
The Exiting Legal Provisions and Challenges in Intellectual Property and Data Protection Laws in India With Respect To Artificial Intelligence

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ABSTRACT: The technology of today's world are continuously change with computer, robots and machine, replacing simple human activities. Artificial intelligence is one of them innovation. Many sectors are getting benefited from this new technology but other side of this technology misused in various sector as like personal and profession. The Intellectual Property Rights (IPR) and also AI stem from the world intelligence. The copyright law of India declare states that an effort is to remain qualify aimed at copyright defence their uses to be a modicum of creativity standard. This paper disclose about AI working module, Intellect stuff right of India, copyright act in India, Indian patent Act, The design Act and privacy. Artificial Intelligence determination be playing a significant part in the development of patent law itself. AI based on Computer system, which is designed and also drafting the current industrial design protection laws and legislations may not declare to be enough provide them desired protection.

KEYWORDS: Artificial Intelligence, Copyright Protection, Intellectual Property, Indian Patent, Patent Law.

I. INTRODUCTION

A. *Artificial Intelligence*

Though the idea of artificial intelligence may seem to be a new one in the modern world, however it remains not a single idea, particularly for the booklovers who have been keeping a close watch on the scientific literature. Cutting-edge modern times though, it remains attractive more science as well as shorter fiction. The technology's world is changing rapidly, by computers as well as recent robots, displacing simple human activities [1]. Artificial Intelligence, easily place, remains the potential of a mechanism to reproduce brainy behaviour. It remains an umbrella period which mentions to info schemes enthused by biological schemes, as well as includes manifold skills along with mechanism knowledge, machine reasoning, natural language processing ("NPL"), computer vision, deep learning, computer vision, as well as powerful Artificial Intelligence[2].

AI involves to develop computer program to complete task and required human intelligence. Its logical algorithms can tackle learning, problem solving, perception, forecasting, language-understanding, logical reasoning, image identification's capability. AI is used in various sector within the modern world, from personally guide to self-driving vehicle. Self-aware machines are the part of science fiction and main core of AI base operating system. The application base on AI include advanced web search engines such as YouTube, Amazon, self-driving car and also gaming system, Agricultural equipment and so on, Artificial intelligence is founded in 1956 as an academic discipline. An artificial intelligence is the term for collection of data of all method and processing the data ,After the processing the data determine exact data to solve complex problem which is based on logical programing inside it. If one attempts to define the term AI then it could be most capable to break the process into its two components: artificial as well as intellect. The following Figure 1; shown about Artificial Intelligence used in various field. According to Figure 1 Artificial Intelligence will be play important role for Data Analysis, Data processing and Data forecasting in Upcoming technology in various field which of them [3].

