THE ROLE OF PREDICTIVE MODELING IN THE INTERDISCIPLINARY IMPACT ON ANIMAL COGNITION AND HUMAN LEARNING STRATEGIES

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Abstract

Cognitive learning, being a captivating subject, has spurred an interdisciplinary quest leveraging predictive modeling. This study focuses on the relationship between animal cognition and human learning. From decoding animal behaviors to enhancing human understanding, predictive modeling stands as a primary tool for bridging the gap between empirical observations and theoretical insights. The objective lies in integrating data and employing machine learning algorithms to decode animal behaviors and optimize human learning strategies. The synthesis of findings from machine learning algorithms, time series analyses, neuroimaging, and neural networks has led to an acknowledgment of animal cognition, including the anticipation of behaviors like migration, problem-solving, and social interactions. The transition to human cognition explores how animal cognition models inform the creation of adaptive learning technologies, which mimic natural adaptive learning processes, thereby optimizing educational strategies tailored to individual needs. These technologies, mirroring natural adaptive learning processes, optimize educational strategies tailored to individual needs. This synergy not only enhances learning outcomes but also offers a window into the shared evolutionary traits of cognition. Through this lens, the study aims to elucidate the future where enhanced understanding of cognitive processes across species leads to improved educational methods, better animal welfare, and a deeper appreciation of the cognitive learning that binds the animal kingdom to humanity. Thereby, this encourages contributing a deeper understanding of mankind and their evolution using predictive modeling.

Keywords : Predictive Modeling, Artificial Intelligence, Machine Learning, Adaptive Learning Systems, Neuroscience.

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