes and colours. That is how often shown programmes across social media can be read or watched.

The sensorial organs that humans inherit at birth mark their descent into the world of knowledge. It is through these senses that one garners the understanding of the world. Yi-Fu Tuan (1977) also descends into presenting the evolution of these sense organs in a child since its infancy but before going there let us understand how these sensoriums are conceived into the faculty of feeling and then to the constitution of space. Tuan busts the myths surrounding our constitution of space only through the sensorium of sight. ‘Human beings not only discern geometric patterns in nature and create abstract spaces in mind, they also try to embody their feelings, images and thoughts in tangible material. The result is sculptural or architectural space, and on a large scale, the planned city’ (Tuan 1977: 17), which goes on to say that despite many attempts to devise a prognosis for the plenary vision of things and objects, space could be constituted using all sense organs. For example, when we touch a surface, through years of knowing how different surfaces feel, whether it be skin, metal, fire, a gust of wind, we understand and correspond to the spaces of openings that fall before us. Similarly, through the sense of taste, we understand surfaces and objects that could be localized from spaces and thus categorically render what and how they would be interpreted into different meanings. But for the faculty of hearing through different sounds, Tuan places an interesting take. He says, ‘...sound dramatizes spatial experience. Soundless spaces feel calm and lifeless despite the visible flow of activity in it, as in watching events through binoculars or on the television screen with the sound turned off, or being in a city muffled in a fresh blanket
of snow’ (Tuan 1977: 16). Although sounds can be distinctive just like how tapping a watermelon to listen to a resounding hollow sound to ascertain its ripeness could be, sound becomes quite subjective and can elicit a variety of emotions. Similarly, silence doesn’t always convey a sense of hollowness, silence could also be deafening. In a short soliloquy in the TV series hosted by Netflix titled ‘The End of the World’, after the two leading protagonists, a girl and a guy, both in their teens, leave each other after realizing that they are in love, the male protagonist James played by Alex Lawther says that the pain caused him to overthink and the silence was too loud for him to bear. What kind of space would this silence constitute? Would this space be subjective to the individual subject’s ideation and experiences through the coagulated plane of feelings? Or would we require a completely different paradigm to understand that? Tuan’s generalization opens up certain caveats that inform us to interpret spaces and their constitution through a variety of different meanings but at the same time, keep the ground open for the synthesis of different meanings to arise and play out. Geographers mapped different notions of spatiality in space and place representations and interpretations in past few decades.

1.5 Mapping Space and Place in Digital Gadgets

The construction of space and place is like part of the same coin where both sides depict two different versions that need to decode. The spatial discourses reflect various imaginations and remain in the domain of geographers. Both place and space are often regarded as ‘fundamental stuff’ in the literature of geography. The concepts of place and space may appear self-explanatory and ill-defined, and to some extent, we can even say that there are no fixed definitions for both in the social sciences and rather that both terms have been used by geographers at various points in order to acknowledge their spatial dimensions. Both place and space are quite in use at various orders and often synonymous with terms such as locations, region, area, landscape, mediascape and network society. Different sections of geographers have examined these terms so as to represent a place/space on a minute scale. The words have been used increasingly between humanistic and Marxist geographers and both groups have examined the words in their sense of attachment, while by the humanistic tradition ‘sense of place’ is inherent and for Marxist or materialist tradition ‘sense of domination and resistance’ is fundamental. The ‘sense of place’ is about the lived experiences of peoples who have shared their day-to-day activities in a bounded location while the ‘sense of domination and resistance’ infers the importance of space and it’s socially produced and consumed.

After the Second World War, the geographical discourses got a sharp turn and emerged with ‘spatial science’ in which scientific modelling was emphasized over qualitative explanation and measuring numerically both peoples and scales at various orders. During the 1970s, historical and geographical materialism set the meaning that space was deemed to be implemented in social relations and both socially produced and consumed. Lefebvre (1991) infers that absolute space cannot exist,
because it is colonized through social activity, and it becomes relativized and histori-
cized space. Further, he infers that every mode of production produces its own mode
of space, which may vary in nature. Michael Foucault (1986) in his seminal work
‘Of Other Spaces’ argued about space and spatial thinking which he preferred to call
‘heterotopology’—that sets space against time and against history itself and by an
assertion that ‘the anxiety of our era has to do fundamentally with space, no doubt a
great deal more than with time’. Soja (1996) infers in ‘Third space’ to encourage the
spatial thoughts differently with different contexts and examining space very rad-
cally and critically. Yi-Fu Tuan (1977) introduced experiential properties of space
and humanistic notions of place in the geographical discourse. Tuan (1977) in his
space and place argues that place does not have any peculiar scale, but it is maintained
and cared for by ‘fields of care’ that reflects people’s emotional attachment. Further,
using the notions of ‘topophilia’ and ‘topophobia’, he refers to the desires and fears
that people associated with the places.

Castells (1996) argues that over a period of time contemporary society transformed
into a network society and operates in a global ‘space of flows’ under electronic
and communication technological developments. Auge (1996) infers ‘non-places’
as supermarkets, shopping malls, airports, highways and multiplex cinemas and
parallel to that what Relph (1976) infers as ‘placelessness’ of so many high rise
towers and serials suburbs and further argues that the spread of faceless modern
architecture and planning was ‘dehumanizing’ place experience such that people’s
sense of place was being thinned out and rendered uniform. Harvey (1989) critically
analysed how places are constructed and what they are supposed to represent when
changing cultural identities to the process of time-space compression that to some
extent encouraged homogenization and differentiation. Massey (1991) examined a
‘progressive sense of place’ and established a relationship between spaces and places
in terms of assertion that place represents a flow and challenging that they are bounded
spaces.