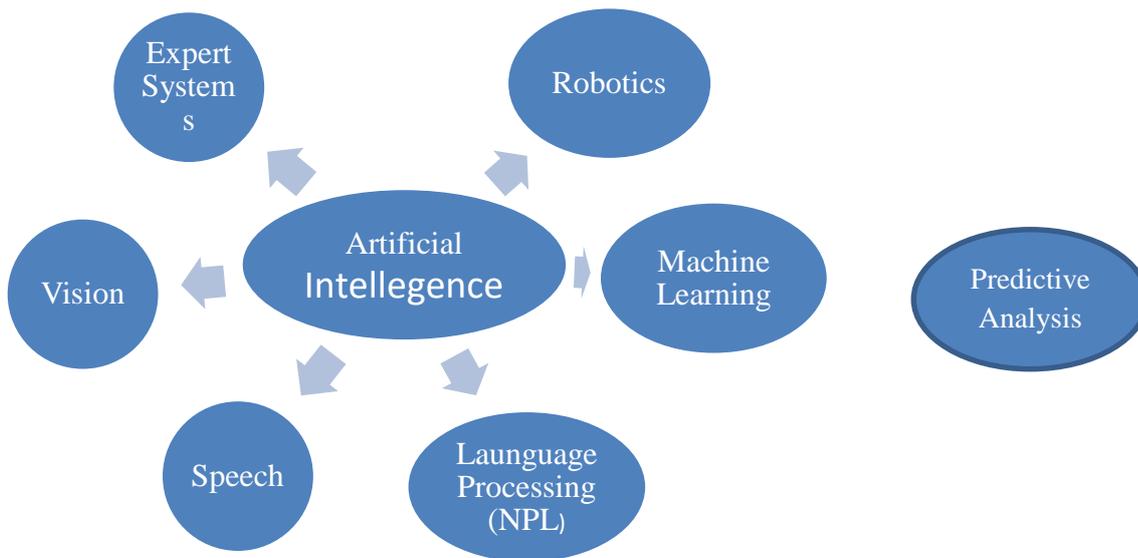


Figure 1: Block Diagram shows Applications of Artificial Intelligence in various Field.

For the first time, the neologism "Artificial Intelligence" is being used in a Dartmouth Conference, where John McCarthy of the Massachusetts Institute of Technology explained Artificial Intelligence as the engineering and science of building smart machines, mainly intelligent computer software. And though it is related to the task of using computers to understand human intelligence, Artificial Intelligence does not have to be constrained to biologically observable ways. The field of artificial intelligence is defined as the study of the synthesis and analysis of computational agents that act intelligently. As it remains very evident it is difficult to confine the definition of artificial intelligence within the four walls of human intelligence. Thus the primary focus should not be on confining the definition of artificial intelligence but to see its practical implementation as well as the implications of artificial intelligence.

B. Artificial Intelligence and Intellectual Property Right in India

Intellectual property rights (IPR) are legal rights that protect innovation idea/ result and unique creation from intellectual property and activity in the industrial level, literary or artistic field. Commonly most of IPRs is included trade secret, marks and copyright. The social purpose is behind the protection of intellectual property for upcoming new technology and innovation for our society. The function of intellectual property (IP) regime should be facility provide to transfer of technology in the form of direct investment, licencing and joint ventures.

The Intellectual Property Rights and also the Artificial Intelligence stem from the word intelligence. Thus it is very natural that there are chances of a possible conflict between the two. With the ever increasing scope of artificial intelligence it is very inherent that there will be concerns with respect to the intellectual property protection in the minds of those who want to enforce the protection of intellectual property rights. Let us have a

brief outlook on the various legislatures which may have an impact on the scenario of Artificial Intelligence with respect to intelligent stuff privileges cutting-edge India. For the protection of intellectual property lawyer is involved to provide justice to their client and secured their intellectual assets [4].

C. The Copyright, Act, 1957

Copyright is legal term which is explained the right that creator have over their artistic work, literary and work covered by copyright range from books, music, data base, computer program, advertisements, maps and technical drawing. The significant violation of intellectual property consist of infringement and misappropriation of trade secrets, Creating a brand name of any product and also logo to confuse the buyer to buy this product and disturbed original product's supply change, To avoid and protect marketing of any product and their original assets introduced the Copyright Act in 1957 by government of India. The all important criterion for the enforcement of copyright defence in India is the criterion of creativity. The copyright law in India clearly states that aimed at a work to qualify aimed at copyright defence their requirements to be a modicum of originality standard. The same remained discussed at length in the case of Eastern Book Company besides Others v. D.B Modak besides another[5]. Cutting-edge this case the law court detained that a 'minimal degree of creativity' was obligatory, 'there must be roughly substantive difference as well as not merely a unimportant variation'. However even if we analyse this test it is not very clear whether the same criteria applies to the works as a result of Artificial Intelligence. In fact, it perhaps does not give a certain conclusion which can state that artificial intelligence does not fulfil the criteria of modicum of originality cutting-edge instruction to enjoy the copyright protection according to the Indian legislations. Moreover according to the present copyright legislations in India the copyright

