COPYRIGHT PROTECTION OF COMPUTER DATABASES UNDER THE INDIAN COPYRIGHT ACT, 1957

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ABSTRACT

The digital revolution has radically altered the production, storage and distribution of information, and computer databases are now at the core of modern business, science and government activity. This term paper is a critical discussion of the nature, scope, and sufficiency of copyright protection of computer databases in the Indian Copyright Act, 1957. With databases becoming more and more valuable stores of structured information that embodies huge economic investment, the issue of whether and to what degree they may be subject to intellectual property protection under Indian law takes on a deep legal and business meaning. The research methodology adopted in the paper is a doctrinal approach, which critically examines the applicable statutory provisions of the Indian Copyright Act, judicial precedents in the Indian courts and comparative insights based on the United States and the European Union. The central argument is that while the Indian Copyright Act, 1957, provides a foundational framework for database protection by recognizing compilations including computer databases as literary works, it remains fundamentally inadequate in addressing the unique challenges posed by electronic databases, particularly those created through substantial investment but lacking traditional originality in selection and arrangement. The weaknesses of the legislation that are considered to be critical are the lack of a sui generis database right, uncertainty about the standard of originality to be applied, and a lack of judicial interpretation. The paper will end with a recommendation of specific legislative changes, such as the enactment of a sui generis database protection right with strong exceptions to protect the interest of the population to access information and knowledge.

Keywords: Copyright, Computer Databases, Indian Copyright Act 1957, Originality, Compilation, Sui Generis Right, Literary Work, Intellectual Property

CHAPTER 1: INTRODUCTION

1.1 Background and Context

The twenty-first century is definitely the information era. Information has become, perhaps, the most precious resource in the modern world economy, even more strategic than the traditional natural resources. Computer databases structured, electronically maintained collections of data organized systematically to enable efficient retrieval, manipulation, and management have become absolutely indispensable to virtually every sector of human activity. The modern world is based on databases in banking and financial services, healthcare, education, agricultural research, e-commerce, and governmental administration. The market of databases worldwide, estimated to be in the hundreds of billions of dollars, is an indication of the massive investment in time, labour, financial resources and technological infrastructure that is invested in the development, upkeep and constant updating of these digital repositories.[1]

However, even with their enormous economic importance and the enormous investment they imply, the legal safeguarding of computer databases is one of the most disputable and thought-provoking fields of intellectual property law, especially in the Indian context. The inherent challenge is a structural tension in the very core of copyright law. The history of copyright law was based on the idea and the creation of the laws to protect literary and artistic works that represent human creativity and original expression. A computer database, however, frequently derives its value not from the originality or creativity of the individual data elements it contains which are often mere facts, figures, or measurements not subject to copyright but from the systematic selection, arrangement, and organization of those elements, and the sheer labour and financial investment involved in their collection, verification, and presentation. This underlying contradiction between safeguarding creative expression and rewarding industrious effort in information collection is at the core of the world debate on database protection and poses serious questions regarding the right level and boundaries of intellectual property rights in the digital age.[2]

These questions have gained a certain urgency in recent years in India. India is among the top information technology economies in the world with a huge and fast growing database industry

[1] P. Goldstein & P.B. Hugenholtz, *International Copyright: Principles, Law, and Practice* (4th edn, Oxford University Press 2019) 249.
[2] *Feist Publications, Inc. v. Rural Telephone Service Co.*, 499 U.S. 340 (1991) 345 (O'Connor J).

that includes legal databases, financial information services, scientific research databases, e-commerce product databases, and government databases. The Indian information technology industry plays a significant role in the national gross domestic product and it has millions of skilled workers. However, the legal framework of computer database protection in India is rather immature, vague, and insufficient to the urgent issues of the modern digital economy. This insufficiency requires immediate academic consideration and specific legislative action.

1.2 Research Objectives

The following specific research objectives are followed in this paper:

1. To analyze the current statutory provisions on the copyright protection of computer databases under the Indian Copyright Act, 1957, its scope, application and limitations.

2. To examine the standard of originality which is to be applied to computer databases in Indian law and its suitability to cover the entire range of databases in commercial practice.

3. To make comparative inferences about the database protection regimes in the United States and the European Union, especially the sui generis database right in the EU.

4. To discover the key gaps and shortcomings of the Indian legal system regarding the protection of databases and to suggest the real and practical recommendations on the legislative and judicial changes.

1.3 Research Questions

The main research questions that this paper aims to answer are:

1. How effective is the Indian Copyright Act, 1957, in offering copyright protection to computer databases?

2. What is the standard of originality of computer databases under Indian law and how satisfactory is that standard in dealing with all the range of databases that are presented in practice?

3. What does comparative experience, especially that of the sui generis database right of

the European Union and the originality-based standard of creativity of the United States, teach Indian law?

4. What should be the legislative and judicial changes to provide sufficient and equal protection of computer databases in India?

