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**“INTERFACE BETWEEN BIG DATA AND INTELLECTUAL  
PROPERTY RIGHT.”**

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**I. INTRODUCTION:**

*“Since opening up of Indian Economy Post-New Economic Policy of 1991-1992, we moved from an isolated closed set-up to inter-dependent world, which in turn has now modified to an interconnected world. The statement that we live in a globalised world seems to be slightly outdated and now what has gained more relevance in the world where the market place is not restricted to a brick and cemented shops and stores is Data, of every and any kind. Thus, it won't be wrong to suggest that we live in a “datafied” digitalised world<sup>1</sup>. For the record, this data is used by companies to improve their services.*

*The debate is often sparked when the question as to quantity, nature and type of data is raised as to what extent the data can be used under the garb of improving customer experience and not as an attempt to gain an edge over the other market competitors. In this sequence, Intellectual Property rights can't be overlooked. There is no denying to the fact that there exists an interface between intellectual property rights and big data. This chapter is a way forward in understanding the extent of the interface and its implication between big data and intellectual property right. This is primarily because intellectual property rights might interfere with the generation of big data as well as the analytics use of big data.<sup>2</sup>”*

<sup>1</sup>Mirko Tobias Schäfer, Karin Van Es, The Datafied Society: Studying Culture Through Data 3 (Amsterdam University Press, 2017).

<sup>2</sup>Julien Debussche, Jasmien César, Big Data & Issues & Opportunities: Intellectual Property Rights, Bird & Bird ( April 2, 2020, 9:12 AM) <https://www.twobirds.com/en/news/articles/2019/global/big-data-and-issues-and-opportunities-ip-rights>.

## **II. PROMINENT ISSUES:**

An Analogy can be drawn to understand what actually big data does. Compare big data to a piece of iron ore, it can be cast into to weapon or a shield by using the available techniques to suit the requirements. Same applies to big data. Big Data analytics which in turn uses machine learning and deep learning as the two-core operation provides value to big data. The age hold notion behind copyright laws is that, “if it’s worth copying it is worth protecting”,<sup>3</sup> however this stands long discarded. Many argue that in order to attain a fair market competition the power of big data which lies in its exclusive ownership should be diluted thereby making it available in the public domain but this creates a serious issue regarding a potential infringement of various IP rights.<sup>4</sup> A very common question that is asked every now and then is that, “would machine generated products have the same market as that of human generated products and would they be subjected to same IP rights?”<sup>5</sup> The more pertinent questions in this sequence that can be asked are as follows:

- Do the entities that are involved in collecting big data need IP incentive?
- If the machine and human work together can we apply the notion of joint authorship?
- Should be considered the machine generated portion (which if generated by a human would be subjected to copyright) as copyright free?
- Is there a justification to grant an exclusive right to a machine-made invention?
- What is the legal status of clinical trial data generated using big data analytics in the pharmaceutical industry?
- What is the area of application of trade secret law to big data?

Before moving forward let's look into the concept of test data management. Test data management or TDM is the process of planning, designing, storing and managing software

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<sup>3</sup>University of London Press v University of London Tutorial Press, 2 ch. 601 at 610 (1916).

<sup>4</sup> *Id.*

<sup>5</sup>General Francis Gurry, Intellectual property in a data-driven world, WIPO Magazine (April 5th , 2020, 8:57 AM), [https://www.wipo.int/wipo\\_magazine/en/2019/05/article\\_0001.html](https://www.wipo.int/wipo_magazine/en/2019/05/article_0001.html).

quality testing processes and methodologies.<sup>6</sup> Let us now systematically analyse the given issues, and seek their answers in the existing literature.

### **III. COPYRIGHT:**

The entire copyright law across the jurisdictions of the world is based on the notion of *originality*. The key international instrument which serves as the beginning point for the copyright law is the Berne Convention. It is a mandatory requirement under the convention that the work must be original. With the advent of electronic database in 1990s, new developments took place in the field of corporate laws and accordingly TRIPS Agreement came into effect in 1994.<sup>7</sup> An argument has been made against the tables of the outputs that are generated using TDM. *Redbook*, which happens to be a controversial car valuation database, is an appropriate example in this regard. The case came before the US Court of appeal for the second circuit wherein the issue was whether the price generated by *Redbook* be subjected to copyright production. Though the court was of the opinion that the price was generated on the basis of algorithm that used the age of the car and mileage amongst other things to give an idea about the fair valuation price. It was further held that since the price that was generated by *Redbook* was merely an idea about the price and as it is a well settled principle of copyright law that ideas are not protected. Hence it was not awarded any copyright protection. This case sparked debate amongst all the stakeholders in the issue regarding what would be the IP status of a machine created product and this is the issue still to be addressed.

A similar example is found in the case of Google books, wherein Google started an ambitious project to scan millions of books, but the project faced serious blockade when the issue of copyright came along its way. This was primarily because of the non-uniformity of copyright laws and framework pertaining to two big data across the jurisdictions in the world. Another important juncture between Copyright law and Big data is that would the three-step test hold

<sup>6</sup>Shoban Babu Sriramoju, INTRODUCTION TO BIG DATA: INFRASTRUCTURE AND NETWORKING CONSIDERATIONS 149 (Horizon Books 2017).

