

Models and Simulations in Social Epistemology

Munich Center for Mathematical Philosophy
Ludwig-Maximilians-Universität München
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Lecture:	Ludwigstr. 31, 021	Lab:	Ludwigstr. 31, 021
Time:	Tuesday 12:00–14:00 c.t.	Time:	Tuesday 14:00–16:00 c.t.
Coursesite:	https://www.coursesites.com/s/_MAS-SE		

Course Description

Epistemology is traditionally conceived to be the study of knowledge and justified belief for an individual agent. The course looks at a range of issues that arise for *groups* of epistemic agents, such as how groups communicate with one another or how group consensus should emerge, and also epistemic questions for individuals that only arise in dealing with other epistemic agents, such as how to evaluate expert testimony and how to respond when one individual disagrees with another.

Social epistemology uses a variety of different methodologies than is deployed in traditional epistemology, and this course is as much about introducing students to those new methodologies as it is about introducing students to these new topics in epistemology. In particular, this course will introduce students to the use of agent-based computer models (ABMS) in social epistemology. Specifically, students will learn how to program in [NetLogo](#), a programming language and simulation environment designed for ABMS. No previous programming experience is required.

Requirements

The central requirement is to design and implement an ABM within [NetLogo](#) for the purpose of answering some question in social epistemology. Students will write a final paper that describes the question the model is intended to answer and the results of that model obtained from computer simulations.

To prepare for the final project, there will be six programming assignments. One cannot learn to program without practicing regularly. The weekly assignments are designed to help you practice the skills and employ the concepts taught in class.

Online Registration

To access course materials and submit programming assignments, students must register for *Models and Simulations in Social Epistemology* online at gregorywheeler.coursesites.com.

To register for the course, **[email me to receive an invitation to join the course](#)**.

Software

We will be using [NetLogo](https://ccl.northwestern.edu/netlogo/), which can be downloaded at <https://ccl.northwestern.edu/netlogo/>.

Grading

Your final grade will be calculated by a weighted average using the following weights:

Final Paper/Project (~ 12 pages): 50%

Project Proposal (~ 3 pages): 20%

Programming Assignments: 30%

Course Schedule

WEEK	TOPIC	<ul style="list-style-type: none"> ○ READINGS ● PROGRAMMING ASSIGNMENTS
(1) OCT 13	Introduction to Social Epistemology	<ul style="list-style-type: none"> ○ (Goldman 2010)
(2) OCT 20	Structuring Cognitive Labor	<ul style="list-style-type: none"> ○ (Kitcher 1995, Ch. 8, §1-§11) ○ (Goldman 1999, Ch. 4)
(3) OCT 27	Coherence & Testimony	<ul style="list-style-type: none"> ○ (Lackey 2010) ○ (Bovens and Hartmann 2003, Chs. 2 & 5) ○ (Wheeler and Scheines 2013) ● DUE: ASSIGNMENT 1 <i>Data Types</i>
(4) NOV 3	Modeling Testimony	<ul style="list-style-type: none"> ○ (Zollman 2010) ○ (Mayo-Wilson 2014) ● DUE: ASSIGNMENT 2 <i>Control Flow</i>
(5) NOV 10	Peer Disagreement	<ul style="list-style-type: none"> ○ (Feldman 2010) ○ (Kelly 2002) ○ (Elga 2007) ● DUE: ASSIGNMENT 3 <i>Reporters</i>
(6) NOV 17	Is Rational Disagreement Possible? I	<ul style="list-style-type: none"> ○ (Lehrer 1976) ○ (Aumann 1976)
(7) NOV 24	NO CLASS	<ul style="list-style-type: none"> ● DUE: ASSIGNMENT 4 <i>Opinion Dynamics</i>
(8) DEC 1	Is Rational Disagreement Possible? II	<ul style="list-style-type: none"> ○ (DeGroot 1974) ○ (List and Pettit 2002) ○ (Elkin and Wheeler 2015)
(9) DEC 8	Models of Peer Disagreement	<ul style="list-style-type: none"> ○ (Douven 2010) ○ (Golub and Jackson 2010) ● DUE: ASSIGNMENT 5 <i>Network Formation</i>
(10) DEC 15	Catch up class	
(11) JAN 12	Diversity in Science	<ul style="list-style-type: none"> ○ (Kuhn 1977) ○ (Kitcher 1990) ○ (Longino 2006)
(12) JAN 19	Modeling Diversity	<ul style="list-style-type: none"> ○ (Hong and Page 2004) ○ Mayo-Wilson et al. (2011) ○ (Weisberg and Muldoon 2009) ● DUE: ASSIGNMENT 6 <i>Data Analysis</i>
(13) JAN 26	Group Cognition	<ul style="list-style-type: none"> ○ (Goldstone and Gureckis 2009) ○ (Jönsson, Hahn, and Olsson 2015)
(14) FEB 2	Herd Behavior	<ul style="list-style-type: none"> ○ (Banerjee 1992) ○ (Hung and Plott 2001)

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