'FAIR DEALING CONTROVERSY' REVISITED: CAN COPYRIGHT EXIST IN WORKS RELATING TO MATHEMATICS AND SCIENCE?

Abstract

Copyright law was enacted keeping in mind the interests of the creators of certain categories of works. The law grants a monopoly right for a limited duration to the copyright owner to exploit their own creations. Public interest demanded that during the subsistence of the copyright, that is, even when the monopoly right existed, some uses of the copyrighted work without permission of the copyright owner should be permitted. These permitted uses are what is called fair use or fair dealing. In a case before the High Court of Andhra Pradesh, a publisher engaged in the business of publishing textbooks for students was alleged of copyright infringement as well as violation of an order of the state government which prohibited private colleges from publishing books for intermediate level students and they were supposed to buy the books published by Telugu Akademi, a government-controlled body. The publisher argued that they did not commit any copyright infringement as there is no copyright in books pertaining to mathematics and science, and as such, Telugu Akademi did not have any copyright in these books. This paper analyses whether copyright exist in subjects such as mathematics and science, a large portion of which is based on established facts. The paper examines various decisions of the court on the criteria for granting copyright in various subject matters, as well as fair use and fair dealing, in order to arrive at a conclusion on what the legal position should be in case of mathematics and science.

I Introduction

COPYRIGHT LAW provides certain rights to the creators of literary, dramatic, musical, artistic, film, and sound recording[1] works to exploit their own creations. The Indian Copyright Law guarantees certain economic rights to the owner of such works. The economic rights include[2] right of reproduction, issue copies, adaptation, public performance, communication to the public, translation, film and sound recording making rights in case of literary, dramatic, musical and artistic[3] works. In the case of a computer programme, along with the aforementioned rights, an additional commercial rental right is provided. In case of films, the economic rights include making a copy of the film, commercial rental rights and public communication rights. In case of sound recordings, the rights include making a sound recording, embodying it, commercial rental rights and public communication rights. The copyright law penalises

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1 Copyright Act, 1957, s. 13.

2 *Id.*, s. 14.

3 In case of artistic works an additional reproduction right is provided which includes storing of the artistic work by electronic in any medium by electronic or other means; or depiction in three-dimensions of a two-dimensional work; or depiction in two-dimensions of a three-dimensional work.

the infringement of any of the rights given to the owner of the copyrighted work. The duration for protection of copyright is included from section 22 to section 29 of the Act and varies with each category of work. For example, in case of "literary, dramatic, musical and artistic works, protection guaranteed to copyright owners is for the entire lifetime of the author plus sixty years starting from the first day of the next calendar year in which the author dies, whereas, in case of films, copyright protection is for sixty years starting from the first day of the following calendar year in which the film was released."[4]

The extensive protection of copyright works is subject to criticism that it acts as a hindrance to the knowledge and educational rights of the general public. The supporters of copyright regime justify the protection on the grounds of the 'utilitarian' theory, which states that by giving a certain limited monopoly to the creator of the work in the form of intellectual property rights, ultimately it aims at the larger public good, that is, after the 'limited monopoly period' of copyright is over, it will come into the public domain. Now, this utilitarian theory, which stands on the premise of 'greatest happiness of the greatest number', requires that for the benefit of the larger segment of society, use of copyrighted work during the subsistence of the copyright term should also be permitted. This use during the subsistence of copyright came to be known as the 'Fair Use' or 'Fair Dealing' provisions.

II Fair use/fair dealing of copyrighted works: Meaning and importance

Meaning and international development

Ordinarily during the subsistence of the copyright term, any use of the copyrighted subject matter without the permission of the owner of the copyright is infringement. However, public interest demands that certain uses of the copyrighted work should be permitted. Such uses came to be known as the fair use regime in certain countries and fair dealing in others.

Under the Berne Convention, "the countries of the Union are authorised by way of a national legislation to permit the 'reproduction' of protected works in certain special cases provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author."[5] After the Berne Convention incorporated its three-step test, it has been modified and transplanted into the TRIPs Agreement[6] and the WIPO Copyright Treaty.[7]

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4 Copyright Act, 1957, s. 22.

