Course EE-LECO

Experimental Economics

Welcome lecture

Frieder Neunhoeffer

Lisbon School of Economics & Management
Universidade de Lisboa

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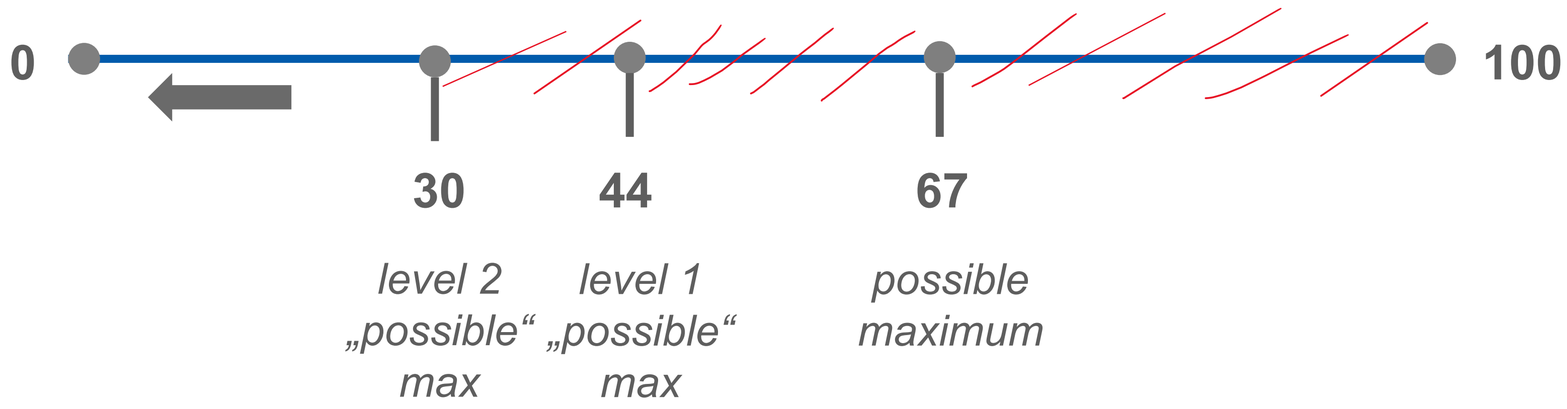
Learning by Doing

- Guess an integer number from the interval 0 to 100.
- The winner is the student whose guess is closest to 2/3 times the average of the guesses of all students ...
- … and gets 10€ (for real!).
- If there are multiple winners, the price will be shared equally.

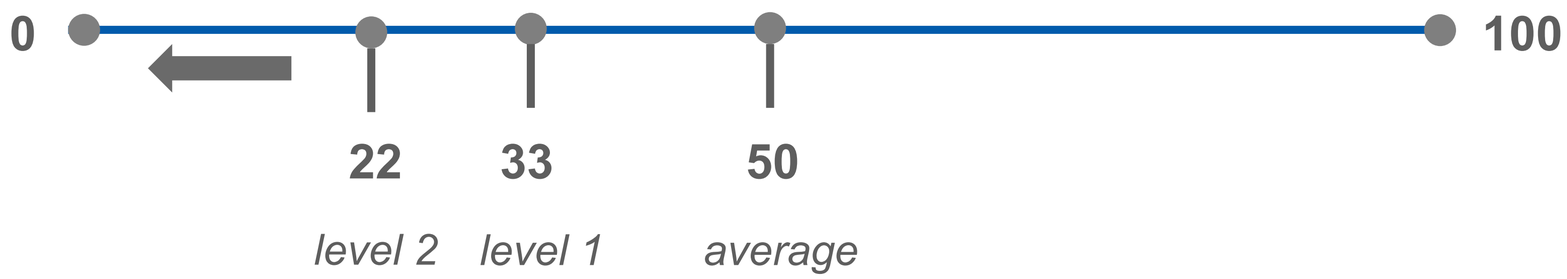
The game-theoretical solution

- Dominated numbers
- Iterative elimination of dominated numbers → theoretic equilibrium of 0



