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Instructor:	Adrienne Harris, Towsley Policymaker in Residence adrienah@umich.edu 734-615-8684 (desk) 5223 Weill (office location) 1110 Weill (class location)
Instructor Office Hours:	Thursdays: 11:45 am-1:30pm (please make appointment in advance)
Course Term:	6-week session Thursdays, 8:30 am – 11:20 am March 14, 219 – April 18, 2019

Course Description: Throughout history, financial services has played a vital role in the global economy, and similarly, technology has been an integral part of financial services. Although the combination of financial services and technology isn't new, the advent of mobile technologies along with a post-financial crisis world have led to a financial technology, or fintech, revolution. New products and services have emerged, causing financial services to look very different than it did 10, or even four, years ago. But fintech is still a relatively new industry, and many questions remain about the benefits and the risks of fintech, how it will impact incumbent institutions and systems, what it will mean for consumers, and how governments should view these developments. How are recent technological advances different than past innovations? How is technology changing financial services today and how will it change the industry in the future? What impact does this change have on stakeholders, including consumers? What are the benefits and risks of this change? This course will examine these questions and others.

Course Objectives: The objectives of the course include:
1. Comprehending the role and key functions of financial services, including those of incumbent institutions, innovators, investors, and public sector actors.
2. Understanding the genesis and evolution of fintech as part of the financial services industry.
3. Developing relevant, practical analytic, writing, and oral presentation skills.

Critical Questions:

- How is financial innovation different from other types of innovation? How is financial innovation evolving? What are the pros and cons of financial innovation?
- Will traditional financial intermediaries be able to adapt? Or will innovators disrupt them, re-imagining business models just as Amazon reshaped book-selling and Uber transformed taxi-rides?

- What are the critical technology strategies and foundational technologies in FinTech? What are the core and novel sources of FinTech data, how are they managed?
- How is FinTech reconfiguring financial services business models? What are the key disruption points? What determines success in FinTech?
- Where are the limits, risks, and broader policy and social implications of FinTech?

Course Grading: This class requires three graded assignments – a policy memo, a group presentation, and a reflection paper, each of which is explained in further detail below. Class participation is also part of your grade. Late work needs to be negotiated *before* the day the assignment is due. I am always willing to negotiate a new deadline if you have a reasonable reason for needing an extension. However, assignments that are turned in late without prior discussion or approval will be docked one grade step for every day they are late.

Class participation and engagement	20%
Policy Memo	30%
Presentation	35%
Reflection Paper	15%
	100%

Class Participation and Engagement: Given the short time we have together for this class, participation will be an important part of your grade. Half of the grade for this component will account for in- person attendance (any unexcused absence without prior notification will result in a loss of points allocated for attendance in each week), with the other half based on my assessment of individual engagement. Such engagement can take many forms, including but not limited to, in-class participation with questions and discussion, attendance at office hours or by appointment if necessary, or virtually via Canvas or emails with me regarding questions, thoughts, ideas related to all things fintech.

- The Most Interesting Thing in FinTech: As part of class participation, you should be reading fintech news between classes and sending along to me, before each class, the most interesting article, fact, insight, video or other tidbit you've seen during the week.

Policy Memo: One two- to three-page policy memo (single-spaced), due 5 pm ET on Wednesday, April 3, 2019. This memo should outline one policy proposal – e.g., proposed legislation or regulation, new process or departmental policy, new agency structure or design – that would foster innovation in financial services while mitigating risks to markets or consumers. The memo should describe the issue/problem the proposal is intended to remedy, discuss the proposal itself including the relevant stakeholders, and then address how the proposal will help remedy the issue/problem while also addressing possible objections to the proposal. I will be evaluating your creative problem solving skills, your ability to anticipate counterarguments and defend your proposal, and your writing skills.

Presentation: One fifteen-minute group presentation (10 minutes of presentation and 5 minutes of Q&A), delivered orally in-class on April 18 along with a PowerPoint presentation. Students will break into groups of three and choose one area of fintech (e.g., robo-advising/asset management, lending, payments, etc.) or issue area (e.g., financial inclusion, anti-money laundering, etc) and present to their colleagues. The presentation should include an overview of products and services in the space (whether provided by the private, public or non-profit sector), those pieces of public policy that either help or hinder innovation, and any proposed policy or market fixes to overcome such hindrances. Like

the policy memo, you'll be graded on their creative problem solving skills, your ability to anticipate counterarguments and defend your proposal, and the quality of the group's oral and PowerPoint presentations.

Reflection Paper: A one- to two-page paper, due before the start of class on April 18, 2019, in which you'll reflect on what you learned in class, highlighting the most interesting things you learned, areas of fintech you think are ripe for more change, ideas about how the financial regulatory framework may be changed to better serve an innovation economy, or any other thoughts about financial services and fintech that come to your mind as a result of the six classes we will have spent together.

