Chapter 1

Internet, Cognitive Bias and Dangers of Perception Control

Arun Teja Polcumpally

Abstract

The article aims to provide a conceptual yet simple understanding of the relationship between the Internet and social hostilities. Social hostilities will be explained in terms of cognitive bias resulting from unregulated Internet communication. The relationship between the Internet and social hostilities will be observed by analysing how the control of Internet platforms will provide the power to control public perception. The analysis will use the Pew Research Center reports on social hostilities, State control, and other secondary research material. This essay will contribute to a broader and more vivid understanding of unregulated and over-regulated Internet risks.

Keywords

Internet, Social hostilities, State, Control

Introduction

Gone are the days when only CCTVs were used for public and private surveillance. Surveillance has reached a point where advanced

information technologies can influence public or individual perception and even democratic systems (Beens, 2020; Bhattacherjee, 2017; Andersen, 2020; Chakravarthy, 2020). Social media profiles are enough to understand and track an individual's activities accurately. States and private companies track individuals online without looking for their physical presence. An article by the European Commission reveals that a surveillance camera with computer vision technology and an Internet connection can identify a person by their actions and walking style without focusing on their face (Cartwright, 2016). Another sophisticated surveillance is the monitoring and tracking of online behaviour. Websites and online service providers can track users by their browsing patterns. The latter data, combined with the social media data of an individual, is used for political influence.

When online platforms are used to restrict or influence the thought process of individuals, and surveillance technology creates inherent self-censorship, it is a threat to democracy. The scandal of Cambridge Analytica (Wylie, 2019) and the revelations of NSA files by Edward Snowden (Snowden, 2019) strengthened the narratives on how advanced digital technologies corrupt the existing democratic systems. The above assertions and the popular narratives in the media regarding advanced technologies and democracy have gone to such an extent that the novel "1984," written by George Orwell, is thought to have become a reality (Power, 2016). The novel shows an extreme picture of digital surveillance, which can be a reality in the coming years if these technologies are used with an undue advantage for political goals. This article is written with this background and inquires how these technologies impact democracy, focusing on India.

Social Hostilities and Internet Restrictions

A research report released by 'Pew' shows that social hostilities, a societal phenomenon, are indirectly proportional to government restrictions (Majumdar, 2022). The report shows that India is in the top position in social hostilities involving religion but does not appear in the top list in government restrictions. However, if looked at the report's baseline years, social hostilities in India and government restrictions are increasing. Table 1 compares the baseline year's data and the year 2020 data.

Table 1: Comparison of 2007 and 2020 SHI and GRI Indices (Author created the table from the data published in the 2022 Pew research report)

2007		2020	
Government Restriction Index (max 10)	Social Hostilities Index (max 10)	Government Restriction Index (max 10)	Social Hostilities Index (max 10)
4.8	8.8	5.8	9.4

India is not alone here. This has been a global trend. Table 2 shows that all the countries in South Asia and China have increased their government restrictions.

Table 2: Country Wise Comparison of SHI and GRI Indices (Author prepared the table from the data taken from the 2022 Pew report)

Country	2007		2020	
	Government Restriction Index (max 10)	Social Hostilities Index (max 10)	Government Restriction Index (max 10)	Social Hostilities Index (max 10)
India	4.8	8.8	5.8	9.4
Afghanistan	5.3	8.8	5.8	9.4
Pakistan	5.8	8.9	6.4	7.5
Sri Lanka	4.0	7.8	5.4	6.5
Nepal	3.4	4.2	4.7	3.6
Bangladesh	4	8.3	4.8	7.0
China	7.8	0.9	9.3	0.1

The capacity of advanced information technologies to disrupt democracies worldwide is observed in the introduction. The analysis of the Pew report observes the trend of increasing State control over religious activities. Based on the above, this article delves further into conceptualising how the Internet has changed social relations worldwide.

Background and Problematic of the Digital World

The Internet and allied technologies are so capable that State intelligence agencies must change the process of acquiring human intelligence (HUMINT) (Katz, 2020). They probably use Internet communication tracking tools such as XKeyscore, which the US National Security Agency (NSA) uses to monitor the Internet communication of any individual worldwide (Rosenblatt, 2014). In geopolitics, a tussle between the countries is increasingly observed regarding AI development (Lee, 2018), silicon chips (Miller, 2022), and advanced technology transfers. A notable example is the trade tussle between the US and China. The US outrightly banned the export and sharing of advanced technologies. The report of Section 301 investigation of the US Trade Act directly opposes technology transfers to China to secure US hegemony (Congressional Research Service, 2022). The pervasive nature of the Internet is evident from all these events (though limited in this text). It provides capacities to the State and private companies to snoop over individual life. This capacity will restrict an individual's liberty if utilised without any restrictions.