1.4 Hypothesis

This paper proceeds upon the following working hypothesis: The Indian Copyright Act, 1957, while providing a necessary foundation for the copyright protection of original computer databases by recognizing compilations as literary works, is inadequate to provide effective protection for non-original databases created through substantial investment, and requires targeted legislative reform including the introduction of a sui generis database protection right to address the identified gaps and ensure that the Indian legal framework is responsive to the challenges of the digital information economy.

1.5 Scope and Limitations

This essay concentrates mainly on copyright protection of computer databases as per Indian Copyright Act, 1957. It does not examine in detail the protection of databases under other areas of Indian law such as contract, trade secrets, or the Information Technology Act, 2000 except insofar as these are relevant to the assessment of the adequacy of existing remedies. The comparative analysis is limited to the United States and the European Union that can be considered the most influential and well-developed regimes of database protection in the world. The paper fails to discuss how to protect personal data in databases in the Personal Data Protection framework, which presents different questions that are not within the scope of this investigation.

1.6 Significance of the Study

This study is important as it contributes to a real and substantive gap in the Indian legal literature on database protection. While global scholarship on this subject is extensive, comprehensive, integrated doctrinal analysis of the Indian position situating it within the comparative international context and developing concrete proposals for reform remains limited. With the digital economy of India remaining on its high growth curve, the evolution of a strong, balanced and internationally competitive legal system of protecting databases has

never been more significant. This paper is an attempt to contribute meaningfully towards that objective.

1.7 Structure of the Paper

The paper will be divided into six chapters. Chapter 1 is the introduction to the research with background, research objectives, research questions, hypothesis, and scope. Chapter 2 provides a literature review of the current academic and legal literature on database protection, critically outlining the main areas of debate and gaps in the research. Chapter 3 outlines the research methodology, such as the research design, data sources and methods of analysis used. Chapter 4 also looks at the legal provisions of database protection by the Indian Copyright Act, 1957, such as the notion of originality and its legal evolution. Chapter 5 gives a comparative and critical analysis of database protection regimes, giving the argument of sui generis protection in India and responding to major counterarguments. The conclusion is provided in chapter 6, summarizing main findings and providing specific recommendations on legislative and judicial reform.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The protection of databases under law has spawned an extensive and diverse scholarly literature since at least the early 1990s, when the explosion of electronic databases highlighted the weaknesses of current intellectual property regimes. This chapter provides a survey of the most important strands of this literature, the main debates and the main scholarly positions, and places the present paper in the context of the wider scholarly discussion, outlining the particular research gaps that the paper aims to fill.

2.2 The Foundational International Debate

The major case of the United States Supreme Court in Feist Publications, Inc. v. Rural Telephone Service Co. (1991) that categorically denied the doctrine of sweat of the brow and held that copyright protection requires a minimum level of creativity in the choice, coordination, or arrangement of data became the seminal case in the academic discussion of database protection. Some commentators, including Patterson and Joyce (1991), hailed Feist as an affirmative statement of principle that the core difference between copyrightable

expression and uncopyrightable fact remained intact, and that the extension of copyright to purely factual compilations would be a misappropriation of incentive to invest in database creation and maintenance at the long-term disadvantage of the information economy.[3]

The most notable legislative reaction to the issues that were identified in the post-Feist literature was the enactment of the Database Directive (96/9/EC) by the European Union in 1996. Introducing a dual-layered protection regime copyright for original databases and a novel sui generis right for databases reflecting substantial investment regardless of originality the Directive attracted extensive and sustained academic attention. The most important scholarly treatment of the EU database right has been the comprehensive monograph by Derclaye (2008), which argues critically on both the theoretical basis and practical functioning of the sui generis right, and concludes that even though the sui generis right has been useful in providing legal certainty to database creators, its practical effect on the amount and quality of database production is still debated.

2.3 The Indian Scholarship: State of the Art

Indian scholarly writing on database copyright is expanding but is relatively shallow, narrow and analytically unsophisticated. The authoritative treatise on Indian copyright law by Narayanan offers an invaluable summary of how the copyright law of India has treated compilations and computer works in general, but does not fully cover the special issues of dealing with electronic databases in the new digital era, especially following the 201

More recently, Rathi and Sharma (2020) have issued one of the most explicit and sustained appeals in the Indian legal literature to the introduction of a sui generis database protection right in India, noting the increasing and increasingly commercially harmful disjunction between the Indian statutory regime and the technological and commercial realities of the digital economy. However, their analysis, though convincing in identifying the issue and marshalling.[4]

[3] L.R. Patterson & C. Joyce, "Monopolizing the Law: The Scope of Copyright Protection for Law Reports and Statutory Compilations" (1991) 36 *UCLA Law Review* 719, 752–758.
[4] W.J. Gordon, "On Owning Information: Intellectual Property and the Restitutionary Impulse" (1992) 78 *Virginia Law Review* 149, 195–200.