John Agnew (1987) identified three principal meanings in order to extend
géographical discourse. First is place as location—a specific point on the earth’s
surface. Second is sense of place—a sense of feeling for places and its role of
place in their individual and group identity. Third is place as a locale—a setting and
scale for people’s day-to-day interactions. Hartshorne’s (1939) dictum ‘geography
is concerned to provide accurate, orderly and rational description and interpretation
of the variable character of the earth surface’. Hartshorne’s dictum is to some extent
about place as location what Agnew acknowledged in his first principle. For example,
if I am talking about ‘India’ in terms of place as location, the systematic, orderly
and explanatory description of the place is available on the earth’s surface. Someone
can easily locate the location as per requirements. The place has a set of bounded
structures.

Over time, a sense of place has been acknowledged by people through various
sentiments in order to express their attachments to that place. Agnew infers that
over a period of time a sense of attachment about the place from where we belong
occupies both our mind and thinking at various capacities. For example, at present, I
am settled in Delhi but my attachments with my permanent resident, whatever would
have remained intact? This is despite the fact that I have not visited my residential place for a long time nor would have I done so at regular intervals in the past. However, this does not reduce my intimacy to being attached to the residential home where I was born and brought up. Cultural geographers’ viewing of the place is linked to the formation of personal and group identities (Keith and Pile 1993).

Sack (1980) said that ‘space is an essential framework of all modes of thought’ and further argues that space changes its meaning as per spatial relations in different situations. Dear (1997) in his ‘postmodern bloodlines’ admits that postmodern thought has provided an important impetus and reconsideration of the role of space in social theory and in the construction of everyday life. Through the writing on postmodern bloodlines, he is relying on Lefebvre’s (1991) production of space and followed a dictum ‘…space is never empty: it always embodies a meaning’ in order to subscribe to the dimensions of space in myriad order.

A science of space which is about codes as means to deciphering social space which is available in terms of message and reading and become the basis for constructing our own understanding of space in terms of architectural, urbanistic, and political. Further, very suspiciously rising questions that a code which allowed space not only to be ‘read’ but also to be constructed? If there is such a code, how did it come into being? Moreover, when, how and why did it disappear? Take an example, what short of knowledge compels peoples to take or demand for separate statehood and on that science of decisions, some political parties giving their sanctions, while some are standby against any such decisions. What kinds of science of decisions compel people to go either side, with calculations? How such a science of decisions is negated by opposition, why thinking so? Of course, science of space is simply acknowledging ’space’ by their political need and politics supposed to multiply power centres at myriad levels. (Lefebvre 1991: 7–9)

The above paragraphs discussed the dimensions of spatiality in various shapes and sizes before the social media when it was not in use or in initial stages of innovation. The spatiality can further be imagined through the available literature or we can say that geographers map the space and place accordingly to construct the spatiality. But, digital gadgets reconstructed the meaning and identity of spatiality in virtual notions that are not existing but existing very much in idea, shape and size. We can’t avoid digital thinking in our daily lives in the twenty-first-century world. These digital gadgets facilitate all social, cultural, economic, geographical knowledge and information in a click.

The digital culture is growing as cultural traits unlike other daily cultural practices when people use gadgets to share their feelings in mundane ways—anguish or solidarity. The digital culture (Miller 2011b) is a way of life when these gadgets irrespective of shape, size, colour and features determine daily requirements whatsoever. People use these gadgets for their day-to-day practices. So, to a certain extent, culture has taken a digital turn and it was inevitable for culture to be shaped by digital in the society. Such digital turn shaped as a result of digital gadgets that became inevitable over a period of time, and as a result, the identity of an individual is gradually

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21Digital culture is unlike other cultural traits when an individual supposes to consuming or using more ICTs gadgets in order to enhance or be compatible in and around the spatiality at best. For more, see Miller V (2011). Understanding Digital Culture. Los Angeles: Sage.
changing as well wherein the role of digital gadgets is critical. For example, let’s think about Twitter, how this micro-blogging site revolutionized digital spatiality.

### 1.5.1 Mapping Social Mediasphere: A Case of Twitter

Twitter is a micro-blogging platform that revolutionized the governance, administration and politics (Gerbaudo 2012; Gainous and Wagner 2014; Mejova et al. 2015, Moinuddin 2019). Twitter is spatial in its nature. The spaces of Twitter or social media offer a new dimension to understand the virtual space unlike the abstract or relational space that is intact and inseparable for mundane reasons and associated features—identity, location and imagination. Similarly, across social media, various apps are designed to serve a specific work. Let’s consider the spatiality of Twitter. How does a spatial turn take place in Twitter? Twitter is supposed to run through a gadget (primarily smartphone or laptop/desktop). That smartphone or laptop/desktop can be called as primary space, in absence of such digital gadgets the digital apps cannot be operational. Or, we can say primarily in the sense that the screen of such digital gadgets is primary to move further. The screen of the smartphone or laptop/desktop is such a place where exactly all the apps are installed and visible to us for operational purposes. And, we started our functions first from the screen and therefore, we called it as primary space, our first interaction site, wherein we have to touch it or use sensorial unlock to open it for further operation. Therefore, without being into the primary space or screen space, we cannot go ahead or in secondary level to use the installed apps including Twitter. Similarly, screen space or ‘perceived space’ or ‘spatial practice’ (Lefebvre 1991) and ‘first space’ (Soja 1996) are the same on spatial scale in an idealistic sense. Without the gadgets, we cannot move forward, or in other words, Twitter is supposed to operate from a smartphone or laptop or iPad. This forms the first stage or first space when an individual is exposed to experiences of spatiality of such digital devices whether smartphone or laptop or iPad. Unless a

