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PROTECTION OF DATA GENERATED BY E-COMMERCE MARKET SPACE AS INTELLECTUAL PROPERTY

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Chandni Raina

INTRODUCTION

With the growing digitization of the economy, there is also an emerging discussion on who owns the data generated through action of individuals in the ecommerce market space. Is there an intellectual property attached to the data generated? Can this data be exclusively owned? Will intellectual property protection affect access to data? It is also important to discuss protection of data in its raw form and the protection that exists for compilation or processed data.

A good place to begin this analysis is the Agreement on Trade Related Intellectual Property Rights (TRIPS Agreement). Broadly, of the seven intellectual property rights that the TRIPS Agreement discusses, the most relevant to the protection of data are copyright, patent and trade secret. The others - namely trademarks, geographical indications, semi-conductor layout design and industrial design protection - do not address data protection.

1. Protection Of Raw Data and Databases as Copyright

Under the copyright section of the TRIPS Agreement, Article 9 specifies that copyright protection shall extend to expressions and not to ideas, procedures, methods of operation or mathematical concept. Further, Article 10 on 'Computer Programs and Compilations of Data' states the following:

1. Computer programs, whether in source or object code, shall be protected as literary works under the Berne Convention (1971).

2. Compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such. Such protection, which shall not extend to the data or material itself, shall be without prejudice to any copyright subsisting in the data or material itself.

The handbook on the WTO TRIPS Agreement[i] mentions that Article 10.2 of the TRIPS Agreement "clarifies that databases and other compilations of data or other material shall be protected as such under copyright even where the database include individual pieces of data that are not protected under copyright". Databases are protected provided that they, by reason of the selection or arrangement of their contents, constitute intellectual creations. This protection will be independent of the copyright subsisting in the data or material itself.

From this one can infer that copyright protection can exist for ***processed data*** which has been compiled and presented in a manner that it constitutes intellectual creation. Article 10 neither affirms nor negates protection for data itself or that is, raw data. However, for raw data to have copyright, it would need to qualify the definition in Article 9 on what is amenable for copyright protection. Effectively, raw data is protected only if it's an expression of an idea. Since raw data itself is factual information and not an expression, it cannot be protected as a copyright.

In the Unites States of America[ii], data itself will not be protected as long as it is factual in nature. Protection is only available for representation/compilation of such data in the form of database. The protection of databases would however be very weak as it is only likely to relate to selection of data in the database and the manner in which it is organized.[iii] In such situations extracting content from a database without using the original structure or format will not infringe the copyright as it is the compilation alone that is protected and not the data in it.[iv]

In the European Union[v] an original and creative database is protected under the copyright law for 70 years after the death of the author and non-original databases which involve extensive expenditure is protected for a period of 15 years from the date of completion of the database or from its date of publication under the sui generis protection for databases (96/9/EC). Sui generis protection allows further protection of another tranche of 15 years for updation and extension that involves substantive investment. This protection can continue forever. Again, like in the US law, protection of raw data is not addressed under the EU laws.

In India, too, the copyright act does not discuss protection for raw data although databases are recognized as literary works in section 2(o) of the Copyright Act, 1957 and are protected for 6o years after the death of the author.

The question is - how would one classify big data? That is 'is big data akin to raw data or can it be categorized as a database or compiled data'. According to Oracle[vi], big data is unstructured and has high volume such as twitter feeds, click streams on a webpage etc which is of unknown value, has high velocity (i.e. the rate of receiving the data) and has variety. Big data is collected in a mechanical manner and involves no creativity. This data has intrinsic value for decision making but only when it is processed. Big data therefore is akin to raw data and can have no protection under the copyright regime.[vii]

2. Protection of Raw Data and Databases as Patents

Patents are granted for an invention that is novel, involves an inventive step or is non-obvious and has industrial application. Article 27.1 of the TRIPS Agreement states that "…, patents shall be available for any inventions, whether products or processes, in all fields of technology,

provided that they are new, involve an inventive step and are capable of industrial application. …."

