EDUCATIONAL PLATFORM FOR SYMBOLIC AI

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Abstract. *The platform is a web-based environment for learning symbolic artificial intelligence, in which students are not just users of ready-made AI tools but active creators of intelligent systems. Through logical programming with SWI-Prolog, students build expert systems, formalise knowledge in the form of facts and rules, and follow the deterministic process of logical inference. From an educational point of view, the platform supports the development of analytical and logical thinking, knowledge structuring and modelling skills, as well as understanding of cause-and-effect relationships within formal systems. The transparent and explainable inference mechanism allows learners to clearly follow how a given rule leads to a specific conclusion, which turns the reasoning process into a didactic tool. Through a role model (administrator, teacher, student) and mechanisms for assignments, challenges, and collaborative knowledge management, the platform supports project-based and constructivist learning. It creates an environment for active learning in which artificial intelligence is understood not as a "black box" but as a formally constructible and verifiable system suitable for learning in school and university environments.*

Key words: Symbolic AI, Logical Programming, Prolog, Expert Systems, Explainable Artificial Intelligence (XAI), Artificial Intelligence Education, Project-Based Learning, Knowledge Engineering, Deterministic Inference, Human-Centered AI, Cloud-Based Educational Platform

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