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22Perceived space or spatial practice is same in spatial terms. The spatial practice is a social space that creates knowledge, information, images and many more to appropriate in the society. Here, the primary space is in such sense that creates aura of vividness, inquisitiveness and glare in various representations. The screen space of digital gadgets is indeed a space that have an intimate relationship with user and the user interacts with screen or gadgets so many times in a day in order to being updated or to being connected in the world. The proliferation of social media and smartphones in the society made the screen space as lived when user always fond to see the screen whether to receive call or to response someone else or to send message or to watch something or to see time, to take selfie or to make video. In some extent, screen is embedded as screen saver image when an image was uploaded to see always, to being close with the image. ‘The spatial practice of a society secretes that society’s space; it propounds and presupposes it, in a dialectical interaction; it produces it slowly and surely as it masters and appropriates it. From the analytic standpoint, the spatial practice of a society is revealed through the deciphering of it space’ (Lefebvre 1991: 38).

23First space is the ‘real’ space—the urban built form of physical buildings that can be mapped and seen. https://planningtank.com/urban-planner/edward-sojas-theories-of-urban-space. Accessed 15 June 2020.
Mapping Digital Political Economy in India
digital device, we cannot think to run Twitter apps (because we need to download Twitter apps on device) and not possible to login on Twitter, so first we need device and such device is the primary space or ‘first space’ that encountered spatiality of such device—length, breadth, shape, size and colour; that is, it can be mapped easily unlike other physical spatiality. The second experience of spatiality is Twitter apps when an individual uses digital devices to download Twitter apps to communicate with the others or can be mapped as apps space or ‘conceived space’ or ‘representations of space’24 (Lefebvre 1991) and ‘second space’25 (Soja 1996) that seems to provide a sense of expression or spatial experiences to being connected or being physical (virtually) ‘materialism’ in mundane capacities. Apps space is a digital spatiality where all the apps are installed random wise or as preferential, depending upon how frequent using the apps. Apps space is similar to secondary space when without being into secondary space anyone cannot open the apps (social media space). Henceforth, after login into smartphone or laptop/desktop, the app would be visible with symbolic representation, for example Twitter app visible with a bird symbol in blue sky colour. Here, I considered the case of Twitter app is purely a manifestation of digital algorithms embodied with information and knowledge. When an individual experiences both being at ‘first space’ (perceived space) and ‘second space’ (conceived space) simultaneously but without being into secondary space, it is not possible to divulge into tertiary space or ‘lived space’ or ‘representational space’26 (Lefebvre 1991) and

24Conceived space or representations of space is same and can be called as conceptualized space, the space of scientists, planners, urbanites, technocratic, artists and software engineers. When screen is open, then, apps are visible with symbol that anyone can identify such apps easily in short time of training. The apps are in fact a node, which facilitate to connect someone, constructed by technocrats to fulfill the specific need of the societies. All apps are social in nature. Each app represents specific social need from entertainment, to infotainment, to news, to sports, to financial transactions, to game, etc. A smartphone can carry as many apps that depends upon the capacity of smartphone or gadgets, even some smartphone carry more than one hundred apps, feasible to uninstall and install without much issue. The secondary space is the app space that is purely produced by technocrats to make visible and talkative social interactions. ‘Representations of space must therefore have a substantial role and a specific influence in the production of space. Their intervention occurs by way of construction-in other words, by way of architecture, conceived of not as the building of a particular structure, palace or monument, but rather as a project embedded in a spatial context and a texture which call for “representations” that will not vanish into the symbolic or imaginary realms’ (Lefebvre 1991: 42).

25Second space is the ‘imagined’ representational space—i.e. how the space is conceived, seen and argued over. In urban settings, this would be evident through, for example, the role of marketing and redevelopment projects. https://planningtank.com/urban-planner/edward-sojas-theories-of-urban-space. Accessed 15 June 2020.

26Lived space or representational space is an existence or survived space that what we are at present or we are at the ground zero or we have experience of such spaces in different capacities ranged from entertainment, to conflicts, to saddened, to cheering, to conspiracy and to being simple. For example, when we login into Twitter or Facebook or else platform, the contents whether video, news, texts, memes and pictures acknowledge the real-time incidents with fictitious or contested or information or knowledge that put forth into lived space to accommodate the same in different capacities. Social media became inevitable nowadays and shaped(ing) digital loneliness among the users. Lived space creates manifestations or prompted(ing) for next. ‘Representational spaces are symbolic works. These are often unique; sometimes they set in train aesthetic trends and, after
‘third spaces’ (Soja 1996). Tertiary space is space of existence or space of being that provides options to a user to move accordingly. When an individual open an apps for watching or reading or sending messages or video or else purposes can map as social media space wherein users are engaged with social media. Social media space is lived space too. Third space is a ‘lived space’, too. As ‘lived space’, for example, Twitter provides an opportunity to feel a sense of spatial experiences qualitatively: anxiety, anguish, happy, melancholy, wired, surprise, explicitly, etc., or sometimes in quantitatively including political, social, cultural, entertainment and economic sense when an individual supposes to address the spatial issues as per se. The spatial turn on Twitter can imagine spatiality through sense or sense does matter in myriad representations even in case of space and place. How does it work as space—a unknown territory that needs to explore further to establish a perfect acquaintance, for example, in case of smartphone, screen will behave as space until and unless have password and user id to unlock the screen. The password and user id would not have unless created a profile on the apps. Moreover, how does it work as a place—it is bounded by perfect longitude and latitude? For example, in the case of a smartphone, the person knows the key to unlock the smartphone and henceforth has a login password and profile account on the social media platform. In that case, the same screen or smartphone would have a place in manifestation.