5 Berne Convention, art. 9(2).

6 TRIPs Agreement, 1994, art. 13.

7 WIPO Copyright Treaty, art. 10.

Difference between fair use and fair dealing

It is hence crucial to understand that 'fair dealing and fair use are not synonymous terms' since their meaning and scope are defined by different legal systems. Fair Use is a concept of United States.[8] The United States Copyright Act contains "a list of the various purposes for which the reproduction of a particular work may be considered fair, such as criticism, comment, news reporting, teaching, scholarship, and research. Section 107 also sets out four factors to be considered in determining whether or not a particular use is fair. The factors include the purpose and character of the use, including whether such use is of commercial nature or is for non-profit educational purposes, the nature of the copyrighted work, the amount and substantiality of the portion used in relation to the copyrighted work as a whole and the effect of the use upon the potential market for, or value of, the copyrighted work."[9] Fair Dealing generally has a list, and the act is permissible if it falls under one of the acts.

India follows the Fair Dealing regime. Some of the fair dealing provisions include Permitted Reproduction;[10] Permitted Publications;[11] Permitted Performance;[12] Exceptions in case of sound recording and films;[13] Library exceptions;[14] Exceptions in case of Artistic work;[15] Architectural work exceptions;[16] Exceptions in case of Computer works;[17] Exceptions for benefit to specially abled persons[18] *etc.*

III Fair use/ fair dealing provisions for publication for educational purpose: Provisions in India, United Kingdom and United States

United States (US)

The US follows what is called the fair use doctrine. Originally, Fair Use was a common law doctrine, but it got statutory recognition when the US Congress passed the Copyright Act of 1976 and included it in 17 U.S.C § 107. It is not just a defensive provision but one which is an expressly authorised right.[19] Even before the law on fair use was codified in America, there was a judicial precedent set in the case of

8 Jane C Ginsburg, "Fair Use in the United States", *Singapore Journal of Legal Studies* 265-294 (Mar., 2020).

9 The U.S. Copyright Act, S. 107.

10 *Id.*, 1957, s. 52 (1)(d), (e), (f), (i), (m), (p), (q).

11 *Id.*, s. 52 (1) (h). (r), (s), (t).

12 *Id.*, 1957, s. 52 (1) (j), (za), (g), (l).

13 *Id.*, 1957, s. 52 (1) (k), (u), (y).

14 *Id.*, 1957, s. 52 (1) (n), (o).

15 *Id.*, 1957, s. 52 (1) (v), (w).

16 *Id.*, 1957, s. 52 (1) (x).

17 *Id.*, 1957, s. 52 (1) (aa), (ab), (ac), (ad), (b), (c).

18 *Id.*, 1957, s. 52 (1) (zb).

19 *Lenz* v. *Universal_Music_Corp.* 801F.3d 1126 (9th Cir. 2015)

Folsom v. *Marsh*,[20] in which a substantial number of pages of a 12-volume book of the plaintiff were allegedly copied by the defendant. The court, while rejecting that it was "fair use stated that if the defendant cites the most important parts of the work not to review or criticize, but to supersede the use of the work of the defendant, and substitute the review for it, this use of the work will be considered to be piracy of the copyrighted work."[21] Thus, the court went ahead to state that in matters as such it is important to look into the object and the nature of the selections that is made, the quantity or portion that has been used, the value of that material that is used and the degree in which the use of the original work in the subsequent work is going to commercially harm the creator of the original work.

Implementation of the four-factor test in America

17 U.S.C § 107 states that certain use of the copyrighted work is not infringement. "Criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research are some such uses that are not an infringement of copyright."[22] Certain factors are to be kept in mind while interpreting 'fair use' under this provision. The first factor is the purpose and character of the use, including its commercial nature. What is basically observed under this factor is whether the use was for 'commercial or non-commercial purpose,' if it was used for public or private use. Non-commercial use or private use is not the sole criterion for determining fair use, but is definitely a relevant factor to determine fair use.