There is no novelty in data as it is a factual representation, therefore data or the database cannot be patentable. Even where data is created by a machine through its own activity and is novel, it would still be obvious as it can be generated by any such machine.[viii]

In the US, the Supreme Court in the Alice Corp Pty Vs CLS Bank Int'l case had held that abstract idea could not be patentable just because it was implemented on a computer. With that business methods became non-patentable. In the CG Technology Development LLC vs Big Fish Games Inc, the Unites State District Court of Nevada relied on the decision in the Alice Corp Pty Vs CLS Bank Int'l and held that a patent that facilitated collection of data from online activity of the users of gaming application was invalid because the claims were for abstract ideas that are excluded from patentability.

In the EU, abstract ideas or mere collection of data through the use of ecommerce site is not patentable on the grounds that the computer programme or an algorithm that enables collection of such information is abstract mathematical operation and that no inventive step is involved. Computer programmes as such are also not protected by a patent (Article 52(2) (c) and (3) EPC). The rationale for this is that the use of algorithms to process data is non-technical in nature.[ix]

In India, patent protection is not possible for any computer software that is used in collecting and compiling data because under Section 3k of the Patent Act, 1970 (as amended) "a mathematical or business method or a computer programme per se or algorithms" are not patentable.

3. Trade Secret Protection for Raw Data and for Databases

Article 39.2 of the TRIPS Agreement addresses protection of undisclosed information of natural and legal persons from being disclosed to, acquired by, or used by others without their consent in a manner contrary to honest commercial practices so long as the information is secret, has commercial value because it is secret and reasonable steps have been taken by the person in control of the information to keep it secret.

Here the subject matter of protection is 'information' but not just any information. The conditions that need to be met are that this information must be:

a. secret;
b. have commercial value from it being kept a secret; and
c. steps should be taken to keep the information secret.

Now, how would one consider data? Can data be considered as 'information'? Data could be classified into three categories - the first being individual data. Individual data may not be information. The second category, is the commercial data. Such data is actually processed data such as market research, information on customers or client list etc. This data has also been regarded as information.[x] This has economic value as it can be used to improve business

strategy or be compiled in such a manner that it is of use to a specific industry. However, the economic value for the ecommerce platform will depend on whether the information is kept secret or is made readily accessible. It is only when the information is kept secret that the ecommerce site that generates this information through the activities of the individual actors participating on the site/platform could use them for providing relevant data for commercial purpose. The secrecy of this data is maintained by protecting this information through technology protection measures such as coding. Thus, organized data generated by ecommerce sites using the data available to them from data on their sites complies with the requirements delineated by the TRIPS Agreement and could be protected by platforms as trade secret.

Be that as it may, it is important to note that paragraph 1 of Article 39 of the TRIPS Agreement sets down the context in which this protection needs to be provided. The context is ***to ensure against unfair competition*** as provided under Article 10 bis of the Paris Convention. Article 10 bis of the Paris Convention mandates member States of the WTO to provide effective protection against acts of competition contrary to honest practices in industrial or commercial matters. It includes, inter alia, acts that may cause confusion by any means with the establishment, the goods, or the industrial or commercial activities, of a competitor; includes false allegations in the course of trade of such nature as to discredit the establishment, the goods, or the industrial or commercial activities, of a competitor; includes indications or allegations the use of which in the course of trade is liable to mislead the public as to the nature, the manufacturing process, the characteristics, the suitability for their purpose or the quantity of the goods. Practices that are listed as being contrary to honest commercial practice includes breach of contract, breach of confidence, inducement to breach of contract or confidence, acquisition of undisclosed information by third parties who knew or were grossly negligent in failing to know, that the above-mentioned practices were involved in the acquisition. Hence, the TRIPS Agreement requires member States to provide natural and legal persons the means to prevent theft of a trade secret which may then be used by the said company to create products that are deceptively similar or cause confusion, or may be used to discredit the competitor or mislead the public. However, the TRIPS Agreement, does not stop a member State to mandate that the data generated through activity on an ecommerce site may be shared with companies whose products were sold on the ecommerce site or with a third company which is in the business of compiling and analysing data for developing business strategy. The member States only need to provide the means to the business entity to protect valuable information from theft. Trade secret in that sense is only a relational right.[xi]

The third category of data is the raw data. This is the data that is huge and constantly populates on the basis of activities in the ecommerce site. The data is usually unorganized and varied. The protection of data in the raw form is a challenge because in the case of big data, the value lies in enabling open access rather than placing restrictions.[xii] Most data is uploaded or shared on large data sharing platforms. The value from big data comes from using several data sets which in turn is possible only when data is available through open access. According to Kenneth A. Bamberger et al "Excessive restrictions on access to lock-in effects by major data gathering entities might have negative welfare impacts warranting governmental intervention in "data--driven platform markets characterized by strong network and lock--in effects- -and

in new technological contexts that might otherwise be ripe for competitive innovation."[xiii] On establishing legal exclusivity, Hilty has argued that "this might produce unwanted, dysfunctional effects; instead of fostering economy, certain business models might even be impeded"[xiv].

