





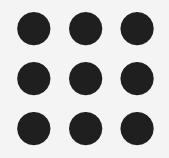
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Department of AI &DS

Course Name – 19AD602 DEEP LEARNING

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Unit 4-Patents and traditional knowledge







Traditional knowledge (TK) encompasses the wisdom, practices, and innovations developed by indigenous and local communities over generations. This knowledge often plays a crucial role in areas such as agriculture, medicine, and environmental management. However, the intersection of TK and the patent system has led to significant challenges, particularly concerning the misappropriation of TK through patents—a practice commonly referred to as biopiracy.





Biopiracy involves the unauthorized use of TK and genetic resources by individuals corporations who seek exclusive rights through patents, often without providing compensation or recognition to the original knowledge holders. Notable instances include patents granted for the medicinal use of turmeric and the pesticidal properties of the neem tree, both of which have been integral to traditional practices in India for centuries. These cases highlight the vulnerabilities of TK within the conventional patent framework.





The traditional patent system is designed to protect novel and inventive creations, typically favoring individual inventors or entities. In contrast, TK is collectively owned, orally transmitted, and evolves over time, making it challenging to fit within the standard criteria of patentability. This disparity often leads to the granting of patents for inventions that are not genuinely novel but are instead based on existing TK, thereby undermining the rights of indigenous communities.





To address these challenges, various strategies have been proposed and implemented. One approach is the establishment of databases, such as India's Traditional Knowledge Digital Library (TKDL), which documents TK in accessible formats for patent examiners. The TKDL has been instrumental in preventing the misappropriation of Indian TK by providing evidence of prior art, thereby ensuring that patents are not erroneously granted for knowledge that is already in the public domain.





Internationally, efforts have been made to bridge the gap between TK and intellectual property rights. In May 2024, the World Intellectual Property Organization (WIPO) adopted the Treaty on Intellectual Property, Genetic Resources, and Associated Traditional Knowledge. This treaty mandates that patent applicants disclose the origin of genetic resources and associated TK used in their inventions, promoting transparency and equitable benefit-sharing with indigenous communities.





Despite these advancements, significant challenges remain. Ensuring that TK holders receive fair compensation and recognition requires ongoing international collaboration, the development of robust legal frameworks, and the active participation of indigenous communities in decision-making processes. Balancing the protection of TK with the promotion of innovation continues to be a complex issue that necessitates nuanced and culturally sensitive approaches.







thank you