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Rationality and intelligence. (English) [Zbl 0904.68138]

Summary: The long-term goal of our field is the creation and understanding of intelligence. Productive research in AI, both practical and theoretical, benefits from a notion of intelligence that is precise enough to allow the cumulative development of robust systems and general results. The concept of rational agency has long been considered a leading candidate to fulfill this role. This paper outlines a gradual evolution in the formal conception of rationality that brings it closer to our informal conception of intelligence and simultaneously reduces the gap between theory and practice. Some directions for future research are indicated.

MSC:
68T01 General topics in artificial intelligence

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philosophical foundations; intelligence; rationality; bounded rationality; bounded optimality

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