CONCLUSION

We began with a search for answers to the following questions: - Is there an intellectual property attached to the data generated from digital platforms? Can this data be exclusively owned? Will intellectual property protection affect access to data?

From the foregoing analysis it is evident that the present IP regimes do not provide protection to big data. In fact, researchers are of the view that one of the IP system's main *maxim is that* data per se are "free as the air for common use"[xv]. Giving IP protection to data generated through online activity will corrode the IP mechanism of incentives by creating an underlying layer of rights that may impede innovation.

In the case of compiled databases, while it is pertinent to point out that trade secret protection along with contracts might extend protection to such data bases, but here too the TRIPS Agreement allows countries to impose conditions as it recognizes trade secret to be a relational right where the entity that controls the data can only stop unfair commercial practices involving theft of data. The TRIPS Agreement allows member States under Article 8 'to promote public interest in sectors of vital importance to their socio economic and technological development' and 'to prevent abuse of intellectual property rights in a manner that restrains trade or international transfer of technology'.

Overall the TRIPS Agreement does not come in the way of data sharing.

ENDNOTES

[i] Taubman et al (2012) A Handbook on the WTO TRIPS Agreement, Cambridge University Press

[ii] https://data.research.cornell.edu/content/intellectual-property.

[iii] Ibid.

[iv] The Newspaper Licensing Agency and others v Meltwater &PRCA, High Court of Justice (Chancery Division) 26 November 2010 EWHC 3099.

[v] http://lr-coordination.eu/node/969 and http://www.iprhelpdesk.eu/news/protection-database-our-company-has-developed-digital-database-cultural-heritage-how-can-it-be?

[vi] https://www.oracle.com/big-data/guide/what-is-big-data.html.

[vii] http://www.mondaq.com/australia/x/290668/Copyright/Can+a+database+be+protected+by+copyright.

[viii] Atkinson R D (2019) IP Protection in the Data Economy: Getting the Balance Right on 13 Critical Issues, Information Technology and Innovation Foundation.

[ix] Josef Drexl et al (2016) Data Ownership and Access to Data-Position Statement of the Max Planck Institute for Innovation and Competition of 16 August 2016 on the current European Debate, Max Planck Institute for Innovation and Competition Research Paper No. 16-10.

[x] Sousa e Silva, N (2014) What exactly is a Trade Secret Under the Proposed Directive? 9(11) Journal of Intellectual Property law and Practice 923

[xi] Intellectual Property in a data driven world
https://www.wipo.int/wipo_magazine/en/2019/05/article_0001.html

[xii] http://www.tradesecretslaw.com/2014/03/computer-fraud/big -data-and-ip-business-strategy/

[xiii] Kenneth A. Bamberger & Orly Lobel, 'Platform Market Power' (2017) 32 Berkeley Tech. LJ 1051, 1089.

[xiv] Reto Hilty, Big Data: Ownership and Use in the Digital Age

[xv] P. Bernt Hugenholtz, Data Property: Unwelcome Guest in the House of IP, Institute for Information Law (IViR) (forthcoming)

ABOUT THE AUTHOR

PROF. CHANDNI RAINA

Professor Raina is an expert on intellectual property rights. She is a Professor at Centre for WTO Studies. Previously she has held the position of Director in Department of Industrial Policy and Promotion, Govt. of India. She has been intensively involved in bilateral, multilateral and plurilateral negotiations on IPR. Besides this, she has contributed actively in the legislative, policy and administrative matters in respect of Patent Act 1970, Trademark Act 1999, Design Act 2000, Geographical Indication Act 1999, among others.

Professor Raina belongs to Indian Economic Service.

Email: chandni.raina@nic.in.

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5th to 8th Floor, NAFED House,
Siddhartha Enclave, Ashram Chowk,
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