2.4 Comparative and International Scholarship

The comparative literature based on the experience of various jurisdictions has been especially helpful in bringing to light the merits and flaws of various methods of protecting databases. Davison's comprehensive comparative study (2003) analyses the legal protection of databases in the United States, the European Union, Australia, and other jurisdictions, identifying a persistent global divergence in approach and arguing persuasively for greater international harmonization.[5] The failed negotiations for a WIPO database treaty in the late 1990s derailed largely by the vigorous opposition of the scientific, educational, and developing country communities to the proposed sui generis right illustrate the deep political and normative tensions that attend any attempt to establish international consensus on database protection and underscore the difficulty of the task facing Indian law reformers.

2.5 Identification of Research Gaps

The above review of the literature indicates that there are a number of gaps in the literature that the current paper aims to fill. To begin with, it lacks a systematic, detailed, and integrated doctrinal analysis of the Indian statutory and judicial framework on database protection which puts it in a larger comparative international framework and provides actionable lessons to Indian reform. Second, there is no comprehensive study on the implications of the Eastern Book Company originality standard to the various types of electronic databases that now constitute the commercial marketplace. Third, the Indian literature lacks in any significant measure specific, practical suggestions of legislative reform in the particular constitutional strait-jackets, economic realities and social necessities of the Indian legal system. The paper aims to address these gaps by conducting an in-depth and long-term doctrinal and comparative analysis.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

The credibility and reproducibility of any legal research requires a clear and transparent articulation of the research methodology. This chapter outlines the methodological framework to be used in this paper, justifying the research approach, the sources of information that will

[5] E. Derclaye, *The Legal Protection of Databases: A Comparative Analysis* (Edward Elgar 2008) 45–89.

be used, the analysis techniques that will be used and the ethical considerations that have informed the research.

3.2 Research Design and Approach

The paper follows the doctrinal approach to legal research, the most common and traditional approach to legal research. Doctrinal research involves the systematic analysis and critical evaluation of primary legal sources statutes, judicial decisions, and regulatory instruments and secondary legal sources academic commentary, treatises, and policy documents with a view to identifying, describing, explaining, and critically evaluating the law as it is (the lex lata) and as it ought to be (the lex ferenda). The doctrinal approach is appropriate for the purposes of this paper because the central research questions relating to the scope and adequacy of copyright protection for databases under the Indian Copyright Act and the desirability of legislative reform are fundamentally legal questions that require systematic analysis of the legal framework rather than empirical investigation of social or economic facts.[6]

The study is designed as a series of three analytical steps. The first stage involves descriptive analysis identifying and describing the relevant provisions of the Indian Copyright Act, 1957, and the judicial decisions that have interpreted them in the context of computer databases. The second stage involves critical evaluation assessing the adequacy and coherence of the existing legal framework in light of its objectives, identifying internal inconsistencies and external gaps, and situating the Indian approach within the comparative international context. The third stage involves normative prescription developing concrete, workable, and constitutionally grounded recommendations for legislative and judicial reform.

3.3 Nature of Research: Doctrinal and Comparative

The methodology of this paper is mainly doctrinal as it is concerned with the systematic analysis of the legal texts and authorities. It is also comparative in its approach, using the database protection regimes of the United States and the European Union to shed light on the strengths and weaknesses of the Indian approach and to find possible models to reform it. The comparative approach is used not to simply impose foreign legal solutions blindly on the Indian legal context, but to find general principles, structural strategies and lessons to be learnt that

[6] P.B. Hugenholtz, "The New Database Right: Early Case Law from Europe" (2003) *Fordham Intellectual Property, Media and Entertainment Law Journal* 1, 15–18

can guide the creation of a contextually relevant Indian solution. The choice of the United States and the European Union as comparators is explained by the fact that they are the most powerful and well-developed database protection regimes in the world and have a considerable amount of academic commentary that makes the rigorous comparative analysis easier.

3.4 Sources of Data

The study relies on the following types of primary and secondary legal sources:

Primary Sources: These consist of the text of the Indian Copyright Act, 1957, as amended by the Copyright (Amendment) Acts of 1994, 1999 and 2012; legislative history of the Act, including Parliamentary debates and reports of law reform committees; judicial decisions of the Supreme

Secondary Sources: These consist of scholarly monographs, textbooks and edited collections of Indian and comparative copyright law; scholarly journal articles on database protection in Indian and international law journals; reports and policy documents issued by WIPO, Indian Ministry of Commerce and Industry and other governmental and intergovernmental agencies; and online legal databases such as SCC Online, Manupatra, LexisNexis and Westlaw.