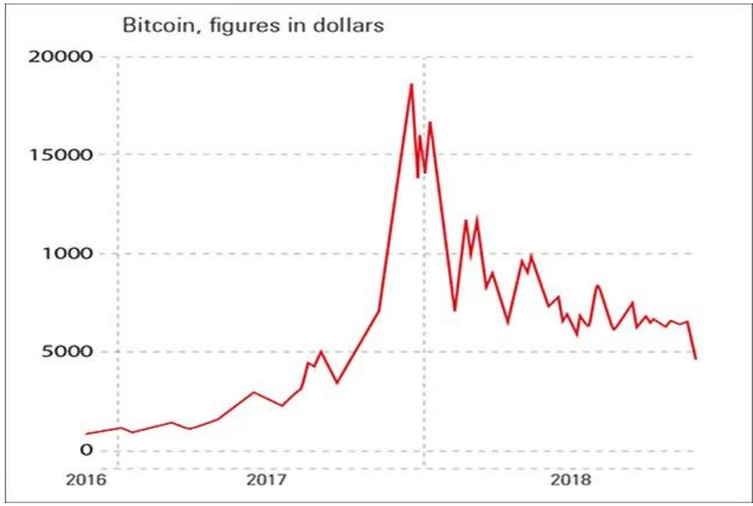
What happens in experiments?

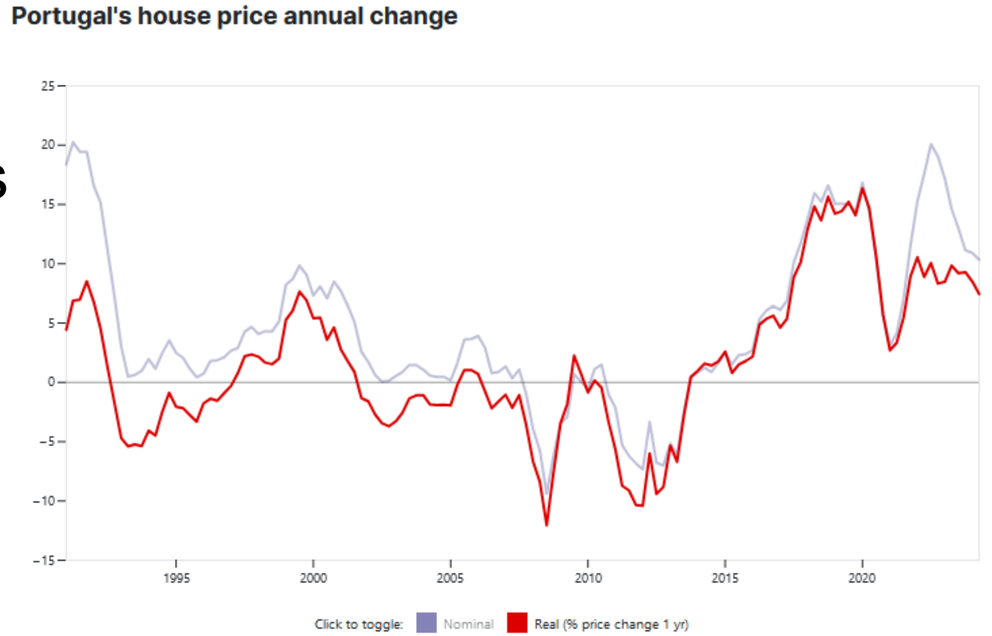
- Theoretically, equilibrium → 0.
- Empirically, average is not 0 → e.g., 23.07 in Camerer (2003).



Why is this Economics?

- Guessing game (Nagel, 1995) → *k-level reasoning*
- Used to explain financial markets → bubbles and crashes
- *Idea:* higher profit from investing in stocks others will buy, than fundamentally most valuable stocks
- Problem → right timing: *leave before it crashes*





Who am I?

