
TECHNOLOGY AND LAW

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1.1 ABSTRACT

Technology is the most dynamic space which is constantly evolving and pushing its boundaries towards a borderless world. The whole world of technology revolves around computers and the emergence of the networked information economy. The boom in technological world is everlasting given, launches of new gadgets every single day, laws governing the same has to be altered and should be kept in pace with advancements. One common sense that would work here is laws dating back 100 years may not be sufficient to govern and curb immoral activities being done today. While law works within borders, we deal with something called technology, which is borderless. Nevertheless, we are fortunate to have many farsighted law makers who were able to make their mark on this unchartered territory.

Law and technology are inter-dependent and inter-related where amendment in laws related to technology keeps taking place and technology keeps upgrading. This is exactly why, we as humans also have to keep growing and upgrading ourselves with the evolving technology. Our main objective apart from trans versing information irrespective of territory should also keep in mind the importance protecting the same information against ignominy.

Highly imperative topic under technology any day would be telecommunication. As internet becomes more widespread and affordable, global telecom has grown with its adoption. The impact this has casted upon technology is archly underrated.

Telecommunication along with technology rely on each other to provide customers worldwide with high-speed Internet access and online services like music streaming and social networking effortlessly possibly every micro second. Singularly telecommunication have played a key role and has also continued to play a pivotal role in the tech world. The rise of the networked information economy and its contributions to both freedom and development seems to be an important and immediate conclusion of a systematic study of law and technological change in our age.

Law and telecommunication are intensely strange as both of them have

distinct similarities between them. The key similarity between them is both of them are constantly changing with possibly every new second. Even though both of these have achieved unprecedented hegemony both claim to recognise and rely on their own fields of action. Yet they are undisputedly two of the major unrelated but interlinked topics wherein the intricacies between them are highly complex.

With these intensely convoluted areas the entire world has created its standards, rules, regulations and protocols to be followed while using this compound network.

India with its 75 years of independence has made remarkable progress in terms of innovation, science and technology. Distinguished achievement would be developing and devising new set of rules with every upcoming innovation and being a part of Asia which is a hub for less crimes related to technology.

All hail, appreciation and praise for this would go to all the software engineers who design new software making sure India is moving forward in terms of mechanisation and all the exceptionally knowledgeable law makers who think upon the loopholes in this structure and provide laws as social covers making sure the country's moral values stay intact.

1.2 Introduction

With proportionate increase in newer advancements, same or probably a little more increase, is witnessed in legal field. Whenever there is an impact on mankind in any form, there needs to be a yardstick to restrict that impact and direct it towards the right path. Technology in the modern world controls each and every movement of our daily life. At times, even our thinking is kindled by technology. Robots and the study of artificial intelligence and virtual reality on the other hand brings in new realm of life which is far unimaginable say 100 years or even less 50 years back.

The probability of generating both positive and negative outcomes out of these new developments are quite same. Keeping pros aside, cons provide ample scope for immoral practices. This is why we require law. In other words, law comes into action and tells us what is acceptable and unacceptable in our society.

1.3 Need for technology law in India

Technology is the most important resource for us, being advanced in many ways to boost up

the Indian economy to a greater extent which has led to the world's 2nd largest market in the telecommunications industry. Many reforms and laws are prevalent and amendments are taking place to improve this sector at a larger scale.

India being a highly connected and digital ready economy remains a high potential market worldwide offering multiple opportunities. India presents a large and burgeoning end user market being world's second largest population in world. This force has led to the advancement in the type of resources we use. Another growing area of concern for many businesses involves around technology and telecommunications.

And the current pandemic has increased the need for technology to the fullest globally. Being this stated, technology can never be separated from our daily lives going forward. Globalization has catalysed technology and globalization of markets involves interaction between buyers and sellers from different countries electronically or physically for transactions.

1.4 Core modules of technology and law

1.4.1 IT Law (Cyber Law)

Internet Technology Law also known as Cyber Law relates to internet and its monitoring and security.

In detail it relates to the aspect of license, patents, contracts and other aspects dealing with respect to the protection as well as giving freedom of expression.

Net neutrality is a modern-day concept that deals with contents that is put out in the internet. Given the fact that everything said, texted or recorded is available in the public eye, there needs to a boundary on the type of information, its contents as well as its moral implications on the society. Different countries have their own laws regarding the same, with varying ¹degrees of neutrality. With many developed countries introducing new laws and redefining jurisdictions under this, developing countries and others are slowly looking up on this topic.

