INTERNATIONAL JOURNAL FOR LEGAL RESEARCH AND ANALYSIS

Open Access, Refereed JournalMulti Disciplinary
Peer Reviewed Edition :

www.ijlra.com

 ISSN: 2582-6433

DISCLAIMER

ISSN: 2582-6433

EDITORIAL TEAM

EDITORS

Megha Middha

Megha Middha, Assistant Professor of Law in Mody University of Science and Technology, Lakshmangarh, Sikar

Megha Middha, is working as an Assistant Professor of Law in Mody University of Science and Technology, Lakshmangarh, Sikar (Rajasthan). She has an experience in the teaching of almost 3 years. She has completed her graduation in BBA LL.B (H) from Amity University, Rajasthan (Gold Medalist) and did her post-graduation (LL.M in Business Laws) from NLSIU, Bengaluru. Currently, she is enrolled in a Ph.D. course in the Department of Law at Mohanlal Sukhadia University, Udaipur (Rajasthan). She wishes to excel in academics and research and contribute as much as she can to society. Through her interactions with the students, she tries to inculcate a sense of deep thinking power in her students and enlighten and guide them to the fact how they can bring a change to the society

Dr. Samrat Datta

Dr. Samrat Datta Seedling School of Law and Governance, Jaipur National University, Jaipur. Dr. Samrat Datta is currently associated with Seedling School of Law and Governance, Jaipur National University, Jaipur. Dr. Datta has completed his graduation i.e., B.A.LL.B. from Law College Dehradun, Hemvati Nandan Bahuguna Garhwal University, Srinagar, Uttarakhand. He is an alumnus of KIIT University, Bhubaneswar where he pursued his post-graduation (LL.M.) in Criminal Law and subsequently completed his Ph.D. in Police Law and Information Technology from the Pacific Academy of Higher Education and Research University, Udaipur in 2020. His area of interest and research is Criminal and Police Law. Dr. Datta has a teaching experience of 7 years in various law schools across North India and has held administrative positions like Academic Coordinator, Centre Superintendent for Examinations, Deputy Controller of Examinations, Member of the Proctorial Board

ISSN: 2582-6433

Dr. Namita Jain

Head & Associate Professor

School of Law, JECRC University, Jaipur Ph.D. (Commercial Law) LL.M., UGC -NET Post Graduation Diploma in Taxation law and Practice, Bachelor of Commerce.

Teaching Experience: 12 years, AWARDS AND RECOGNITION of Dr. Namita Jain are - ICF Global Excellence Award 2020 in the category of educationalist by I Can Foundation, India.India Women Empowerment Award in the category of "Emerging Excellence in Academics by Prime Time & Utkrisht Bharat Foundation, New Delhi.(2020). Conferred in FL Book of Top 21 Record Holders in the category of education by Fashion Lifestyle Magazine, New Delhi. (2020).Certificate of Appreciation for organizing and managing the Professional Development Training Program on IPR in Collaboration with Trade Innovations Services, Jaipur on March 14th, 2019

Mrs.S.Kalpana

Assistant professor of Law

Mrs.S.Kalpana, presently Assistant professor of Law, VelTech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology, Avadi.Formerly Assistant professor of Law,Vels University in the year 2019 to 2020, Worked as Guest Faculty, Chennai Dr.Ambedkar Law College, Pudupakkam. Published one book. Published 8Articles in various reputed Law Journals. Conducted 1Moot court competition and participated in nearly 80 National and International seminars and webinars conducted on various subjects of Law. Did ML in Criminal Law and Criminal Justice Administration.10 paper presentations in various National and International seminars. Attended more than 10 FDP programs. Ph.D. in Law pursuing.