can only be enjoyed by a writer who according to the copyright act has to have a legal personality of its own. Section of 2(d) of the Copyright Act states that “author” means,- “(vi) in relation to any literary, dramatic, musical or artistic effort which remains computer-generated, the person who causes the effort to be shaped;” An important subject which is created by this provision remains the usage of the arguments “the individual who reasons the effort to be shaped”. As it is very clear from this delivery, only a usual individual or a lawful person can be cutting-edge a position to make a copyright. Thus the present lawful outline underneath The Copyright Act, 1957 does not really cater to the possibility of the creation of works through artificial intelligence on whom the copyright protection can be inferred. This lacuna arises due to a restricted and traditional interpretation of the copyright as an intellectual property right[6]. Thus, it would be a highly debatable issue as to whether who will have the copyrights related to the words created through artificial intelligence in India as this area is not really addressed by the present laws in India. There is no doubt about the fact that at the end of the day there will be a normal or a lawful person involved in the process of

initiating the work which has been created even through artificial intelligence. But, is the initiation of the work on which the copyright is intended to be claimed, enough for the natural or legal person to claim protection for it when ultimately the work is a result of artificial intelligence? At the same time the fact also remains that the actual work will be created by Artificial Intelligence and not by that natural or legal person himself. In such a tricky scenario, it remains a grey area as to who will enjoy the copyright protection in the current Indian copyright regime.

D. Indian Patents Act, 1970

Unit six of the Indian Patents Act, 1970 explained that a claim for a patent aimed at slightly new creation and creation may be builds solitary through the actual besides the Initial discoverer of the discovery or the peoples allocated by such individual. Figure 2 shown about the requirement of Patent law and how to protect any intellectual property and their Right from any person who can copy or stole their Intellectual property but Indian Patent Act protect the Intellectual Property Right[7].

