



COURSE INFORMATION

Course Number: MGT 857
Course Title: Digital Strategy
Term and Year: Fall-1 2023
Class Meeting Time, Day:
Section 01:
Tue / Thu 1:00 pm – 2:20 pm, Evans Hall 4210
Section 02:
Tue / Thu 2:40 pm – 4:00 pm, Evans Hall 4210
Section G1 (MMS GBS):
Tue / Thu 4:10 pm – 5:30 pm, Evans Hall 4210

CONTACT INFORMATION

Professor(s)	TA(s)
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(see Canvas for Link)	
	Michael L. Robinson (TBD)
	michael.l.robinson@yale.edu

Review Sessions: *As Needed*

COURSE MATERIALS

Textbook(s): None required

Recommended Books: Instructor will provide required book chapters via Canvas.

Readings: *See Detailed Outline of Class Sessions*

Software: *Excel may be used for assignments and project if needed.*

COURSE DESCRIPTION AND OBJECTIVES

Disclaimer: Syllabus is tentative. Please check latest version on Canvas by “Last Updated” date.

Course Description:

Digital Strategy is a course that builds upon topics in strategy, marketing and economics to understand issues in markets where digital technology plays an important role. Through a mix of quantitative and qualitative case studies and lectures, the course brings together a variety of issues unique to markets significantly impacted by technologies. The course is divided into 4 modules. Each module will feature a lecture session laying out the conceptual foundations followed by 2-3 case studies.

We study the essential elements of **business models**, the principles of hypothesis-driven choices. We will apply the ideas of strategy and tactics modeling to the analysis of problems of business structuring, functional organization and evaluate performance under existing and new digital technologies. As appropriate, we will understand how digital models using data-based strategies change the dynamics of business performance.

We investigate reasons that we observe a variety of business models in the market for digital products and services, and identify outcomes to assess the performance of business models and the challenges in implementing them. Second, we focus on understanding strategies and how business models can be used by **disruptors and complementors**, with a view to evaluating drivers of success in the marketplace. Third, we study **platforms** to understand the primary issues in developing multi-sided platforms as well as the perspective of participants on each side. Fourth, we examine **technology-driven transformation** both from a technology perspective (with AI and blockchain as key emerging technologies), as well as from a firm perspective (with The New York Times).

Course Objectives:

The course is designed to provide a strategic perspective on digital technologies, but given the broad scope of the topic, aiming for comprehensive coverage in a few sessions does not seem feasible. I've had to make tradeoffs in selecting areas to examine in depth. My goal is that a student who completes the course successfully should be able to:

- Understand growth and monetization tradeoffs in adopting business models
- Determine whether a disruptor or complementor strategy is more appropriate
- Evaluate design and governance decisions for platforms
- Develop a perspective regarding new emerging technologies and how they could reshape markets and firms
- Understand challenges and opportunities involved in undertaking a digital transformation

Note 1: This is NOT a digital marketing course, and will not focus on social media or digital marketing or advertising, Search Engine Optimization, Google / Facebook Analytics etc.

Note 2: This course is not suitable for an auditing option.

COURSE REQUIREMENTS

Course Component	Details	Points
Assignments (Individual and Group)	See details below	50
Project Report (Group)	See details below	25
Attendance and Participation (Individual)	Every class	25

Please see the Yale SOM Grading Policy at <http://portal.som.yale.edu/page/grading-policy>

Class Participation: You will be encouraged, and likely cold-called to air your views in class. Evaluation will be on the quality and to a lesser degree, the number of comments you make. Please come prepared to each class by reading the assigned material and thinking carefully about the preparation questions.

DESCRIPTIONS OF ASSIGNMENTS/PROJECTS/PROBLEM SETS

You will be required to form a group of **X** people within your section for the group assignment and project. *Groups need to be within section* since we have a group presentation. If you need help forming a group, the TAs will help. (Note: X might depend on the section and will be announced in class or via canvas).

Project: After forming a group, submit a one-slide with project proposal idea on canvas. Then, you'll set up a meeting with the professor to go over the idea and obtain feedback and approval. We will send out links to help schedule meeting times during predefined blocks. Assignment groups CAN overlap with project groups, in fact that's probably less complicated for everyone to manage.

NOTE: Project ideas must be submitted by canvas or e-mail for pre-approval to instructor by Sep 15, 2023.

Final project deliverable: a slide deck report with a 15-slide maximum.