<sup>7</sup>Daniel J. Gervais, Exploring the Interfaces Between Big Data and Intellectual Property Law, Vanderbilt University Law School (April 20, 2020, 4:50 PM), <https://scholarship.law.vanderbilt.edu/faculty-publications>.

good in such a case. These three steps are the set boundaries for exception and limitations to copyright right. *These are as follows:*

- In certain special cases
- Reproduction does not conflict with a normal exploitation of work
- Does not prejudice the legitimate interest of the author

If the above three are satisfied they can be used as an exemption to the copyright right. The TDM is to be checked with the touchstone of the above three criteria to be legit.<sup>8</sup> For the first point, the TDM, if it's for a pre-specified purpose, can be granted an exception.<sup>9</sup> For the second one, it's very difficult to define the broad contours of the term normal, hence it can be only done on a case to case basis. Lastly, the WTO dispute resolution panel concluded that prejudice to the legitimate interest of right holders reaches an unreasonable level if an exception or limitation causes or has the potential to cause an unreasonable loss of income to the copyright holder. Thus, with the technological advancements in the field of AI and big data, it is very important to balance both the sides to this argument that is protecting the interest of IP holder and broaden the scope of who all can be the IP right holder and accordingly subjecting them to a varying degree of protection.

#### **IV. PATENT:**

The interface between patent rights and big data is on several levels and different degree. AI is often put to use in order to find and interpret the useful information in a patent thereby facilitating technology transfer. This is because the patent holder can exercise their right of patent bargain wherein the patent holder fairly discloses the invention for a limited Monopoly on its use. But the problem arises in the language of the patent which is very often than not very difficult to understand, such a language is called *Patentese*. This is where AI kicks in. Furthermore, AI is also used to determine the commercial viability of the patent. AI also plays a very important role in patent examination as it can within a matter of seconds go through a database which can be in the range of terabytes and thus establishing the extent of novelty of patent application. The issue arises when one goes through the existing set of legal

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<sup>8</sup> Supra Note 4.

<sup>9</sup> Supra Note 4.

frameworks for granting a patent. No jurisdiction across the globe requires the applicant to disclose whether a particular invention for which the patent is sought was developed with the help of machine learning, deep learning, artificial intelligence or Big Data analytics.<sup>10</sup> There is no definite answer to this proposition as of now. Another hot question is whether there can be a patent on a system themselves? International patentability criteria are contained in Article 27 of TRIPS, as per which it leaves it to the members of World Trade Organisation to determine what constitutes invention. However, there is no unanimity in opinion regarding the patentability of AI generated invention. Supreme Court of the United States of America in the case of Alice vs CLS Bank, held that algorithms are essentially unpatentable. Thus, the role of patent in protecting algorithms seems fairly narrow going forward.

## **V. DATA EXCLUSIVITY:**

This right is closely associated with the patents for pharmaceuticals. This right is contained in TRIPS and a more exhaustive framework is provided in post-TRIPS also called TRIPS-Plus. The point of concern here is that the provisions mentioned in trips can prevent the usage of TDM tools as it is seen as a negative development because it is collected clinical trials and their ability to provide large and comprehensive data said that are highly valuable not the specific health and safety outcome proven by those results. However, in absence of proper legal framework regarding the IP protection that can be accorded to algorithmic results it becomes very difficult for the AI patent holder to run a particular drug through its program and at the same time be able to legally guard the result.

## **VI. TRADE SECRET AND CONFIDENTIAL INFORMATION:**

TRIPS agreement provides for a broad framework regarding the protection of trade secret and confidential information. With the advent of Internet of Things, the traditional methods like the non-disclosure agreement seem to be futile. This is so because the IoT provides a third-party access to the info which might not be under any non-disclosure agreement with the

<sup>10</sup>IGIR in Law, Is Big Data a game changer for IP rights? Maastricht University Blog (Jan 6th, 2020, 3:00AM), <https://www.maastrichtuniversity.nl/blog/2019/01/big-data-game-changer-ip-rights>.



concerned enterprise. In the absence of a proper framework to regulate the data generated by algorithms it becomes very difficult to meet the end objectives of IP rights.

## **VII. CONCLUSION:**

The interface between big data and IP rights is very complicated and unavoidable. This gives rise to the need for properly regulating and serving the interest of both sides. In most of the cases as software are protected by copyright but the results that they generate are not covered under any law this leads to you are serious issue which needs immediate attention like privacy violation and IP right infringement. The interface between copyright and big data has revealed various loopholes in the legislative framework to accommodate the two together. Several other laws like the law of tort can be used to fill in these loopholes. Certain exceptions need to be carefully carved out to harmonize the usage of Big Data analytics and copyright rights. A positive step in this direction can be exempting TDM from data mining laws.<sup>11</sup> The answer to harmonize patent and algorithmic data related rights is a complicated one because of novelty.

### **Just to sum up it can be concluded that:**

- Existing set of frameworks on both the sides that is IP right and big data is not sufficient to accommodate the current advancements.
- The only way out is to upgrade the traditional approach in light of current situation.
- Proper set of parameters need to be laid down in form of a uniform framework on similar lines as that of TRIPS agreement.
- Judiciary and the legislature need to adopt a broad interpretation to facilitate fair competition and at the same time not hamper innovation.

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<sup>11</sup>Amit Aggarwal, AI and intellectual property rights: Redefining patent laws in India, Economic Times ( Jan 2, 2020, 11:45 PM), <https://cio.economictimes.indiatimes.com/news/government-policy/ai-and-intellectual-property-rights-redefining-patent-laws-in-india/72864549>.