I preferred the social media sphere (Fig. 1.1) where smartphones virtually create three layers of spaces of different names: connotations, identity, representations, symbols and uses. Such virtual constructions across the digital gadgets are inevitable and easily visualized as how a smartphone or laptop/desktop works like space and place differently in different contexts. Sometimes the same screen behaves as space or place, its subject to awareness, interests, knowledge and information. The screen behaved as space when someone does not know the required details to unlock it but the same screen behaved as place when someone knows the password and login Id. The embedded spatial manifestations quantify the three different layers in the smartphone or laptop/desktop or iPad when each layer has a different role and completely separated from another layer; without being into primary layer, no one can traverse into the subsequent secondary and tertiary layers. These three layers shape the social media as a social media sphere wherein digital spatiality mapped virtually and significantly to understand the nature and pattern of digital gadgets that are inevitable in the information age in the twenty-first-century world.

Triangle of social media sphere (Fig. 1.2) is linear depictions that without being at screen space anyone cannot visit on apps space and further on social media space. a time, having provoked a series of manifestations and incursions into the imaginary, run out of steam’ (Lefebvre 1991: 42).

27 Third space takes this thinking further—it combines First and Second space to create what Soja (1996) describes as, ‘a fully lived space, a simultaneously real-and-imagined, actual-and-virtual locus of structured individuality and collective experience and agency’. Third space is the experience of life in the First space mediated through Second space expectations; for details, see https://planningtank.com/urban-planner/edward-sojas-theories-of-urban-space. Accessed 15 June 2020.
The scrolling from primary to tertiary space is a linear flow path when someone should follow it sequentially to reach the destination of what apps he/she wants to use. The mode of spatiality changed in each accessed layer. Smartphones open with screen space followed by apps space and social media space.

1.6 Spatiality, Political Economy and Social Mediasphere: A Spatial-Digital Landscapes

The study of social media has been widely discussed in media studies or mass communication studies or journalism, and in other disciplines wherein media is taught as core or optional paper. But, outside media studies/mass communication/journalism, the social media study is not widely researched for different reasons including the absence of methodological techniques. Spatial scientists can explore the landscapes of social media to understand the mundane dimensions of spatiality. Moreover, the following literature was examined in order to understand the nature and characteristics of social media and how it shaped and reshaped e-commerce/online business.
in respective areas. T. R. Nagaraj and S. Motiram (2017) organized a conference, to understand the recent developments in the economy and polity of India through the interdisciplinary approach. In the initial post-independence time, many economists had agonized over the nation’s modest economic performance. The recent development focused on explaining the aspects of economic growth such as declining poverty, increasing per capita income and new policy interventions. But the main focus of political economists is to explain increasing inequality, poor human development and political crises with the pattern of economic growth. Robin Hahnel (2014) compiled a book of great economist work such as Karl Marx, Veblen, Kalecki, Keynes and Robinson, concentrating on modern concepts and models in economics. This book provides an in-depth study of the financial crisis of 2008, which affected the world economy after the Great Depression event in the 1930s. This book provides analytical tools to readers that help to critically evaluate recent economic institutions and policy reforms by themselves. Norman J. Schofield et al. (2011) argued that in the twenty-first century, we consistently try to achieve the goal of high economic growth but continuously fail. Even today, many societies live far from the frontier of the developed world; can this be the main reason? The answer to this question will be explained by social scientists in a better way. John Ravenhill (2014) argues that, in the twenty-first century, the contemporary international economy is fully integrated in terms of trade, finance and globalization. The global political economy is a major subfield of international relations. The GPE researchers have produced an enormous literature, theories and method in the field of international economy. The author has explained GPE in four parts such as theoretical approach, global trade, finance and globalization. These major parts are subdivided into chapters and each of which has been specially written for this book. This book represents the combined study of history and theoretical approaches to recent debates and issues. This new edition updates the earlier author’s work. Editors have discussed a wide range of financial crises and examined the prospects of larger developing economies, with special focus on the BRICs and global governance crisis.

Ronnie D. Lipschutz (2010) offers an intersection between popular culture and international relations that offers a continued analysis of political economy through films and fiction. The author, Ronnie D. Lipschutz, has illustrated basic concepts and practices in capitalism, neoclassical economics and political economy. Lipschutz examined two analytical frameworks that are applied to movies and novels and produced mass audiences such as popular culture and they are the products of capitalist markets. Film and fiction serve to reproduce social beings and are associated with beliefs, contexts and practices. H. Spencer Banzhaf (2012) argued that the environmental justice literature focuses on poor and minority communities. These poor and minority populations live in more polluted neighbourhoods such as landfills sites, hazardous waste locations and near high air pollutants. The environmental protection agency (EPA) has launched a number of initiatives to work on environmental justice for poor and minority communities. The main aim of this article is to evaluate discrimination and injustice with poor and minority communities and set the correlation between pollution and demographics. This correlation depends upon various economic models that provide important insights into different issues. Author argues
that the injustice and discrimination in the society are not only based upon income inequality, many other factors work simultaneously. Therefore, the author makes an effort to explain ‘The Lone Mountain Forum’ with generous support from experts of interdisciplinary fields such as economists, sociologists, geographers, philosophers and historians, whether they work for the government, business, academia or local community organizations.