- **Assistant professor, Economics Department**
  - since September 2024
- **M.Sc. in Economics Engineering**
  - Karlsruhe Institute of Technology (KIT)
  - University of Washington
  - Philips Group Negotiation (Amsterdam)
- **PhD in Economics (joint doctorate)**
  - University of Amsterdam
  - Ca’ Foscari University of Venice
- **Post-Doc**
  - Bocconi University (Milan)

Who am I?

- **Courses**
  - Experimental Economics (Bachelor & Master/PhD)
  - Game Theory (Master)
  - Industrial Organization (Bachelor)
- **Research interests**
  - Behavioral & Experimental Economics
  - Decision-making & Consumer behavior
    - financial investments
    - subscription/insurance decisions
    - health decisions: vaccinations
- **For more details:** https://frieder-neunhoeffer.com

Who are you?

Course goals

- Learn how individuals actually behave and make choices in economic situations using the methodology of experimental economics
- Compare observed behavior with the behavior assumed in standard economic theory
- Discuss how predictions of economic theory can be improved when experimental evidence is considered
- Learn how to design and conduct an experiment in economics
- Learn how to analyze experimental data

Course outline and schedule

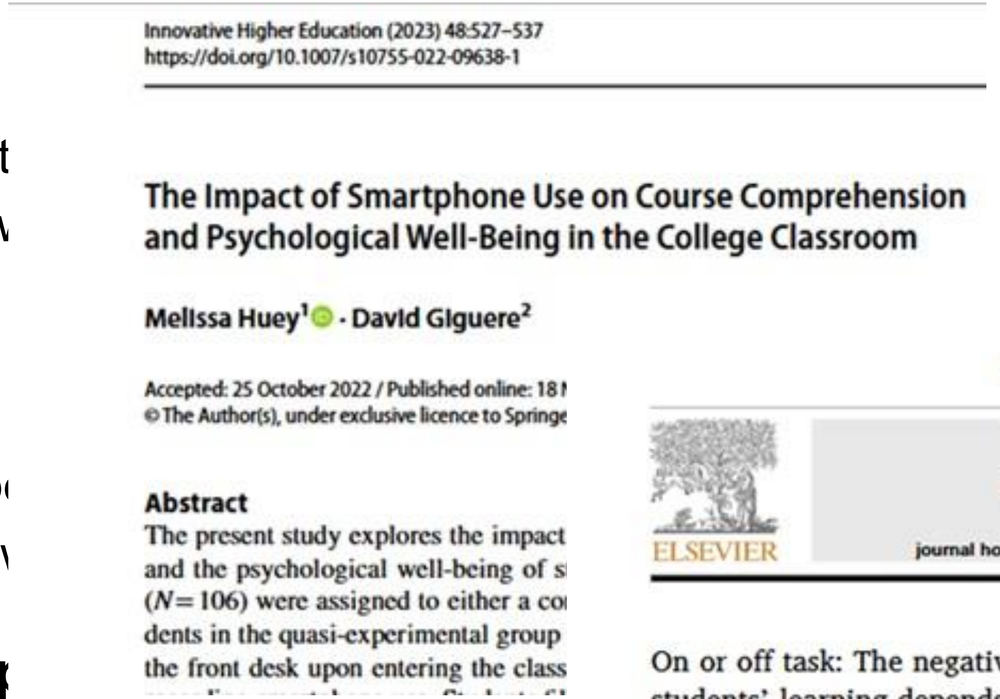
Week 1	27-Jan	TUE	Welcome + Syllabus: Overview, goals, program, grading,
	29-Jan	THU	Economics as an experimental discipline Experimental Economics vs Behavioral Economics Brief history of Experimental Economics
Week 2	3-Feb	TUE	The purpose and paradigms of Economic Experiments Fundamental design elements Measurement methods
	5-Feb	THU	LAB EXP #1 [This class meets in a computer room]
Week 3	10-Feb	TUE	The Double Auction Market: Excise Taxes and Price Controls LAB REPORT 1 DUE
	12-Feb	THU	LAB EXP #2 [This class meets in a computer room]
Week 4	19-Feb	THU	Asymmetric Quality Information: A Market for Lemons LAB REPORT 2 DUE
Week 5	24-Feb	TUE	GUIDELINES FOR GROUP EXPERIMENTAL DESIGN PROJECT
	26-Feb	THU	LAB EXP #3 [This class meets in a computer room]
Week 6	3-Mar	TUE	Cournot market LAB REPORT 3 DUE
	5-Feb	THU	LAB EXP #4 [This class meets in a computer room]