Avinash Kumar

Avinash Kumar has completed his Ph.D. in International Investment Law from the Dept. of Law & Governance, Central University of South Bihar. His research work is on "International Investment Agreement and State's right to regulate Foreign Investment." He qualified UGC-NET and has been selected for the prestigious ICSSR Doctoral Fellowship.He is an alumnus of the Faculty of Law, University of Delhi. Formerly he has been elected as Students Union President of Law Centre-1, University of Delhi.Moreover, he completed his LL.M. from the University of Delhi (2014-16), dissertation on "Cross-border Merger & Acquisition"; LL.B. from the University of Delhi (2011-14), and B.A. (Hons.) from Maharaja Agrasen College, University of Delhi. He has also obtained P.G. Diploma in IPR from the Indian Society of International Law, New Delhi.He has qualified UGC – NET examination and has been awarded ICSSR – Doctoral Fellowship. He has published six-plus articles and presented 9 plus papers in national and international seminars/conferences. He participated in several workshops on research methodology and teaching and learning.

ISSN: 2582-6433

ABOUT US

INTERNATIONAL JOURNAL FOR LEGAL RESEARCH & ANLAYSIS ISSN

2582-6433 is an Online Journal is Monthly, Peer Review, Academic Journal, Published online, that seeks to provide an interactive platform for the publication of Short Articles, Long Articles, Book Review, Case Comments, Research Papers, Essay in the field of Law & Multidisciplinary issue. Our aim is to upgrade the level of interaction and discourse about contemporary issues of law. We are eager to become a highly cited academic publication, through quality contributions from students, academics, professionals from the industry, the bar and the bench. INTERNATIONAL JOURNAL FOR LEGAL RESEARCH & ANALYSIS ISSN 2582-6433 welcomes contributions from all legal branches, as long as the work is original, unpublished and is in consonance with the submission guidelines.

www.ijlra.com
Volume 2 Issue 7 | March 2024
ISSN: 2582-6433

TRADE SECRETS AND AI: A LEGAL PERSPECTIVE

AUTHORED BY - BHAVYA SAXENA
LLM Batch 2023-24
IILM, Greater Noida, U.P.

Abstract

This paper explores the intersection of trade secrets and artificial intelligence (AI) from a legal standpoint, focusing on the evolving challenges and opportunities in safeguarding proprietary information in the digital age. With the proliferation of AI technologies, businesses are increasingly reliant on data-driven strategies, heightening the importance of protecting sensitive information, including trade secrets. The paper begins by examining the traditional legal framework surrounding trade secrets, emphasizing the need for robust measures to prevent misappropriation. It then delves into the role of AI in enhancing trade secret protection, highlighting its potential to bolster security measures, detect threats, and optimize risk management protocols.

However, the integration of AI in trade secret protection also raises complex legal issues, such as privacy concerns, algorithmic bias, and intellectual property rights. Furthermore, the paper explores emerging trends and best practices in utilizing AI tools for trade secret management, including encryption techniques, anomaly detection algorithms, and secure data storage solutions. It concludes by offering insights into the future trajectory of AI-driven trade secret protection, emphasizing the importance of collaboration between legal experts, technologists, and policymakers to navigate the evolving landscape effectively. Overall, this paper provides a comprehensive analysis of the opportunities and challenges presented by the integration of AI in safeguarding trade secrets, offering valuable insights for legal practitioners, businesses, and policymakers alike.

Introduction

Trade secrets encompass confidential information integral to a company's competitive advantage. Unlike patents or copyrights, trade secrets are not publicly disclosed, relying on secrecy for

ISSN: 2582-6433

protection. Common examples include formulas, processes, customer lists, and marketing strategies. Trade secret protection is typically governed by state laws or the Uniform Trade Secrets Act, emphasizing the importance of reasonable efforts to maintain secrecy. While trade secrets offer perpetual protection, they can be challenging to enforce and susceptible to misappropriation. Despite these challenges, trade secrets remain a vital asset for businesses, fostering innovation and competitiveness in various industries.

In India, artificial intelligence (AI) is rapidly emerging as a transformative force across various sectors, including healthcare, agriculture, finance, and education. Government initiatives such as the National AI Strategy aim to position India as a global leader in AI research, development, and deployment. Major technology companies and startups are investing heavily in AI-driven solutions tailored to the Indian market, addressing challenges such as healthcare access, agricultural productivity, and urban infrastructure. However, concerns about data privacy, ethics, and job displacement accompany this technological advancement. Balancing innovation with regulatory frameworks and societal implications is crucial for realizing the full potential of AI in India's socio-economic development.