While I have in mind specific types of projects detailed below, I'm open to custom projects if you send me a carefully thought out one-paragraph written proposal if you want to do something different. **However, note that the same or similar project(s) cannot be submitted or presented in multiple courses.** The types of projects I have in mind are detailed below:

- A) Developing a new business proposal based on "emerging" digital technologies (We'll define this as "something not in widespread use but has a reasonable chance of becoming widely adopted in a few years"). Please check with the instructor if you have questions. The focus here will be on identifying how the technology can create value, and how the value can be taken to market.
- B) Examine the transformative impact of "emerging" digital technologies on the business of an incumbent provider, taking the perspective of both the disruptor and complementor.
- C) The product and company you evaluate will originate from TechCrunch's Startup Battle Field Leaderboard (<https://techcrunch.com/startup-battlefield/leaderboard/>). The overall focus will be to identify a new product or service that adds value at the intersection of technology and finance, health, education, automotive, etc. and present its business model analysis in depth, including alignment and considering counterfactual analysis for choices made by the firm.

Projects will be evaluated on the following aspects: (a) creativity, (b) clarity of thought and writing, (c) quality of argument and (d) insights obtained. Depth is valued more than breadth or comprehensive coverage. The instructor will discuss project details in class.

Assignments: Group assignments can be done in groups of X students (announced in class), whereas **Individual assignments** must be submitted separately by each person. Please indicate the contribution of each person for group assignments. Everyone in the group is expected to make a significant contribution to **each** assignment, so please budget time to discuss assignments. Groups must be within section, since we have a presentation.

Late assignments will not be graded. *No extensions or exceptions to any due dates should be expected -- we will discuss assignment answers in class.* We don't have any makeup assignments for missed classes or assignments. However, if you have an extenuating circumstance, please contact **AASL**, and they will determine an appropriate course of action.

Group Presentation assignment: all members of groups should be present and prepared to present in class. If logistics require, groups will be chosen to present in class based on quality of analysis and insights, as well as differential contributions relative to other groups. It is important to submit PowerPoint **Slides** through Canvas, so we can load them up before class.

Except the Group presentation, all assignments should be submitted as a **PDF** document.

Individual assignments: Your individual assignment submissions must be **4 pages or fewer** (excluding any exhibits), in 11 or 12-point text font and double-spaced text. Please convert everything to one PDF file before submission and submit through Canvas. Please name the file in the following format:

Group04.pdf

For individual assignments,

LastName_FirstName.pdf

Details of Assignments will be posted on Canvas. Due dates are listed in “Outline of Class Sessions” below. If you have any questions at all, please don’t hesitate to check with the professor or TAs.

YALE SOM POLICIES

Please see the Yale School of Management Bulletin at <http://www.yale.edu/printer/bulletin/htmlfiles/som/rights-and-responsibilities-of-students.html> for Rights and Responsibilities of students and for information on requesting a course recording.

Laptop/Device Policy

Usage NOT allowed without the express permission of the instructor.

OUTLINE OF CLASS SESSIONS (All Dates 2023)

Session	Date	Topic	Assignment Due (Time Due: 9 am)
Module 1: Digital Strategy and Business Models			
1	Aug 31 (Thu)	Course Introduction Overview of Business Models	
2	Sep 05 (Tue)	Dropbox: It Just Works (CASE)	A1 (Individual)
Module 2: Disrupting and Complementing			
3	Sep 07 (Thu)	Entry in Existing Markets (Disruptors and Complementors)	
4	Sep 12 (Tue)	Apple Pay (CASE)	A2 (Individual)
5	Sep 14 (Thu)	Robinhood (CASE)	
6	Sep 19 (Tue)	Zillow and Redfin (Dual CASE Presentations)	A3 (Group Presentation, submit Slides on Canvas)
Module 3: Platform Thinking			
7	Sep 21 (Thu)	Platform Thinking	
8	Sep 26 (Tue)	American Well (CASE)	A4 (Individual)
9	Sep 28 (Thu)	Issues in Platform Design	
Module 4: Transformation through Technology			
10	Oct 03 (Tue)	Firm Transformation with Technology The New York Times Paywall (CASE)	A5 (Individual)
11	Oct 05 (Thu)	Blockchain (In-class Exercise)	
12	Oct X (Fri)	Guest Lecture	
13	Oct 12 (Tue)	Overview of Emerging Technologies & Course Summary	
Project Proposal (Group) — 1-2 paragraphs due on Sep 15			
Project Report (Group) — Slides Due on Oct 19			

