



# Indian Legal System and Internet of Things

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## ABSTRACT

The main idea of this article is to discuss the issues or the loopholes in the legal system of India regarding the internet of things along with the few steps to solve this problem in the emerging world of technology. Firstly, this article deals with the meaning of the internet of things along with its practical approach and its emergence in the present world or society. Secondly, this article deals with major issues regarding this internet of things along with the provided legislation and the case laws. Thirdly, this article has the approach of internet of things in the new normal or the present time of global pandemic (COVID-19). Lastly, in the conclusion part of this article basically I tried to summarize the problems regarding the internet of things and weakness of legislation in this matter along with some suggestions to solve these emerging problems. This article mainly focuses on the point that accepting the life with the concept of internet of things is the luxurious step towards the development of the nation but along with the development the security of the privacy of the citizens should be the prime objective of government along with users and the service providers of the internet of things. Then it will consider as development in real meaning.

## I. INTRODUCTION

A long ago, the world of technology was developing and getting advance, those were the days when Java phone was trending the market. Those were the days when mobiles are being launch with so many new, exciting and amazing features which includes touchscreen, high pixel camera, different-different social media platforms. The whole world was after the smart devices and having smart device become the new definition of the smartness. Then there was an urgent need to develop the legal system according to the new developing society just to avoid ambiguities and situation of complication at the time of conflict. At that time artificial intelligence was the base of outputs of the internet devices.

## Internet of Things

It is basically an interface among the different computing devices which is driven by the internet. It is named as Internet of things because its main concern is connected with digital or mechanical machines, and people having unique identification. It enables the transferring and receiving of data or records without the manual inputs or manual interference. The word 'thing' in the term 'internet of things' is an object either natural or man-made that is allotted with the help of an Internet Protocol address. This thing is capable enough to transfer data over a network.

With the advancement in machine learning and Artificial Intelligence, the human-machine interface shows the remarkable development in this growing world of technology. Basically, Artificial Intelligence is the brain and Internet of Things function according to that brain. Hence it is clear that internet of thing is completely depend on the Artificial Intelligence for its function and development. The development of internet of things allow its dependent devices to enhance the physical world with the help of their own abilities and to anticipate it.

For the fast evolution and development, equilibrium is highly required, otherwise the achievement and the success along with development will went into vain. Because the growth of internet of things is balanced that's why it reached such a height of success. According to observation and analysis it is a believe that internet of thing will become an imminent part of the live of human kind.

## Practical approach of Internet of Things

The practical approach of internet of things is very vast. It is so normal and common to find internet related object in home, cars, industries, agriculture, healthcare, and cities (nowadays). With lots and lots of internet appliances live of normal human is turned into smart live, similarly the home, cars and phone become smart with time and growth of internet devices.

1. Smart Home: - Smart home is a home which is managed and controlled with the help of



devices controlled by internet. This feature of having smart home receive good response in the market. Examples: - Robot cleaners, smart bulb, temperature control and many more similar objects. Amazon and Xiaomi are the two brands that provide affordable devices of internet of things in Indian market.

2. Smart Cars: - Self driven cars are considered as the smart cars in today's world of internet. Companies like Tesla and BMW provides these cars in market.

3. Industrial Internet of Things: - Industrial Internet of Things refer to the smart operation of industries with the help of computers, machines, and human with good technical skills. Example: - Alibaba, Huawei, Konux and Tesla are the leading companies in the field of Industrial Internet of Things. When comes to dealing with high numbers of data, technical skills are more efficient than the skill of an individual.

4. Smart Cities: - Smart cities are those cities which have good progressive technology and there is protection of environment amid development of city with optimum utilization of resource available. Internet of things provide this progressive technology to the city as per the requirement. It helps in tracking the problem of pollution, traffic, energy supplies and water supplies along with the supply of electricity.

5. Agriculture: - In the world of agriculture, internet of things helps in finding the percentage of soil moisture. It helps in calculating the quantity of nutrients and which soil is suitable for which crops. It primarily helps in controlling the supply of water as per the needs of crop. Hence it is correct to say that internet of things provides good, favorable and sustainable environment for the activity of agriculture.

6. Healthcare: - Internet of thing has great and good impact over the healthcare sector of the country. It helps in easy monitoring of heart beat, pulse rate, blood pressure, calories, oxygen rate and other data related to the health of the individual. The devices provided by the internet of things help in monitoring or detecting chronic illness so that the treatment should start on time.