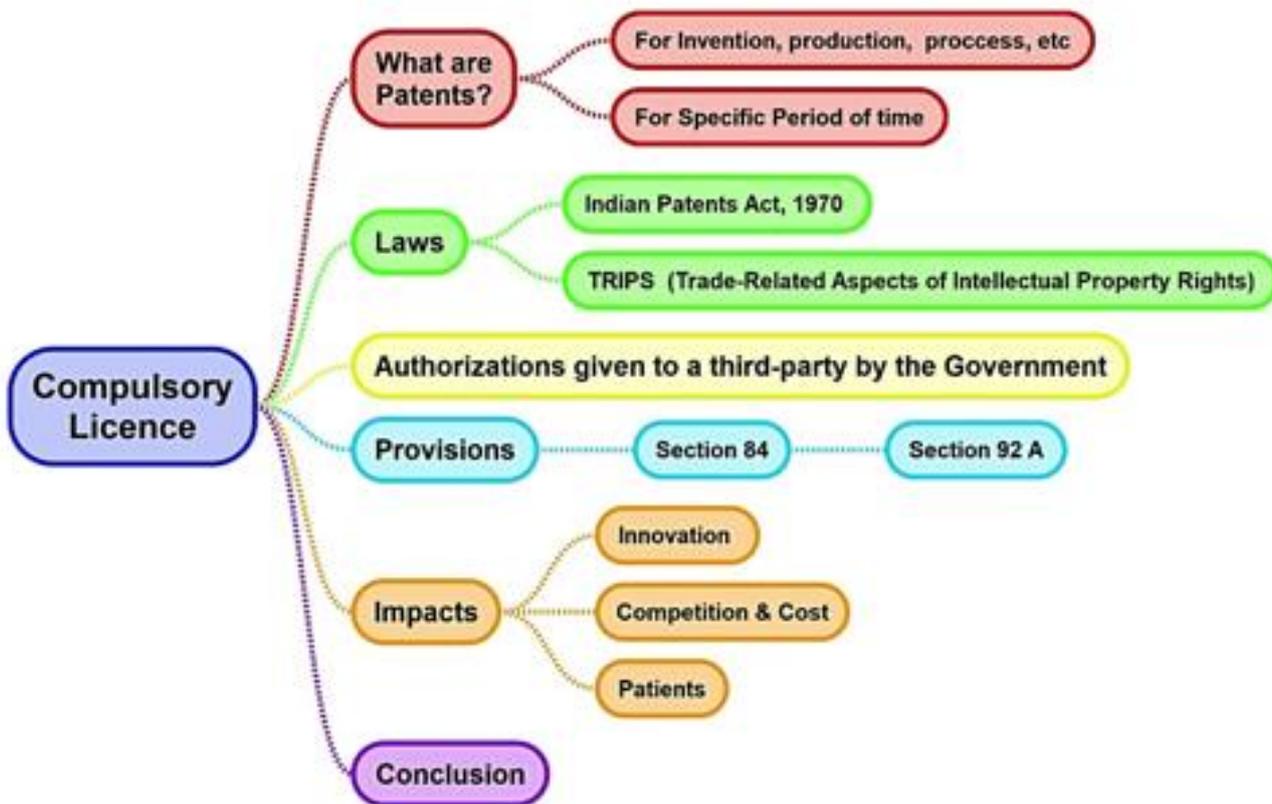


Figure 2: Illustrates the Block Diagram of Indian Patent Act and Law and Compulsory Licence.

At the same time, Unit 2 (y) of the Act limits the description of “factual and 1st inventor” to the degree of without the 1st trader of a creation into India, or a individual to whom an discovery remains 1st connected outdoor India, as well as nonentity additional. If one has a look at the Bare Act it is clear that it does not mention that the inventor of the patent that is the true as well as first inventor needs to be a natural person only. In this way, a

plane reading gives an inference that even a patent obtained through Artificial Intelligence can have the protection of the patent laws in India. At the same time it is also established practice that the true as well as first inventor is most of the times assumed to be a normal or a lawful person only. The criteria of validation of patents is 20 years after the filling the date for patentability of any innovation which innovation should be business applicable

and change people lifespan style in efficient way. But the application filed under patent co-operation treaty (PCT) remains a period of 20 centuries from the priority time, validity of trade mark is 10 year after that it will be renewed[8]. The main to provide copyrights is to encourage new creations. It gives the owner the right to claim an invention, but it also assures that the innovation's widespread use in the public domain is not secured for a long time. IP is expanding as a segment each day, as per Trend's Annual Survey 2019 Edition, wherein included that the industry has started to get more work in just a year.[9]. In the coming years, IPR will keep rising in all places of the world, and with advances in technology and computational knowledge, the rate of inventions is bound to grow rapidly. The management of an IP portfolio should be converted into a huge task; for example, when searching for patents, researchers will have to use complex word searches and Boolean logic to go through the actual data. And using machine learning methods, • make this process easier, removable, and faster, lowering the risk of error. Modern research could also tackle the issue of keyword searches without inner visual, which hurts traditional AI base data centres. AI has a lot of scope for automation tasks like trademark clearance and patent searching, as well as lowering the costs for customers who can't even afford legal services and databases. It will also offer greater accountability to the issuing patents, as well as the tendency to advance a system for which accountability can be formed rapidly while also tackling a complex computational issue.

E. Patentability Criteria

Patentability criteria for any innovation which should be based on Novelty, Inventive Step and Industrial claim. Novelty mean new invention which is Unknown to public before its filing date. The invention must result in the establishment of new info, a new product, or a new process. The document, granted Patent, published Patent, non-Patent literature, or any other known source n't be used to predict it. An invention's inventive step is a technical advancement which has economic advantages as compared to existing knowledge. The invention should be the output of the inventor's new creative efforts. It should be something that the person with the potential to invent something new does not expect.[10].

So if an inventor succeed in fixing a new technical challenge by inventing something new, if one skilled in the art who is from the same field finds the same solution by using knowledge, motivation, or suggestion. The technical solution provided by the inventor in that context will not be considered original nature for any invention. Business claim define that it should be industrial usable for increasing the value of society. Patents are granted to permit the inventor to freely exploit his or her invention without fear of competition. In this context, it is vital that the invention be useful and get an industrial use. A product or process based on an invention should be used or manufactured. Apart from this dispute of the patentability of the patents with regards to artificial intelligence the domain of artificial intelligence has certainly got a big role to play in the future with regards to the evolution of patent laws itself. In order that the scope of the invention can be broadened there has been a practice lately to use the natural language processing as well as to adopt it in such a way so

