

EMERGING TECHNOLOGIES AND IP CHALLENGES

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Abstract: *Digitalisation has changed the whole world in a global village. Every day technology brings out new innovation and balancing new innovation with its challenges had become a major goal of Government. India is a country that welcomes the new innovations in every field due to this various intellectual property challenges also emerges. Already there are various laws to protect the rights of author, artist and other intellectual property right holders. But the new challenges which come along with these technologies are yet to be resolved.*

This paper aims to bring out some of emerging technologies and the challenges they bring in intellectual property field. It will also try to bring out the solutions that can be taken to resolve these challenges. This paper will definitely be useful in finding the legal provisions that can be framed to solve the IP challenges created by emerging technologies. Laws framed considering the new IP Challenges will help us in using the technologies more effectively as legal guarantees will be associated with them.

Key words: *Artificial intelligence, Piracy, Hacking, 3D Printing Technology, Cyber security*

INTRODUCTION

Science and technology brings various changes in our day to day life. Emerging technologies such as artificial intelligence, social media platforms and 3D printing technology have on one hand helped in bringing out new innovations but on other hand they have brought new ways intellectual property rights can be violated. So, protecting the rights of creators and also promoting new innovations is the main demand of the digitalisation era.

The new output products developed with the help of these technologies raise a question to whom the intellectual property rights to be granted. Similarly, various fundamental rights including Right to Privacy can be violated due to these technologies. IP laws be it Patents Act, 1970, Copyright Act, 1957, Trade Marks Act, 1999, Designs Act, 2000, Information Technology Act, 2000 already exist in India but still it could not meet the challenges that were created by emerging technologies.

Due to the development of e-commerce and social media, on one hand leaking of data has become very easy and on the other hand hacking of accounts, mobile phones, email id, spreading of

fake news, piracy of videos and the new emerging problem of deep fakeness bring new legal challenges in everyone's life. Creating awareness on them and bringing out effective legislation is now very much needed so that these cybercrimes can be addressed.

There are various international instruments such as TRIPS, WIPO, WTO, UN and its agencies to which India is a member and has continuously raised the issues of IP challenges, be it discrimination in patent granting procedures or IP challenges that emerging technologies create.

Here our main goal is to know the legal challenges created by emerging technologies in India and bring out steps that can be taken by Government and other responsible agencies to resolve these challenges.

EMERGING TECHNOLOGIES AND IP CHALLENGES

- **Hacking of data-** As today all the data is stored in computers, the increase of hackers has become a most important problem. Hacking is defined as an attempt

to invade a private or public or corporation or organization network via computer to gather information without permission. It includes threats through web, communication and emails, social media scams, data breaches, cloud and data storage compromises. Hacking is a major IP challenge as our emails, twitter posts are part of the data to which we are the owners. If anything is posted from our account which is threatening to other people, then we can be made liable.

- **Piracy-** When a party engages in the unauthorized use, duplication, reproduction and distribution of someone else's copyrighted work without their knowledge or consent it amounts to piracy. For example, illegal copying or selling of books including digital versions of books, illegal copying and selling of CDs and DVDs of movies or music albums.
- **Duplicating copies-** It refers to making similar copies but not identical copies using technologies, selling those copies without the permission of the original IP holder. Distinguishing between original and duplicating copies is also difficult.
- **AI generated works-** AI can generate literary, artistic and musical works, and identifying the contribution of real creators to whom IP rights should be granted had become very difficult. AI can also generate trademarks and patents and even identifying the real holders of IP is also very difficult. Disclosure of trade secrets using AI technology is another major IP challenge. AI is generally used in data processing and as various data can be leaked that's why Fundamental Right of Privacy can also be violated.
- **3D Printers-** These are generally used to generate computer aided designs and actually identifying the difference between similar but not identical designs become very much difficult. 3D Printers is an emerging technology which is likely to develop a 100-billion- dollar industry by 2028. It has a vast range of applications

due to which it is considered as a power which can develop into the 4th industrial revolution.

- **Problem of cyber security-**Section 2(nb) of IT Act, 2000 defines cyber security as a means to protect information of a person but as e-commerce has been increased due to emerging technologies most of the data are leaked and are misused. Online frauds have increased which is a major challenge for authorities.

CASE STUDIES ON EMERGING TECHNOLOGIES AND IP CHALLENGES

- **M/S Kibow Biotech Vs M/S The Registrar of Trademark^[1]**

In this case the issue was raised before Delhi High Court - Whether AI generated marks can be registered as a trademark?

Delhi High Court in its decision held that under Trade Mark Act, 1999 only a person can apply for Trade Mark and get their marks registered as proprietor of a trademark. Further it held that the AI system cannot be considered as a person for the purpose of this Act.

- **Christian Louboutin SAS Vs Nakul Bajaj^[2]**

In this case a luxury shoe company filed an injunction suit against e-commerce company for indulging in violation of trademark as they were using plaintiff's marks, logos and images.

Delhi High Court held that Section 79 of IT Act includes the active participation of e-commerce platforms as intermediaries for promotion of company products to third parties. So, they can use the logos just for promotion purposes.

- **Jagjeet Singh Vs State of Punjab^[3]**

In this case, former employees of a company stole a database and sold it to rival companies. The main issue raised is-Whether data theft and hacking comes under non bailable offense?

The Supreme Court held that data theft and hacking is a non-bailable offense. The culprit can be made liable under both IPC and IT Act.

- **Dr. Alka Sharma Vs Union of India**^[4]

In this case, Delhi High Court held that an AI generated portrait could not be registered as a trademark under the Trademarks Act because it did not satisfy the distinctiveness requirement of the Act.

