

LER 590: Technology, Innovation, and the Future of Work, Spring 2021

Thursdays, 11 am to 1:50 pm, Online
Syllabus Version: 1/21/2021 (check Compass for latest version)

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Course website: <https://compass2g.illinois.edu>

COURSE DESCRIPTION:

Will your job be replaced by a robot? Will technological change lead to mass unemployment and civil unrest? How can employers, policy makers, and workers adapt to the changing landscape of employment in the 21st century? In this course, we will study a wide variety of trends in modern employment, including automation, the gig economy, offshoring, and algorithmic hiring and staffing. We will approach these developments from diverse disciplinary perspectives in order to understand the economic, sociological, and technological antecedents and consequences of innovation and technological change. In addition, implications for public policy and human resource management will be emphasized.

This course is intended for students who want to deeply engage with the issues surrounding technological change and employment. My role as instructor will be to facilitate this process as we learn together about these developing topics. To this end, the class format will be primarily seminar style, with the expectation that all students will closely read each week's readings and actively participate in class discussions. This class is reading intensive, and may require more weekly reading and writing than other LER classes.

COURSE REQUIREMENTS

The primary course requirement will be weekly reading response essays. Each week I will post reading questions that you will respond to in a draft response essay (two double-spaced pages). This will be due the Tuesday before class by 9 pm. This gives me a chance to review your responses before the class meets. After each class, you will be required to deepen your analysis and extend the response by an additional page (three pages total), building on what you learned from the class discussion. This is due by the following class meeting (e.g. 1 week after the class). All essays will be submitted via the course website. Responses should reference the reading from the current week, however you may also draw on previous readings or other outside resources. All response essays must include appropriate in text citations as well as a reference list. There will be 12 total weekly responses, and I will drop the two lowest grades. (60% of final grade.)

In addition, there will be a group term project. This will involve researching a topic that we did not cover in class, writing a 10 page paper, and presenting your findings to the class. More details will be provided. (20% of final grade.)

Finally, this class is a discussion-based class and will rely heavily on your active participation. (20% of final grade.)

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COURSE READINGS

There is no required textbook for this class. Most course readings will be available via the course website. You will be required to purchase a digital coursepack from Harvard Business School Publishing for a few of the readings. The link will be available on the course website. Readings will draw from academic articles, popular press articles, business cases and excerpts from the following books:

Beckert, Sven (2014) *Empire of Cotton: A Global History*.

Goldin, Claudia and Katz, Lawrence F. (2009) *The Race Between Education and Technology*.

Levy, Frank, and Murnane, Richard J. (2004) *The New Division of Labor: How Computers are Creating the Next Job Market*

Weil, David. (2014) *The Fissured Workplace*.

COURSE SCHEDULE

Class 1: January 28th. Introduction, Course Overview.

Module 1: Technological Change

Class 2: February 4th. Historical Case Study: The Industrial Revolution (Part 1)

Reading:

1. Beckert, Sven (2014) *Empire of Cotton: A Global History*. Chapter 7: Mobilizing Industrial Labor. Pages 176-198
2. Stanley L. Engerman and Kenneth L. Sokoloff “Technology and Industrialization: 1790-1914. In *Cambridge Economic History of the United States* (pages 367 -379)

Class 3: February 11th. Historical Case Study: The Industrial Revolution (Part II)

Reading:

1. E. J. Hobsbawm (1952) “The Machine Breakers” *Past & Present*
2. Kenneth L. Sokoloff “Was the Transition from the Artisanal Shop to the Nonmechanized Factory Associated with Gains in Efficiency?: Evidence from the U.S. Manufacturing Censuses of 1820 and 1850” (1984) *Explorations in Economic History* (sections 1,2, and 5)

Class 4: February 18th. Task-based View of Technological Change

Reading:

1. Levy, Frank, and Murnane, Richard J. (2004) *The New Division of Labor: How Computers are Creating the Next Job Market* (Chapters 2 and 3)
2. David Rotman (2013) “How Technology is Destroying Jobs” *MIT Technology Review*
3. Erik Brynjolfsson and Andrew McAfee (2015) “Will Humans Go the Way of Horses?” *Foreign Affairs*

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Class 5: February 25th. Technological Change and Education