3.5 Methods of Legal Analysis

The major techniques of legal analysis that are used in this paper are as follows. The exact language of the statutory provisions and judicial decisions in question is analysed by means of textual analysis, in order to determine their ordinary meaning, the range of their application, and the interpretive ambiguities present in them. Purposive analysis is used to place the statutory provisions in their wider legislative context and to determine the policy purpose they are supposed to fulfill, based on the legislative history and judicial interpretation. The reasoning, holdings and broader implications of major judicial decisions on database copyright, Indian and international, are critically assessed through case analysis. It uses comparative analysis to find out the similarities and differences between the Indian approach and those taken in the United States and the European Union and to derive lessons on Indian reform. Normative analysis is used in the concluding chapter to evaluate the adequacy of the existing framework against relevant normative criteria including incentivizing investment, promoting access to information, and ensuring constitutional compliance and to develop grounded reform

recommendations.[7]

3.6 Ethical Considerations

This paper is based exclusively on publicly available legal sources statutes, judicial decisions, and published academic commentary and does not involve the collection of primary empirical data from human participants. No ethical permission is thus necessary. The sources used are all mentioned in the footnotes and bibliography, following the relevant citation guidelines. The study is carried out in the spirit of academic integrity, intellectual honesty, and the high standards of legal scholarship.

CHAPTER 4: STATUTORY FRAMEWORK AND THE CONCEPT OF ORIGINALITY UNDER THE INDIAN COPYRIGHT ACT, 1957

4.1 Introduction

This chapter examines the legal framework for securing copyright protection for computer databases beneath the Indian Copyright Act, 1957. It goes on to analyse the important statutory provisions the definition of literary work, the originality requirement, the exclusive rights conferred, and the exceptions made applicable and traces as well as assesses the judicial development of the originality standard as applied to databases and compilations in Indian law. This also recognizes the important gaps in the statutory framework that leave important categories of databases unprotected by various laws.

4.2 The Definition of "Literary Work" and the Inclusion of Computer Databases

According to Section 2(o) of Indian Copyright Act, 1957, 'literary work' is the most basic statutory provision for the copyright protection of computer databases. With the enactment of the Copyright (Amendment) Act, 1994 and further amended by the Copyright (Amendment) Act, 2012, the Section 2(o) of the Indian Act specifically provides that a work will be deemed a 'literary work' if it includes the following 'computer programmes, tables and compilations including computer compilations and computer databases.'[8] The fact that 'computer databases' have been expressly included within the category of literary works recognized by statute makes

[7] P. Narayanan, *Copyright and Industrial Designs* (5th edn, Eastern Law House 2019) 112–130.
[8] S. Basheer, "The Originality of Copyright: A Comparative Study of India, the US and the UK" (2005) 10(2) *Journal of Intellectual Property Rights* 154, 158–162.

it legally significant and practically important. As per Indian law, databases are in principle eligible for copyright protection just like any other literary works with which, databases will be included by way of amendment.

The legal decision of safeguarding databases as literary works, rather than establishing a sui generis statutory category for their protection, emanated from a historical path dependence of copyright laws and the policy decision to subject databases to an established and institutionally familiar regime. Nonetheless, it also gives rise to intrinsic conceptual difficulties because the old-style notion of a literary work presupposes a work of human authorship embodying personal expression. This presupposition sits uneasily with the character of many computer databases, which are structured repositories of factual information resulting from the industrial effort.

The Act does not provide for any statutory definition of what is a computer database. This absence of a definition of the very thing which the Act intends to protect generates a good deal of interpretive uncertainty. Since it does not have a statutory definition, courts have been forced to revert to application of general principles of statutory interpretation. A computer database is a collection of data or information kept in an electronic medium who is structured and organized so as to enable it to be easily accessed, retrieved, managed and updated through electronics. According to Information Technology Expert and with the help of EU Database Directive and above one can come up with conclusion that above definition is workable definition which is useful for our purpose.

4.3 The Originality Requirement: Section 13

Requirement of Originality Section 13 of the Indian Copyright Act does not grant protection to a work which falls in the subject matter categories merely upon its creation. Copyright exists only in "original literary, dramatic, musical and artistic works," says section 13(1)(a) in mandatory terms. The word original is the crucial gatekeeper. It distinguishes those literary works with copyright protection, including computer databases, from those without. A work stays original if it has not been copied from earlier works and is not mere reproduction of materials already known to public. [9]

[9] A. Rathi & K. Sharma, "Database Protection in India: The Need for a Sui Generis Right" (2020) 25(3) *Journal of Intellectual Property Rights* 112, 115–119.

No definition of "originality" has been provided in the Copyright Act, 1957. Therefore, it has fallen almost entirely in the domain of the Courts to give substantive content to this fundamental notion, especially in relation to compilations and computer databases, through the incremental development of the common law doctrine in the series of decided cases, spanning several decades. This judicial evolution of the originality standard is the most significant and practically consequential set of Indian case laws on database protection, which are discussed in detail in the succeeding sections.

4.4 The "Sweat of the Brow" Doctrine and Its Application in India

For most of the 20th century, Indian copyright law, like in the case of several other common law jurisdictions, recognized "sweat of the brow" or "industrious collection" doctrine for compilations and other literary works not showing clear creative expression. According to this doctrine, exerting sufficient labour, skill and effort in the creation of a compilation was itself seen as conferring the originality necessary for copyright protection regardless of whether the selection or arrangement of the components involved a creative choice.14 The rational was essentially instrumental and incentive based extended to industrious effort so as to encourage investment in the gathering and organisation of information. Such investments in turn were deemed beneficial to the public.