The second factor is the nature of the work. As per this criterion, if the original work includes higher originality and creativity, the chances of others using and justifying it as fair use become less. However, "if a work is not very original and barely passes the test of minimal creativity, the chances of use of the work by third parties and justifying it as 'fair use' is more."[23]

The third factor is the "amount and the substantiality of the portion of work taken."[24] This factor entails a qualitative and a quantitative assessment. What is to be looked into is how much and how substantial the portion taken was. The fourth factor is the "effect of the use on the commercial value of the work, that is, examining the potential impact on the copyright owner's ability to exploit his original work."[25]

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20 9. F. Cas. 342 (C.C.D. Mass. 1841).

21 *Folsom* v. *Marsh* 9F.Cas. 342 (C.C.D. Moss 1841).

22 17 U.S.C s. 107.

23 Nadiya Nurmaya and Mardi Handono *et.al.*, "Fair Use Doctrine in Photocopying Books for Educational Purposes: A Study of Copyright Acts in Indonesia and the United States", 1(2) *Indonesian Journal of Law and Society* 101-124 (2020)

24 17 U.S.C § 107 (3).

25 17 U.S.C § 107 (4).

United Kingdom (UK)

In the UK, the exceptions to the rights of copyright holders are called fair dealing and the approach is very different from the Fair Use in the US. Fair dealing as per the UK legislation includes acts of use of copyright works for "making of personal copies for private use, research and private study, making temporary copies for transient or incidental uses, making of copies or data analysis for non-commercial research, criticism, review or reporting of live events, caricature, parody or patische, various uses of the copyrighted work in educational institutions, library exceptions in certain cases, exceptions in context to artistic works, use by authorized or statutory bodies, certain incidental uses, broadcasting related exceptions, exceptions for disabled persons etc."[26]

The scope of fair dealing concept in UK is quite limited. Fair dealing entails an enumerated list of acts which, given the condition, will be considered non-infringing. Fair use, as discussed earlier, requires a judgment to be made depending on certain factors. Thus, in the case of fair use, "every case is different, but generally speaking, if the use would not affect sales of the work and if the amount of the work copied is deemed reasonable and appropriate, then that use may be considered as fair."[27]

India

In the Indian Copyright Act, 1957, Section 52 deals with such exceptions to the use of copyrighted works which can be considered to be coming within the concept of 'fair dealing.'[28] As stated earlier, fair dealing includes an enumerated list of certain acts which will not be considered to be infringement. For the purpose of the study, it is important to examine the fair dealing options in the context of publications and education.

Educational exceptions

Sections 52(1)(a), 52(1)(i) and 52(1)(j) of the Indian Copyright Act deals with fair use or fair dealing in the educational context. It is provided that "a use of a literary, dramatic, musical or artistic work for research or private study; criticism or review, whether of that work or of any other work shall not constitute an infringement of copyright."[29] Further, "reproduction of any work shall not constitute infringement of copyright work by a teacher or a pupil in the course of instruction; or as part of

26 UK Copyright Designs and Patents Act, 1988, Part I, Ch. III, s. 28 to s. 76.

27 University of Edinburgh, "Copyright exceptions and fair dealing" *available at*: https://library.ed.ac.uk/library-help/copyright/copyright-exceptions-and-fair-dealing (last visited on Nov.10, 2024).

28 Ayush Sharma, "Indian Perspective of Fair Dealing under Copyright Law: Lex Lata or Lex Ferenda?", 14 *Journal of Intellectual Property Rights* 523-531 (2009)

29 Copyright Act, 1957, s. 52(1)(a).

the questions to be answered in an examination; or in answers to such questions."[30] Also, it is provided that "the performance of a literary, dramatic or musical work by the staff and students of the institution in the course of the activities of an educational institution is not an infringement of the copyright if the audience is limited to such staff and students, the parents and guardians of the students and persons connected with the activities of the institution."[31]

Publications exceptions

There are certain exemptions given to certain publications for educational purposes. It is provided that "in case of publication of not more than two passages of a copyrighted work from works by the same author are published by the same publisher during any period of five years will not be infringement."[32] However, it will be held to be non-infringement only when "the publication is in relation to a collection which mainly consists of non-copyright matter and to be used for instructional use and it is described as such in the title and in the advertisement issued by the publisher, of short passages from published literary or dramatic works, not themselves published for such use in which copyright subsists."[33]