#### Emergence of Internet of things

Many decades, after expanding the market in country of developed economy, internet of things enter into the market of India. Despite of the huge time difference and difference in economic power the market of internet of things is expanding faster in India in comparison to the other big and powerful country. India is now on the way of becoming the

hub of internet of things. The society of India is getting highly dependent on the things provided by internet. In other words, the technological growth of India is extremely fast and good enough. The reason behind this development is the multi feature and attracting features of the phone along with the affordable rate of Internet.

But the rate of personal use of internet is lesser than the rate of use of internet in industrial sector of the nation and this is due to only one reason and that reason is the privacy concern of the individual.

#### Major issues regarding the internet of things

In the year of 2015, the government of India, issued a draft having name 'internet of things policy'. The major concern behind issuing this draft was to creating and developing the products of internet of things, mainly to the common citizens who are acting as a customer in the running market. This policy mainly covers the field of healthcare facility, quality of water, precaution at the time of natural disasters, and the field of agriculture. Even after the five years of the release of this draft it failed to become a legitimate policy.

#### Privacy Concern of the Individuals and The Relating Laws

Internet of things has billion of merits, but despite of this fact, this is also true to say that there are vulnerabilities in security of privacy due to the malware threats. The thieving of data, personal details, private information is easy by the third party through the help of web connected device known as botnets. This device runs on the bot programs of the computer system. With this third party can breach the privacy of the user and can easily spy over the activities of the user or spam them, which they can use against him/her to fulfill their evil motive. The probability of malware threat is high in environment of internet due to the use of the devices associated with the internet of things is high in numbers. The number of threat due to malware is rapidly increasing these days among the users of internet. Because of this vulnerable nature of internet of things, the use of things of internet is still limited in the field of personal use.

In India, there are numbers of legislation associated with the protection of privacy on the world of internet. They are: -

- a. The Information Technology Act<sup>1</sup>
- b. Reasonable Practices and Procedures and Sensitive Personal Data or Information Rules<sup>2</sup>
- c. Indian Constitution<sup>3</sup>



According to the Section 43A of the Information Technology Act, 2000 there is compensatory liability for the individual or the group whoever is having possession over the personal data related to an individual in the internet device of the individual. And when due to the negligence of that individual or group, the personal data become public in illegal way. Then this conduct or behavior will be considered as negligent behavior, in the situation of failure of conserving the personal data of an individual.

According to the Section 72 of the Information Technology Act, 2000 in the situation where another person holds the electronic data of another individual, and the former declares the records of personal data of the later to someone else (third party), then he will be liable for the imprisonment and fine in the case he found guilty by the authorized court.

According to the Indian Constitution, privacy is one among the fundamental right of every Indian citizen enshrined in the Article 21 under the title right to privacy.

It is true to say that, the Information Technology Act is spread over the wide area, the concept of this act is so vast and wide. But it only works over the data of internet and not on the data of internet of things. This creates a huge problem and confusion in matters regarding the limitation and powers of the internet of things while protection of the data of consumers and the rights of the service provider of internet of things to access those data.

Now for Indian Legal system, it is important to consider both the safeguard of the customer and the grievances of the service providers of the internet of things, but they ignored both the important points. Nationwide, The Ministry of Electronic and Information Technology of India encourages the use of internet of things. In the legal frame government use to suggest the

<sup>1</sup> 2002

<sup>2</sup> 2011

<sup>3</sup> 1950

prospective use but they failed to provide the basic guidelines to govern the unfavorable issues and the situations, when arose.

The US-based company naming Trendnet, provides the internet enabled cameras, which is used to monitor the security of home and sleeping babies. But it too has a loophole, it has a defective software, which enables the third party to hack the camera and the recordings of camera, sometimes with audio, sometimes without. The US Federal Trade

Commission failed to solve this problem.

After all this happening, there is now an urgent need of proper, organized and systematic approach regarding the security and the privacy of their respective users. There should be four steps to control these activities: -

1. There should be formulated regulations of the policy to protect the right of privacy of the users.

2. There should be a proper session from the side of the companies providing the services of the internet of things for the customers to aware them with the threat and measures to deal with these threats.

3. Companies providing the services should introduce advance security for the protection of the privacy of the customers, on the regular basis.

4. There should be proper rules which will prevent the government from accessing the data of the consumer on the basis of the performance of the mass surveillance, as it is a violation of the fundamental rights of the customers as well.

Liabilities of the Service Providers and Laws

There is augmentation of the internet of things for which they require stakeholders for the purpose of funding of the devices of the internet of things and for the modification of old devices. For the execution of this, they might need to share the personal data of their customers to the stakeholders, which increases the chance of data thieving and interruption in the privacy of the customers.