- **FeridAllani Vs Union of India**^[5]

In this case an issue was raised before Delhi High Court- Whether a literary, artistic or musical work which is generated with the help of AI technology can be copyrighted in India?

Delhi High Court held that copyright protection can be granted to AI generated work if they meet the criteria for originality and authorship under Copyright Act, 1957. Authorship of AI generated work should be attributed to the person who decided to create the work such as the programmer or user of AI system.

- **Knit Pro International Vs State of Delhi**^[6]

The Supreme Court declared criminal copyright infringement as a non-bailable and cognizable offense. Section 63 of Copyright Act punishes any individual who does infringement of copyright with imprisonment of six months to three years and fine.

- **Justice K.S. Puttaswamy (Retd.) Vs Union of India**^[7]

In this case the Supreme Court held that the Right to Privacy is a Fundamental Right which is a part of Right to Life and Personal Liberty under Article 21 of the Constitution of India. The use of Artificial Intelligence technology in data processing and surveillance can potentially compromise privacy rights.

- **Kamalakanta Tripathi Vs State of Odisha & Ors.**^[8]

In this case, the email ID of the plaintiff who was a Senior IAS officer was hacked and various

threatening and incriminating emails were sent to other people.

The Supreme Court held that culpability of hacking depends on the presence of mens rea or the object of act that was carried out. Since the account was hacked to obtain sensitive confidential information, the accused is liable for punishment under Section 66 of Information Technology Act, 2000.

- **MySpace Inc. Vs Super Cassettes Industries Ltd.**^[9]

In this case there was an issue raised before Delhi High Court on whether AI based algorithm used to identify and remove infringing content from Social Media platform violates Copyright Act?

Delhi High Court held that if only AI based algorithm is used to identify and remove infringing content from Social Media platform then such act is not violating Copyright Act. If any copyright content is produced by using AI algorithm then only it can be called as violation of Copyright Act.

- **Mondelez India Pvt. Ltd. Vs Neeraj Food Products**^[10]

In this case Cadbury had filed a suit against Neeraj Food Products, claiming that by use of technologies they have developed an infringed design which is very similar to Cadbury company's design, due to which infringement of trademark and copyright have occurred and this easily confuses the customers.

Delhi High Court ruled in favour of Cadbury company. It said that defendant's product has many elements that are very similar to those of the plaintiff company's design. Hence the acts of the defendant constitute trademark and copyright infringement. Court granted a permanent injunction in favour of the plaintiff and ordered defendant to pay Rs. 15.86 lakh in compensation.

- **Dr. Audiotape Benerjee Vs L.S. Davar and Company and others**^[11]

The trade secrets were hacked and then disclosed by former employees to another company without permission.

The High court of Calcutta held former employees liable for hacking and punished with imprisonment of 3 years and fine of 2 Lakh Rupees.

REASONS FOR IP CHALLENGES DUE TO EMERGING TECHNOLOGIES

- Lack of effective laws to meet the new type of crimes that can be done with the help of emerging technologies.
- Lack of awareness of the new IP challenges that occur by a particular emerging technology.
- Emerging technologies make it easier to make duplicating copies. As various fake accounts exist, tracking the real culprit becomes even more difficult.
- There are not enough legal experts who can recognize the various cybercrimes.
- Legal procedure is generally very time consuming that's why real culprits are not punished on time and we all know "Delayed Justice is Denied Justice."

SUGGESTIONS:

- **Amendments to be brought in Patents Act-** Section 3(k) of Patents Act need to be reviewed so that AI generated original patents can be protected.
- **Amendments to be made in Copyrights Act-** Section 17 of Copyrights Act should be revised so that copyrights can be granted to work which are originally generated by using emerging technologies.
- **Amendments to be made in Trademark Act-** Trademark Act Section 9 and 11 can be made so that distinctiveness can be made between real trademark and computer generated trademarks.
- **Amendments to be made in Trade Secrets Act-** Section 2(1)(a) of Trade Secrets Act can be amended so that misappropriation of trade secrets by AI technology can be addressed.

- **Consultation-** Technical experts should be consulted by the Government so that effective laws can be framed.
- **International Instruments-** Some changes can be made in International Instruments with the consultation of all the member nations so that globally IP challenges due to emerging technologies can be addressed.
- **Researches-** More and more researches on changes that occur with a particular emerging technology should be encouraged by Government so that IP Challenges created due to emerging technology can be properly analysed.
- **Global Conference-** More and more Global Conference should be organised so that awareness can be created on what technological development is happening across the world and how IP Challenges are resolved by other countries.
- **Technology transfer** - Technology transfer should take place among countries so that emerging technology of other nation can be used to solve IP Challenges.
- **Block chain technology-** Use of Block chain technology can be increased to strengthen the protection for intellectual property rights. As block chain technology can be used as a base to secure patents. Not only this it can also established evidence of first inventorship. Record keeping, ledger maintenance and data verification can be easily done through block chain technology. Apart from this it can also detect and prevent counterfeiting. As a result, block chain technology plays very significant role in combating IP challenges.

CONCLUSION

From the above analysis we can conclude that emerging technologies of the digitalisation era on one hand makes our work easy. But on the other hand it also increases cybercrimes. Protection of rights of creators becomes very difficult as identifying the real culprit had become a difficult

task. Lack of awareness on cyber-crimes has left various loopholes in existing laws. As technology brings various changes every day, the legislature takes time to identify the challenges. National and International Seminars can be organised by which IP challenges occurring due to emerging technologies can be properly discussed and more effective solutions can be found by people. Even block chain technology can be properly used by which IP can be strengthened more effectively.

So, now it is very important that our cyber experts and lawmakers sit together and identify not only existing crimes but also future cybercrimes. Only then can we all protect IP rights along with promoting the new innovation of the digitalisation era.

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