

## Empowering Accessibility: Converting Books for Print-Disabled Students in Government Law College Tiruchirappalli within the Framework of the Indian Copyright Act

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### ABSTRACT

The National Education Policy (NEP) 2020, the University Grants Commission (UGC), and the National Assessment and Accreditation Council (NAAC) have recognised the importance of providing barrier-free access to education for individuals with disabilities. Knowing the vitality of empowering accessibility, the Government Law College library in Tiruchirappalli addresses the issue of print disability students accessing information. The library has undertaken a pilot effort to convert Ten postgraduate printed law books into audio books by utilising the provisions of the Indian Copyright Act of 2012. The audiobooks were stored in the DSpace repository and shared with students. The objective of this study was to ensure that print-disabled students had access to the same resources as their others. The findings suggest that audiobooks have the potential to enrich print-disabled students' confidence in their ability to learn and read, leading them to become motivated and involved in their studies.

**Keywords:** Law libraries; Accessible format; Print disability; Audio books; Copyright act 2012; NEP 2020

### 1. INTRODUCTION

Knowledge is currently regarded as the most valuable asset for each individual worldwide. The proverb "Knowledge is Power" is one that everyone has come across practically<sup>1</sup>. Every individual in the world has the right access to knowledge, so they may improve their lives, but for someone with a disability of any type, it can be more difficult to do so. According to the Indian Census of 2011, there are about 5.4 million visually impaired people in the country<sup>2</sup>. The Indian Constitution has provisions for education particularly Article 21-A, the Right to Education Act 2005 mentions Person with disabilities as part of the general population<sup>3</sup>. The National Education Policy (NEP) 2020 encourages initiatives to increase access to education for marginalised groups, such as children with disabilities<sup>4</sup>. For a variety of reasons, whether for informational, entertainment, or educational purposes, it is crucial for visually impaired people to read just like everyone else. Printing materials were only used by this group of individuals after being transformed into an accessible format.

Printing materials were only used by this group after being transformed into an accessible format. From 2010 to 2019, approximately 14 % of published books were available in alternate formats usable by people with print disabilities<sup>5</sup>. This shows that only a small proportion

of printed titles are available in eBook format, limiting access for those with print disabilities. This study has attempted to convert printed law books to audio books using limited resources and with the help of student volunteers for print disability students to access print textbooks and improve their academic performance at Government Law College, Tiruchirappalli.

### 2. BARRIER-FREE ACCESS TO EDUCATION FOR CHILDREN WITH DISABILITIES

The National Education Policy 2020 (NEP) introduced a pivotal provision dedicated to ensuring barrier-free access to education for all disabled children. This provision assured children with disabilities that they have equal opportunities to receive education. It achieves this by providing them with assistive devices, suitable technology-based tools, and teaching-learning materials that are linguistically appropriate<sup>6</sup>.

In line with NEP's emphasis on inclusivity, the University Grants Commission (UGC) have also implemented comprehensive Accessibility Guidelines and Standards for Higher Education Institutions and Universities. Provision 8.3.2 of these guidelines specifically addresses the services rendered by the library to persons with visual disabilities. According to this provision, libraries are required to provide scanners to convert documents via OCR readers and digital libraries<sup>7</sup>.

The National Assessment and Accreditation Council (NAAC) created a guide for checking and confirming data from colleges that are part of higher education institutions. This guide, specifically section 7.1.7, emphasises the need for technology and facilities to help people with disabilities in schools<sup>8</sup>.

### 3. INDIAN COPY RIGHT LAW 2012

The copyright act of 2012 has introduced measures to support individuals with disabilities. Specifically, the amendment to the Indian copyright law (52(1)(zb)) established a new copyright exemption targeted at improving access for those with print disabilities such as blindness and dyslexia. This exemption allows for the modification of work to meet the unique needs of individuals with print disabilities, as well as organisations for them. For instance, a traditional printed book can be converted into various formats such as Braille, large print, or audio versions, without the need for copyright holder permission<sup>9</sup>.

Furthermore, the copyright act of 2012 has provisions that benefit students with print disabilities. According to the law, this is not a violation of copyright for any individual or organisation working for the benefit of a person with disabilities on a nonprofit basis to create accessible format copies or distribute them to those who cannot fully enjoy the work in its original form. However, under Section 31 B, after securing a license, any individual or organisation working for the benefit of a person with disabilities for profit or business purposes can proceed with the conversion and distribution of work after obtaining a license from the copyright board, following the specified procedures outlined in this section<sup>10</sup>.