There is a guideline provided by the Information Technology Act, for the protection of the sensitive and private data of the customer. But the main important part in this is internet of things providing company have to follow all the necessary steps decided by the legislation before sharing or distributing the data and information or privacy of their customers. The liabilities regarding the leakage, sharing or distributing the data by the data holders without the consent of data owners is uncertain in the country. Now there is dying need to formulate the laws for curbing these issues.

Data Ownership

Because of the involvement of many stakeholders and the users of devices of internet of things it is a big challenge for the companies providing the services to maintain the privacy of every users. Hence the data come in the hand of many processor because providers of service provides the data of users to their stakeholders, because they are bound to do so, this snatches the right of data ownership of the users available on the devices of internet of things to uses them.



#### Case Laws

##### *State (N.C.T. of Delhi) v. Navjot Sandhu*<sup>4</sup>

In this case, initially Supreme Court has many different interpretations regarding the admissibility of electronic evidences. But after several discussion the Apex Court decided that legislation sought to pass a law regarding the admissibility of electronic record in the courts in the cases of modern era.

##### *Gobind v. State of Madhya Pradesh*<sup>5</sup>

While deciding this case the Supreme Court, reintroduced the concept of the right to privacy in the ambit of the Constitution of India.

##### *Khushwant Singh v. Maneka Gandhi*<sup>6</sup>

In this case, the court held that frequent visit of police without any reasonable cause in the house of citizen is infringement of the right to privacy of the citizen, which is the fundamental right of the citizens.

#### Internet of Things and new normal

Nowadays, when the world is suffering from the global pandemic, internet of things acts as a savior for many people in many ways. It plays the important role in the continuation or the smooth running of the education amid pandemic when every educational institution is closed for the sake of safety of the live of children. It has also an important part to play in the field of healthcare and industries.

1. Internet of things and education: - During this period, larger numbers of school and college or almost every educational institution adopted the method of online teaching and learning. With the help of virtual classroom provided by the internet of things, student, teachers and parents easily get connected and collaborated through out the time and they get regular updates regarding the marks, grades, attendance and new syllabus.

2. Internet of things and healthcare: - Internet of things and healthcare field have old relationship. The internet is used as a vital resource for doctor in connecting with senior doctor or any specialist for the purpose of consultation. But during this situation of pandemic it increases, now it helps in monitoring the exact location of the corona patient. Another application which helps during this time is robots. Robotization is proven helpful for the surgeon in performing the surgery, but these days robots are used to distribute food, sanitizers, and dispensary items by keeping safe distance and hygiene.

<sup>4</sup> (2005) 11 SCC 600:2005 SCC (Cri)1715

<sup>5</sup> (1975) 2 SCC 148

<sup>6</sup> AIR 2002 Del 58

3. Internet of things and work from home: - This internet of things helps the employees to get connected with their customers and their boss easily through different-different apps and devices of internet of things, which plays the vital role in the smooth functioning of offices, industries and companies during this stuck situation of pandemic.

4. Internet of things and government: - With the help of internet, the government easily get connected with their citizens and provide the guidance for the future safety and information of their future plans.

## II. CONCLUSION

The meaning of word thing of the term internet of thing is vast and wide. With the passing time the meaning is increasing at the high rate because despite of every loophole this internet of things is making the life of individuals so easy that they are depending over the devices of the internet of things. Now, nationwide it is the duty of the citizens to demand for the appropriate place for the internet of things in the legislation of the nation.

Now it is clear that Artificial Intelligence is a brain but the main execution is done through the internet of things, hence it is a main body of the artificial intelligence. In the world where internet of things is the major part of the life of an individual in the form of smart bulb, home, phone, cars, cities and in many other and uncountable ways, it is necessary to keep the high control on the functioning of the internet of things through the effective and serious laws. Because it is old concept that easy and comfortable works bring problem in life. It is the duty of the citizen only to let internet of things remain the boon only not convert it in to the curse and for this it is the time to ask for the clear and appropriate laws regarding the liabilities and the irresponsible behavior of either the user or the service provider of the internet of things.

Even now there are many unexplored areas of the internet of things and people need to explore it for better life, today or tomorrow but with the caution. Its time to consider that the blessing in the form of internet of things is gradually converting into the threat to the safety of the users of the internet of things. It should be the prime duty of the users to read the terms and condition and the agreements before signing in into any app and devices.

The government should take some active step in the direction of framing any effective legislation for the safety and protection of privacy



of the citizens who are now acting as users in the field of internet of things. The rate of cyber crime is increasing day by day just because of the unaware and careless nature of users as well as the government.

Now its dying need for the users, government and the service provider of the internet of things to wake up and understand their respective rights and duties in this emerging field before it become too late to return back and correct the situation according to their need, wish and desire.