Note: *The content of some sessions may change.*

DETAILED OUTLINE OF CLASS SESSIONS

Please note that “**Preparation Questions**” are provided to help you prepare better for class discussion. These are NOT assignment questions and do not need to be turned in. **Assignment questions will be posted separately on Canvas.**

Readings available only on Canvas are marked with a (*)

Session 1: Introduction to Digital Strategy

Learning Material:

- (a)* [Background Reading] The Five Competitive Forces That Shape Strategy, by M. Porter [VIDEO] https://www.youtube.com/watch?v=mYF2_FBCvXw
- (b)* [Background Reading] What is Strategy? By M. Porter, HBR
(My guess is you've probably read Porter in other courses or elsewhere, I'm listing it for reference. You can read this after class)
- (c) What is a Business Model?, A. Ovans, HBR
<https://hbr.org/2015/01/what-is-a-business-model>
- (d) Rethinking Strategy in a Networked World, D. Tapscott
<https://www.strategy-business.com/article/19911>
- (e) Why Software Is Eating the World, by M. Andreessen
<https://a16z.com/2016/08/20/why-software-is-eating-the-world/>
- (f) [Optional] From Strategy to Business Models and onto Tactics, R. Casadesus-Masanell and J.E. Ricart. (A more academic take on the distinction between Strategy, Tactics and Business Model)
<https://www.dropbox.com/s/3bep9b3vfmwqyjk/From%20Strategy%20to%20Business%20Models%20and%20to%20Tactics.pdf?dl=1>

Preparation Questions:

- (1) What is Strategy? What are the differences between Strategy and Tactics? Is there a clear boundary or is this a gray zone?
- (2) What is the difference between a strategy and a business model? Which do you begin with when faced with a new market opportunity?
- (3) Look up the cumulative market value of the large technology companies (Microsoft, Apple, Google, Facebook, Netflix). Think about factors that have contributed to their success. Can you articulate the strategy for each of these companies? What choices have they made?
- (4) How has Digital has changed the nature of strategy? To what extent is the 5-forces view useful? Do we miss anything if we restrict ourselves to this perspective / theoretical lens?

Session 2: Understanding and Evaluating Business Models – Dropbox and Freemium

Learning Material:

(a)*CASE: Dropbox

[Link for Purchasing Case, case is only available on Canvas to students, **not** via the link below]

<https://www.thecasecentre.org/products/view?id=102447>

(b)*Making “Freemium” Work, V. Kumar, HBR

(c) [Optional Academic Article] Creating Social Contagion Through Viral Product Design: A Randomized Trial of Peer Influence in Networks, S. Aral and D. Walker

<https://www.dropbox.com/s/56qjnc7nsrxfc9n/>

[Creating%20Social%20Contagion%20through%20Viral%20Product%20Design.pdf?dl=1](https://www.dropbox.com/s/56qjnc7nsrxfc9n/Creating%20Social%20Contagion%20through%20Viral%20Product%20Design.pdf?dl=1)

Preparation Questions:

- (1) Dropbox is a late mover in a crowded space. What opportunity did Houston see?
- (2) What are the key elements of Dropbox’s current business model? How does it compare to Box? (Check external sources to identify Box’s model)
- (3) When he applied to Y Combinator (see case Exhibit 2), what hypotheses did Houston hold about key elements of Dropbox’s business model? As of June 2010, which of these hypotheses have been confirmed, and which have been discarded? Did you expect this?
- (4) Do a quantitative analysis to evaluate the economics of the business. Is the business currently profitable? Freemium firms track the conversion rate (ratio of free to premium users) to evaluate whether they can monetize users. What conversion rate would tip the firm from profit to loss during the current year of the case (call this the “tipping conversion rate”)?
- (5) If you’re advising a freemium startup and find that their conversion rate is significantly below the tipping conversion rate, what action(s) would you recommend?

Session 3: Introduction to Disruptors and Complementors (Lecture)

Learning Material:

(a) [VIDEO] Disruptive Innovation Explained by C. Christensen

[8 min] <https://www.youtube.com/watch?v=qDrMAzCHFUU>

(b)* Disruptive Technologies: Catching the Wave, by J. Bower and C. Christensen, Harvard Business Review (This is the original article that introduced the idea of “disruptive” technology)

(c) [VIDEO] Navigating Digital Disruption, McKinsey

<https://www.youtube.com/watch?v=CtWZnr3AuWY>

(d) (Read after class) Clayton Christensen on What He Got Wrong About Disruptive Innovation, Forbes.