Reading:

1. Goldin, Claudia and Katz, Lawrence F. (2009) *The Race Between Education and Technology*. (Chapter 3: Skill-Biased Technological Change)
2. David Rotman (2014) "Technology and Inequality" *MIT Technology Review*

Class 6: March 4th. Managing Technological Change

Reading:

1. Fernandez, Roberto (2001) *American Journal of Sociology* "Skill-Biased Technological Change and Wage Inequality: Evidence from a Plant Retooling"
2. Daniel P. Gross and William R. Kerr (2018) *AT&T: Managing Technological Change and the Future of Telephone Operators in the 20th Century* (HBS coursepack)

Class 7: March 11th. Societal Impacts of Technological Change

Reading:

1. Joel Mokyr, Chris Vickers, and Nicolas L. Ziebarth (2015) "The History of Technological Anxiety and the Future of Economic Growth: Is This Time Different?" *Journal of Economic Perspectives*
2. Erik Brynjolfsson and Andrew McAfee (2014) *The Second Machine Age* Chapter 11: Implications of the Bounty and the Spread
3. Farhad Manjoo "A Plan in Case Robots Take the Jobs: Give Everyone a Paycheck" *The New York Times* (March 2, 2016)

No Class March 18th

Module 2: The Changing Structure of Employment

Class 8: March 25th. Topic Overview

Reading:

1. Peter Cappelli (2000) "Market Mediated Employment: The Historical Context" Chapter 3 in Blair, Margaret M., Kochan, Thomas A. (Eds.) (2000) *The new relationship : human capital in the American corporation* Washington, D.C. : Brookings Institution Press.
2. Weil, David. (2014) *The Fissured Workplace*. Chapter 3: Why Fissure?

Class 9: April 1st. Gig Economy

Reading:

1. Pew Research Center, November, 2016, "Gig Work, Online Selling and Home Sharing" (pages 1-17).
2. Janet L. Rovenpor, Lisa T. Stickney, Rita J. Shea-Van Fossen, (2016) "Uber and its Driver-Partners: Labor Challenges in the On-Demand Transportation Networking Sector" (HBS coursepack)

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Class 10: April 8th. Temporary Help

Reading:

1. Susan N. Houseman (2001) “Why Employers Use Flexible Staffing Arrangements: Evidence from an Establishment Survey.” *Industrial and Labor Relations Review*, Vol 55, No. 1.
2. Dave Jamieson “The Life and Death of an Amazon Warehouse Temp.” *The Huffington Post* (2015).
3. Erin Hatton, “The Rise of the Permanent Temp Economy.” *The New York Times*, January 26, 2013.

Class 11: April 15th. Off-Shoring

Reading:

1. Beckert, Sven (2014) *Empire of Cotton: A Global History*. Excerpts from Chapter 13, pages 379-399, 413-417.
2. Sun Hye Lee, Michael J. Mol, and Kamel Mellahi (2016) *Apple and Its Suppliers: Corporate Social Responsibility* (HBS coursepack)
3. Brian Merchant “Life and death in Apple’s forbidden city”, *The Guardian* (June 18, 2017)
4. David Barboza “How China Built ‘iPhone City’ With Billions in Perks for Apple’s Partner” *The New York Times* (December 29, 2016)

Module 3: Automating Human Resources

Class 12: April 22nd. Algorithmic Hiring and Staffing

Reading:

1. Mitchell Hoffman, Lisa Kahn, and Danielle Li (2007) *Quarterly Journal of Economics* “Discretion in Hiring” Read pages 765-777 closely, then skim the rest of the paper)
2. Bourree Lam “For More Workplace Diversity, Should Algorithms Make Hiring Decisions?” *The Atlantic* (Jun 22, 2015).
3. Ethan Bernstein, Saravanan Kesavan, Bradley Staats, and Luke Hassall (2017) *Belk: Towards Exceptional Scheduling* (HBS coursepack)
4. Joan C. Williams, Lisa McCorkell, and Saravanan Kesavan (2018) *Research: When Retail Workers Have Stable Schedules, Sales and Productivity Go Up* (HBS coursepack)

Class 13: April 29th. Presentations and Class Wrap-up

No reading response due this week.