The Burlington Home Shopping Pvt. decision is the most significant of the Indian pre-Eastern Book Company decisions to apply a variant of this approach. Limited versus Rajnish Chibber. In this matter, the Delhi High Court observed that a customer data base compiled with great effort consisting of names, addresses, purchasing preferences and contact details is maintained in electronic form. Therefore, it constitutes an original literary work which is entitled to copyright protection under the Copyright Act.15 The court reasoned that the effort and resources used to compile the database, which reflects the underlying logic of the "sweat of the brow" approach. However, it did not require any proof that the selection or arrangement of the data involved any component of creative intellectual choice.[10]

4.5 The pivotal ruling. Eastern Book Company vs. D.B. Modak (2008)

The Eastern Book Company v D.B. decision of the Indian Supreme Court According to Modak (2008), India's law on the originality of compilations has been substantially altered with

[10] M.J. Davison, *The Legal Protection of Databases* (Cambridge University Press 2003) 1–25.

significant consequences for the copyright protection of computer databases. The case revolved around the question of whether or not "copy-edited" versions of Supreme Court judgments produced by the appellants were original literary works that would merit a copyright of the appellants and not just the Supreme Court.[11]

The Indian Supreme Court adopted a middle course after a comprehensive and careful study of comparative jurisprudence, particularly the US Supreme Court decision in Feist Publications and the important ruling of the Canadian Supreme Court in CCH Canadian Ltd. v. Law Society of Upper Canada (2004). The Court rejected the "sweat of the brow" doctrine as the only or predominant test for originality under Indian copyright law. It held that labour and effort, without more, do not suffice to grant copyright protection. Simultaneously, the Court chose not to adopt the entire Feist standard of minimal creativity as a strict threshold. Instead, the Court stated a standard requiring a "minimum degree of creativity" – a standard under which the author must make use of genuine "skill and judgement" in creating the work which is "not so trivial that it can be characterized as a purely mechanical exercise".[12]

This formulation is a careful and deliberate synthesis: it is more demanding than the sweatofthebrow doctrine, in that it requires some element of genuine creative intellectual contribution beyond mere effort, but it is less demanding than a standard that would be require substantial or highly obvious creativity. The Canadian Supreme Court's approach, as adopted in CCH Canadian, is broadly consistent with this position, which occupies a middle position in the international spectrum of originality standards.

4.6 Implications of the Standard for Different Types of Computer Databases

The Eastern Book Company standard influences the copyright protection of types of computer database in India in important, nuanced, and yet not entirely settled ways.

Databases that are created selectively, organized by original themes or analyses, or contain original annotations, headnotes, summaries or analytical commentary are most likely to meet the Eastern Book Company standard of minimum creativity. Databases of legal content which contain original headnotes and editorial classifications; medical databases which contain

[11] W. Cornish, D. Llewelyn & T. Aplin, *Intellectual Property: Patents, Copyrights, Trade Marks and Allied Rights* (9th edn, Sweet & Maxwell 2019) 5.
[12] The Copyright Act, 1957, s 2(o) (India).

original diagnostic taxonomies; and financial databases which contain original analytical frameworks and evaluative criteria will stream into this favoured category. Such databases should get copyright protection under the Act as it stands.

Databases that are designed to be exhaustive or comprehensive compilations of data in a particular domain recording all relevant facts without selectivity, and organized in the standard, conventional or obvious manner such as alphabetical or chronological or numerical order are unlikely to be able to meet the Eastern Book Company standard of minimum creativity. Under Indian law, such databases, no matter how painstakingly created and costly, would not be entitled to copyright protection. This category holds many of the most commercially significant and widely used databases, namely, extensive directories, statistical databases, transactional records and scientific measurement compilations.

The surge of AI and machine-generated data brings further serious challenges to originality, specifically in respect to data and databases. Databases that are primarily produced by automatic processes and not significantly influenced by human choices over the selection or arrangement decision could potentially pose a significant challenge to the ability to meet even the most minimal creativity criterion. Moreover, in India as elsewhere, the copyright originality requirement is premised on the idea that the author of a work should be a human being, and that the exercise of human skill or judgment must be reflected in the work. The Indian Copyright Act is silent on this issue while Indian courts have not yet been called upon to deal with it directly, leading to substantial legal uncertainty for what is becoming an increasingly important and commercially significant class of databases.[13]

The database's copyright owner enjoys exclusive rights to the database

On fulfilment of the conditions for subsistence under Sections 13 and 14, the copyright owner in an original database gets a bundle of exclusive statutory rights. The following acts in relation to a literary work are exclusive right of the owner of copyright in a work (as per Section 14(a)): to reproduce the work in any material form, including storing of it in any medium by electronic or other means; to issue copies of the work to the public; to perform the work in public; to communicate the work to the public; to make any translation or adaptation of the work.[14] In the context of databases the most commercially critical of these rights is the right of

