Addressing Technology’s Wake: 
Emerging Risks and The Public Policy Imperative (PPHA 38840) 

Spring 2021

Thursdays 5:00-7:50PM (4/1/21-6/3/21)

Instructor
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Course Overview and Objectives

For many, technology and social progress are highly correlated, if not synonymous. The salutary impact of technology is indisputable. But with technological advancement comes consequences in the form of new economic risks which are often significant and typically born unequally by individuals and groups in modern society. Policies, programs and contractual schemes to address such risks, the joint province of government and private insurance businesses, usually significantly trail their emergence. The reason: a panoply of interests, both public and private, struggle to address questions of social responsibility, moral hazard, and actuarial probabilities in order to address new risks. In technology’s large wake, individuals and businesses face significant risk exposure while these interests negotiate and litigate what is both politically possible and commercially viable.

This course applies a social science perspective to the problem of emerging risk in advanced, technologically driven societies and economies. It focuses on three particular risk domains that are both highly topical and inadequately addressed by either the private or public sector. We will consider climate change and the challenges of providing adequate protections for areas with high propensity for catastrophic weather events. We will investigate the “gig economy” and the question of how to best provide traditional employment protections – disability and worker’s compensation insurance – to a new class of “independent” workers. And we will drill into the rapidly evolving world of cyber warfare, where state-sponsored actors threaten large and small businesses and an inchoate cyber insurance industry has so far been unable or unwilling to adequately meet the needs of its largest customers and many think the government needs to step in.

Our investigation into each of these three cases will be driven by contemporary social and political theory. The first two weeks of the course will provide the theoretical grounding to attack the cases by framing important questions around 1) the nature and distribution of emerging risks 2) the scale and scope of public and private responsibility for addressing them and 3) the proper contours of the public-private partnership required in any proposed solutions.

Successful completion of the course will endow students with a deeper understanding of the ways in which new kinds of risk are often an unintended consequence of technological advancement; of the challenges involved in mitigating these risks for both individuals and businesses; and techniques to think about and derive the proper shape and scope of new public and private insurance programs to address them.
Pedagogical Approach

Our course time together will be organized around four types of interactions:

1) **Interactive Lecture**: Each class session (except weeks 5, 8, and 10) will begin with a 45-minute review of the key themes of the week in the form of a presentation which I will drive, but during which I will ask students to provide thoughts and responses to the material I review. Adequate prior preparation for each class session is thus required.

2) **Reading Precis**: Each student will deliver at least one 20-minute precis that provides a summary and interpretation of a specific assigned reading. Successful presentations will connect the reading to the broader themes of the course and elaborate on its particular contribution to deepening our understanding of a key issue. We will have 2-3 precis presentations during each class session except weeks 5, 8, and 10. Assignments will be distributed the first week of class.

3) **Discussion**: The last hour of each class session (except weeks 5, 8, and 10) will be dedicated to a discussion of key topics and themes of the week. Active and engaged participation in these discussions is a key component of the course.

4) **Mock Hearing**: In weeks 5, 8, and 10 we will conduct a mock Congressional committee hearing into how best to address the issue(s) raised by one of the three risk domains. Students will be divided into groups, each tasked with representing the positions of a particular interest group impacted by the risk domain. Each group will testify as to how it views the particular risk and proposes that it be addressed. One group will constitute the Congressional committee responsible for interrogating the witnesses. These sessions will occupy the entirety of class time.

Readings

In most cases, I have attempted to excerpt the most relevant sections from assigned works in order to optimize the time spent reading and the number of books required for purchase. In such instances, the readings are available in the course packet.

The following books, available in the library, are recommended for purchase:

- Gilbert M. Gaul, *The Geography of Risk*
- Andy Greenberg, *Sandworm: A New Era of Cyberwar and the Hunt for the Kremlin’s Most Dangerous Hackers*
- David Weil, *The Fissured Workplace*
- Andrew Yang, *The War on Normal People*

Grading & Grading Policy

Grading for this course has four components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>20%</td>
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<tr>
<td>Reading Precis</td>
<td>10%</td>
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<tr>
<td>Mock Hearings</td>
<td>45% (15% Each)</td>
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<tr>
<td>Course Paper (Topic will be a Risk Domain not covered in the course; details to be provided)</td>
<td>25%</td>
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Week 1 -- The Consequences of Modernity: Thinking About Emerging Risks and the Risk Society (4/1)

Overview: We will begin with the classic formulation of the problem of unanticipated (or unintended) consequences by Robert K. Merton. We will then situate the problem of risk within the broader dilemma of modernity as conceptualized in the social theory of Anthony Giddens and Niklas Luhmann. Lastly, we will read Ulrich Beck’s *The Risk Society*, the most fully articulated analysis of the problem of risk in contemporary society. Though somewhat abstract, these readings provide a framework through which we can begin to form questions about the nature of public and private responsibility to address emerging risks and to understand the phenomenology of risk as it is experienced by both individuals and society.