The provisions granted by the copyright act of 2012 for the benefit of print disabilities imply that obtaining permission from publishers to convert their books into accessible formats is not mandatory. This flexibility allows for the creation and distribution of works in various accessible formats, such as Braille, large print, or audio, to individuals with disabilities who may not be able to access the original printed version.

### 4. LITERATURE REVIEW

Obtaining information for print disability depends on people helping each other, showing how important social connections are for accessing information<sup>11</sup>. The Marrakesh Treaty is a global agreement aimed at making it easier for people with disabilities to access books and printed materials. India agreed to this treaty and made changes to its copyright laws to help visually impaired people access information more easily. However, there are still problems regarding how well this treaty is being followed in India. Therefore, it is important to improve how the treaty is applied to India to fully support its goals<sup>12</sup>.

The copyright amendment act of 2012 in India made changes to help authors, including special provisions for people with disabilities, and made it easier for people to work, aiming to update Indian copyright laws to match international agreements, such as the Internet Treaties, WIPO Copyright Treaty, and WIPO Performances and Marrakesh Treaty<sup>13</sup>.

The challenges experienced by visually impaired people in accessing library and information services are significant. Several studies have highlighted the gaps in the provision of services and the specific needs of visually impaired individuals. For example, The Istanbul university central library has established an information centre for print-disabled students, which objects to creating an inclusive for all the students. This initiative ensured that print-disabled students had access to the same resources as their others<sup>14</sup>.

The efforts made by libraries to meet the reading needs of visually impaired individuals through assistive technology devices and the role of Information Technology (IT) in promoting their inclusion and autonomy. The visually impaired library in India relies heavily on Braille books and Talking book services as the primary sources of information and provides tactile access to written content, enabling visually impaired individuals to read independently. Talking book services, however, audio books, allowing users to listen to the content. These tools have been helpful in bridging the information gap between the visually impaired communities<sup>15</sup>.

Digital libraries can help blind students more easily<sup>16</sup>, but it is important to keep university digital libraries safe from cyber threats. This ensured that the information and data in these libraries were protected<sup>17</sup>.

Blind or visually impaired people in Delhi, India, have trouble using library websites because they do not have enough online catalogs or assistive technologies. They also pointed out that more people recognised the skills of those with disabilities and wanted to include them in society<sup>18</sup>. However, no research has been conducted on the provision of special library services for students with print disabilities in Indian legal institutions.

### 5. STATEMENT OF THE PROBLEM

The government law college, Tiruchirappalli, offers various undergraduate and postgraduate law courses to 1440 students. Every year, colleges spend a significant amount on purchasing printed books, legal reports, and digital databases. However, students with print disabilities face challenges accessing printed information independently and rely on others for assistance. To address this issue, the library decided to convert the printed books into audio books. In the first phase, ten postgraduate law books were converted into audio books. This study aimed to explore existing research findings related to the use of audiobooks as an alternative format for print disability students and to identify the scope of future research directions.

## 6. SCOPE OF THE STUDY

There were 40 disabled students, 10 of whom were print disabled at the Government Law College Tiruchirappalli. Ten print disability students were interviewed to suggest alternative formats and solutions to meet their needs and preferences. They stated that audiobooks were the most common option to meet their information needs.

There were 80 subjects for both UG degree courses and 25 subjects for PG degree courses in law courses, with each subject having at least three textbooks in English and two books in Tamil. It must take 430 titles to convert into an audiobook to fulfil the information needs of print disabled students. As an initiative, it was decided ten English law books from postgraduate students were converted into audiobooks.

## 7. LIMITATION OF THE STUDY

In this study, ten books were initially converted, and not included Tamil law books. This study focused purely on audiobooks and did not examine alternative formats.

## 8. BACKGROUND OF THE STUDY

The government law college, Tiruchirappalli Library, is committed to providing updated legal materials in print and online formats to students and faculty. The library comprises 42,000 printed books on various legal aspects, 2200 back volumes of law reports, 16 law journals and law reports that are subscribed to, and two major online legal databases. The library recognises the conditions of the disabled and has begun to provide special library services for disabled students. Furthermore, it includes a specific space for students with different disabilities to work independently and move around. It has built specific facilities, such as ramps, rails, and washrooms, as well as made other required improvements to meet their needs.