Article 19 of Universal Declaration of Human Rights emphasis on free expression in all media. This includes giving ideas, opinions on anything and everything. However again on the moral grounds, we cannot give free hand to people throwing their thoughts. Law comes in saviour

¹ The Information Technology Act came into force on October 17,2000.

and limits the extent of outpouring thoughts. Nevertheless, this law is widely used as defence in most of the cases brought up in the Court.

Internet censorship is again a very delicate theme which has both highs and lows. On one hand with this many countries are able to curb or eliminate negativity and all other news items which brings dishonour to the state. But on the other hand, this puts a hold on people's rights to freely express themselves.

On the international angle, US has made laws relating to information that is been transmitted to a large section of population as early as 19th century when the topic of Right to Privacy came on picture. From thereon with new cases and new breaches coming all the way new laws have been drawn.

In case of India, the Information Technology Act 2000 is key act that came into force on 17th October 2000 which provides and explains all the righteous way as well as sanctions for all activities done in the internet including electronic signatures, child pornography, data theft, defamation and cyber terrorism etc.

1.4.2 Artificial Intelligence Law (AI Law)

AI law regulates artificial intelligence and puts it into the right direction. With Alexa, Siri and etc being a common household product, we need laws to monitor it.

This field opens up to an entirely new set of questions which are quite difficult to answer including the most basic question Can AI do crimes? Would AI have a separate legal entity or How would we monitor over the use of automation here? These concerns are not just confined to one single country. They dwell upon all the countries commonly. We find big names of the world including Bill Gates, Elon Musk among others raising their views on the common legal regulation on AI.

Apart from the part of regulation, AI has the potential to soon replace lawyers and practise the subject of question – law. The close liaison between AI and law is that both of them have their basic outlay in the form of principles and acts in hand. What has to be kept in consideration is their way of application. In addition to this, AI helps to overtake the boring and mundane work that lawyers have to do on a daily basis say for example, reviewing contracts and redlining contracts etc.

In the long- term expecting the unimaginable, AI can also predict the results the results of long-standing cases and helps us to provide better clarity and view on the position of the case.

Lastly, the area of legal research has quite benefitted because of growing technology wherein all the students are able to save time and gather more knowledge and information with the help of AI.

On the lines of regulation of AI many concrete laws have still not come up. Ethical use of artificial intelligence was a topic on many global platforms including UNICRI. In case of India there are no specific laws pertaining to the subject of AI as the government is keen on propagating the technology.

AI has all the potential to transform and revitalize the area of law.

1.4.3 Consumer Technology

With the boom and craze of online shopping there needs to be a control on the spurious purchase of all commodities as this gets done with just a click of a finger. Numerous sales and purchases happening instantaneously laws enforced has to keep in mind the quickness required in action.

E-Commerce platforms has the high risk of illicit trade happening. In order to have a hold on all of this, there needs to be proper definition, rules, regulations and limitations. The Information Technology 2000 and Intermediary Liability Guidelines 2011 provide regulatory guidelines for intermediaries.

The Consumer Protection (E- Commerce) Rules 2020 where legislative changes made during July 2020 and other laws monitor all the activities relating to all the online trade and shopping. Apart from this, the most important law The Consumer Protection Act 1986 is an anchor law which provides a three-tier mechanism for redressal of consumer grievances.

1.4.4 Space Technology Law

Man has touched upon space and now even planning to set up a home there. This statement alone is enough for us to understand the enhancement of space technology. Wherever we know there is technology, we accept the fact that there needs to be a governing law in order to keep all the latest innovations under check.

Space technology relates to all the events and happenings in and around space including

agreements be it domestic or international, patents, research license etc. Just as how countries have their own boundaries, in space too there are demarcated territories. Laws relating to space law dates to Cold War where the Outer Space Treaty was signed, where India was a signatory too.

In India ISRO is the main governing body as it serves as the national hub of Space Research and Development. Remote sensor which is a prime technological achievement in the space field, has a separate Policy which was introduced in the country in 2001 and later revised in 2011. This law governs the acquisition of satellite images and remote controlling wherein there are certain limitations to non-governmental users.

Apart from the Remote Sensing Technology, laws relating to satellite communication is also a widely discussed and debated subject. India formulated its first SATCOM policy in the year 1997 with rules being published in the year 2000. One feature that stands out in this policy is the creation of INSAT (Indian National Satellite System) to common people.

SATCOM Policy has created a robust communication plan wherein more preference was given to Indian applicants even though foreign applicants can participate and gain from this policy.

