The Nature of Intelligence and Its Forms: An Ontological-Modeling Approach

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Abstract : Although intelligence is commonly referred to as the observable behavior in various fields and domains, it must also be shown how it develops by exhibiting multiple forms and without observing the inherent behavior. There have been several official and informal definitions of intelligence in various areas; however, no scientific agreement on a definition has been agreed upon. There must be a single definition, structure, and precise modeling for articulating how intelligence is perceived by people and machines in order to comprehend intelligence. Another key challenge is defining the different environment types based on the integral elements (agents) and their possible interactions. On the basis of conceptualization, this paper proposes a formal model for defining and developing intelligence. Forms of intelligence are derived from an ontological view, and thus intelligence is defined, described, and modeled based on the various types of environments.

Keywords : intelligence, forms, transformation, conceptualization, ontological view
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