

Thu. Jun 6, 2019

Room A

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[3A1-PS-3] Explain Yourself – A Semantic Stack for  
Artificial Intelligence

9:00 AM - 10:10 AM Room A (2F Main hall A)

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[3A1-PS-3] Explain Yourself – A Semantic Stack for  
Artificial Intelligence

Randy Goebel<sup>1</sup> (1. Professor of Computing Science  
at the University of Alberta, Canada, and co-founder  
of the Alberta Machine Intelligence Institute (AMII))

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Plenary session

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The room is connected with B and the lecture is broadcast to room C.

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### [3A1-PS-3] Explain Yourself – A Semantic Stack for Artificial Intelligence

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Artificial Intelligence is the pursuit of the science of intelligence. The journey includes everything from formal reasoning, high performance game playing, natural language understanding, and computer vision. Each AI experimental domain is littered along a spectrum of scientific explainability, all the way from high-performance but opaque predictive models, to multi-scale causal models. While the current AI pandemic is preoccupied with human intelligence and primitive unexplainable learning methods, the science of AI requires what all other science requires: accurate explainable causal models. The presentation introduces a sketch of a semantic stack model, which attempts to provide a framework for both scientific understanding and implementation of intelligent systems. A key idea is that intelligence should include an ability to model, predict, and explain application domains, which, for example, would transform purely performance-oriented systems into instructors as well.