

CIS 10/Phil 29/Psych 57.2  
Philosophy and Artificial Intelligence  
Spring 2007

<b>Instructor</b>	Scott Dexter	<b>Teaching Schedule</b>		
<b>Email</b>	sdexter@sci.brooklyn.cuny.edu	CIS 10	T 3:30-6:10	234 NE
<b>Office</b>	0113N	CIS 12W	Th 6:20-9:00	135 NE
<b>Telephone</b>	951-5000 x2048			
<b>Office Hours</b>	Thursday 3:30–5:30			
<b>Website</b>	<a href="http://www.sci.brooklyn.cuny.edu/~sdexter/cis10">http://www.sci.brooklyn.cuny.edu/~sdexter/cis10</a>			

---

<b>Grading</b>	Your grade will be determined by your performance on 4 short paper assignments, in-class writing, and class participation/attendance. These will contribute to your grade as follows:					
	Papers	20% each	In-class writing	10%	Participation	10%

---

**Reading** This is a reading-intensive course. Assigned readings will be the subject of discussion on the day they are assigned; they will also be the basis for paper assignments. You are encouraged to read ahead.

**Writing** All papers must be handed to me in class the day the assignment is due. Or left in my mailbox if you cannot attend class on the day the paper is due. *I do not* accept emailed assignments. This means you cannot send me attachments. If I receive an email with an attachment I will delete it. *No exceptions.*

There will be *no* extra-credit assignments. You may resubmit a paper once for a re-grading. The new grade will replace the original grade.

If you plagiarize any writing assignment (it is not hard to catch plagiarism), *you fail the class.* See <http://www.brooklyn.cuny.edu/bc/policies/pdf/AIP.pdf> for an important discussion of BC policies regarding plagiarism, cheating, and academic integrity.

**Participation** This is a discussion-based class, so it's important that you make at least occasional contributions to the discussion. Some of the most valuable forms of participation are asking intelligent, well-reasoned questions (about readings, lectures, or ideas that arise in discussion), raising valid objections to arguments and displaying an awareness of the issues raised in any particular reading. Nothing you say in class will cause your grade to be lowered.

**Lateness** I am in general very intolerant of lateness when it comes to handing in assignments or missing exams. Except in special circumstances, I will simply not grade late work. (That is, late papers will get a grade of 0). Exceptions to this are *documentable* family/medical emergencies, in which case I can be fairly flexible. If a more complicated situation is causing you to fall behind, *please* talk to me as soon as possible so we can figure something out.

## About The Course

This course is an exploration of some philosophical and psychological issues pertaining to artificial intelligence. Some of the big questions: What is artificial intelligence? Is it possible? How does the idea of “artificial” intelligence force us to rethink what we mean by “intelligence?”

The central question of course, is: can a machine think?—or display intelligent behavior?—and is there a difference? If the answer is yes, what kind of machine are we talking about? And what do we mean by “think” or “intelligent”—or “conscious” or “mind”?

We’ll look at the computational model of mind—the theory that the brain might be nothing more or less than a computer—and consider why this has been such an influential theory during the past 50 years of study in artificial intelligence. And we’ll look at (neo)connectionist models that are often said to be opposed to the computational model.

We’ll consider the problem of consciousness: is it an aspect of intelligence? Where does it come from? Could we ever say that a machine is conscious? Can something non-conscious possibly be intelligent?

Some AI researchers suggest that intelligence can emerge from processes that are less obviously computational; we’ll consider a couple of these theories to see if they shed any light on the questions of intelligence and consciousness.

Finally, we’ll look at a couple ways in which recent developments in artificial intelligence directly challenge our closely-held ideas of humanity and identity.

## Calendar

### Introduction

<b>Jan 30</b>	Bill Joy, “Why the Future Doesn’t Need Us” <a href="http://www.wired.com/wired/archive/8.04/joy_pr.html">http://www.wired.com/wired/archive/8.04/joy_pr.html</a>
<b>Feb 6</b>	George Luger, “AI: Early History and Applications” <a href="http://www.cs.unm.edu/~luger/ai-final/chapter1.html">http://www.cs.unm.edu/~luger/ai-final/chapter1.html</a>

### Intelligence and Computation

<b>Feb 13</b>	Randall Davis, “What are Intelligence? And Why?” <a href="http://www.aaai.org/Library/President/Davis.pdf">http://www.aaai.org/Library/President/Davis.pdf</a>
<b>Feb 20</b>	Marvin Minsky, “The Age of Intelligent Machines: Thoughts About Artificial Intelligence” <a href="http://www.kurzweilai.net/articles/art0100.html?printable=1">http://www.kurzweilai.net/articles/art0100.html?printable=1</a>  David Chalmers, “A Computational Foundation for the Study of Cognition” <a href="http://www.consc.net/papers/computation.html">http://www.consc.net/papers/computation.html</a>
<b>Feb 27</b>	A. M. Turing, “Computing Machinery and Intelligence” <a href="http://cogprints.org/499/00/turing.html">http://cogprints.org/499/00/turing.html</a>

<b>Mar 6</b>	Graham Oppy & David Dowe, "The Turing Test" <a href="http://plato.stanford.edu/entries/turing-test/">http://plato.stanford.edu/entries/turing-test/</a>
<b>Mar 13</b>	Judith Donath, "Being Real" <a href="http://smg.media.mit.edu/papers/Donath/BeingReal/BeingReal.html">http://smg.media.mit.edu/papers/Donath/BeingReal/BeingReal.html</a>

### Consciousness

<b>Mar 20</b>	Christof Terry, "What is Consciousness?" <a href="http://www.discover.com/issues/nov-92/features/whatisconsciousn149/">http://www.discover.com/issues/nov-92/features/whatisconsciousn149/</a>
<b>Mar 27</b>	Mitchell Waldrop, "The Age of Intelligent Machines: Can Computers Think?" <a href="http://www.kurzweilai.net/articles/art0103.html?printable=1">http://www.kurzweilai.net/articles/art0103.html?printable=1</a>  John Searle, "The Question of Consciousness" <a href="http://www.abc.net.au/rn/philosopherszone/stories/2006/1639491.htm">http://www.abc.net.au/rn/philosopherszone/stories/2006/1639491.htm</a>
<b>Apr 17</b>	Daniel Dennett, "Quining Qualia" <a href="http://cogprints.org/254/00/quinqual.htm">http://cogprints.org/254/00/quinqual.htm</a>

### Alternative Views

<b>Apr 24</b>	Rodney Brooks, "Intelligence without Representation" <a href="http://people.csail.mit.edu/brooks/papers/representation.pdf">http://people.csail.mit.edu/brooks/papers/representation.pdf</a>
<b>May 1</b>	Andy Clark & David Chalmers, "The Extended Mind" <a href="http://consc.net/papers/extended.html">http://consc.net/papers/extended.html</a>

### Social and Ethical Implications

<b>May 8</b>	Benjamin Soskis, "Man and the Machines" <a href="http://www.legalaffairs.org/issues/January-February-2005/feature_sokis_janfeb05.msp">http://www.legalaffairs.org/issues/January-February-2005/feature_sokis_janfeb05.msp</a>  Pete Warren, "Launching a New Kind of Warfare" <a href="http://technology.guardian.co.uk/weekly/story/0,,1930960,00.html">http://technology.guardian.co.uk/weekly/story/0,,1930960,00.html</a>
<b>May 15</b>	Ray Kurzweil, "Promise and Peril" <a href="http://www.kurzweilai.net/articles/art0156.html?printable=1">http://www.kurzweilai.net/articles/art0156.html?printable=1</a>