FORD SCHOOL OF PUBLIC POLICY INCLUSIVITY STATEMENT

Members of the Ford School community represent a rich variety of backgrounds and perspectives. We are committed to providing an atmosphere for learning that respects diversity. While working together to build this community we ask all members to:
- share their unique experiences, values and beliefs
- be open to the views of others
- honor the uniqueness of their colleagues
- appreciate the opportunity that we have to learn from each other in this community
- value one another's opinions and communicate in a respectful manner
- keep confidential discussions that the community has of a personal (or professional) nature
- use this opportunity together to discuss ways in which we can create an inclusive environment in Ford classes and across the UM community

Accommodations for Students with Disabilities: If you believe you need an accommodation for a disability, please let your instructor know at your earliest convenience. Some aspects of courses may be modified to facilitate your participation and progress. As soon as you make your instructor aware of your needs, they can work with the Services for Students with Disabilities (SSD) office to help determine appropriate academic accommodations. Any information you provide will be treated as private and confidential.

Student Mental Health and Well-Being Resources: The University of Michigan is committed to advancing the mental health and wellbeing of its students. We acknowledge that a variety of issues, such as strained relationships, increased anxiety, alcohol/drug problems, and depression, directly impacts students' academic performance. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, contact Counseling and Psychological Services (CAPS) and/or University Health Service (UHS). For a listing of other mental health resources available on and off campus, visit: http://umich.edu/~mhealth/

Class Expectations.

- **Punctuality.** We will start and end each session on time. You should be in the classroom before 8:30 am ET each session.
- **Technology.** Please do not check your cell phone or email during class, and you refrain from recording (audio or visual) the content of the class or posting (Twitter, LinkedIn, FB, Snap, etc.) about the class. These requirements preserve the integrity of the discussion (allowing us to have a candid conversation) and eliminate distractions. Note-taking via laptop is appropriate but please refrain from sending text or instant messages, tweets, social media posting, or video or audio recording of classroom dialogue.
- **Academic misconduct**, including cheating, misrepresenting one's own work, taking credit for the work of others without acknowledgement and without appropriate authorization, and the fabrication of information will not be tolerated. Any form of misconduct will be taken very seriously. Academic dishonesty also includes using something you produced

for another class for an assignment without permission. Information regarding academic dishonesty, plagiarism (which includes copying and pasting text from primary documents without proper citation and formatting), and misconduct and their consequences is available at: http://www.rackham.umich.edu/current-students/policies/academic-policies...

Please review additional information and policies regarding academic expectations and resources at the Ford School of Public Policy at this link:
http://fordschool.umich.edu/academics/expectations

SYLLABUS

Class #1: March 14, 2019   Introduction to Financial Services and FinTech

 Summary: This first class is designed to give you a basic overview of financial services
                          and fintech, including specific verticals within the industries and the various
                          stakeholder groups. We'll explore the history and rise of fintech and some of
                          the key questions and themes it has raised for financial services broadly. The
                          goal of this class is to provide a foundation for the rest of the course so that we
                          all have a common understanding and vocabulary on which to build.

Key Questions:
- Why is the subject of fintech even important?
- What are the main areas of financial services?
- What is fintech? How did it start?
- Who are the main stakeholders in financial services and fintech? What are their roles?
- What are the key issues/areas of contention/debates/policy and/or business problems in fintech today?

Readings:
- Christensen, Clayton M., Raynor, Michael E. and McDonald, Rory. (2015). What is Disruptive Innovation? Harvard Business Review. December 2015.
- Frame, W. Scott, and White, Lawrence J. (2014). Technological Change, Financial Innovation, and Diffusion in Banking. Chapter prepared for The Oxford Handbook of Banking, 2nd edition.
- Forbes Fintech50 2019.
- The Future Of Banking: Fintech Or Techfin?, Jim Marous, Forbes Contributor (Aug. 27, 2018)
- NYT, Silicon Valley Tried to Upend Banks. Now It Works With Them, Nathaniel Popper (Feb. 22, 2017)

Additional (optional):
- U.S. Department of the Treasury, A Financial System That Creates Economic Opportunities Nonbank Financials, Fintech, and Innovation (July 2018)

Class #2: March 21, 2019   Regulating Innovation in the US and Abroad

Summary: Financial services is one of the most highly-regulated industries in society.
                          The goal of this class is to understand who financial regulators are, why they
                          exist, what they do and how they do it, both in the US and abroad. Then, we'll
                          discuss the interplay between regulation and innovation broadly, and what it
                          has means for fintech in particular. We'll also explore some of the key
                          questions that stakeholders are grappling with and the differences between
                          financial regulatory constructs in the US and in other jurisdictions.

Key Questions:
- What are the key concepts and principles that shape how we think about financial regulation in the

US?
- Who are the financial regulators in the US and what do they do?
- How does regulation help or hinder innovation?
- How have financial regulators viewed fintech?
- What are the most pressing regulatory questions surrounding fintech?
- How is financial services and fintech regulated elsewhere (e.g., UK, Singapore, China)?
- What is regtech?