Reading: Robert K. Merton, “The Unanticipated Consequences of Purposive Social Action”
Anthony Giddens, *The Consequences of Modernity*, Chapter One
Anthony Giddens, “Risk and Responsibility”
Niklas Luhmann, “The Special Case of High Technology” in *Risk: A Sociological Theory*
Jia Tolentino, “What Mutual Aid can do During a Pandemic,” *The New Yorker*, May 11, 2020

Week 2 -- The Theory Questioned: Is the World Getting Riskier? (4/8)

Overview: This week we attack the “balance sheet” of progress by engaging in a debate around the impact of technology on social development and individual lives. Our purpose is not to decide who’s right and who’s wrong but rather to understand the contours of the debate and the extent to which questions about technology are by no means settled. We will also review the role of the global insurance industry in risk mitigation and the myriad gaps the industry itself recognizes in providing protections for emerging risks.

Reading: Jacob S. Hacker, *The Great Risk Shift*, excerpts
Stephen Pinker, *Enlightenment Now*, excerpts

Risk Domain One: Climate Change

Week 3 -- Climate Change: The Big Picture (4/15)

Overview: We begin the unit on climate change by looking at the issue broadly. The readings for this week are excerpts from the two most recent, well reviewed books on the topic.

Reading: Nathaniel Rich, *Losing Earth: A Recent History*, excerpts
David Wallace-Wells, *The Uninhabitable Earth*, excerpts
**Week 4 -- The Problem on the Coasts (4/22)**

*Overview:* We move this week to address the specific problem of the increased frequency and severity of catastrophic climate events along America’s coasts. Two recent works provide both context and quantification around the impact of this phenomenon. Together they raise important questions about public responsibility to provide protections for property built and rebuilt in high risk locations.

*Reading:* Gilbert M. Gaul, *The Geography of Risk*
Reza Marsooli et al., “Climate change exacerbates hurricane flood hazards along US Atlantic and Gulf Coasts in spatially varying patterns.”

**Week 5 -- Insuring the Uninsurable: Solving the Protection Problem (4/29)**

*Overview:* This week, we’ll conduct a Congressional “Mock Hearing” regarding public policy issues regarding FEMA, the National Flood Insurance Program (NFIP) and the fundamental question of who should bear the cost for protecting America’s coastline.

*Reading:* Shao et al., “Predicting support for flood mitigation based on flood insurance purchase behavior”
Fact Pack regarding the state of NFIP, FEMA and the Private Insurance/Reinsurance Market

**Risk Domain Two: The “Gig Economy”**

**Week 6 -- The Changing Nature of Employment: The Big Picture (5/6)**

*Overview:* This week we consider the question of how automation, outsourcing and disruptors like Uber are transforming the workplace as well as relations between employers and workers. Of particular interest are concerns regarding the rise in the number of workers not covered by traditional social insurance schemes.

*Reading:* David Weil, *The Fissured Workplace*, Parts 1 and 2
Andrew Yang, *The War on Normal People*, Parts 1 and 2

**Week 7 -- Protecting Workers Without Employers (5/13)**

*Overview:* This week, we consider a few of the possible solutions around rearchitecting social insurance as articulated by two experts on the topic.

Andrew Yang, *The War on Normal People*, Part 3
Week 8 -- Making it Work in California? (5/20)

Overview: This week we’ll conduct a Congressional “Mock Hearing” regarding solutions to the problem. We will as background consider how worker’s compensation insurance emerged in the United States as a partnership between government, employers and the insurance industry as well as recent attempts by the state of California to reclassify “gig” workers as employees through a recent piece of legislation (Assembly Bill 5).


Risk Domain Three: Cyber Warfare

Week 9 -- Wars Without Soldiers: The Cyber Big Picture (5/27)

Overview: This week we consider cyber risk and the new threats faced by businesses and individuals. Our focus will be on how cybercrime 1) has evolved from the work of isolated hackers to that of states and organized groups and 2) has become focused less on individual attacks and more on systemic events with broad consequences.

Reading: Andy Greenberg, Sandworm: A New Era of Cyberwar and the Hunt for the Kremlin’s Most Dangerous Hackers

Week 10 -- Paying for the Damage: The Nonpetya Litigation (6/3)

Overview: In this week’s “Mock Hearing,” we consider the specific case on Nonpetya, considered by many the most devastating cyberattack in history. Current thinking blames the attack on Russian operatives targeting Ukrainian interests. We will study the impact of the attack on two multinationals, Mondelez and Merck. Both companies were denied reimbursement for damages incurred as a result of the attack by their insurance company. In each case, insurers cited an “act of war” exclusion in the policy contract and in each case, significant and, as yet unsettled, litigation ensued. This hearing will use the case to focus on broader questions as to the nature of cybercrime, the relevance of state and non-state actors in perpetrating it, and how a combination of public and private actors might align to mitigate its impact.

Reading: Fact pack regarding cyber insurance, act of war exclusions and the Mondelez and Merck legal cases.