The fears of the State having an undue advantage over Internet communications are also observed in academic publications. 'Bigdata' and 'Business' confluence is termed 'Surveillance Capitalism' (Duberry, 2022). The excessive control of the Internet communication platforms like Facebook, Google search engine, and enterprise-level applications like Amazon Web Services is deemed to result in the charge of 'Platform Capitalism' (Srnicek, 2017). Such is the impact of advanced digital companies, and the academic narratives reiterate the ongoing question of how these technologies impact democracy and existing social relations.

When these technologies are used in autocratic or theocratic countries like Saudi Arabia or China, these technologies do not surprise or ring the alarm of danger. However, when such technologies are used within democracies, the core fundamentals will be disturbed. Disturbance of free elections (Kamarck, 2018), violation of privacy and autonomy of an individual (Manheim & Kaplan, 2019), and corruption of public deliberation using misinformation (Serbanescu, 2021) are some examples.

Importantly, the domestic social contract will be impacted. As explained by Rousseau, it is a non-tangible understanding between the public and the State. As a part of the domestic social contract, the public gives away their freedom in exchange for security provided by the State. When advanced digital technologies with pervasive surveillance capabilities are used by the State and a few global companies, and the narratives like Surveillance capitalism (Shoshana, 2018) and Platform Capitalism (Srnicek, 2017) seem persuasive, people tend to lose trust in democratic systems. There is an increasing distrust among the public owing to the usage of surveillance technologies or the existence of unregulated Internet communication platforms. These fears were exacerbated when States forced themselves to use surveillance systems during the COVID–19 pandemic (Medicott, 2020).

Heuristic observation is enough to wonder about the rise in the authoritarian behaviour of States globally. With the increase in Artificial Intelligence (AI) systems, States are prone to use mass and pervasive surveillance (Feldstein S., 2021), and militaries are researching lethal autonomous weapon systems. Some are already deployed (Russel, Aguirre, Javorsky, & Tegmark, 2020). V-dem, an institute based at the Department of Political Science of the University of Gothenburg, Sweden (Anna Lührmann, 2020), and Feldstein's AI Surveillance index funded by Carnegie Endowment for International Peace (Feldstein S., 2022) assert that States are prone to use more hyper-surveillance systems to have control over their population. The author's research published earlier concludes that there is a direct correlation between the increase in the usage of digital technology in governance and authoritarianism (Polcumpally, 2022).

It is worrisome that the V-Dem report of 2021 categorises India as an 'Electoral Autocracy.' Freedom house report 2021 categorises India in its freedom index as 'Partially free' (Freedomhouse, 2021). V-Dem ranking considers Internet freedom to be a key factor, which is considered the foundation for democracy. However, attributing personal liberty to democracy may be a stretch (Brennan, 2016). Though there are supporting and opposing arguments on the direct correlation between freedom and democracy, freedom to express oneself is a foundation for making political decisions. This is true, at least in capitalistic and participative democracies.

A domestic social contract is a non-tangible understanding between the public and the State. As a part of the domestic social contract, the public gives away their freedom in exchange for security provided by the State. When advanced digital technologies with pervasive surveillance capabilities are used by the State and a few global companies, and the narratives like Surveillance capitalism and Platform Capitalism seem persuasive, people tend to lose trust in democratic systems.

Confirmation Bias, Internet and the Problematic

Apart from the above-introduced risks that democracies face, an imminent danger disturbs the societal fabric within democracies. It is Internet communication that leads to confirmation bias among the public. Unregulated Internet can cause 'filter bubbles,' encouraging the public to consider their biased opinions truths (Burns, 2019). Such phenomena will increase the existing vagaries and vicissitudes in society. Indian government vehemently discarded the V-Dem ranking system and the Internet Freedom Index, claiming that India has robust democratic systems (The Wire, 2021), and the foreign minister Jaishanker asserted that the countries that cry foul are hypocritic (Roy, 2021).

Conclusion: The Debate on the Probable Future of the Democracies

Before concluding the chapter, here are some of the methods that are already in use to understand the impacts and the risks of frontier digital technologies in society.

1. Anticipatory research conducted ex-ante to understand all the possible risks of the technology on society. Some of the examples are ex-ante research on nanotechnology (Guston, 2014) and responsible research and innovation on Artificial Intelligence (Boulanin et al., 2020).
2. Conduct continuous research to understand the risk and impacts of technologies like AI. This is very much like what the US Artificial Intelligence Risk Management Framework advises (National Institute of Standards and Technology, 2023).
3. Inclusion of AI ethics in the AI design, not after the deployment of the AI system.

All three mentioned methods assist in systematically understanding the risks posed by frontier technologies on society and help to bring out certain regulatory frameworks. Information is considered a basic functionary of the social and is increasingly realised in post-industrial society (Kuzmenkov, Starostenko, Soina, & Chekulaev, 2021).

The increase in information consumption by the public and the impacted social interactions lead to various questions regarding the future direction of societies worldwide. One of the many questions brought about by the extensive information consumption by the public is whether the Internet would bring hypernomia or anomia (Kuzmenkov, Starostenko, Soina, & Chekulaev, 2021).