In the famous case of *Chancellor, Masters and Scholars of University of Oxford* v. *Rameshwari Photocopy Services*,[34] Oxford University Press, Taylor and Francis Group and Cambridge University Press alleged that the course packs prepared by the faculty members of the Delhi School of Economics (DSE) were given to Rameshwari Photocopy Services (RPS) located within the premises of DSE. RPS would photocopy the course pack, bind it and sell it to the students at 50 paisa per page. These acts were an infringement of the copyright of their books since these course packs were used like textbooks and hence competed with their books, leading to their revenue losses. RPS was a commercial enterprise and the charge levied by RPS were more in comparison with the photocopy prices outside the DSE campus. Knowing that the defendant parties would argue based on 'fair dealing,' the plaintiffs stated that "Section 52(1)(i) was not applicable since reproduction by RPS, with the assistance of DSE, cannot be considered as reproduction by a teacher or a pupil in the course of instruction. Further, Section 52(1)(h) should be applied, which allows for the reproduction of only two passages from works by the same author published by the same publisher during any period of five years, and since it was more than two passages, it was an infringement of copyright."[35] The defendants, RPS and University of Delhi, argued

30 *Id.*, 1957, s. 52(1)(i).

31 *Id.*, 1957, s. 52(1) (j).

32 *Id.*, 1957, s. 52(1)(h).

33 *Id.*, 1957, s. 52(1)(h).

34 RFA(OS) No.81/2016.

35 *Id.*,para 3 of the judgement.

that their act came under the 'fair dealing' provisions. RPS stated that they were not in competition with the publishers. Their job was to work for the benefit of the students as the students could not afford to buy expensive books from publishers whose extracts were part of the curriculum of the students. Delhi University argued on the basis of section 52(1)(i). As per the argument put forward by the University, "there is no limitation on the quantum of reproduction under Section 52(1)(i) of the Copyright Act, 1957 and that because Section 52(1)(i) covers reproduction for educational purposes, unlimited photocopying would be permitted."[36] The potential market of the plaintiff parties was not affected by RPS. It was because these course-packs only contained extracts from the books of the publishers and it was not the entire book. Moreover, the term "course of instruction could not just be limited to lectures in the classrooms; there were other forms of instructions."[37] Initially, in 2012, the publishers got an interim injunction against RPS to stop further sale of the course-packs, but in September 2016, a single-judge bench of the High Court of Delhi vacated the injunction and dismissed the petition. Rajiv Sahai Endlaw, J. of the High Court of Delhi, while dismissing the case, stated that the primary aim of the copyright law is to encourage knowledge and stimulate the intellectual growth of the public. In cases like this, section 52 is the defence for the educational institutions. The use of the word "course of instruction instead of lecture was a deliberate choice, and hence the word instruction could not be narrowed down to only classrooms. Since photocopying or clicking pictures of books was not against the law, photocopying by a shop, as instructed by the University, for the benefit of students, could also not be considered an instance of copyright infringement."[38]

The matter went to the division bench of the High Court of Delhi. The division bench set aside the decision of the single bench and directed for re-opening of the case. However, it did not give any injunction to the publishers. The division bench made some important observations such as "compilation of photocopies of the relevant portions of different books prescribed in the syllabus, and their distribution to students by educational institutions, did not constitute an infringement of copyright in those books under the Copyright Act, 1957, as long as the inclusion of the works photocopied (regardless of quantity) pertained strictly to educational needs."[39] The appeal was dismissed, and the case was reopened to decide if the course packs were appropriate and were reasonably required. However, the court held that a photocopy of the entire book from back-to-back cannot be fair dealing as it would defeat the purpose of the copyright law to compensate the copyright author/ owner for the use of their creative work.

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36 *Id.*,para 5 of the judgment.

37 *Id.*,para 6.

38 *Id.*, para 16 of judgment.