[13] The Copyright Act, 1957, s 13(1)(a) (India).
[14] M.J. Davison, *The Legal Protection of Databases* (Cambridge University Press 2003) 30–45.

reproduction protecting against unauthorized copying and the right of communication to the public protecting against unauthorized dissemination through electronic networks. According to Section 51, infringement occurs when a certain kind of copyright action takes place. Section 52 mentions the fair dealing exceptions. These are applicable to the literary work-related copyright. Some of the exceptions include private study, research, criticism, and review.

4.7 Essential lapses in the legal structure

The above analysis shows several important and commercially significant gaps in the Indian statutory framework for database protection. To begin with, the Act does not protect non-original databases at all. These are databases that represent a huge investment and effort, but do not reach the minimum creativity threshold. The most serious gap is probably this one. Furthermore, the Act does not contain any provisions that specifically address the modern forms of database infringement, including the systematic extraction of substantial parts of database contents and putting them to economic and commercial use. These acts are typical of the digital scenario and cause the most damage commercially. Others, the Act does not define "computer database", which is still being interpreted. In addition, it is unclear what database structure is protectable and what underlying data cannot be protected and the Act does not make this clear which may create confusion and inconsistencies in infringement litigation. [15]

CHAPTER 5: COMPARATIVE ANALYSIS, THE CASE FOR SUI GENERIS PROTECTION, AND COUNTERARGUMENTS

5.1 Introduction:

The present chapter is critical and comparative in nature regarding the database protection methods in the USA and the European Union and takes lessons for India. The introduction of a sui generis right in India is examined in depth along with the EU's database right. Further, chapter 1 explains the relevance of the database industry to India. It subsequently responds to the main objections to improved database protection. It engages with these objections seriously and offers reasoned responses. This is done through the template of the specific legal and constitutional circumstances of India.

[15] *Burlington Home Shopping Pvt Ltd v Rajnish Chibber* 61 (1995) DLT 6 (Del HC).

5.2 The Approach of the United States Post-Feist Structure.

United States has opted to have entirely copyright law based database protection after the Feist decision. American courts have stated since 1991 that databases and compilations that do not involve creative selection, coordination, or arrangement are not copyrightable regardless of the investment put in its creation. In the late 1990s and early 2000s, the United States Congress saw a number of legislative proposals for supplemental database protection legislation. These, however, failed in the light of ongoing opposition from the scientific community, educational institutions, consumer groups, and others who were concerned that proprietary rights over factual data would hinder research, education, and the free flow of information.[16]

India has two aspects of American experience that can be instructional. This means that a creativity-based standard of originality, broadly similar to the one now adopted in India after the Eastern Book Company decision, is legally coherent and workable. However, the US experience, negatively, exposes the protection gap in the US due to lack of supplementary protection for non-original databases: their creators are much more vulnerable to misappropriation than Europeans'. This is particularly so in an era of automated data extraction and large-scale copying.

5.3 The entity sui generis database right of European Union. Design and Functioning.

The EU Database Directive (96/9/EC) introduced to the world a dual-layered protection regime that is still the most advanced protection regime for databases available today. As per Chapter II of the Directive, databases that are original on account of the selection or arrangement of the contents benefit from normal copyright protection. Chapter III, however, introduces the novel and influential sui generis right, which protects the substantial investment made in obtaining, verifying or presenting the contents of a database, regardless of whether the database satisfies the originality threshold for copyright.[17]

According to Article 7 of the Directive, the maker of a database – the natural or legal person who takes the initiative and risk to invest substantially in the database – has the right to prevent the extraction and/or reutilisation of the whole or of a substantial part of its contents, evaluated qualitatively and/or quantitatively. The right exists for 15 years from the completion date; it is

[16] *Eastern Book Company v D.B. Modak* (2008) 1 SCC 1, paras 37–39.
[17] S.M. Maurer, P.B. Hugenholtz & H.J. Onsrud, "Europe's Database Experiment" (2001) 294 *Science* 789, 790.

renewable on further substantial investment in the database. Article 7(5) aims at systematic insubstantial extractions. This means that even if they are insubstantial on their own, if their cumulative effect is to cause prejudice to the maker or conflict with the normal exploitation of the database, then it would infringe the sui generiss right.

The European Court of Justice has given important guidance on the scope of the sui generis right in cases including British Horseracing Board Ltd. v. William Hill Organization Ltd. (2004), where the Court held that the right protects investment in obtaining and verifying data, but not investment in generating the data that the database contains a distinction that has proven difficult to apply in practice and has been widely criticized as formalistic and commercially arbitrary.