Course outline and schedule

Week 7	10-Mar	TUE	Revision of Game Theory. Trust Game. LAB REPORT 4 DUE
	12-Mar	THU	LAB EXP #5 [This class meets in a computer room]
Week 8	17-Mar	TUE	Public Goods Game. LAB REPORT 5 DUE
	19-Mar	THU	Revision of concepts and terminology. IN-CLASS WORKING ON GROUP EXPERIMENTAL DESIGN PROJECT
Week 9	24-Mar	TUE	IN-CLASS WORKING ON GROUP EXPERIMENTAL DESIGN PROJECT
	26-Mar	THU	LAB EXP #6 [This class meets in a computer room]
Week 10	7-Apr	TUE	Bubble experiments LAB REPORT 6 DUE
	9-Apr	THU	Risk and time preferences
Week 11	14-Apr	TUE	Selective attention and memory
	16-Apr	THU	Nudging theory
Week 12	21-Apr	TUE	Students presentations Groups
	23-Apr	THU	Students presentations Groups
Week 13	28-Apr	TUE	Students presentations Groups

Course requirements and policies

- **Lab reports**
  - groups of 3-4 students
  - due in print until Tue 12pm Lisbon t
  - experimental data in excel format w
- **Group experiment**
  - same group of 3-4 students
  - design own experiment to test a sp
  - 20-minute presentation during last
- **Class attendance and partici**
  - be on time
  - attendance sheets
  - active participation is expected
  - electronic devices (laptop) → no smartphone



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The Impact of Smartphone Use on Course Comprehension and Psychological Well-Being in the College Classroom

Melissa Huey[1] · David Giguere[2]

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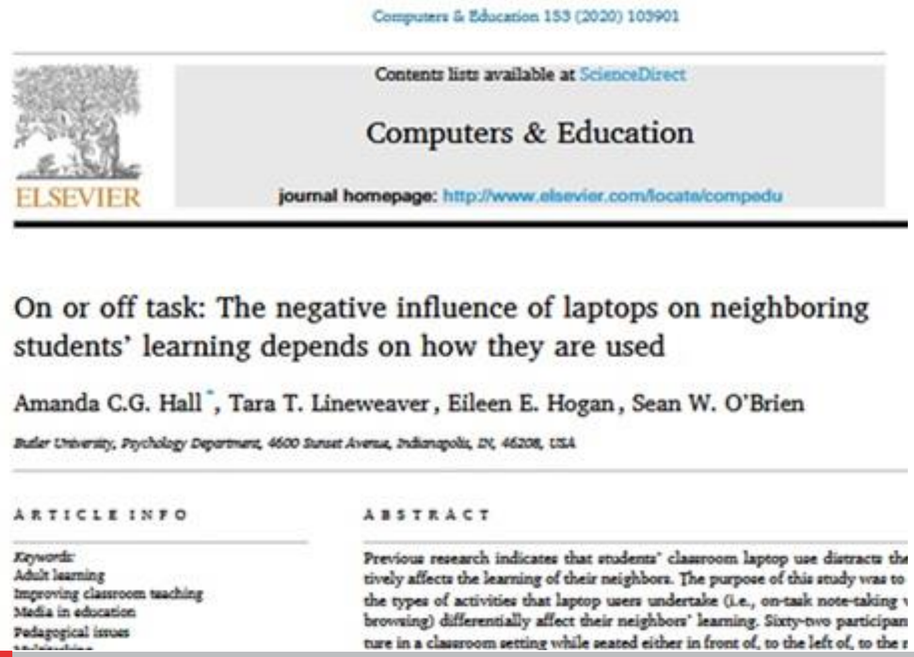
Abstract