Bob Samuels (2011) offers information about mass protests in California against tuition increases, furloughs and state budget cuts and mass layoffs of schoolteachers, faculty members and other public-sector workers. The decision of reducing pay and increasing tuition has highly affected both students and faculty members of University of California. These demonstrations represented a new form of social movement that helps to formulate and produce new media. Author Bob Samuels explains that this new media is not only organizing the political protests, but these protests themselves help to shape the form of social media. Greg Miller (2011a) examined that social media have gained astounding growth and popularity worldwide. It is attracting the attention of users by adding new services to social networking sites. These social networking sites now claim that more than 100 million users post 230 million ‘tweets’ every day. Social media provides an opportunity for social scientists to study human interactions. Michael Macy, a sociologist at Cornell University, says people communicate with each other by using different devices and recording those interactions. Author Greg Miller tries to investigate how information and persuasion spread through social networks. This article helps to understand how we can analyse the big data in an appropriate way. Author used the Twitter data to examine human behaviour in the context of time and space. Dhiraj Murthy (2012) offers a sociological understanding of social media in the present time. The author suggests that many social media sites such as Facebook, Google+ and Twitter add much deeper meanings in day-to-day life of users. Twitter is the most popular social media site, which provides micro-blogging services with medium’s restrictions of post 140 characters, or fewer. Author tries to analyse Twitter services and builds the social network by tweets and retweets, and people have subscribed individual’s tweets. Recently, the social media sites have been associated with social movements such as Egypt, Libya, Tunisia and Algeria. The main attention of this article is to examine the role of new communication technology shaping our social world. This article helps to provide further scope for examining Twitter services such as self-production, interaction orders and the way people use Twitter language and power relation between users. Social media as a discipline provides the answers to timely posed questions. L. W. Lance Bennett (2012) pointed out that many political movements are being raised and forming individualized collective action. In the era of digital media, individuals are increasingly on their own to changing societies. This personalized communication technology helps large numbers of ordinary people to become connected and reorganized by other people. Political actors such as political parties or candidates, corporations, brands and policymakers are shaping this personalized era. Today’s landscape is socially fragmented and produced many personalized meanings in it. The origin of this personalized politics is related to globalization and the free market fetish that can be roughly bounded from the 1970s to the financial crisis of the
twenty-first century. The main focus of this article is to analyse forms of individualized collective action that depends upon new patterns of political consumerism. This article examines the major issues of the contemporary world such as inequality, environmental protection, worker and human rights that are organized with the help of digital media technology and individualized collective action.

Tatiana Mazali (2011) argued information and technology are constantly creating new space for connecting individuals. Author tries to build an argument that social network spaces are not representational spaces rather performance spaces. Social media is creating social and relational spaces where individual identity is recreated and reinvented it. Author tries to trace the changes in the social media from interactivity to relational and from relational to participation. Different social media typologies help to understand the deeper meanings of participatory culture of it. The present article explores the relationship between consumers and producers and its passage from interactivity to participation. Participants of the larger social network are developing their own community and expanding their network. The Web 2.0 social network fosters the participatory community by six different catalogues such as creators, critics, joiners, collector’s spectators and inactive. This new web practice has reshaped the social and cultural dimension of social media. The author aims to investigate the imaginative and real-world capacities through new technology that helps to create a new political sphere for a participatory community. Hunt Allcott and Matthew Gentzkow (2017) observed that the 2016 presidential election race was surrounding the controversy over so-called fake news and its impact on current President Donald Trump’s victory that has been the fiercest. The present article aims to offer a theoretical and empirical background to frame the debate between election politics and fake news. The fake news reconstructs the politics of election by circulating false information among readers during election time. Authors analyse the economics of fake news that monetize the web content through misleading information. Katherine Ormerod (2018) focused on personal issues that how social media is shaping and reshaping such things on a daily basis wherein she considered following issues—identity, body image, health, relationship, motherhood, career and money and politics. She wrote the texts as a personal diary where she is advising how to handle such issues on social media somehow. Franklin Foer (2017) pointed out long consequences of social media that is unavoidable to some extent. The book accounts for some of the initial minds that shaped social media into industry and profitable ventures along with how digital gadgets reduced the intelligence of human beings. The author much talked about electronic configuration of virus, data, plagiarism and organic mind across the chapters.

Amber Sinha (2019) focused on India particularly how social media has influenced democracy. The author mainly looked at how misinformation became a tool and controlled the public in order to execute digital crime or else. Further, he looked at the various dimensions of misinformation such as political aspects, data, power and how it influenced the democratic institutions—voting behaviour, electronic voting machine and Election Commission of India. Sunetra Sen Narayan and Shalini Narayanan (2016) argued new media on three grounds—first, theoretical; second, politics, government and the market; and third, historical exclusions. Both
acknowledged the role of new media at present time from social movements to governance to politics. Apart from these, both the authors incorporated chapters on media regulation and digital literacy to draw a major contour of new media in India.

Susan Greenfield (2014) in her book ‘mind change: how digital technologies are leaving their mark on our brains’ argues in the capacity of neuroscientists that how digital technologies are changing the human brain in order to cope with the digital atmosphere in the twenty-first-century world. She eloquently put forth the multiplicity of the brain and its efficiency to make decisions to execute works. In the book, she studied video games and networking sites from different perspectives where the human brain was in domain in her throughout discussion that the role of such digital gadgets or technologies couldn’t be undermined; rather, these technologies have long impacts on the human brain. Clay Shirkey (2008) counted the benefits of social media in the sense of digital revolution: how a user can collect or share something with like-minded people in order to be aware of some issue. Henceforth, he argues that these technologies are used in order to expand digital activism to aware people on certain issues. The author speaks in both directions—consequences and benefits.