Another pertinent module with respect to technology is Telecommunication Law.

2. TELECOMMUNICATION LAW

2.1 Introduction

The telecommunications world started blooming with the introduction of the telegraph. The Telegraph Act provides an exclusive right to establish, maintain and operate services and networks in India. The telegram and the telecom industry contribute loads to the acceleration of India's technology. Noted that India's telecommunication network being the second largest in the world, it has also boosted the growth of India's socio-economic conditions.

From unable to be in contact with people who stay on the other half world, to reaching every single person on the face of Earth with a single click of a finger, all of us have come a long way. With 5G ruling the world to get us in access with each other in much quicker duration, telecommunication has bridged the gap and brought us all in unison.

On the business angle, communication networks and telecom service providers were largely government owned. But today, there are many private service providers too emerging in the

frame. In the year 2008, three percentage of the gross world product was contributed by the telecom sector. This sector had a huge spike in its growth rate in a short span of time whereby we hear the success stories of global leading telecom service providers including Verizon, AT&T and etc.

2.2 Need for Telecommunication Law

With expanding world and with increased creations especially in the field of telecom, laws need to be formulated in order to keep the advancements under the ambit of morally acceptable principles. From a time when telecom was used to denote only telegraph to today where it used to denote radio, television, public internet, closed computer networks and etc, with which we can infer the tremendous growth that this sector has seen.

More public exposal even though at times being an individual choice, needs certain laws to safeguard the interests of common public. Law comes as a saviour in all these cases. They provide a rough layout on what are the ethical means and ways to use telecom.

However, the paradigm shift in telecom sector took place only when the telecom and postal sector were separated from each other. After that, new laws materialised for each of these sectors which paved way for much more elaborate laws on these subjects without overlapping with each other.

2.3 History of Telecommunications Law in India

Telecommunication in India was initiated with the introduction of telegraph. Initial telegraph system was overlooked by the East India Company. After Independence of the country, a new law was framed which stood the test of time, The Indian Telegraph Act 1885. Years later, in 1993, The Indian Wireless Telegraph Act was enacted which enforced certain norms regarding the need of license for using a wireless telegraph apparatus. Four years forward the parliament passed the TRAI Act. This was a landmark act in the history telecommunication legislations.

2.4 Legislations under Telecommunication

2.4.1 The Telegraph Wires (Unlawful Possession) Act 1950

The Telegraph Wires Act (Unlawful Possession) was passed to regulate the possession of telegraph wires and to provide for the punishment of the offense of unlawful possession thereof. But going back in past, we get to know that there existed the Indian Telegraph Act, 1885 which

enabled legislation in India which ruled the use of wired and wireless telegraphy. This was amended by the repealing act, 1938. The privileges and powers of the Government in this matter include exclusive privilege in respect to telegraphs, and power to grant licenses.

2.4.2 The Cable Television Network (Regulation) Act 1996

The main aim of the amendment of Cable TV amendment was to regulate the haphazard mushrooming of cable television networks. Due to the lack of licensing mechanism, this resulted in a huge number of cable operators, broadcasting programs without any regulation. The Act aimed at regulating the content and operation of cable networks. This was due to the availability of signals from foreign television networks via satellite communication. At present, there are over 900 TV channels that are required to comply with the Programme and Advertising Code laid down by the Ministry of Information and Broadcasting under the Cable Television Network Rules. The Cable Television Network has amended its rules several times but the most recent amendment took place in 2021 which provides for a three-level grievance redressal mechanism. This mechanism will help the viewers to file a charge directly to the broadcaster and will also develop the customer-broadcaster connection.

2.4.3 The Telecom Regulatory Authority of India Act 1997

The government of India has set up a regulatory body named “The telecom Regulatory Authority of India” also known as “TRAI” to regulate telecom services and tariffs in India. TRAI’s foremost objective is to provide a fair and transparent environment that provides scope for competition in the market. A bill to establish a non-statutory telecom regulator was proposed in the Parliament by the Government through an amendment to the Indian Telegraph Act, 1985. The 2000 amendment includes the function of TRAI which is categorized in making recommendations on various issues, general administrative and regulatory functions, fixing tariffs and rates for telecom services, and others.

2.4.3 (a) Amendments under TRAI

TRAI(Amendment)Act 2000 created a path for Telecom Dispute Settlement Appellate Tribunal to deal with its own kind of issues.

2.4.3(b) Government and TRAI

TRAI is totally funded by the central government. It is not completely an independent organisation and is controlled by the government. Moreover, Section 35 of the TRAI Act the

central government has discretion to make new rules and legislations.