39 *Id.*, para 75 of the judgemnt

IV Whether copyright protection can be extended to mathematical and science works: Legal provisions and judicial interpretation

The copyright Act grants protection to "original literary, dramatic, musical and artistic works."[40] Derivative works such as films and sound recordings are also granted copyright under the same provision. However, in the context of literary works, copyright is not granted until and unless they are original works. Although the definition of original is not provided in the Act, several judicial pronouncements have provided guidance on the interpretation of the term original.

Concept of originality

In the case of *R.G. Anand* v. *Deluxe Films,*[41] certain important legal principles pertaining to copyright were laid down. Firstly, it was stated that copyright does not exist in ideas, subject matter, plots, themes, facts, *etc.* It was further mentioned that when the same idea is developed in two different set of works, similarities are bound to occur. What the court has to examine is whether the similarities are on substantial or fundamental aspect of the expression of the previous work. If the second work is a literal imitation of the previous work with trivial changes, it is definitely a case of violation of copyright. Importantly, it was stated that if the theme is the same but it is presented in an entirely different way, the second work becomes a new work which will have a separate copyright.

Copyright is not concerned with 'the originality of ideas but originality of expressions.' In the case of literary works, the 'expression of thought should be in print or in writing.' The originality test in copyright is comparatively easier. Originality does not mean that it should have literary merits or should be of a particular quality. In the famous case of *University of London Press Limited* v. *University Tutorial Press Limited,*[42] wherein the issue was whether question papers were original literary work in order to get copyright protection, the court observed that "originality does not require that the work should be novel, rather to be original, what is required is that the work should not be copied from some other work."[43]

In another case of *Agarwala Publishing House* v. *Board of High School and Intermediate Education*,[44] the issue pertained to the same as the *University of London Press Limited* v. *University Tutorial Press Limited* case of copyright vested in question papers. In this case, it was held that "section 13 of the Copyright Act was not confined only to works of literature. It includes all works which are expressed in writing irrespective of whether they have literary merits or not and it is clear from the definition of

40 Copyirght Act, 1957, s. 13

41 AIR 1978 SC 1613.

42 (1916) 2 Ch. D. 601.

43 (1916) 2 Ch. D. 601, p. 609.

44 AIR 1967 All. 91.

literary work given in section 2(o) clarifies it by including tables and compilations in the definition"[45] The court held further that the term "original which is used in Section 13 of the Copyright Act does not mean originality of ideas, rather, it means that the work is not copied and that it has originated from the author and is the product of his skill and labour."[46]

What we can observe from the various judgments stated above is that the concept of originality in copyright is not equivalent to the novelty concept in patent, rather it is focused on the fact that it should not be copied from elsewhere. In this backdrop, it has to be examined if works pertaining to mathematics and science can be accorded copyright protection.

Previous judicial precedents in India pertaining to derivative and transformative works

Derivative and transformative works

A work is considered "transformative if it adds something new to the original, with a further purpose or different character, and does not merely substitute for the original work."[47] It essentially means that the new work has transformed the content in such a way that it imparts a new meaning or message, differing from the original. Both transformative and derivative works involve changes to the original copyrighted work, but derivative works mostly expand upon the original work in such a way that they are not necessarily transformative. To cite an example, a sequel to a novel will be considered to be a derivative work; however, it might not be transformative until and unless it imparts a new message or a new meaning which is different from the original work.

Copyright in compilations

In the case of *Eastern Book Company* v. *D.B. Modak*,[48] the issues involved were if the entire version of copy-edited judgments of the Supreme Court which is published in Supreme Court Cases (SCC), a case reporter would be considered to be an original literary work in order to grant it copyright protection and the other issue was 'the standard of originality in case of copy-edited judgments of the supreme court which is actually a derivative work.' The court looked into the precedents set in US court decisions, which stated that "for copyright protection, a work must be original to the author. Originality, as per the US courts, means that the work was independently created by the author and possesses some minimal creativity. The degree of creativity

45 *Id.*, para 5 of the Judgment

46 *Ibid.*

47 Brian Sites, "Fair Use and the New Transformative", 9 *Colum. J.L. & Arts* 513 (2016).

48 2008 (36) PTC SC.

