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Illusion of Control: Does Human-in-the-Loop Meet the Requirements of Genuine Human Oversight under EU Law?

Abstract

The article provides a critical analysis of the Human-in-the-Loop (HITL) concept as a mechanism for ensuring human oversight over artificial intelligence systems under European Union law. The study aims to assess whether the presence of humans in the decision-making process genuinely fulfils the requirement of real or meaningful oversight, or whether it remains merely formal in character, giving rise to the so-called illusion of control. The analysis is based on both doctrinal and functional methods, including an interpretation of the provisions of the AI Act and the GDPR, particularly with regard to the obligation to ensure human oversight and the right to human intervention in automated decision-making processes.

The article argues that in many practical applications, HITL performs a largely symbolic function, often limited to the passive authorization of algorithmic decisions without any real capacity to question or modify them. This phenomenon is reinforced by factors such as automation bias, informational asymmetry, and the cognitive limitations of human operators. As a result, there is a significant risk of violations of individual rights, including the right to a fair procedure and the right to an effective remedy.

The article goes on to examine the legal implications of superficial oversight, particularly in the context of civil and administrative liability, and proposes criteria for assessing the effectiveness of HITL as a mechanism compliant with EU legal standards. It concludes by emphasizing the need to clarify the standard of “meaningful human control” and to introduce more stringent requirements regarding the actual role of humans in high-risk AI systems.

Keywords: Human-in-the-Loop – human oversight – artificial intelligence – legal liability – automated decision-making