The present study explores the impact and the psychological well-being of s ($N = 106$) were assigned to either a co dents in the quasi-experimental group the front desk upon entering the class



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ELSEVIER

On or off task: The negative influence of laptops on neighboring students' learning depends on how they are used

Amanda C.G. Hall*, Tara T. Lineweaver, Eileen E. Hogan, Sean W. O'Brien

Butler University, Psychology Department, 4600 Sunset Avenue, Indianapolis, IN, 46208, USA

ARTICLE INFO

Keywords:
Adult learning
Improving classroom teaching
Media in education
Pedagogical issues

ABSTRACT

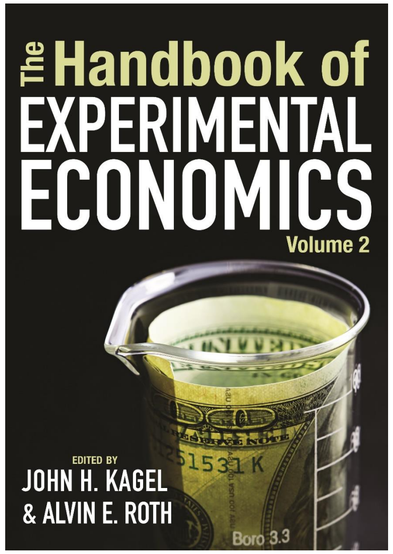
Previous research indicates that students' classroom laptop use distracts the tively affects the learning of their neighbors. The purpose of this study was to the types of activities that laptop users undertake (i.e., on-task note-taking browsing) differentially affect their neighbors' learning. Sixty-two participan ture in a classroom setting while seated either in front of, to the left of, to the

Grading policy

• Lab reports	**35%**
• Group experiment	**20%**
• Class attendance + participation + class experiments	**10%**
• Final Project	**35%**
	100%

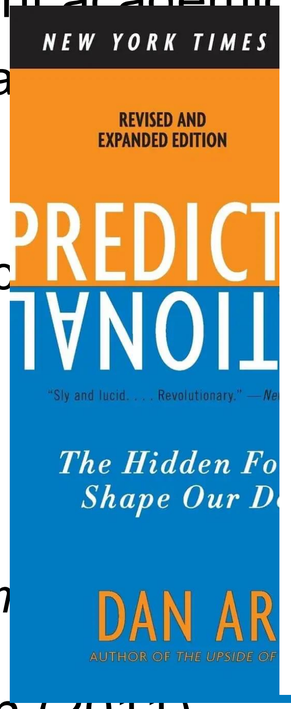
Learning sources & how to prepare for class