Introduction of AI in India

Artificial intelligence (AI) is rapidly transforming the socio-economic landscape of India, heralding a new era of innovation, efficiency, and opportunity. With its vast population, diverse industries, and burgeoning tech sector, India is poised to harness the potential of AI in various domains, ranging from healthcare and agriculture to finance and education. In recent years, India has witnessed a surge in AI adoption, driven by government initiatives, corporate investments, and a burgeoning startup ecosystem. The Government of India's National AI Strategy aims to position the country as a global leader in AI research, development, and deployment, fostering collaboration between academia, industry, and government agencies. Initiatives such as the National Programme on AI, AI Task Force, and AI Centres of Excellence are catalysing innovation and capacity-building in AI across different sectors. Major technology companies and startups in India are leveraging AI to address pressing societal challenges and unlock new business opportunities. In healthcare, AI-powered solutions are improving diagnosis, treatment, and patient care, particularly in remote and underserved areas. In agriculture, AI-driven tools are enhancing crop monitoring, yield prediction, and resource optimization, contributing to food security and farmer welfare.

ISSN: 2582-6433

Similarly, AI is revolutionizing finance through algorithmic trading, fraud detection, and personalized financial services, while in education, AI-powered platforms are facilitating personalized learning experiences and skill development. Despite the transformative potential of AI, challenges remain, including data privacy concerns, ethical dilemmas, and the digital divide. Ensuring responsible AI deployment, ethical AI governance, and inclusive AI policies are imperative to mitigate these challenges and maximize the benefits of AI for all stakeholders. In conclusion, AI holds immense promise for India's socio-economic development, offering transformative solutions to complex problems and driving innovation across sectors. By fostering collaboration, innovation, and ethical AI adoption, India can position itself as a global AI powerhouse, driving inclusive growth and sustainable development in the digital age.

Synopsis of Trade secrets

In India, trade secrets are integral to business competitiveness and innovation, encompassing confidential information that provides an edge over competitors. Examples include formulas, manufacturing processes, and customer lists. The legal framework for trade secrets in India comprises various statutes and principles, including common law, contractual obligations, and statutory provisions. Under the Indian legal system, trade secrets are primarily protected through the common law principles of confidentiality and equity, as well as contractual agreements such as non-disclosure agreements (NDAs). Additionally, the Information Technology Act, 2000, offers statutory protection against unauthorized access to computer systems, which can help safeguard digital trade secrets.

The Indian judiciary often relies on principles of equity and fairness to adjudicate trade secret disputes, ensuring that businesses are adequately protected against misappropriation. Notable cases like N. Radhakrishnan v. Maestro Engineers have reinforced the importance of protecting trade secrets under Indian law. To qualify for protection, businesses must demonstrate that reasonable steps have been taken to maintain the secrecy of the information. While trade secrets provide perpetual protection, enforcement can be challenging, requiring evidence of misappropriation.

In summary, trade secrets are vital assets for businesses in India, driving innovation and competitiveness. The legal framework, including common law principles and statutes like the

ISSN: 2582-6433

Information Technology Act, 2000, provides avenues for protection and enforcement, safeguarding confidential information and promoting economic growth. In India's rapidly evolving economy, where intellectual property rights enforcement can be challenging, trade secrets offer a flexible and cost-effective means of safeguarding proprietary information, thus promoting investment in research and development and driving economic growth.[1]

Relationship of AI and Trade Secrets:

AI plays a crucial role in trade secret protection by enhancing security measures, detecting unauthorized access, and mitigating risks of misappropriation. Machine learning algorithms can analyse vast amounts of data to identify anomalies or suspicious activities, enabling proactive threat detection. Natural language processing (NLP) techniques[2] aid in monitoring and analysing communications to prevent leakage of sensitive information. Additionally, AI-powered encryption and access control mechanisms strengthen the confidentiality of trade secrets, ensuring that only authorized individuals can access proprietary information, thus safeguarding against theft or unauthorized disclosure.