may be low, and even a slight amount would be sufficient."[49] On the other hand, when the court looked into the UK jurisprudence, it found that the UK allows copyright for those work which was the result of labour and capital. The court, however, decided to go neither with the US position nor with the UK position. It stated that in matters such as compilation of cases of supreme court in the form of case reporters, "the sweat of the brow doctrine is too low a standard which favours owner's rights and minimal degree of creativity standard is too high a standard which is not possible in case of compilations as no matter what compilations since are extension of the original work would not meet the so-called originality standard."[50] The court thus decided to go with the Canadian court's decision in *CCH Canadian Ltd.* v. *Law Society of Upper Canada*,[51] in which it was stated that to grant "copyright in compilations, one must exercise skill and judgment which may not amount to creativity as is implied in novelty but is also not a result of just labour and capital."[52] So, although copyright did not exist in the raw Supreme Court judgments procured by SCC but so far as the "head notes, editorial notes of the cases prepared by the publishers are concerned, it will be given copyright protection."[53] Also in those part of the judgments included in the reporter where their skill and judgment were used, that is, while "segregating existing paragraphs and breaking them into separate paragraphs; indicating concurrent and dissenting judgments etc. have to be viewed differently as it requires experience and knowledge (required skill) and judgment on where to put what,"[54] these parts will definitely get copyright protection.

Copyright infringements in the context of guidebooks

In the case of *E.M. Forster* v. *A.N. Parshuram*,[55] the University of Madras prescribed the book 'A Passage to India' as a textbook to be referred for the B.A. course. The respondent Parashuram published a guidebook to the novel. Forster filed a case of copyright infringement against Parashuram. The court noted that if the substantial/ vital part of the original work was copied, even though in quantity it is small, yet it would be an infringement. However, stating that Parashuram did not commit copyright infringement, the court held that the objective of Parashuram's work was not to express his appreciation or criticise the novel. His objective was to help students take the B.A. exam. He has used his vast experience in framing the guidebook and guiding the students in attempting the answers to the questions relating to the novel. The court, while favouring Parshuram, stated that, "it is abundantly clear that, either upon

49 *Id.*, para 33.

50 *Id.*, para 37.

51 2004 (1) SCR 339 (Canada).

52 *EBC* v. *D.B. Modak*, para 37.

53 *Id.,* para 42.

54 *Id.,* para 41.

55 AIR 1964 (Mad) 331.

the principle of substantial reproduction, or even qualitative-reproduction, as far as the verbal expression of the original work goes, there has been no infringement."[56]

However, in another case of *Syndicate Press of University of Cambridge* v. *Kasturi Lal*,[57] the defendant party made a verbatim copy titled "MBD English Guide" of the renowned grammar book of the plaintiff "Advanced Grammar in Use by Martin Hewings." This grammar book of the plaintiff was a prescribed textbook of many universities of the world, including GNDU, Amritsar. The court, while holding that there was a copyright infringement, noted that not only was the defendant's book a verbatim copy of the plaintiff's book, but also answers, scheme of exercise, *etc.*, were plagiarised.

In another case of *Blackwood* v. *Parashuram*,[58] there was an allegation of copyright infringement against the defendant party's guide-book of their novel. The court in this case stated that it is important to refer to the purpose for which the substantial part of the work was reproduced, and secondly, the manner in which the work was used. If the purpose of reproduction was not enumerated in the legislation, it will not be considered fair dealing.

Can copyright exist in works relating to mathematics and science? Controversy raised in High Court of Andhra Pradesh in the case of *Addala Sitamahalakshmi* v. *State of Andhra Pradesh*[59]

The state of Andhra Pradesh (AP) *vide* a government notification in 2010 directed all private colleges to purchase books for the intermediate board exams only from Telugu Akademi, a government of AP-controlled body and directed the private colleges not print any books for intermediate examinations without the permission of the state. The plaintiff Deepthi Publications in this case were publishers of mathematics and science textbooks which could be used by students pursuing intermediate courses, CBSE and ICSE 12 standards as well as those preparing for engineering, medical and other science courses. In 2011, there was an inspection of the premises of the plaintiff and books and other reading materials were seized on the ground that they were in violation of the aforementioned government order. The plaintiff challenged the "constitutionality of the notification and alleged that it violated the fundamental rights of the plaintiff under article 19."[60]

56 AIR 1964 (Mad) 331. Para 9.

57 2006(32) PTC 487 (Del).