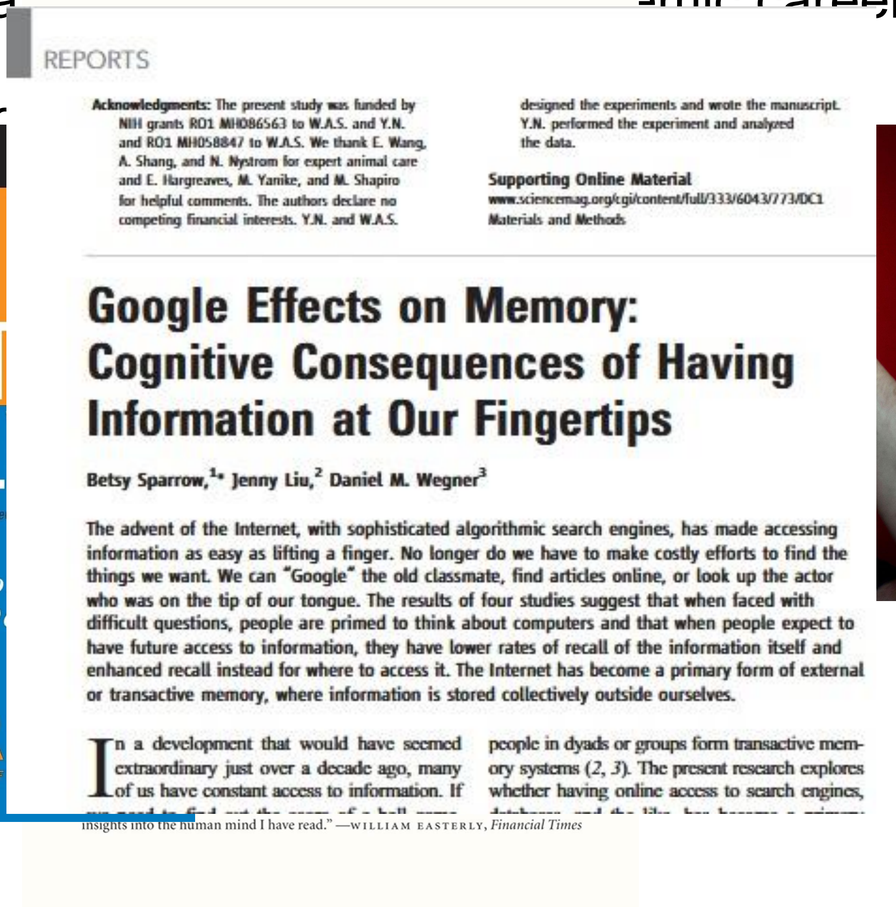
- **FENIX**
  - Class announcements, lecture slides, and additional readings will be posted on FENIX prior to classes.
  - Make sure you check the course website regularly for updated information about the course.
- **Lecture material**
  - Lecture slides and readings constitute examinable material.
- **General text books (not compulsory)**
  - Kagel, J. and Roth, A. (2020). *The Handbook of Experimental Economics*. Princeton University Press.
  - Davis, D. and Holt, C. (2021). *Experimental Economics*, Princeton University Press.



Course code of honor: an anecdote

- Experimental economics professor recommended: *Predictably Irrational* by Dan Ariely (2008)
- His fascinating experiments + personal message motiva[illegible] amic career
- In 2023, one of the biggest scandals in recent academic
  - he and his co-authors were accused of fabrica
- Uncovered by other academics
  - Dan Ariely is cancelled in academia and one c
- Course code of honor at ISEG
  - No cheating and plagiarism
  - GenAI (e.g., ChatbotGPT) – use responsibly
  - *google effect / digital amnesia → transactive m*
- *Thinking, fast and slow* by Daniel Kahneman (2011)
  - Nobel prize winner in Economics in 2002




REPORTS

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Supporting Online Material
www.sciencemag.org/cgi/content/full/333/6043/773/DC1
Materials and Methods

Google Effects on Memory: Cognitive Consequences of Having Information at Our Fingertips

Betsy Sparrow,[1]* Jenny Liu,[2] Daniel M. Wegner[3]

The advent of the Internet, with sophisticated algorithmic search engines, has made accessing information as easy as lifting a finger. No longer do we have to make costly efforts to find the things we want. We can "Google" the old classmate, find articles online, or look up the actor who was on the tip of our tongue. The results of four studies suggest that when faced with difficult questions, people are primed to think about computers and that when people expect to have future access to information, they have lower rates of recall of the information itself and enhanced recall instead for where to access it. The Internet has become a primary form of external or transactive memory, where information is stored collectively outside ourselves.

In a development that would have seemed extraordinary just over a decade ago, many of us have constant access to information. If

people in dyads or groups form transactive memory systems (*2*, *3*). The present research explores whether having online access to search engines,

insights into the human mind I have read." —WILLIAM EASTERLY, *Financial Times*