The Herbert A. Simon Prize for Advances in Cognitive Systems

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The Cognitive Systems Foundation has established a new award in honor of Herbert A. Simon, who co-founded the field of artificial intelligence in the late 1950s. Together with Allen Newell, he invented list processing, implemented the first running AI system, devised the earliest computer models of human problem solving, and championed the notions of satisficing and heuristic decision making. His contributions have influenced the field in profound and far-reaching ways.

There already exist a number of prestigious awards that recognize achievements in AI-related topics. ACM’s Turing and Newell Awards cover the diverse discipline of computer science, IJCAI’s Computers and Thought Award cuts across the field of artificial intelligence, and the Rumelhart Prize recognizes research on formal accounts of cognition. However, none of these accolades emphasize Simon’s abiding concern with high-level cognition in humans and machines.

The new prize celebrates progress in this latter tradition. One purpose is to remind the community of Simon’s groundbreaking ideas about high-level processing and their potential for understanding the mind. At the same time, it recognizes the contributions of senior scientists who have built on his early work. The statement that accompanies the prize reiterates these dual aims:

The Herbert A. Simon Prize for Advances in Cognitive Systems recognizes scientists who have made important and sustained contributions to understanding human and machine intelligence through the design, creation, and study of computational artifacts that exhibit high-level cognition.

The annual award is sponsored by the Cognitive Systems Foundation, which contributes a cash prize of $10,000, and is co-sponsored by the Herbert Simon Society. The Foundation’s five-person selection committee for 2017, after considering many excellent candidates, decided that:

The 2017 Herbert A. Simon Prize for Advances in Cognitive Systems goes to Kenneth D. Forbus for his contributions to qualitative reasoning, analogy, sketch understanding, and cognitive architectures, as well as their relationship to human cognition.

The inaugural recipient has been an active contributor to AI and cognitive science for over 30 years. Forbus’ work has addressed multiple facets of high-level cognition, in many different settings, and he has been a strong advocate of the cognitive systems movement. Young researchers would do well to study his impressive achievements and to imitate his interdisciplinary, eclectic research style.