The library provides print disability students with specialised digital information services, including audiobooks for competitive exams and NVDA.

## 9. OBJECTIVE OF THE STUDY

This study aimed to enable accessibility for students with print disabilities by converting library textbooks into audiobooks for accessing library resources to ensure that print-disabled students had to access the same resources as their others.

## 10. ADVANTAGES OF AUDIOBOOK

### 10.1 Accessibility

Audiobooks are important for students with print disabilities because they provide the same content in printed books in an audio format, thereby supporting diversity in education<sup>18</sup>. emphasise that audiobooks offer students with print disabilities the opportunity to conveniently access educational materials. Students with print disabilities can readily access printed textbooks at the library with the help of audiobooks.

### 10.2 Independence

Audiobooks enable students with print disabilities to learn independently and can be a valuable tool for individuals with intellectual and reading disabilities. Students with disabilities were found to express a high degree of satisfaction with the availability of audiobooks and other information services at the university's central library at Imam Muhammad bin Saud Islamic University in Saudi Arabia<sup>19</sup>. The print disability students frequently depend on others to access to educational materials. They can access educational content without needing continual support, though, by using audiobooks.

### 10.3 Flexibility

Audiobooks are very flexible; people with print disabilities can listen to audiobook books on different devices such as phones, laptops, or computers, making it easy for them to listen to books anywhere, whether at home, school, or on the go. This ensures that these students can learn like everyone else<sup>20</sup>.

### 10.4 Confidence and Motivation

Listening to audiobooks can help students with print disabilities feel more confident and motivated. Research has shown that when students listen to someone reading well while they follow along, it can make them better readers, more fluent and better understand the material. It also makes reading more fun, which makes them feel more confident about their abilities<sup>21</sup>.

## 11. DESIGN AND ARCHITECTURE

The architecture for an audiobook must have several crucial components<sup>22</sup>. These components include the selection of books, narration and voice, recording equipment, audio editing and noise reduction, metadata and arrangement, file format, storage, and distribution. These components form the foundation for creating an effective and accessible audio-book.

**Table 1. List of books converted to audio-book**

| S. No. | Title   | Author         |
|--------|---|----------------|
| 1      | Constitutional Law –New Challenges  | Tripathi, G.P. |
| 2      | Judicial Process  | Sheetal Kanwal |
| 3      | Law & Social Transformation   | Malik & Raval  |
| 4      | Law Relating to Government Servants & Management of disciplinary Proceeding | Narendar Kumar |
| 5      | Law Relating to trade unions  | Srivatsava, KD |
| 6      | Lectures On Administrative Law  | Takwani CK     |
| 7      | Human Rights  | Aggarwal, HO   |
| 8      | Intellectual Property Law   | Narayanan, P   |
| 9      | Criminal Procedure  | Kelkar, RV     |
| 10     | Criminology and penology  | Paranjape      |

### 11.1 Selection of Books

Book selection is an essential consideration in audiobook design architecture<sup>22</sup>. The ten textbooks were converted by an audio book suggested by a subject-taught teacher in the college, ensuring that the content was relevant and aligned with the curriculum. Table 1 shows that the list of printed books was converted to audio books as the first stag.

### 11.2 Narration and Voice

Numerous mobile applications are available to assist the conversion of text to audio, but the clarity and quality of the voice are critical. In this project, the voice-person must know the law, have relevant experience, and have a clear voice. Based on these criteria, a student volunteer with relevant subject knowledge and a clear voice was chosen to record the project's audiobook.

### 11.3 Recording Equipment

BESTOR<sup>®</sup> high-quality voice recording device was used in this study to record voices. A podcast mic with a boom arm and microphone with a stand was included in this set.

### 11.4 Audio Editing and Noise Reduction

Audio editing and noise reduction techniques have been employed to enhance audio quality and remove unwanted noise. In this project, audio editing-free software (<http://audiodenoi.se.com/>) was utilised for this purpose.

### 11.5 Metadata and Arrangement

To efficiently organise the audiobook, metadata and audio file structure are essential. This audiobook project is well-structured and has excellent introductions. Further, the addition of metadata to the Dublin Core has been used to describe audiobooks, and a thumbnail improves usage for a better user experience.

