University of Virginia

College of Arts and Sciences

PAVS 4500

**The Digital Revolution and American Opportunity**

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Spring 2016

T 3:30-6:00

Pavilion VIII, 108

**General Course Description**

Amid the biggest economic transformation in a century, the challenge of our time is to make sure that all Americans benefit from the wave of digital revolutions around the world that have permeated and upended modern life. Yet today's economic arguments seem stuck. So many Americans are uncertain about the future. How can there be so many paths to opportunity with so few people traveling them? As a nation, we have to understand what is required to help Americans succeed now, and how to prepare our country for what comes next.

We have been here before. A hundred years ago, America experienced the greatest economic transformation and technological revolution in its history. The transformation of the past twenty years -- as the world has moved through the information era into the digital age -- has turned our life and work upside down once again. It is a time of tremendous change but also of tremendous possibility.

This seminar introduces students to the scale and scope of these changes and what they can mean for America's economic future. It spans material in disciplines such as history, economics, engineering, business, education, political science, public policy, and sociology.

We will discuss a series of topics, listed below. Meanwhile students will be selecting topics for their research papers. In the final weeks of the course we will discuss these papers and, in the process, also decide what we believe are the major takeaways for all of you as students, and for America's agenda.

Class attendance is mandatory. Grades will be based on short papers, class participation, and a research paper.

**Required Readings**

Suzanne Berger with the MIT Task Force on Production in the Innovation Economy, Making in

America: From Innovation to Market (Cambridge: MIT Press, 2013)

James Bessen, Learning By Doing: The Real Connection Between Innovation, Wages, and

Wealth(New Haven: Yale University Press, 2015)

Rework America, America's Moment: Creating Opportunity in the Connected Age(New York:

W.W. Norton & Company, 2015)

Jeffrey Selingo, College (Un)Bound: The Future of Higher Education and What It Means for

Students (Boston: Houghton Mifflin, 2013)

Other readings will be posted on the class website.

**Class Schedule**

January 26

1. The Revolution This Time

Read: Rework America, America’s Moment, Preface and chapter 1, pp. xi-xvi, 1-20

 Phillip Longman, “Why the Economic Fates of America’s Cities Diverged,” The

Atlantic, November 2015, on **Collab**

 Brian Balogh, The Associational State: American Governance in the Twentieth Century

(Philadelphia: University of Pennsylvania Press, 2015), pp. 1-22, on **Collab**

Questions: If the digital revolution is as big as the industrial and managerial revolution that transformed much of the world between 1880 and 1920, what would that imply about today’s agenda of business and government? What does Balogh mean when he refers to the “associational turn,” “new business history,” and the “’hidden’ networks of twentieth-century national authority”? Can you think of some examples among institutions that you know?

February 2

2. Understanding the Digital Revolution

Read: Bessen, Learning by Doing, Part I, pp. 1-67

 Berger, Making in America, chapter 6, pp. 155-178

 Rework America, America’s Moment, chapter 2, pp. 21-61

Questions: What ingredients turned IT innovation into a digital revolution? Why do such economic revolutions seem to happen, as Bessen put it, in “slow motion”? How does the digital revolution seem to be transforming society and the economy? What might be the keys for a society trying to adapt and innovate?

February 9

3. The Future of Work: “Good Jobs” Strategies for American Workers (and Businesses)

Read: David Autor, “Why Are There Still So Many Jobs? The History and Future of Workplace

Automation,” Journal of Economic Perspectives, vol. 29 no. 3 (Summer 2015): 3-30, on **Collab**

Bessen, Learning by Doing, Part II, pp. 71-134

 Rework America, America’s Moment, chapter 5, pp. 113-142

Questions: How should we think about a future when robots and AI will do many present-day jobs? What seem to be the most important changes happening in the future of work? We understand innovative hardware; we understand skills training. What does it mean to “innovate the jobs?” Do technological trends predetermine our future?

February 16

4. Globalization: Villain or Savior?

Read: Berger, Making in America, chapter 2, pp. 25-64

 Rework America, America’s Moment, chapter 3, pp. 62-83

Questions: How would you summarize Berger’s argument about the “decline” of American manufacturing? Should we care? What are the most important opportunities for Americans in the future world economy? What may be the character of the next phase of globalization? Are labels like “trade,” “imports,” or “exports” still useful in the world of “snakes,” “chains” and “spiders?”

