

Chapter 1

Conceptualising the Role of Intellectual Property and Ethical Behaviour in Artificial Intelligence

Princy Pappachan

Asia University, Taiwan

Sreerakuvandana

Jain University, India

Mosior Rahaman

Asia University, Taiwan

ABSTRACT

The development of artificial intelligence has significantly affected all facets of human life, leading to many ethical and legal questions that have positive and negative consequences for individuals, organisations, and society. Amidst this lies the interaction between intellectual property rights and ethical behaviour in the development and use of artificial intelligence. While intellectual property acts as a catalyst for innovation, ethical behaviour ensures responsible and accountable artificial intelligence consistent with social standards. Accordingly, the beneficial effects of artificial intelligence can only be guaranteed by balancing intellectual property rights and ethical behaviour. This chapter thus discusses the notion of intellectual property and ethical behaviour in the context of artificial intelligence by providing a comprehensive historical review and reflecting on the creation and implementation of ethical artificial intelligence while preserving intellectual property rights.

INTRODUCTION

Artificial Intelligence or AI, even today, continues to emerge as a technology for general purposes, with its applications expanding throughout society. From self-driving cars to generative chatbots, artificial intelligence has revolutionised how we interact with technology. The advent of generative artificial intelligence, however poses a two-edged sword challenge in which one side strives to promote scientific development and economic success while addressing public ethical concerns with issues on the intellectual property rights of citizens. Over the past few years, there has been an enormous rise in the importance of intellectual property law. Intellectual property law has gained new prominence as one of the most crucial aspects promoting innovation and economic growth due to digitisation, electronic records, and the advent of post-industrial information-based sectors. The comprehension of artificial intelligence is imperative to understand the importance of intellectual property rights and the need to consider ethical concerns in artificial intelligence.

Artificial intelligence moved away from computer programs or software with its ability to learn and replicate “human-level intelligence” (Jordan, 2019), as machine learning techniques allowed artificial intelligence systems to learn using deep, supervised, and unsupervised learning (Wang & Siau, 2019). Additionally, with the interface of machine learning and natural language processing, Generative Pre-Trained Transformer could read and generate text from vast training datasets.

With respect to intellectual property rights and ethical concerns, there are two kinds of artificial intelligence; Weak artificial intelligence and Strong artificial intelligence. Weak artificial intelligence recognises the need for humans to carry out tasks. On the other hand, strong artificial intelligence is equipped with strong reasoning and problem-solving skills, making its responses indistinguishable from human-generated responses (Bechmann & Bowker, 2019). At present, artificial intelligence has entered the arena of strong artificial intelligence. This expeditious revolutionary transition from weak artificial intelligence to strong artificial intelligence poses serious questions on intellectual property rights concerning authorship and data protection and ethical concerns concerning data privacy and transparency in artificial intelligence.

This chapter thus investigates the different types of intellectual property rights and ethical concerns in artificial intelligence. Reviewing the challenges of intellectual property rights and ethical concerns in artificial intelligence, it discusses the legal perspective, existing policies and current strategies adopted to address its effect on present and future artificial intelligence by presenting case studies of the artificial intelligence-driven healthcare sector.

The chapter argues that current strategies and policies are still lacking in addressing the protection of intellectual property rights. Though copyright ownership and patent authorship have been addressed in artificial intelligence, it still requires modification to address what happens in generative artificial intelligence. Additionally, with respect to ethical challenges and concerns, legal resolutions to address these issues fall short of guaranteeing ethical artificial intelligence. The chapter thus argues that the current policies that talk about ethical concerns have not been able to provide a comprehensive framework on how ethical concerns can be addressed.

24 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/conceptualising-the-role-of-intellectual-property-and-ethical-behaviour-in--artificial-intelligence/334466

Related Content

Three-Layer Stacked Generalization Architecture With Simulated Annealing for Optimum Results in Data Mining

K. T. Sanvitha Kasthuriarachchi and Sidath R. Liyanage (2021). *International Journal of Artificial Intelligence and Machine Learning* (pp. 1-27).

www.irma-international.org/article/three-layer-stacked-generalization-architecture-with-simulated-annealing-for-optimum-results-in-data-mining/279277

An Integrated Process for Verifying Deep Learning Classifiers Using Dataset Dissimilarity Measures

Darryl Hond, Hamid Asgari, Daniel Jeffery and Mike Newman (2021). *International Journal of Artificial Intelligence and Machine Learning* (pp. 1-21).

www.irma-international.org/article/an-integrated-process-for-verifying-deep-learning-classifiers-using-dataset-dissimilarity-measures/289536

Deep Learning for Computer Vision Problems: Literature Review

Khadidja Zairi (2021). *Advanced Deep Learning Applications in Big Data Analytics* (pp. 92-109).

www.irma-international.org/chapter/deeplearning-for-computer-vision-problems/264550

Authentication by Palmprint Using Difference of Block Means Code

G. Ananthi, G. Shenbagalakshmi, A.T. Anisha Shruti and G. Sandhiya (2023). *Scalable and Distributed Machine Learning and Deep Learning Patterns* (pp. 185-199).

www.irma-international.org/chapter/authentication-by-palmprint-using-difference-of-block-means-code/329554

Internet of Things in E-Government: Applications and Challenges

Panagiota Papadopoulou, Kostas Kolomvatsos and Stathes Hadjiefthymiades (2020). *International Journal of Artificial Intelligence and Machine Learning* (pp. 99-118).

www.irma-international.org/article/internet-of-things-in-e-government/257274