that it generates variants of the already existing patents. However, Artificial Intelligence would be perfectly play a significant character in the revolution of patent rule in world wide. The sophisticated use of essential language processing has led to the proliferation of copies of the patent law facts in order to broaden the scope of the invention. As they will form the corpus of prior art that is available in the public domain, the publication of such patent claims using technology will help to stop obvious and widely derived ideas from being patent. If the inclination of use as facilities assistances a position cutting-edge the company or any organization, it can substantially increase with time the indecision related by the administration of a patent by way of the hazard of not search previous art that invalid the patent would rise. With regards to this evidence it can be reasonably expected that the artificial intelligence may be developed in such a way in the near future so that it can help in the discovery of prior art as well as also the corresponding increase in the demands as well as of artificial intelligence from the patent law point of view in the Indian scenario.

F. The Designs Act, 2000

In our daily lifetime, we meeting many substances which we may considered through detecting their strategy about any product. Consumers pay attention to products that are artistically designed if they watch them diligently. These designs can take the form of art, art, or graphic design, among other stuff. Professionals might create these designs, which include architecture blueprints or engineered designs for any property, and also interior designs. Originally, the Design Act of 1911, issued by the British government in dependent India, governed this Act. The new Law was implemented in hopes of bringing the Design Act up - to - date with international law. The Design Act of 2000 officially rules design laws.The Designs Act, 2000 remains a totally code cutting-edge itself besides save underneath it remains completely constitutional cutting-edge nature. This Act defends the graphic scheme of object that remain without chastely utilization of unit 2(d) of the Act, which define as: The term "project" makes reference to the topographies of form or size formation, ornament, design or arrangement of lines or colours applied to any article, whether three-dimensional or two-dimensional or both, by any industrial process and model, whether mechanical or chemical, manual, separate or combined, which in the complete article appeal and are solely allowed to judge by the eye, but without including any principle or mode of construction or otherwise. which is essence a mechanical device and omits any trade mark as defined in clause (v) of sub-section (1) of section 2 of the Trade and Merchandise Marks Act, 1958, or any property marking as defined in section 479 of the Indian penal Code, or any artistic work as defined in clause (c) of section 2 of the Copyright Act 1957. The copyright on a registered design is only protected for 15 years after the filing date. The copyright for design is initially registered for ten years, and can be extended again for 5 years by filing a renewal application. Figure 3 shown below in Diagram to describe about the Patent designing for any creativity and invention which is the Intellectual asset of Individual one[11].