February 23

5. Plenty of Capital, Not Enough Investment: What Can Be Done?

Read: Rework America, America’s Moment, chapter 4, pp. 84-112

 “Reinventing the deal,” The Economist, October 24, 2015, on **Collab**

Questions: What are the investment issues for big, well-financed companies? What are the issues for young, growth firms? Why has consumer debt become so dominant in the finance world? What difference can the digital revolution make in the world of business finance?

March 1

6. Nurturing Ecosystems for Innovation in America: What’s the Secret?

Read: Berger, Making in America, chapters 3-5, pp. 65-154

 Rework America, America’s Moment, part of chapter 6, pp. 143-171

Questions: What seem to be the ingredients for a successful ecosystem for innovative and growing businesses? What should be the agenda for community or regional business and civic leaders? Do these accounts leave you optimistic or pessimistic about America’s chances?

March 15

7. Innovation and the Role of Government: Patents and R&D

Read: Bessen, Learning by Doing, chapters 10-13, pp. 162-221

 Rework America, America’s Moment, rest of chapter 6, pp. 171-189

Questions: Why should government matter in the research or development that lead to good new products or production processes? Why is it so difficult to reform the patent system? Must government “pick winners?” What are the comparative advantages of public institutions, academia, and the private sector?

March 22

8. America’s Broken Labor Market: How to Fix It?

Read: Berger, Making in America, chapter 7, pp. 179-198

 Bessen, Learning by Doing, chapters 8-9, pp. 137-161

 Selingo, College (Un)Bound, chapters 1-3, pp. 1-54

 Rework America, America’s Moment, chapter 7, pp. 190-223

Questions: What would be the characteristics of a well-functioning labor market? Why does the American labor market seem to be dysfunctional? Is this just a problem of companies not offering high enough wages for the desired skills? What role or responsibility do educational institutions play in all this? Licensure laws?

March 29

9. New Visions for the Future of Education

Read: Selingo, College (Un)Bound, remainder, pp. 55-183

 Rework America, America’s Moment, part of chapter 8, pp. 224-241

Questions: How does the present educational system aggravate the problem of “two Americas?” Getting past the culture war of whether “online” is better than “personal” education, what seem to be the most interesting ways of combining the virtues of both? Which of the educational ideas in these readings (and the ones from last week) seem most compelling to you?

April 5

10. The "Two Americas" and the Challenge of Reconnecting "Opportunity Youth"

Read: Amanda Ripley, “The Upwardly Mobile Barista,” The Atlantic, May 2015, on **Collab**

Rework America, America’s Moment, rest of chapter 8, pp. 241-252

Questions: In day-to-day life, what are the most serious challenges facing Mary Hamm or Michael Donnelly, or others like them, who want to improve their education and skills? Are teachers the issue? How do the issues in these readings connect with America’s ongoing debates about teacher quality or testing? In the ASU program or the YouthBuild program, what ingredients seem to be most effective?

April 12

11. Government 2.0: What Does the Connected Age Mean for the Public Sector?

Read: John Micklethwait & Adrian Wooldridge, The Fourth Revolution: The Global Race to

Reinvent the State (New York: Penguin, 2014), pp. 189-220, on **Collab**

 Jonathan Cowan, Jim Kessler, Gabe Horwitz & Joon Suh, “Ready for the New

Economy,” report from Third Way, October 2015, read “the argument” on pp. 1-6 and skim the rest, on **Collab**

 Rework America, America’s Moment, chapter 9, pp. 253-276

 Nick Hanauer & David Rolf, “Shared Security, Shared Growth,” Democracy Journal,

Summer 2015, on **Collab**

Questions: What is “Government 2.0?” As you reflect on the Micklethwait & Wooldridge reading and the Third Way report, how do these agendas – and the ones we have been discussing in prior weeks – connect to the national debate going on in this election year? What are the implications, for government, of the changing nature of work? Notice the proposal from Hanauer & Rolf (who is one of America’s most important union leaders). If you were considering a job in the public sector, which of the topics or challenges mentioned in these readings would you want to work on?

April 19

Presentation and discussion of draft papers

April 26

Presentation and discussion of draft papers

May 3

Presentation and discussion of draft papers.