

BHP 307: Artificial Intelligence and Human Creativity

Course Outline

Course Description

What is Artificial Intelligence (AI)? In what ways can computers “think”? How is their “thinking” similar to and different from that of humans? Through readings, lectures, discussions, and projects, students will investigate evidence of intelligence and creativity in various disciplines including music composition, art, and human and non-human systems. We will examine historic predictions for AI and ponder likely developments in the twenty-first century. No prior experience with computers or music is required.

The course will explore the following primary questions:

- What is creativity?
- What is intelligence?
- What is Artificial Intelligence (AI)?
- In what ways can AI mimic complex aspects of human cognition such as “thinking” and “creativity”?
- How is AI “cognition” similar to and different from that of people?
- How is AI art/creativity similar to and different from that of people?
- What does it mean for an idea or art piece to be “original”?
- What does it mean to be a person? Could an AI be a person? Can an AI be an artist, a composer, a painter?

Course Materials

Required book: Margaret A. Boden, *The Creative Mind: Myths and Mechanisms*, second edition (London: Routledge, 2004).

This book may be rented (~\$11 and up), purchased in a Kindle format (~\$35), or as a paperback (~\$42). Used or electronic copies may be available for cheaper online.

In addition to the required book, some materials will appear on our Canvas course website or on library reserve and others as internet resources.

A list of works you could choose as the basis of your final project appears at the end of this outline. Explore these works during the semester to decide which is of the greatest interest. Depending on your own specific choice, you might find it convenient to purchase your own material(s), such as a novel or movie that will be the basis of a paper for example.

Course Objectives

By the end of this course, you will be able to:

- Distinguish and describe different perspectives on
 - What creativity is
 - What intelligence is
 - The enhancement of human capabilities by means of machines
 - The principal types and applications of contemporary artificial intelligence, especially those that relate to creativity
 - The meaning of personhood, personal identity, and self for human and AI entities
 - Analyze a creative work that is intrinsically bound to the concepts of artificial intelligence and human creativity
 - Compose an essay that argues your analytical thesis and that includes and cites relevant authoritative sources
 - Compare and contrast AI vs. human cognition and creativity