<https://www.forbes.com/sites/forbestreptalks/2016/10/03/clayton-christensen-on-what-he-got-wrong-about-disruptive-innovation/>

Preparation Questions:

- (1) What is a disruptive innovation? How is it different from a sustaining innovation?
- (2) Describe the disruption process.
- (3) What are the barriers to disruption succeeding?
- (4) What is surprising about disruption?
- (5) Did disruption typically come from within the industry or from the outside?

Session 4: Disrupt & Complement in Mobile Payments

Learning Material:

(a)* CASE: Apple Pay

[Link for Purchasing Case, case is only available on Canvas to students, **not** via the link below]

<https://www.thecasecentre.org/products/view?id=148786>

(b) Mobile Payments: Regulatory gaps, ambiguities, and overlap, Pew Trusts

<http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2016/02/mobile-payments>

(c) M-Pesa: Kenya's mobile money success story turns 10

<https://www.cnn.com/2017/02/21/africa/mpesa-10th-anniversary/index.html>

(VIDEO: please watch the video at top of CNN M-PESA article)

(d) [VIDEO] China's Great Leap to Wallet-Free Living, WSJ

<https://www.youtube.com/watch?v=75AXINUL47g>

(e) Inside Facebook's Botched Attempt to Start a New Cryptocurrency, Oct 16, 2019. WSJ

<https://www.wsj.com/articles/facebook-wanted-to-create-a-new-currency-it-wasnt-ready-for-the-backlash-11571242795>

(f) Where it all went wrong for Facebook's Libra, FT

<https://www.ft.com/content/6e29a1f0-ef1e-11e9-ad1e-4367d8281195>

Preparation Questions:

- (1) Will Apple Pay be a huge success with consumers? Why or why not?
- (2) Why did banks agree to partner with Apple for Apple Pay in the U.S.?
- (3) Are retailers excited about Apple Pay? Why or why not?
- (4) What is Apple's motivation in launching Apple Pay?
- (5) Should Apple make any changes to its Apple Pay roll-out plan?

Session 5: Disrupting with a New Business Model

Learning Material:

(a)* CASE: Robinhood Markets Inc: Business Model Challenges

[Link for Purchasing Case, case is only available on Canvas to students, **not** via the link below]

<https://www.thecasecentre.org/products/view?id=177541>

(b) How Robinhood captures Beginner investors. CNBC

<https://www.youtube.com/watch?v=fjNtrrxLLI>

Preparation Questions:

- (1) How did Robinhood upend the securities brokerage industry as a start-up?
- (2) What aspects of Robinhood's business model make the company a potent player in the industry?
- (3) What threats does Robinhood face?
- (4) How should Tenev and team respond to Robinhood's challenges?

Session 6: Disrupt and Complement – Application to Residential Real Estate

Learning Material:

(a)* CASE: Redfin and (b)* CASE: Zillow

[Links for Purchasing Cases, cases are only available on Canvas to students, **not** via the link below]

<https://www.thecasecentre.org/products/view?id=112712>

<https://www.thecasecentre.org/products/view?id=151826>

- (c) 60 Minutes Reports Flat Fee MLS Listing For Sale By Owner, CBS 2010
<https://www.youtube.com/watch?v=agoVu5AggTg>
- (d) [VIDEO] A guide for first-time home buyers, CBS News
<https://www.youtube.com/watch?v=L6593M2A3Rk>
- (e) [VIDEO] How much do Real Estate Agents Make? <https://www.youtube.com/watch?v=qg4gxZiDTBc>
- (f) [VIDEO] Inside Secrets of a Real Estate Agent, ABC News
https://www.youtube.com/watch?v=jyze_lz6uDw
- (g) iBuyers: Is The Convenience Worth The Cost?, Forbes
<https://www.forbes.com/sites/forbesnycouncil/2018/06/05/ibuyers-is-the-convenience-worth-the-cost/>
- (h) Justice Department Takes Aim at Realtor Rules, WSJ.
<https://www.wsj.com/articles/justice-department-takes-aim-at-realtor-rules-11605826653>

Preparation Questions:

Redfin Case:

- (R.a) "Real estate, by far, is the most screwed-up industry in America," Kelman told CBS's 60 Minutes *in 2007*. What was so terrible about the real estate market at that time?
- (R.b) How does Redfin create value? Can these sources of value be copied by another firm? Why or why not?
- (R.c) What are the most important limiting factors affecting Redfin's growth? Should Kelman reconsider the full-time agent model? What other model would you suggest (apart from the options already mentioned in the case)?
- (R.d) How seriously should Kelman pursue "Redfin Now? See reading (g) above.
- (R.e) What potential do new emerging technologies have to impact the real estate industry now and in the near future (for both Redfin and Zillow)?