2.4.3(c) Constitution-TRAI

TRAI was established as a corporation under Section 3 of the Act. It constitutes of a chairperson and less than two full time or part time members. All members can hold office until 65 years of age or three years of service whichever is earlier. The person so appointed should have possessed prior knowledge on accountancy, telecommunication, industry or consumer affairs etc.

There are nine divisions under which the employees and officers are classified, which consists of

- Mobile network division;
- Fixed network division;
- Converged network division
- Quality of service division;
- Broadcast and cable services division;
- Economic division
- Financial analysis and internal finance and accounts division;
- Legal division
- Administration and personnel division.

Section 8 of the Act provides for the procedure to be followed during the meeting. All decisions would be based on voting.

2.4.3(d) Functions

The functions of a TRAI are enlisted under Section 11. Four broad categories under functions include

1. Making recommendations on various issues;
2. General administrative and regulatory functions;
3. Fixing tariffs and rates for telecom services; and
4. Any other functions entrusted by the Central Government.

TRAI under Section 12 has the power to call for information and investigation.

2.4.3(e) Telecom Disputes Settlement Appellate Tribunal

This Tribunal can adjudicate disputes between

1. Licensor (Central Government) and a licensee.
2. Two or more service providers.
3. Between a service provider and a group of consumers.

2.4.3(f) Procedure under Tribunal

Procedure and powers are given under Section 16. However within few years of its establishment this tribunal has heard praise worthy number of cases and also have pronounced very good judgements.

2.4.4 National Telecom Policy 2012

The last decade is marked by significant penetration of telecommunications in India. The New Telecom Policy 1999 has been an instigator for the growth of the telecom sector. The National Telecom Policy 2012 (NTP 2012) is conceived against this backdrop. The vision is to transform the country into an empowered and comprehensive knowledge-based society, using telecommunications as a platform.

The policy intends to address and enable the coordinated action to respond to the dynamic needs resulting from the confluence of telecom, broadcasting, and IT sectors.

NTP-2012 acknowledges that the hurried growth in the telecom sector demands to be supported by an improved pace of human capital formation and capacity building.

The sole aim of the National Telecom Policy aims to provide secure, reliable, affordable and high quality converged telecommunication services anytime, anywhere for an accelerated inclusive socio-economic development.

2.5 Departments under Telecommunication Ministry²

2.5.1 Statutory Bodies

2.5.1(a) TDSAT (Telecom Disputes Settlement and Appellate Tribunal)

² All the departments comes under The Ministry of Technology or The Ministry of Communication all of which comes under The Information Technology Act 2000.

It was created in order to solve disputes regarding the issue of telecommunications.

2.5.1(b) TRAI (Telecom Regulatory Authority of India)

This is the regulatory body which deals with the said subject.

2.5.2 Attached Offices

2.5.2(a) Director General Telecom

The Director General is appointed to oversee the telecom industry in a high executive position.

2.5.2(b) TEC (Telecommunication Engineering Centre)

This organisation manufactures, indulges in research and development of all new telecom innovations.

2.5.2(c) USOF (Universal Service Obligation Fund)

This organisation aims to collectively fund and provide telecom services to rural areas as well.

2.5.2(d) Controller General of Communication Accounts

This organisation takes care of all the revenue and expenses that the industry earns and incurs.

2.5.3 Subordinate Offices

2.5.3(a) Wireless Monitoring Organisation

It manages and monitors all the wireless connections all over India.

2.5.3(b) NCCS

2.5.4 Field Offices

2.5.4(a) CCA (Office of Controllers of Communication Accounts)

This organisation relates to all the accounting work under communication department.

2.5.5 Autonomous Bodies

2.5.5(a) C-Dot (Centre for Development of Telematics)

It relates to all the development work done in the field of telecommunication .

2.5.6 Training Institutes

2.5.6(a) NTIPRIT (National Telecommunications Institute for Policy Research, Innovation & Training)

The institution focuses on coaching on policies of telecommunication and its improvements.

2.5.6(b) NICF (National Institute of Communication Finance)

The institution focuses on coaching on accountancy with respect to communication industry.

2.5.7 Public Sector Undertakings

2.5.7(a) BSNL (Bharat Sanchar Nigam Limited)

It takes the business of providing telecom services and network management across the country.

2.5.7(b) MTNL (Mahanagar Telecom Nigam Limited)

This like BSNL works under the communication department primarily for the states of Mumbai and Delhi.