The intersection of trade secrets and AI introduces risks and challenges such as data security threats due to increased access to sensitive information. Algorithmic biases may inadvertently compromise trade secret protection, while the potential for reverse engineering poses a risk of proprietary information exposure. Insider threats remain a concern, as AI systems may not always effectively detect malicious activities by employees or partners. Regulatory compliance complexities arise concerning data privacy regulations. Additionally, ethical dilemmas surrounding privacy, fairness, and transparency in AI implementation require careful consideration. Addressing these challenges necessitates a multifaceted approach integrating technology, policy, and legal safeguards.

The intersection of AI and trade secrets presents numerous opportunities and advantages[3]. AI-powered tools enhance trade secret protection by bolstering security measures, detecting

[1]Details regarding synopsis of Trade Secrets (Last visited on 20th February 2024), available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3796211

[2] Details regarding Natural Language Processing Techniques (last visited on 20th February 2024), available at: https://www.researchgate.net/publication/319164243_Natural_Language_Processing_State_of_The_Art_Current_Trends_and_Challenges

[3] Details regarding the opportunities and advantages in relation to the intersection of AI and Trade Secrets (last visited on 21st February 2024), available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3759349

ISSN: 2582-6433

anomalies, and identifying potential threats more efficiently. Advanced analytics and machine learning algorithms enable organizations to gain valuable insights from large volumes of data while maintaining confidentiality. AI facilitates automated monitoring of trade secret usage, enabling proactive risk mitigation and rapid response to security breaches. Additionally, AI-driven innovation accelerates the development of new products and processes, enhancing competitiveness in the marketplace. Leveraging AI in trade secret management fosters greater efficiency, effectiveness, and strategic advantage for businesses operating in the digital age.[4]

Judicial Precedents and Legal framework regarding Trade secrets and AI

Several laws and regulations contribute to the legal framework governing trade secrets and AI in India like, Indian Contract Act, 1872[5] provides the legal basis for contracts and agreements, including those involving the protection of trade secrets through non-disclosure agreements (NDAs)[6] and confidentiality clauses. The Information Technology Act, 2000 (Amended in 2008)[7] deals with various aspects of electronic commerce and cybersecurity. While it does not specifically address trade secrets, it offers provisions related to data protection and privacy, which are essential for safeguarding trade secrets in digital environments. Although patents and trade secrets are distinct forms of intellectual property, some innovations may be eligible for both forms of protection. The Patents Act[8] regulates the grant and enforcement of patents in India. Furthermore, The Copyright Act, 1957 (Amended in 2012)[9] protects original literary, artistic, and other creative works, including software code and algorithms used in AI systems. While copyright primarily protects expression rather than ideas, it can still play a role in safeguarding AI-related trade secrets. Additionally, The Competition Act, 2002[10] (Amended in 2007) addresses

[4] Details regarding the Relationship of AI and Trade Secrets (last visited on 21st February 2024), available at: https://www.irjet.net/archives/V10/i12/IRJET-V10I1238.pdf
[5]The Indian Contract Act, 1872 (Act no. 9 of 1872) (last visited on 21st February 2024) available at: https://www.indiacode.nic.in/bitstream/123456789/2187/2/A187209.pdf
[6]Information regarding the NDAs Legally protecting Trade Secrets (last visited on 22nd February 2024), available at: https://www.justia.com/intellectual-property/trade-secrets/nondisclosure-agreements/#:~:text=One%20of%20the%20simple%20ways,to%20enforce%20a%20trade%20secret.
[7] The Information Technology Act, 2000 (Amended in 2008) (Act No. 10 of 2009)(last visited on 23rd February 2024), available at: https://www.indiacode.nic.in/bitstream/123456789/15386/1/it_amendment_act2008.pdf
[8]The Indian Patents Act, 1970 (Act No. 39 of 1970) (last visited on 23rd February 2024), available at: Https://www.indiacode.nic.in/handle/123456789/1392?sam_handle=123456789/1362
[9]The Copyright amendment Act 1957 (amended in 2012) (Act No. 14 of 1957) (last visited on 23rd February 2024), available at:
https://www.jstor.org/stable/43953639
[10]The Competition Act 2002 (Act No. 12 of 2003) (last visited on 24th February 2024), available at:
https://www.indiacode.nic.in/handle/123456789/2010?view_type=browse&sam_handle=123456789/1362