In the above, following scholars discussed the applications of social media in mundane interpretations and representations wherein they acknowledged both pros and cons of the social media in both implicit and explicit ways. The scholars agree that social media emerged as a public sphere that cannot be underestimated or undermined or marginalized. Henceforth, the above-mentioned literatures are indeed not enough to draw conclusions rather help to understand the nature of social media and its applicability. The study was to map the spatiality of social media in India.

### 1.7 Contours of the Book

The chapters are following a sequence to reflect a picture of social mediasphere where I am defending how social mediasphere is geography through six different indicators which I discussed in next seven chapters. For example, I used social—in sense of exploration of meaning that how often we understood social media or in other words that how much social is/was in the social media? (Chapter 2); spatial or locations in sense of regions/nation/boundaries with communication (Chapter 3); electoral-to understand how electoral democracy or elections were influenced by social media (Chapter 4); semiotics/emoji—to map the use of such signs and symbols during communication (Chapter 5); economic activities/e-commerce—to locate that how social media can improve the potential business or else issues (Chapter 6); and the last, Internet shutdowns—to understand that how states are using social media to run the administration (Chapter 7). All the above-mentioned indicators are geographical in mundane ways what I conceived in the first chapter that social mediasphere is unlike atmosphere and hydrosphere where each layer denotes a different spatial distribution in both vertical and horizontal sense.
The contours around the spatiality of digital gadgets are inevitable in daily-lived experiences. Digital gadgets found in shapes of social mediasphere—spatial media acknowledged the different spatiality in a click in both pictorials and textual or combined together. I prefer to call it social mediasphere instead social media, which is a spatial phenomenon when digital gadgets represent spatiality in mundane interpretations. I often believed that social mediasphere is embedded with spatial configuration where augmented spatiality is inevitable. We are being users of such and such digital gadgets unknown to it unless we decode layers of spatiality.

Let us think, how social mediasphere is an augmented spatiality? Augmentation is purely a technical calibration when technology shapes such idea, to map the spatiality that is absent in real ground but configured in technical landscapes. Habermas (1974) considered ‘public sphere’ as social spaces that institutionalized to share, to discuss and to understand the spatiality in terms of governance, politics, economics, culture, traditions and taboos in the society. Similarly, social mediasphere is a technically augmented platform that provides such opportunities to share, to discuss and to acknowledge the spatial manifestations. In social mediasphere, I preferred to use suffix ‘sphere’, being student of spatial science; sphere denotes the layers of knowledge, unlike atmosphere and hydrosphere.

The study is based on four questions. First, social media institutionalized the senseless public? Second, social media institutionalized the fake and misinformation contents? Third, spatial turn is inseparable from social media contents?28 Fourth, social media contents are often embedded in political and economic values? These four questions further merged with five objectives that are discussed in the following chapters. These five objectives are as follows: to examine contents in order to understand ‘social’ in social media in India; to examine popularity (use for business purpose) of social media among peoples involved in different economic activities in India; to examine the geographical pattern of social media in India; to examine the use of social media in terms of political business during election in India; and to analyse the geographical attributes of social media in order to understand the aspects

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28Content analysis is about analysing media content in systematic ways wherein ‘sample of media, establishing categories of content, measuring the presence of each category within the sample, and interpreting the results, usually against some external criteria’ (Bertrand and Hughes 2005: 198). This study will follow the methods of content analysis to interpret the headlines, caption and photographs. Content analysis (Mitchell 2011; Bertrand and Hughes 2005) is a research tool focused on the actual content of media. To conduct a content analysis on a text, the text is coded or broken down, into manageable categories on a variety of levels—word, word sense, phrase, sentence or theme—and then examined using one of content analysis’ basic methods: conceptual analysis or relational analysis. It is used to determine the presence of certain words, concepts, themes, phrases, characters or sentences within texts or sets of texts and to quantify this presence in an objective manner. Texts can be defined broadly as books, book chapters, essays, interviews, discussions, newspaper headlines and articles, historical documents, speeches, conversations, advertising, theatre, informal conversation or any occurrence of communicative language. See for further details Content Analysis: An Introduction to Its Methodology (2nd ed.). Thousand Oaks, CA: Sage. Neuendorf, Kimberly A (2002). The Content Analysis Guidebook. Thousand Oaks, CA: Sage. Weber, Robert Philip (1990). Basic Content Analysis (2nd ed.). Newbury Park, CA: Sage. Krippendorff, Klaus, and Bock, Mary Angela (eds) (2008). The Content Analysis Reader. Thousand Oaks, CA: Sage.
of political economy involved in the digital business in India.\(^{29}\) Moreover, Internet shutdowns are discussed as inseparable part of social media that nowadays states are using as weapons against people to either slow down the Internet speed or completely Internet shutdown in some parts of the territoriality.

Moreover, the study is banking on secondary sources and a token survey conducted in different nineteen cities in India to understand the aspects of social media that how a common person conceives the technology in different time frameworks. The study designed to create interlinkages between social media in terms of space and place through election, e-commerce, emoji, trolls, digital socialization, digital divide and Internet shutdown. The study maps all the above in critical sense of political economy that how did social media shape spatiality and users as well in the country.

