



CHAPTER 13

LECTURE OUTLINE

Computer Science Illuminated, Seventh Edition

Nell Dale, PhD; John Lewis, PhD

Artificial Intelligence

13.1 Thinking Machines

The Turing Test

Aspects of AI

13.2 Knowledge Representation

Semantic Networks

Search Trees

13.3 Expert Systems

13.4 Neural Networks

Biological Neural Networks

Artificial Neural Networks

13.5 Natural-Language Processing

Voice Synthesis

Voice Recognition

Natural-Language Comprehension

13.6 Robotics

The Sense–Plan–Act Paradigm

Subsumption Architecture

Physical Components

Summary

Ethical Issues: Initial Public Offerings

Key Terms

Exercises

Thought Questions