### 11.6 File Format

The audiobooks in this project are saved in MP3 and MP4 formats with an appropriate bit rate to balance audio quality and file size. This allows students with print disabilities to access and download the audiobooks on various devices

### 11.7 Storage and Distribution

DSpace7 open-source institutional repository software was used to store audiobooks. This software helps students access audiobooks anywhere in college campuses. Therefore, this project is restricted to students with print disabilities, and regular students are not permitted to download or use audio books. Fig. 1: Digital Repository Homepage: This figure presents the main landing page of the digital repository, showcasing its layout and key features. Fig. 2: Content

Page: This figure displays a typical content page within the repository, illustrating how information is organised and presented. Fig. 3: Audio Player Page: This figure demonstrates the dedicated audio player page, highlighting its controls and functionalities. Fig. 4: Student Service Utilisation: This figure visualises how students engage with various services offered by the platform, providing insights into usage patterns and trends.

### 11.8 Feedback and Modification

After listening to the audiobook, feedback from students with print difficulties was gathered to improve their future audiobook efforts. Most students suggested improving their voice quality for the sake of studying.

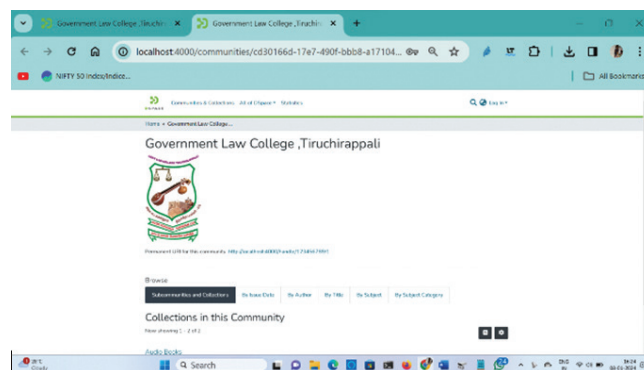


Figure 1. Digital repository home page.

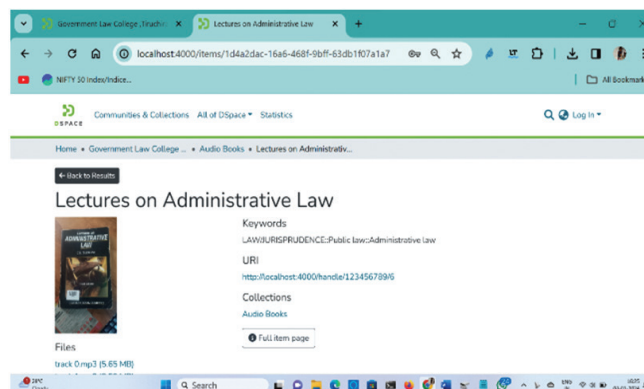


Figure 2. Content page.

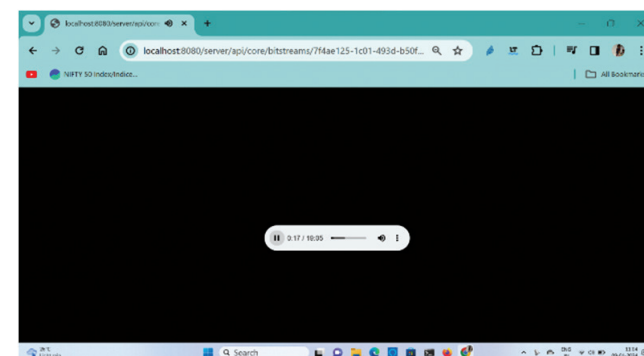


Figure 3. Audio player page.





Figure 4. Service utilisation by students.

## 12. SUGGESTION & CONCLUSION

The project to convert printed law books into audio books at the Government Law College Tiruchirappalli Library has been successful in helping students with print disabilities. However, students pointed out that audio quality needs to be improved. Future studies could focus on improving audio quality and finding other accessible formats such as Braille and large fonts to meet the different needs of disabled students. This study indicates that all law books should be converted into audio books.

Also, getting financial help and technical support is crucial to turn all printed law books into audio books, making sure that all students with print disabilities in Tamil Nadu and India can benefit from this. The project aims to make legal materials more accessible for people with print disabilities. By addressing the issues raised by students and looking into new research areas, libraries can continue to be important in providing access to information and education in an inclusive and fair way.

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His contributions to this study were conceptualisation and draft of the paper.

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