Chapter 17
Human–AI Collaborative Intelligence:
Ethical and Legal Considerations

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ABSTRACT

The present globe benefits from the unprecedented growth of science and technology. The invention of Artificial Intelligence (AI) has opened a vast horizon of possibilities, choices, and capabilities for humans and society. AI-powered human-like systems provide substantial interaction and collaboration for better results in many fields. The speed, efficiency, and effectiveness of AI systems prompted almost all sectors, like healthcare, education, transport, and communication to invest in them. This resulted in shifting attention from human-human collective intelligence to human-AI collaborative intelligence. This shift has significantly contributed to many fields and reduces the security risks to humans. However, there are also many ethical and legal concerns in this innovative area, like data privacy, transparency issues, liability, and accountability. This chapter, using analytical and critical methods, examines the functioning of collaborative intelligence and suggests the required ethical and legal principles for incorporation into national and international policy design.

INTRODUCTION

Decision-making is the most vital dimension of any business venture. It is a unique capacity of an individual that refers to one's ability to make a specific decision on a given condition (Luxenberg & Stein, 2024). This ability revolves around factors like education, life experience, and social and cultural background. It is the fruit of the logical and systematic application of one's intelligence (Ariyo et al., 2023). Every person has unique intelligence, which makes decisions differently from others by analyzing

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various factors. The analyzing capacity of intelligence is the rationale for meaningful decision-making (Sylaska, Allen, & Mayer, 2020). In common parlance, collective intelligence is the sum of many individual intelligences (Lévy, 1997). For example, suppose an individual initiative exists (business, industry, research work, etc.). In that case, most of the decisions are taken by those specific individuals based on their intelligence and decision-making capacity.

In contrast, if there are two or more persons as partners or collaborators, they make a collective effort and thereby arrive at a more meaningful and effective decision with the support of the intelligence of all of them (Tjornbo, 2015). As an idea, collective intelligence originated in 1785 with the contribution of Marquis de Condorcet, but it became popular in the last decades of the 20th century. If properly employed, collective intelligence will have more effective results than individual intelligence (Krause et al., 2009). In the present century, collective intelligence has given way to collaborative intelligence, focusing on the interaction between humans and Artificial Intelligence (AI) (Liu & Shen, 2025). It can also be considered an intelligent collaboration between humans and machines (Bonabeau, 2009). People spend most of their time and research in the virtual world, where they interact with machines that use AI technological advancements. Such human-machine interaction using AI can enhance the contributions and tackle the most difficult tasks for humans (Hogan et al., 2023). The present-day complexities of society require such collaborative and collective efforts.

Human-AI collaborative intelligence has many advantages. It can promote economic growth, environmental protection, and societal well-being. It can help humankind to undertake projects and tasks that are difficult and dangerous (Yun et al., 2021). It also advances unparalleled scientific development and economic growth (Tjornbo, 2015). However, such an interaction between humans and machines also has disadvantages. It can reduce employment opportunities, increase societal disparities, and cause health and environmental risks. Besides, humans can employ AI-powered systems to satisfy selfish and individualistic profit-oriented motives (Mueen Ahmed & Yunus, 2024). From this perspective, there need to be specific ethical and legal considerations that will ensure safety, privacy, and societal well-being in the use and application of human-AI collaborative intelligence (Vann Yaroson et al., 2025). The chapter differentiates between collective and collaborative intelligence, analyzes the various fields of human-AI interaction and its features, critically examines the functioning of collaborative intelligence in human existence, explores the ethical and legal framework in human-AI collaboration, and advances some policy suggestions. The chapter affirms that human-AI collaborative intelligence is the need of the time if it functions within specific ethical and legal parameters.

THEORETICAL FRAMEWORK

Artificial Intelligence (AI) is "the simulation of human intelligence in machines that are programmed to think, learn, and perform tasks autonomously" (Akinnagbe, 2024, p. 388). The employability of human intelligence has grown to unparalleled levels with the invention of AI. It offered many opportunities and possibilities to ease the functioning of human intelligence. It also has the potential to outshine human intelligence with its scope and speed. However, AI is only a creation of humans and should remain under their control and guidance for societal welfare. The present globe testifies to the active incorporation of AI technologies in almost all fields of human life (Fragiadakis et al., 2024). Humans cannot think of a smooth life without the use and applications of AI. Such a wide range of usage insists that humans and AI should have efficient collaborative functioning. Conventional human-machine interaction is substituted