### 1.8 Conclusion

Spatial scientists can explore the landscapes of social media that show how gadgets shaped and reshaped the digital spatiality. The constructions of digital spatiality are inevitable in the era of ‘space of flows’ (Castells 2009). The imagination of spaces multiplied in the age of information when digital gadgets became a basic need to be connected in the world. The compression of space and time has reached such a critical juncture when a message can travel, for example, Delhi to New York or London in a fraction of seconds, unlike space and time wherein both exit together and overlapped and digital became synonym of time.

The study will help to decipher spatial turn in social media and how political and economics are inseparable from such spatial turn. The spatial turn is not limited to interpretations and representations in abstract sense; rather, it would consider social, political, economics and geography as indicators to map the spatiality in digital gadgets. The forthcoming chapter is about mapping the ‘social’ in context to spatiality that social media is often talked about spatiality in mundane interpretations and representations wherein imaginations of spatiality are embedded in the social media contents.

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\(^{29}\) As per census of India 2011, there was 52 cities which had million population or more than that and they are spread in 16 states and 2 UTs; henceforth, in many states it was more than two cities which had million population. So, on that account the study considered to represent all states without giving privileged one over other and being rational; therefore study considered only one city from each state except Kerala, Maharashtra and Uttar Pradesh wherein the study had taken two cities of million population because number of million cities was more than two in the respective states. These states are populous in comparison with others as well.
Appendix A

India’s Internet users expected to register double digit growth to reach 627 million in 2019, driven by rapid Internet growth in rural areas, market research agency Kantar IMRB Wednesday said. Internet usage in the country has exceeded half a billion people for first time, pegged at 566 million, driven by rural Internet growth and usage.

In its ICUBE 2018 report that tracks digital adoption and usage trends in India, it noted that the number of Internet users in India has registered an annual growth of 18% and is estimated at 566 million as of December 2018, a 40% overall Internet penetration, it observed. It projected a double-digit growth for 2019 and estimates that the number of Internet users will reach 627 million by the end of this year.

Of the total user base, 87% or 493 million Indians are defined as regular users, having accessed Internet in last 30 days. Nearly 293 million active Internet users reside in urban India, while Internet users grew by 7% in urban India, reaching 315 million users in 2018, digital adoption is now being propelled by rural India, registering a 35% growth in Internet users over the past year. It is now estimated that there are 251 million Internet users in rural India, and this is expected to reach 290 million by the end of 2019, the report said. ‘Increased availability of bandwidth, cheap data plans and increased awareness driven by government programme. It seems to have rapidly bridged the digital gap between urban and rural India. Consequently, the penetration in rural India has increased from 9% in 2015 to 25% in 2018’, it added. Bihar registered the highest growth in Internet users across both urban and rural areas, registering a growth of 35% over last year. The report also noted that the Internet usage is more gender balanced than ever before.

For details, [https://economictimes.indiatimes.com/tech/internet/internet-users-in-india-to-reach-627-million-in-2019-report/articleshow/68288868.cms](https://economictimes.indiatimes.com/tech/internet/internet-users-in-india-to-reach-627-million-in-2019-report/articleshow/68288868.cms). Accessed 17 June 2020.

Appendix B

| S. No | Cities (million population) | States      | Population |
|-------|-----------------------------|-------------|------------|
| 1     | Mumbai                      | Maharashtra | 18,394,912 |
| 2     | Delhi                       | Delhi (UTs) | 16,349,831 |
| 3     | Kolkata                     | West Bengal | 14,057,991 |
| 4     | Chennai                     | Tamil Nadu  | 8,653,521  |
| 5     | Bangalore                   | Karnataka   | 8,520,435  |
| 6     | Hyderabad                   | Telangana   | 7,677,018  |
| 7     | Ahmedabad                   | Gujarat     | 6,357,693  |

(continued)
(continued)

| S. No | Cities (million population) | States        | Population  |
|------|----------------------------|---------------|-------------|
| 8    | Pune                       | Maharashtra   | 5,057,709   |
| 9    | Jaipur                     | Rajasthan     | 3,046,163   |
| 10   | Ghaziabad                  | Uttar Pradesh | 2,375,820   |
| 11   | Patna                      | Bihar         | 2,049,156   |
| 12   | Kozhikode                  | Kerala        | 2,028,399   |
| 13   | Thiruvananthapuram         | Kerala        | 1,679,754   |
| 14   | Varanasi                   | Uttar Pradesh | 1,432,280   |
| 15   | Faridabad                  | Haryana       | 1,414,050   |
| 16   | Srinagar                   | Jammu and Kashmir | 1,264,202 |
| 17   | Dhanbad                    | Jharkhand     | 1,196,214   |
| 18   | Durg-Bhilainagar           | Chhattisgarh  | 1,064,222   |
| 19   | Chandigarh                 | Chandigarh (UTs) | 1,055,450 |

*Source* Census of India, 2011

### Appendix C: Questionnaire

City .......
Date .......
Timing .......

**INVESTIGATOR’S INTRODUCTION AND STATEMENT OF INFORMED CONSENT**

My name is ______________________________ and I have come from Centre for the Study of Developing Societies a social science research organization in Delhi. We are conducting an ICSSR funded research survey on *Mapping the Political Economy of Social Media space in India: A Spatial Analysis* in selected million cities in the country. There is no risk of participating in this survey. But, if you answer our questions, you will help us to understand the dimensions of social media.

This survey is an independent study and is not linked to any political party or government agency. Whatever information you provide will be kept strictly confidential. The findings of this survey will be used for television programmes and writing articles in newspapers, research papers and books. Participation in this survey is voluntary and it is entirely up to you. We hope that you will take part in this survey. Usually, the survey will take 20 to 35 min to complete. Please spare some time for the interview and help me to successfully complete the survey. May I begin the interview now?
Section I
Name (Optional) ___________________________ Age .................... Gender .................
Email address ....................
Education ....................
Higher Secondary ....................
Senior Secondary ....................
Under Graduate ....................
Post Graduate or Above ....................