58 AIR 1959 Mad. 410.

59 Writ Petition No.13251 Of 2011 and Criminal Petition No.4032 of 2011 (AP HC) (decided on Feb.24, 2024).

60 Yogesh Byadwal, "Is Every 'Educational Use' a 'Fair Use'? Looking at the AP HC's Curious Decision on Textbooks and Copyright", *available at*: https://spicyip.com/2024/04/is-every-educational-use-a-fair-use-looking-at-the-ap-hcs-curious-decision-on-textbooks-and-copyright.html (last visited on May 25, 2024).

The plaintiff further stated that copyright is not granted to non-literary works, and mathematics and science being non-literary work, copyright did not exist in these works. Hence, the works pertaining to subjects such as mathematics and sciences cannot come within copyright and if at all, a patent can be applied for in case of the invention of a new formula. Further, it was stated that even if the books of the plaintiff were pirated books, it still came under the exceptions given in 'section 52(1)(a)[61] and section 52(1)(h)'[62] of the Copyright Act of 1956. The court agreed with a previous decision[63] wherein it was stated that the moment a book is declared to be a part of the syllabus, then guide books which are published to help students will be fair use.

The High Court Andhra Pradesh, while giving a decision in favour of the plaintiffs, stated that no copyright exists in case of non-literary works. Further, the court stated the government order was to protect Telugu Akademi from infringement. In the order, the state government directed the government and private colleges to purchase and follow the book for the intermediate board which is printed and published by Telugu Akademi in English, Telugu and Urdu mediums. Also, the state government directed the government and private colleges to not to prepare their own books. The court hence held that the government order does not apply to the plaintiff which is a publishing house, and the order was directed not to publishers but to private colleges.

Critical analysis of the *Addala Sitamahalakshmi* v. *State of Andhra Pradesh decision*: Can works pertaining to mathematics and science be accorded copyright protection?

Taking cues from the judicial interpretations, especially the case decided by the High Court of Allahabad in *Agarwala Publishing House* v. *Board of High School and Intermediate Education*[64]it is amply clear from section 2(o) of the Act that the legislators never intended to provide copyright protection to only works of literature. The definition includes tables and compilations as literary works. Hence, even works of mathematics and science can come within copyright law.

Moving on, in the case of *Addala Sitamahalakshmi* v. *State of Andhra Pradesh*, the question that should have been raised was whether Telugu Akademi had a copyright over its mathematics and science books and if the same had been infringed by Deepthi Publications.

In the case of mathematics, there are certain mathematical facts and mathematical theorems. In Science, there are certain theories. Such matters cannot be copyright-

61 Fair dealing when used for private or personal use, including research; for criticism or review or for the reporting of current events and current affairs

62 *Supra* note 23.

63 *Ramesh Chaudhry* v. *Ali Mohd,* AIR 1965 J&K 101.

64 *Supra* note 26.

protected. The same has been decided in the *R.G. Anand* v. *Deluxe Films*,[65] case, also where it is clearly stated that copyright cannot be granted to facts, plots, subjects, *etc.* Going by the R.G.Anand case, these facts are not copyright protected, but if the expression used to express the fact is original and not copied from anyone else, it can be protected. For example, a statement like two plus two is four cannot be copyright protected. However, if someone uses a funny rhyme to express it for young students, then copyright will be given on the rhyme, that is, the way it was said and not the fact specifically. So, in the case of books published by Telugu Akademi, if unique expressions were used to express mathematical facts and theorems, the expression will be protected and not the facts. However, outrightly rejecting that mathematical and science books will not have copyright was a harsh stand taken by the High Court of Andhra Pradesh. In the case of *S.K. Dutt* v. *Law Books*,[66] the court stated that while deciding if one book is a copy of the other, the features of the books, both external and internal, have to be looked into. By 'internal features what is meant is the layout of the subject matter, the manner of treatment and the amount of material contained in the book.' The external features included ' title of the book etc.' In this case, while holding that there was no copyright infringement, the court observed that 'there was no substantial taking from the plaintiff's book and neither has the plaintiff been able to prove any substantial infringement.'