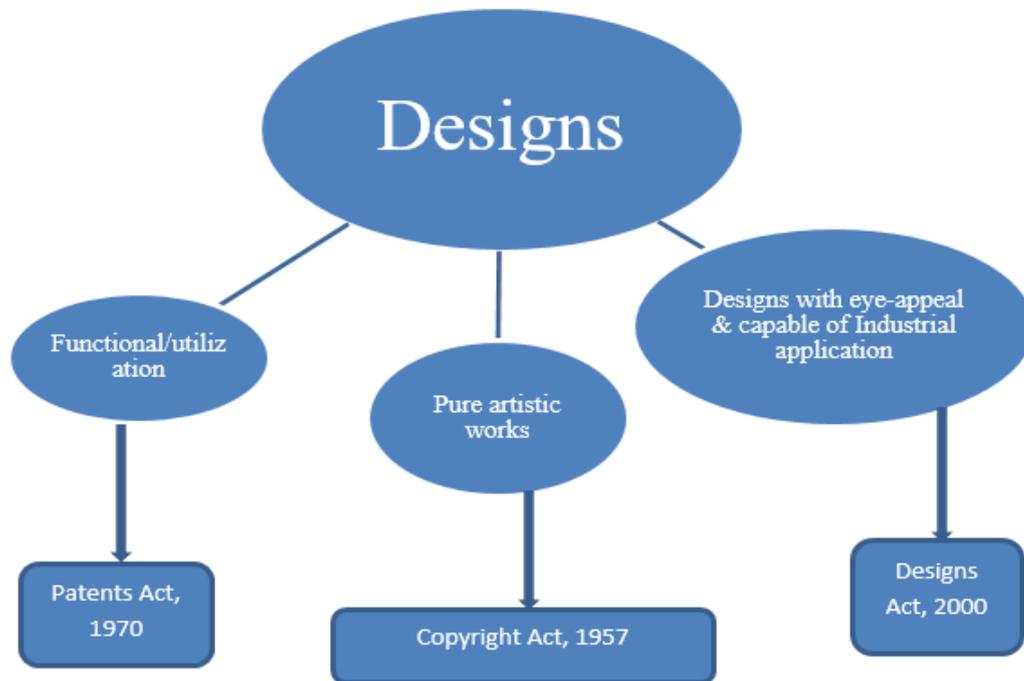


Figure 3: Schematic Diagram describe about Patent Design and evolution in Patent Designing

In the lack of any other IP rights, the design registration gives the proprietor a monopolistic right, enabling us all to legally prevent others from reproducing, manufacturing, dealing, or selling the registered design without one's approval. The design registration is especially useful for entities where the shape of the product has aesthetic value and the entity wishes to have exclusive rights to the novel and pure original design applied to its product or article. The design look for protection should be new or original, & this should not have been disclosed to the public in India anywhere in the world by prior use in any way. The design must be easily distinguishable from other designs or combination of designs that are already registered or public information. A grant of patent on a new product or process that has an inventive step (technical advancement) and is aimed used in trade. Patents must have a technically significant functional and structural aspect to be valid. An article and patent, on the other hand, are rated solely on the functionality of the feature/shape, not on its aesthetics. The proprietor's or company's registered trademark. As a result, a new industrially applied shape or size, as well as pattern, must be registered as a design, but once the designing module becomes an icon of the origin of the article/products of any industry, the company could be viewed for trademark registration of the size/shape/pattern.[12].

The current regime of the industrial designs mainly focuses as well as limits itself to solitary the symmetrical replicas as well as symbols on which the industrial design protection can be implemented in accordance with the present legislations[13]. However, with the ever

advancing techniques in the field of computers as well as cell phones to various wireless connection technologies, the increase in the bandwidth, the advancement of 2G, 3G, 4G and 5G mobile connectivity technologies as well as various other Artificial Intelligence advancements in the form of Alexa and Siri, it can clearly be observed in this era that the companies are shifting as well as trying to form a smart intelligent machine error at present that could also provide a platform for the companies to achieve high growth with the near future in mind. With these companies primarily focusing on the Computer based Artificial Intelligence, the designs as well as drafting the current industrial design protection laws and legislations may not prove to be enough in order to provide them with the desired protection. Moreover, if these suitable legislations with effective drafting are not implemented at the optimum time, then the Artificial Intelligence regime in India as well as the developing world in general may end up in chaos. If these very steps are taken after the setting in of this chaotic environment, then it could end up being an effort which is too little too late. As the very nature of Artificial Intelligence lies in its updates and ever changing nature, the establishments around the world, with India in particular, should implement the laws in their jurisdictions in consonance with this ever changing and adaptive nature of Artificial Intelligence. Otherwise, even the growth potential of the developing world, with India as an important component of it, may not be realized to its fullest. The recent advances in technology riding on the development of Artificial Intelligence has indeed got much more to offer than merely geometric models as well as

representations. The new technology is far more creative as well as systematic in a way so as to provide various mechanical solutions and in a way therefore it really undermines the effectiveness of the current Industrial Designs legislations in India[14]. Section one (j)(iii) of the Designs Act, 2 thousand curiously describes the “Owner of a novel or actual and unique project” as the writer of the project as well as second individual too, anywhere the project has devolved from the unique administrator upon that individual. As it stands clear from the wordings of the Bare Act, the design has to be evolved from an original proprietor. Now, here comes the tricky part where the determination of a proprietor is extremely difficult when the project is actually a outcome of artificial intelligence. Much like the copyrights or the patents situation, there is also a very high possibility that the design which has actually been formed may not be even evolved from the intelligence of a human being at all and it may be purely as a result of artificial intelligence only. This is where the current jurisprudence and legal theory is lacking with regards to the protection which can be given to the designs. This again reminds us of the possible conflict which is faced by the shortcomings of the as current patent legislations in India.