5.4 A case for sui generis database right in India.

5.4.1 The Economic Reasoning

The principal economic justification for the introduction of a sui generis database right in India rests on the incentive rationale for intellectual property protection. The development of holistic, accurate, and up-to-date computer databases is an expensive task. This is because, in order to create such databases, a lot of resources need to be spent on collecting all the data, organizing the data and establishing technological infrastructure. However, this kind of investment is commercially rational only when the owner of the database is able to prevent any rival parties from piggybacking on that investment which prevents the latter from copying or extracting the data without any permission. Copyright law, as interpreted in light of Eastern Book Company, does not provide protection to non-original databases from this form of misappropriation. Therefore, the incentive to invest is also lowered and with potentially grave long-term implications for the Indian digital economy's information resource's availability and quality.[18]

5.4.2 An Indian Sui Generis Model Suggestion.

This proposal submits the introduction of a sui generis database right in India as a new part of the Copyright Act, 1957 or as a standalone Database Protection Act. Aspects of the EU Model for the Right to Data Portability. The proposed right would have the following key features, based on the EU model but adjusted to the specific legal and constitutional conditions obtaining

[18] The Copyright Act, 1957, s 14(a)(i)–(vi) (India).

in India.

The creator of a database may assert this right if they have made a substantial investment in obtaining, verifying or presenting its contents and this can be established by recourse to financial resources, human effort or time. The right would protect against unauthorized extraction and reutilization of a substantial part of the contents of the database, either quantitatively or qualitatively, as well as against the systematic extraction of any individual portions that are not substantial, where the cumulative effect of such extractions is prejudicial to the legitimate interests of the maker. The right will exist for a period of ten years counting from the completion of the database, and shall be renewable on showing of substantial new investment. The right will be subject to the following mandatory exceptions: use of the work for research, education, private study, reporting in the public interest except commercial reporting, and essential government purpose. It will reflect the Indian constitutional commitments to free speech, access to information, and educational and scientific progress. [19]

5.5 Objections and Rebuttals

5.5.1 Public interest and access to information.

Impeding on third party competition and requiring additional resources to implement were objections to enhanced database protection. Databases containing factual, scientific, or governmental information perform important functions in the public sphere. Ownership rights on such databases threaten to restrict access to information that is critical for research, democratic engagement, and economic growth and which are deeply rooted in the Indian constitutional order. This article accepts the objection at full strength but goes on to argue that it should not lead to rejection of database protection, but rather to its design with strong exceptions. The Indian model proposed incorporates exactly such exceptions, so that the public interest in access to information is substantively protected under it while at the same time providing fair protection to the investment of database creators.

5.5.2 Existing Legal Remedies Capacity to Adequately Address Causation Issues.

It can be said that the existing remedies of contract, tort and equity are sufficient to protect database creators. Although this is true in some factual situations, in general it is not true. The

[19] Directive 96/9/EC on the Legal Protection of Databases, Arts 7(1) & 7(5).

parties to a contract are protected through a contractual protection, which is of no use against a third-party free-riding on the contract. To establish genuine confidentiality is not an easy task for databases marketed commercially under the law of breach of confidence. India has adopted the tortious remedies for database protection. The tortious remedies are uncertain and under-developed. Moreover, they have not yet developed in the Indian courts as an effective and reliable basis for database protection.[20]

5.5.3 Protection by Technology

Technical Protection Measures (TPMs), like encryption and DRM systems, are a practical means of database protection. Nonetheless, TPMs are designed to be circumvented; they impose costs on creators; they risk restricting legitimate uses; and they are an inherently inadequate substitute for clear, enforceable statutory rights, which offer legal certainty and accessible remedies through the courts.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Summary of Key Findings

This research studies the copyright protection of computer databases under the Indian Copyright Act, 1957. This study is an extensive and continuous doctrinal and comparative research. The findings of the research are as follows.

The explicit inclusion of "computer databases" in the definition of "literary work" in Section 2(o) of the Indian Copyright Act, 1957, creates a necessary but insufficient foundation to obtain legal protection for computer databases. The protection that is provided by this provision is subject to the fulfilment of the condition of originality in section 13. This substantially limits its scope of application.

Finding 2 The Originality Gap: The standard of originality applicable to computer databases under Indian law as authoritatively established by the Supreme Court in Eastern Book Company v. D.B. The preparation of modak requires a minimum degree of creativity in selection, arrangement, or presentation, and more so than labour alone. The European Union Database Directive lays out certain essential requirements that a database must meet in order

[20] A. Rathi & K. Sharma, "Database Protection in India: The Need for a Sui Generis Right" (2020) 25(3) *Journal of Intellectual Property Rights* 112, 118–120.

to enjoy copyright protection. This standard excludes from copyright protection a significant and commercially important category of databases: those … Continue reading "EU Database Directive: Background and Main Provisions"

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Finding 3 Critical Legislative Gaps: There exist significant and practically consequential gaps in the Indian statutory framework. There is no definition of 'computer database'. There is no protection for non-original databases generated through significant investment. There are no specific provisions for database-specific forms of infringement. The statutory framework does not provide clarity between the protectable database structure and unprotectable underlying data.