The court could have observed the previous precedents by referring to judgments of various high courts wherein there has been a uniform take that, along with verbatim copying, substantial copying, even if the quantity is less, is infringement. Although in mathematics and science subjects, certain facts are in a common domain, if the means of expression of the facts by Telugu Akademi were substantially copied by Deepthi Publications, copyright infringement would occur. So far as the judgment is concerned, holding that the government order was applicable to private colleges and not publishers, it is correct, but on the question of copyright infringement, the court needs to re-look at both the works and decide whether copyright infringement actually occurred.

V Conclusion and suggestions

Copyright protection extends to original literary works. The first aspect, that is "the definition of literary work given includes computer programmes, tables and compilations including computer databases."[67] Going by the definition, all literary works, whether in the field of literature or not, need to be given protection under the copyright regime. The second aspect is whether mathematics and science books can

65 *Supra* note 24.

66 AIR 1954 All.570.

67 Copyright Act, 1957, s. 2(o).

be considered to be 'original literary work' to be given copyright protection. Considering that derivative[68] works are also given copyright protection in India, there is no doubt that copyright protection should be given to mathematics and science books. Further, substantiating the argument, in the *R.G.Anand* v. *Deluxe Films* case stated earlier, although "facts are not copyright protected, but if the expression used to express the fact is original and not copied from anyone else, it can be protected under the copyright law."[69] Also, in the *Eastern Book Company* v. *D.B. Modak* case, it is clearly stated that to grant "copyright in compilations, one must exercise skill and judgment which may not amount to creativity as is implied in novelty, but is also not a result of just labour and capital. So, although copyright did not exist in the raw Supreme Court judgments procured by SCC, but so far as the head notes, editorial notes of the cases prepared by the publishers are concerned, it will be given copyright protection."[70] Similarly to case reporters which are prepared on the basis of public domain work (the raw judgments procured from the various courts in India), mathematics and science are two such subjects that include a lot of facts which are part of the public domain, the courts have to exercise extra precaution while dealing with charges of infringement of copyright of such works. The courts have to closely examine the provision in the Indian Copyright Act which provides exceptions to the infringement of copyright. The provision contained in section 52 includes an enumerated list of what is permitted by fair dealing. The Indian courts in numerous decisions pertaining to section 52 of the Copyright Act have looked into the four-factor test laid down in the US courts to determine if the use of copyrighted work without consent can be permitted. Hence, 'purpose, extent, use and impact on commercial value of the original copyright work' needs to be examined. Also, the court can distinguish between copyrightable and non-copyrightable material, such as idea, subject-matter, themes, and plots or historical or legendry fact', in a work and closely observe if the copyrightable material, that is, the mode of expression of the work, even if the work is based on certain public domain facts or subject matters, has been copied. If "verbatim copying or even substantial copying (even if the quantity is less) of the mode of expression has been done, it will be considered infringement."[71] If non-copyrightable materials are used, then the

68 EBC case.

69 *Id.*, para 26.

70 *R.G.Anand* v. *Deluxe Films* [1978] INSC 140.

71 Pankhuri Agarwal, "A Guide on Fair Use Cases in India", *available at*: https://spicyip.com/2021/04/a-guide-on-fair-use-cases-in-india.html (last visited on May 20, 2024).

question of infringement does not arise.[72] The same principle needs to be observed in cases of charges of infringement of copyright in mathematical and scientific works also.

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72 *Supra* note 26. *R.G. Anand* v. *Deluxe Film* states, "(1) There can be no copyright in an idea, subject-matter, themes, and plots or historical or legendry fact and violation of the copyright...(2) Where the same idea is being developed in a different manner, it is manifest that the source being common, similarities are bound to occur. In such a case the courts should determine whether or not the similarities are on fundamental or substantial aspects of the mode of expression adopted in the copyrighted work. If the defendants work is nothing but literal imitation of the copyrighted work with some variation here and there it would amount to violation of the copyright...(4) Where the theme is the same but is presented and treated differently so that the subsequent work becomes a completely new work, no question of violation of copyright arises."

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