2.5.7(c) BBNL (Bharat Broadband Network Limited)

It forms a communication network by providing broadband connection across the country.

2.5.7(d) TCIL

This an engineering and a consultancy company under the Department of Technology.

2.5.7(e) ITI

This public sector undertaking has a diverse range of products including radio modem, Wi-fi access point etc.

2.6 Case Study on Muthukumar V. Telecom Regulatory Authority of India & Ors.

2.6.1 Case overview

The case which was filed before the Madras High Court, to withdraw its interim ban on Tiktok app, citing it to be unsafe, both in terms of privacy as well as abuse for children, was vacated against its plea in the Supreme Court understating the given statutory clauses and guidelines.

Moreover, the Court was also convinced that the app was in line with the Information Technology Act 2000 which provided safeguards for victims which was the prime issue of this case.

2.6.2 Case Summary

A writ of mandamus was filed upon the mobile application Tiktok on its use and download. It was alleged that the app was derogatory and it negatively influenced the teenagers to go into degraded culture including drugs, pornography etc.

The writ was initiated by the Public Interest Litigator S. Muthukumar against TRAI, Ministry of Communication and Information Technology, District Collector, Madurai and the Commissionerate of Police of Karnataka. This was also dragged upon three other respondents including Ministry of Electronics and Information Technology, Ministry of Information and Broadcasting and M/s Bytedance Technology Pvt Ltd (Parent company of Tiktok).

On 03.04.2019, The Madras High Court without listening to the respondents, issued an interim order stating the ban of Tiktok as an app as well on its telecast in media in general. However, the parent organisation of Tiktok challenged this order in the Supreme Court. In the mean time, on 15th April 2019 again the High Court refused to lift the ban on the app. On the following day, the Supreme Court appointed senior advocate Ms. Amicus Curiae to assess the implications on the case.

On 22nd April the Supreme Court put forth an order to the High Court to decide on the matter failing which its Interim Order will be automatically suspended. Following 24th the High Court probed the case once again and lifted the ban on the app.

2.6.3 Critical Analysis

The Litigator wanted the ban of the app on a solid ground of reason which included the addiction of youth and many adolescents into the app and also multiple suicides that were reported in the state of Tamil Nadu because of the app. Also, his stand was this app was making the lives of the youngsters susceptible to cyber bullying as well as other health hazards.

On the other hand, Tiktok and its parent organisation claimed that its robust mechanism policy to deal with these issues is enough to tackle the issue. Moreover, the company also claimed to three filtration stages that the organisation is indulging itself into. The Respondent also submitted a report stating that the order was in violation against the Free Speech and Expression

under Article 19(1) (a) of the Indian Constitution. The company also pleaded on the part of the employees saying that, the ban on the app would make an irreparable loss to the economy and leave an indelible impact on the lives of the workers of the organisation.

With the appointment of the senior advocate Ms. Amicus Curiae she emphasised on the Sections 67(A) and 69(A) and the Information Technology (Procedure and Safeguards for Blocking for Access of Information by Public) Rules, 2009 and the Information Technology (Intermediaries Guidelines), Rules, 2011 relying that the said sections were good enough to deal with the infringement issues.

Article 19 (1)(a) was very well protected when the Court cleared that applications for commercial purposes cannot be sheltered under this Act.

On the whole, the given case was assessed critically to every minute details even though the initial hasty ban on the app. Later the Court also wanted a undertaking signed by both Tiktok and its parent organisation that it would be liable under contempt of Court if any negative or inappropriate content was published under its banner.

The main consideration of the case was with the proportionality of the Order with respect to the issue surrounding it. However at the same time it was understood with what sensitivity the Court handled the case relating to children's safety.

2.7 Conclusion

The era of the digital revolution has put technology and its use at the forefront. Technology is now recognized as an enabler, necessary for growth and the way forward. Technology sounds even more firm when laws and reforms are brought into play. Technology has abundantly contributed to the upgrowth of the country economically and technologically.

Historically, the role of telecommunication has evolved from that of plain information exchange to a multi-service field. Adding on to this, the Indian Government, at all times, keeps amending the laws related to the telecom industry from time to time for the betterment of society. And there are several schemes brought into play which is controlled either by Central, or State specific or by a joint collaboration between the Centre and the States. After all the developments made in this department, today, television is regarded to be the most penetrative media in India reaching each and every household as against all the other media forms.

On the whole, telecommunication and its laws are constantly varying and with new and fresh laws brewing on the subject we can be ensured that the change is towards the progress