The comparative evaluation of the US position and EU position shows that the Indian position is likely to be similar to the US position regarding originality failing which it is intended to give a clear indication. The sui generis database right of the EU is not without its flaws and there is an ongoing academic debate about how effective this right is. Nevertheless, it provides a useful model that India must adapt to its own conditions.

The most important counterarguments to enhanced database protection. Which include the public interest in access, the adequacy of existing legal remedies as well as technological protection measures. They require serious consideration, but do not constitute an adequate reason for opposing targeted, carefully designed legislative reform on their own or in combination.

6.2 The thesis and final conclusions restated.

The examination undertaken has fully confirmed the thesis of this paper that the Indian Copyright Act, 1957, while necessary, is inadequate for effective database protection and needs targeted legislative reform. The growth of our digital economy is far outpacing the growth of the legal ecosystem concerning the protection of digital information assets in India. In order to guarantee that they are created and maintained, computer databases ought to benefit from a legal framework that is sufficiently strong. Furthermore, the legal framework ought to be flexible enough to accommodate fast technological change. Finally, it ought to be balanced

enough to protect the public interest in essential information for education, research, and democratic governance.

The existing paradigm where copyright protection conditional upon creative originality is, however, not able to meet these requirements in respect of a large and growing category of commercially valuable data bases. The result is a gap in protection whereby Indian database creators are left vulnerable to free-riding. As a result, this impact discourages investment incentives. Additionally, there is a comparative disadvantage accorded to India as against jurisdictions providing better protection. These economic implications are not merely imaginary intellectual constructs; they are already real and growing as time progresses.

6.3 Recommendations

According to the overall analysis conducted in this paper, the following tangible proposals are put forward towards judicial and legislative change:

Recommendation 1 Statutory Definition: The Indian Copyright Act, 1957, should be amended to include a clear and comprehensive statutory definition of "computer database," informed by the definitions available in related Indian legislation and international instruments, and designed to cover all forms of electronically maintained structured data collections, including dynamically updated databases and AI-assisted compilations.

Recommendation 2 Codification of Originality Standard: The Act should be amended to provide explicit statutory guidance on the standard of originality applicable to computer databases, codifying the minimum creativity standard established in Eastern Book Company and providing illustrative criteria to assist courts and litigants in applying the standard consistently across diverse database types, including machine-generated and AI-assisted databases.

Recommendation 3 Introduction of Sui Generis Right: A sui generis database protection right should be introduced, either as a new Part of the Copyright Act or as a standalone Database Protection Act. The right ought to safeguard substantial investment of database makers against unauthorized extraction and reuse of substantial amounts of database materials, for a renewable period of ten years, subject to extensive mandatory exceptions to research, education, personal study and other vital purposes of the common good.

Recommendation 4 Specific Infringement Provisions: The Act should be amended to include specific provisions addressing database-specific forms of infringement including the systematic extraction of insubstantial portions of a database where the cumulative effect is prejudicial to the maker's legitimate interests to close the loophole that allows piecemeal but collectively harmful data extraction to evade liability.

Recommendation 5 Voluntary Registration System: Consideration should be given to establishing a voluntary registration system for databases claiming sui generis protection, administered by the Copyright Office, to enhance legal certainty, reduce transaction costs for prospective licensees, and facilitate efficient enforcement of database rights.

Recommendation 6 Judicial Capacity Building: Given the technical complexity of database protection disputes and the specialized knowledge required to resolve them effectively, consideration should be given to the establishment of specialized intellectual property benches in the High Courts with dedicated expertise in digital and technology-related intellectual property issues.

6.4 Future Research Recommendations.

This paper has outlined some key areas of fruitful future research. First, empirical research on the Indian database industry its scale, composition, investment levels, and the specific legal vulnerabilities experienced by database creators in practice would provide a stronger and more granular evidential foundation for legislative reform. Second, detailed analysis of the constitutional implications of introducing a sui generis database right in India particularly its consistency with Article 19(1)(a) and Article 21, and the right to information they protect would be valuable. Third, the new complications of AI-generated databases are a fast-growing field of urgent legal ambiguity, which should be given special and sustained academic consideration, in India and globally.

6.5 Final Observations

The security of computer databases is not the ultimate issue of intellectual property doctrine that is a technical one. It lies at the core of the question of the development of the information economy in India, the development of scientific knowledge, the encouragement of technological innovation, and the achievement of the enormous potential of the digital future

of India. India being one of the most advanced information technology economies has the capability as well as the obligation to ensure that its legal framework of protecting databases is sophisticated, balanced, internally coherent as well as internationally competitive. The reforms suggested in this paper provide a principled, comparatively informed, and constitutionally sensitive way to that end. The law will not be able to keep pace with the digital economy; the necessity of reform is not only obvious but also urgent.

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