Section II
1. You are familiar with social media? a. Yes.... b. No....
2. How long you are associated with social media?
   - One year....
   - Two years....
   - Five Years....
   - Seven Years & Above....
3. Why it is called social media?
   - Connecting People....
   - Express emotions....
   - Provide Public Platform....
   - Others....
4. What are the main parts of social media as per your understanding?
   - Dialogue....
   - Information....
   - Interaction....
   - Like & Share....
5. How it is different from other media?
   a. One-way communication.... b. Two-way Communication.... c. Multi way communication.... d. Others....
6. Which social media site is important in your personal/professional life?
   a. Facebook.... b. WhatsApp.... c. Twitter.... d. Others....
7. Do you take the contents of the social media very seriously?
   a. Yes.... b. No....
8. How do you classify the contents of social media?
   - Entertainment....
   - Social Affairs....
   - Knowledge....
Cultural Information....

9. Are your family members using social media?  
   a. Yes.... b. No....

10. Do you ever realize it is better for your family members? a. Yes.... b. No....

11. Do you feel social media made any changes in your life? a. Yes.... b. No....

12. Do you think social media helped you to improve your identity among peer group or other?  
   a. Yes.... b. No....

13. Do you think social media is synonymous with cultural traits, as well?  
   a. Yes.... b. No....

Section III

14. Are you using social media as platform to promote your business activities?  
   a. Yes.... b. No....

15. What is your prime source of income?  
   a. Agriculture.... b. Manufacturing.... c. Tertiary.... d. Others....

16. Have you ever tried to promote yourself on social media?  
   a. Yes.... b. No....

17. Have you found any relation between SNSs (social networking sites) and your economic activities?  
   a. Yes.... b. No....

18. Are you using online transactions?  
   a. Yes.... b. No....

19. Since you using online transactions, your business is?  
   a. Increased.... b. Decreased....

20. Who advised you to move on social media to get better business opportunity?  
   a. Friends.... b. Relatives.... c. Business Competitors.... d. Others....

21. Which social media is giving more business opportunity?  
   a. Facebook.... b. WhatsApp.... c. Twitter.... d. LinkedIn.... e. Others....

22. Are you satisfied by online business?  
   a. Yes.... b. No....

Section IV

23. The nature of contents appeared on your screen through social media often belong to?  
   a. Urban....b. Rural.... c. Metropolitan.... d. Global....

24. What are the main geographical attributes found across the social media?  
   a. Religion.... b. Caste.... c. Class.... d. Region.... e. Others....

25. Do you feel comfortable with contents by your service providers?  
   a. Yes.... b. No....

26. The expanses (data) on social media become routine expenditure like other expenditure? a. Yes.... b. No....

27. What activities do you prefer utmost on social media?  
   a. Blogging.... b. SNSs.... c. Chatting.... d. Online News....
28. Can you live without social media for while?
   a. Yes.... b. No....

29. Have you ever realized that due to social media you landed into some trouble (sometime) in your life?
   a. Yes.... b. No....

Section V

30. Do you found any relevance of social media during election time?
    a. Yes.... b. No....

31. How political parties are using social media during election time?
    a. By Policies.... b. By Slogan.... c. By Leadership Image.... d. By Flag....

32. Who are using more of social media between national and regional political parties in India?
    a. National Parties.... b. Regional Parties....

33. Which ways politicians are using social media?
    a. Personal.... b. Ideological Purposes....

34. The nature of political contents across the social media is?
    a. Informative.... b. Cultural.... c. Political.... d. Socio-economic....

35. In which of the following option has shaped the political information?
    a. Political symbols.... b. Flag.... c. Ideological leader.... d. Election symbol....

36. Do you found any hidden relationship between politicians/political party and particular social media to feed political news?
    a. Yes.... b. No....

37. Ever you realized that social media is promoting a particular political party during election time?
    a. Yes.... b. No....

38. How do treat such political news, which you like (with your political ideology)?
    a. Like.... b. Share.... c. Tag Emoticons.... d. Comments.... e. Nothing....

39. Do you realize that social media become lively platform for political expression?
    a. Yes.... b. No....

40. Do you realize that now elections are mediated in India?
    a. Yes.... b. No....

Section VI

41. Do you have found any relevance of time on social media?
    a. Yes.... b. No....

42. What would you like to see on social media, first?
    a. Image.... b. Time.... c. Who sent/posted the issue.... d. Location....

43. Are you using emoticons in social media?
    a. Yes.... b. No....

44. Do you agree that the comment button is made popular to the social media?
    a. Yes.... b. No....

45. Do you treat the Like, another basic tool of social media?
    a. Yes.... b. No....
46. How frequent you used the like button on social media?
   a. Sometime.... b. For all time.... c. Never.... d. Often....
47. Have you ever shared something on social media?
   a. Yes.... b. No....
48. What contents of social media you like to share among peer group or others, if any?
   a. Political.... b. Cultural.... c. Religion....
49. What you wish to share in your page? a. Individual.... b. Group.... c. Family....
50. How frequent you tag?
   a. Often.... b. Sometime.... c. Never.... d. Others.... e. Friends.... f. To all....
51. Do you think that tagging is an important tool of social media? a. Yes.... b. No....

Note Interviewer must report if found any inconvenience during feeling the questionnaire.
   Interviewer’s signature Name ...

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