TUTORIAL ON ARTIFICIAL INTELLIGENCE

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Tutorial on Artificial Intelligence

Abstract:

Artificial Intelligence (AI) is experiencing a
resurgence of popularity as expert systems show
commercial success. This tutorial will be an over-
view of AI theories, concepts and techniques. The
major areas of problem solving and knowledge repre-
sentation will be discussed. Emphasis will be
placed on rule-based systems. While the majority
of the time will be spent on topics dealing with
the current state of AI, a portion of time will be
devoted to potential interaction between AI and
Simulation in such areas as Decision Support
Systems, modelling uncertainty, etc.

Attendees will be encouraged to participate in dis-
cussions and suggest possible approaches to problem
solving issues. Each attendee will receive a set
of readings on the topics discussed along with a
copy of the viewgraphs used in the tutorial. The
notes also include a selected bibliography on arti-
ficial intelligence and descriptions of several
successful systems.

OUTLINE

Background

    Definitions
    Ancient History
    Modern History
    Languages

Principles and Tools

    Problem-solving
    Search
    Knowledge Representation

Natural Language Processing

    Syntax, Semantics and Pragmatics
    Scripts, Plans and Motives

Knowledge-Based Systems

    Production Rules
    Modelling Uncertainty

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BIOGRAPHY

JAMES K. HIGHTOWER is an Associate Director, Division of Information Systems, Office of the Chancellor, The California State University; a position he has held since September 1976. His responsibilities involve direction of academic computing services for the nineteen campus California State University. He also holds adjunct faculty positions at California State University, Dominguez Hills and Claremont Graduate School, where he has been teaching courses in artificial intelligence and related subjects. Prior to joining the Office of the Chancellor, he was on the faculty of the School of Business and Economics at California State University, Fullerton. He earned a Ph.D., in Economics from Claremont Graduate School in 1970.

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