ISSN: 2582-6433

anti-competitive practices, including unfair competition through the misappropriation of trade secrets. It prohibits agreements, abuse of dominant positions, and combinations that have adverse effects on competition.[11]

There are cases where trade secret disputes involve technologies or innovations that utilize AI. The Alibaba Group Holding Ltd. v. Tencent Holdings Ltd. (China) https://journals.law.harvard.edu/hblr/wp-content/uploads/sites/87/2021/12/HLB201_crop.pdf. while not specifically relating to AI, involved allegations of trade secret misappropriation in the context of technology development and competition between two major Chinese tech companies. The case underscores the importance of protecting proprietary technology and trade secrets in the digital economy. Furthermore, in Uber Technologies Inc. v. Levandowski (USA) Mark Harris, *Inside the Uber and Google settlement with Anthony Levandowski*, TechCrunch (Feb. 16, 2022), https://techcrunch.com/2022/02/15/inside-the-uber-and-google-settlement-with-anthony-levandowski/., Uber accused one of its former engineers, Anthony Levandowski, of stealing trade secrets related to self-driving car technology when he left to start his own company, which was later acquired by Uber. The dispute shed light on the challenges of protecting trade secrets in emerging technologies such as autonomous vehicles, where AI plays a significant role. Moreover, the case of NDA Group, LLC v. Pivotal Solutions, Inc. (USA) involved allegations of trade secret misappropriation related to the development of AI-powered software for financial forecasting. While not widely known, it illustrates how trade secrets can be implicated in the context of AI-driven innovations and the importance of protecting proprietary algorithms and data.

Conclusion

At last, In the AI era, protecting secrets requires a multifaceted approach. Employ robust encryption methods to safeguard data, implement access controls to limit unauthorized access, and anonymize or pseudonymize sensitive information. Utilize watermarking and DRM to track data usage[12], complemented by AI-driven behavioural analytics to detect anomalies. Prioritize secure development practices, enforce NDAs and confidentiality policies, and conduct regular security audits. Foster employee awareness through comprehensive training programs and ensure

[11] Details regarding the Protection of Trade Secrets and Confidential information India (last visited on 22nd February 2024) available at: https://www.mondaq.com/india/trade-secrets/1402128/protection-of-trade-secrets-and-confidential-information-in-india#:~:text=However%2C%20the%20essence%20of%20trade,inappropriate%20disclosure%20of%20private%20information.

[12]Information regarding Watermarking and DRM (Last visited on 24th February 2024), available at: https://support.caplinked.com/hc/en-us/articles/208200383-What-is-Watermarking-DRM-Document-Editing

ISSN: 2582-6433

compliance with relevant legal and regulatory requirements. Finally, establish a culture of vigilance and continuous monitoring, leveraging AI tools to detect and respond to emerging threats promptly. This integrated strategy fortifies protection in the dynamic landscape of AI-driven innovation.

The intersection of trade secrets and AI presents both opportunities and challenges for businesses operating in the digital age. While AI offers advanced tools for enhancing trade secret protection and driving innovation, it also introduces new risks such as data security threats and algorithmic biases. To navigate this complex landscape successfully, organizations must adopt a holistic approach that combines technological solutions, robust policies, and legal safeguards. By leveraging encryption, access controls, behavioural analytics, and employee training, businesses can mitigate risks and safeguard their valuable intellectual property assets in the AI era. Ultimately, embracing AI responsibly can strengthen competitiveness and foster sustainable growth in today's rapidly evolving business environment.