The Dichotomy of Hypernomia and Anomia in the Internet Era

Hypernomia is a stalemate nature of society that is built on strict hierarchies and social order. Anomie is the opposite of the latter, highlighting the anarchy of a society. The same question can also be considered a debate between the Internet and allied technologies pitching Rosenau's social contract against Hobbes' anarchism.

Internet access allowed the public to be informed about almost anything. Such access will enable people to understand society better and make informed decisions. This technological innovation helped the public to break the information control by a few and create ways to fight social injustices. While advancing society's knowledge consumption, it parallelly deepens societal divides.

The Internet creates filter bubbles with increased content and content generators (Burns, 2019). It is a phenomenon where the public increasingly consumes biased information to validate their selfish arguments. With the increase in filter bubbles, historical myths become truths because people tend to accept them as realities after watching uncorroborated evidence on WhatsApp and other social media. Media houses have also circulated such un-corroborated information. Indian national media 'The Wire' cited a BOOM report showcasing 40 fake national news reports by Indian media in 2020 (Niranjankumar & Chowdhury, 2020). This report hypotheses that the national media gathers information without proper research or validating facts.

Role of Low-Quality Journalism in Perpetuating Hypernomia

Low-quality journalism earned ill-fame for Indian media houses, especially the electronic media, which is criticised for its low standards (Garg, 2020). Recalling the earlier argument '*whether the Internet would bring hypernomia or anomia,'* the filter bubble phenomenon might hypothesise that society, with the help of the Internet, and social media, would strengthen the biased social structures. Perhaps, it might create hypernomia.

The average time an individual spends on the phone is around 4.5 hours per day in India, as per the report sourced by the Times of India (Times of India, 2022). Data consumption per individual is 14 GB per month, per the article published in Financial Express (FE Bureau, 2021). Such heavy Internet usage allows the public to consume information at will. Pew research reports that people are unclear about the correctness of the information they consume on social media (Smith, Silver, Johnson, Taylor, & Jiang, 2019).

The statistics presented in the report show no conclusive evidence that social media has more fake news than other media platforms. However, daily life observations confirm the issue of social media-anchored misinformation, at least at an individual level. Misinformation and filter bubbles should be considered dangerous to maintaining societal peace and order. As described in the article, there is an increase in social unrest and government restrictions on religious activities. In this scenario, misinformation will strengthen the filter bubbles.

AI and Recommendation Algorithms: The New Gatekeepers of Information Today, with the emergence of technologies like AI, recommendation algorithms are increasingly taking over the agency of humans (Schrage, 2020). Though it appears that people have a choice because of their information, only a few realise that the choices are restrictive. The biased results of recommendation algorithms again force us to think that the Internet and allied technologies are reshaping and strengthening hypernomia. No matter how much we argue about the goodness of these digital technologies, their percolation into society is becoming ubiquitous. Now, what matters is how we decide to use them. In the words of Harari,

"... it will not matter whether computers will be conscious or not. It will matter only what people think about it." (Harari, 2016)

Harari opines that human experiences are interactive outcomes of historical data points. He calls this approach to understanding human social as *'Dataism.'* Harari's argument is brought to showcase the scholarly debates around the confluence of digital technologies and the new social. If *'Dataism'* helps create robust recommendation algorithms for Internet companies, digital technologies may create a strict hypernomia, creating a society like Bentham's panopticon.

For some countries like China, strict hypernomia could be necessary to maintain a peaceful and orderly society. Conversely, the US sides

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with 'anomia', emphasising the free market and individualism. Though India has taken a free market and individualism approach, the recent political developments and the above-discussed outcomes of the Pew report showcase its authoritarian nature. Countries worldwide choose between strict control and freedom, but there is no conclusion on how digital technologies will impact society.

No matter the outcome, the impact of digital technologies on society is a choice made by policymakers. Luhmann postulated in his Risk-Decision theory that policymakers will consciously choose what, why, and when to adopt a technology accessing its risk (Luhmann, 1990). In India, some research start-ups focus on AI's impacts on society – '*Digital Futures lab*' headed by Urvashi Aneja, '*Indiaai*' an initiative by the Ministry of Electronics and Information Technology (MEITY), NASSCOM provides information regarding AI development in India. However, few conduct substantial ex-ante research on the Internet, fake news, and its impacts on society. It is not argued that no one has ventured into this space. Some start-ups like '*Alt News*,' and '*Factly'* in Hyderabad are working on flagging fake news.

However, there is no serious research based on '*Anticipatory governance methods*' and the establishment of '*science cafes.*' There is an immediate requirement for such initiatives. They would help in providing research for Internet policymaking. Research with the 'Anticipatory method' would include periodic public deliberations, awareness, and understanding of technology making. It also provides designs for technology companies that would help them incorporate public well-being within the design of their products.

From all the problems mentioned above, it is evident that the fabric of social interactions and the nature of society are changing because of advanced information technologies. In such a situation, it is worth exploring the possible changes to the existing democratic structures.

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