Readings:
- Groenfeldt, Tom, U.S. Needs Smarter FinTech Regulation To Compete Globally, Forbes (Aug. 2, 2018)
- Government Accountability Office (GAO), FINANCIAL TECHNOLOGY: Additional Steps by Regulators Could Better Protect Consumers and Aid Regulatory Oversight, highlights page (March 2018)
- GAO, FINANCIAL REGULATION Complex and Fragmented Structure Could Be Streamlined to Improve Effectiveness, highlights pages (Feb. 2016).
- Global Financial Innovation Network (GFIN), Consultation Document (Aug. 2018)
- Wintermeyer, Lawrence, A Regulation Revolution In Financial Services, Interview with Jo Ann Barefoot, Forbes (Dec. 2, 2018)
- Skim: HM Treasury, Fintech Sector Strategy: Securing the Future of UK Fintech
- Singapore FinTech: Innovation, Inclusion, Inspiration - Presentation by Mr. Ravi Menon, Managing Director, Monetary Authority of Singapore at Singapore FinTech Festival 2018 on 12 November 2018

Additional (optional):
- **Government Accountability Office, full report** on Financial Technology.

Class #3: March 28, 2019   Key Questions for FinTech – Big Data & Privacy, Financial Inclusion & Health, Behavioral Innovations

Summary: The goal of this class is to dive deeper into some of the key questions for stakeholders in financial services and fintech. Each of this questions has serious implications for private and public sector actors, as well as for individuals. The issues we'll explore here by no means represent an exhaustive list. They are, however, the issues that one would most commonly hear discussed among experts in the field. It is therefore important to begin understanding these issues to better understand the current and future landscape of financial services and fintech.

Key Questions:
- How does big data relate to financial services? What are the key policy concerns and potential benefits to the use of big data in financial services?
- What are the implications of fintech for financial inclusion and health? How does public policy help or hinder these objectives?

- How is fintech linking behavioral and neurological insights to financial services, whether retail or institutional?

Readings:
- Center for Financial Services Innovation, US Financial Health Pulse Baseline Report
- Prepared Remarks of CFPB Director Richard Cordray at Money 20/20 (Oct. 2017)
- CFSI FinLab Winners
- CFSI, Consumer Data Sharing Principles: A Brief on the Framework for Industry-Wide Collaboration
- Chris Skinner, The secret to success with customer data
- Big data, financial services and privacy. The Economist, February 9, 2017.
- How to think about data in 2019. The Economist, December 22, 2018.

Additional (optional):
- U.S. Financial Diaries

Class #4: April 4, 2019   The Newest Categories: AI, RegTech and Distributed Ledger Technology

Summary: AI, RegTech (for companies as well as for regulators) and DLTs (e.g., blockchain) are some of the hottest areas in fintech. The goal of this class is to explore these areas and understand how their continued development will impact the financial services landscape.

Key Questions:
- What are the benefits and potential unintended consequences of AI in financial services?
- What might be some of the potential stumbling blocks or unintended consequences for regtech fixes?
- What are the potential use cases for DLTs?
- Is DLT really a game-changer or is it just "a better mousetrap"?

Guests: TBC

Readings:
- Watch: Scott Driscoll, How bitcoin works under the hood (22 minute video; July 14, 2013). Available, including transcript, at http://www.imponderablethings.com/2013/07/how-bitcoin-works-under-hood.html
- Bob Mason. What is an ICO (Initial Coin Offering) and How Does it Work? FXEmpire blog post, June 2017.
- Deliotte, The Promise of RegTech.

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Additional (optional):
- BaFin, Big Data Meets Artificial Intelligence: Challenges and implications for the supervision and regulation of financial services

Class #5: April 11, 2019   FinTech Investing & Entrepreneurialism

Summary: The goal of this class is to better understand how fintech innovations are
                      actually created – i.e. financed and built. During this class you'll hear from
                      entrepreneurs and investors about how they evaluated fintech ideas and built a
                      business to test it. You'll learn about the some of the challenges particular to
                      building a fintech company, as well as the impact that successful fintechs can
                      have.

Key Questions:
- How does an entrepreneur go from ideation to building a business?
- What do investors look for when investing in a fintech innovation?
- What types of investors are interested in fintech and why – angels, institutional venture capitalists, incumbents, private equity?
- What about public investment?

Guests:
- TBC

Readings:
- Sequoia Pitch Deck.
- CBInsights, Global FinTech Report Q3 2018 [in Canvas]

Additional (optional):

FINAL CLASS: April 18, 2019   What Does the Future Hold? And Presentations.

Summary: The goal of this class is to combine the material of the previous weeks and
                      make predictions regarding innovations we expect to see in the future, whether
                      in the private sector on the fintech or incumbent side, or in the public sector.
                      Classmates will share their presentations about a particular area of fintech,
                      providing their colleagues with an overview of the vertical and predictions on
                      what will happen next.

Objectives:
- Learn to quickly assess an unfamiliar topic area, synthesize information you find and make an informed presentation.
- With your understanding of the fintech landscape, make a prediction about what you think will happen next in the space and what that means for the stakeholders who will be impacted.

Readings: None. Presentations and reflection papers due.