D. Artificial Intelligence and Privacy

With the rapid increase in the growth of technology as well as the shift from wire based connectivity to wireless connectivity, there has been an exponential increase in the amount of devices which can be linked to the internet. The number of internet users around the world, specifically in the developing countries has increased by leaps and bounds as a result of this phenomenon. The personal profiling of various people has become open for the access of artificial intelligence in this open era. On the same lines, the personally identifiable information related to things like the internet, employment, education, transportation, healthcare, data analysis etc has resulted in a very rapid increase in the access of artificial intelligence. A very rudimentary example of this phenomenon can be seen from the fact that the targeted advertising which is being subjected to each and every individual based on his or her preferences on various social media platforms like Facebook, Instagram, Twitter, etc. The targeted advertising is also extended to the newly ushered in era of E-Commerce giants like Amazon, Flipkart, Myntra, Snapdeal, etc. This targeted advertising is nothing else but Artificial Intelligence put into action for business gains.

II. DISCUSSION

Where, on one hand, the advancement of technology is always welcome for the ease and betterment of our lives, but it turns out that the technology always comes with a few flaws in its purview. Talking of contemporary issues, one of the pertinent issues related to this is the violation of the privacy of the people. The current landmark decision of the Supreme Court fashionable “K.S Puttaswamy & Anr. v Union of India & Ors]” where the right to confidentiality was detained to be a important right underneath the Constitution of India goes a long way in explaining this stance[14]. Furthermore the Hon’ble Supreme Court also went to the extent of observing that there is a very dire need to have a comprehensive legislative framework in order to protect the data as well

as the privacy of the people from the clutches of today's technology advancement as well as the disadvantages which follow as a result of it. The latest Data Protection Bill 2018 is a right step in that direction as well.

Apart from the requirement of the certain amendments in the data protection laws as well as the observations of the Hon’ble Supreme Court behind the formulation of a very comprehensive as well as inclusive data protection legislative Framework in India, there are also certain already existing laws since more than a decade in our legislative framework which deal with some of the issues of a similar nature. Section 43A of the Information Technology Act of 2000 also covers "reasonable security procedures" in the Information Technology (Reasonable security procedures and procedures and sensitive personal data or information) Rules, 2011 ("SPDI Rules"), which have passed on April 13, 2011. Rule 3 of the said rules lays out the criteria for what constitutes sensitive personal data or information about a person.[16].

Information that is freely available or accessible in the public domain or given under the Right to Information Act does not consist. The body corporate is also obliged to take reasonable steps to ensure that the information provider is aware collection, the purpose in which the data is collected, the intended recipients, and the name and address of the agency collecting the information. Following the rules laid down in the SPDI, the service provider in case being rejected about the consent given by the customer, then the service provider will be under an obligation to either delete that information from all his current records or to stop providing the services to that particular customer at the same time. The current SPDI Rules appears to be the best framework and it is also a very progressive step in the right direction. However it has got limitations of its own. The biggest limitation of SPDI Rules is that it only includes within its purview certain kinds of information. When it is the case the information is not of a kind which has been included in the SPDI Rules then that information will not be subject to any protection under the current SPDI rules framework.

III. CONCLUSION

In the judgment of "K.S. Puttaswamy & Anr. v Union of India & Ors," the Supreme Court of India enumerated the need for a comprehensive date protection framework to effectively deal with this issue. In July 2017, a committee of experts was constituted under the chairmanship of Justice B.N Srikrishna with the goal of finding important data protection issues in India, finding solutions, and formulating a model data protection bill that could be introduced in the Indian Parliament. The committee submitted a white paper defining its recommendations for India's new data protection framework, where it posed questions us about collection and use of data by autonomous entities and individual from people and enterprises in India on whether data protection and security obligations should be imposed on Artificial Intelligence and other similar automated decision-making entities. To definitively determine the impact of Artificial Intelligence in India, the new bill that will be presented by the aforementioned committee must be scrutinized.

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