Zillow Case:

- (Z.a) If you were a residential real estate agent, would you view Zillow as friend or foe? Would you list your homes for sale and advertise on Zillow? If you were on the board of a regional MLS, would you have a different recommendation?
- (Z.b) How is Zillow creating and capturing value from different parties? What actions, if any, should Zillow management take to keep all interested parties happy?
- (Z.c) Why have U.S. residential real estate agents managed to sustain a 5%+ commission on home sales? Will the 5%+ fee withstand Internet competition?
- (Z.d) How do you expect the changes from COVID-19 to impact the real estate market for Redfin and Zillow?

Session 7: Platform Thinking (A)

Learning Material:

- (a)* CASE: Airbnb, Etsy, Uber: Acquiring the First Thousand Customers
*[Link for Purchasing Case, case is only available on Canvas to students, **not** via the link below]*
<https://www.thecasecentre.org/products/view?id=137376>
- (b)* Platforms and Ecosystems (Book Chapter, Title: Driving Digital Strategy, Author: S. Gupta)
- (c)* Why Platforms Excel (Book Chapter, Title: Machine, Platform, Crowd)

Preparation Questions:

- (1) What is the Chicken-and-Egg problem in platforms? How did AirBnB, Etsy and Uber solve this problem?
- (2) If you're creating a Business-to-Business platform, can you apply these ideas?
- (3) Should platforms attempt to create equal value for all users initially?

(4) How should platform think about achieving growth from thousands of users to millions of users? How different is it compared to solving the early-stage growth problem?

Session 8: Evaluating a Multisided Platform (American Well)

Learning Material:

[Read or Watch (a)-(c) FIRST before the case]:

The healthcare system in the US is not the easiest to understand, and can be fairly complex especially for those who haven't had any experience navigating the system. Please read these articles or watch these videos before reading the case.

Background on American Health Care System

(a) Healthcare system overview | Health care system | Health & Medicine | Khan Academy

<https://www.youtube.com/watch?v=LMHxxvzbFqc>

(b) Understanding Your Health Insurance Costs | Consumer Reports

<https://www.youtube.com/watch?v=DBTmNm8D-84>

(c)*CASE: American Well

[Link for Purchasing Case, case is only available on Canvas to students, **not** via the link below]

<https://www.thecasecentre.org/products/view?id=128024>

(d) [VIDEO] Crossing The Chasm - Disruptive Innovation - Technology Adoption Life Cycle

<https://www.youtube.com/watch?v=Y-97AXOPzJo>

Preparation Questions:

- (1) Why do you think patient utilization of the online care platform has been so low?
- (2) Calculate potential savings from OC for the healthcare system based on Exhibit 7a; what additional savings could a self-insured employer with 50,000 employees expect per year?
- (3) Do you support a DTC move by American Well? If so, what is the best way to launch and market the direct online care service and what are your expectations for its uptake by consumers? If not, why not.
- (4) What is your assessment of the other new initiatives American Well has embarked on, such as targeting employers, delivery networks and retailers directly and the launching of kiosks? How aggressively should the company pursue these additional tracks?
- (5) How has the COVID-19 pandemic impacted the use of telehealth services? Are there some services that have been served more (or less) by telehealth? Use properly sourced (and cited) data to back up your observations.

Session 9: Platform Thinking (B)

Learning Material:

(a)* Strategies for Two-Sided Markets, T. Eisenmann, G. Parker and M. Van Alstyne, Harvard Business Review

<https://hbr.org/2006/10/strategies-for-two-sided-markets>

(b)* Dethroning an Established Platform, Sloan Management Review

<https://sloanreview.mit.edu/article/dethroning-an-established-platform/>

(c)* The Achilles' heel of the platform business model: Disintermediation

<https://www.sciencedirect.com/science/article/abs/pii/S0007681321000689>

Preparation Questions:

- 1) How is growth from thousands to millions different from the 0 to 1 (chicken or egg) problem?
- 2) What makes a platform valuable over the long run to all sides?
- 3) What is the disintermediation problem? Why do some participants want to disintermediate? Are you familiar with cases where this has been accomplished?

- 4) What can platforms do to address this disintermediation problem?
- 5) What makes a platform successful?

Session 10: Digital Transformation of an Organization

Learning Material:

(a)* CASE: The New York Times Paywall

[Link for Purchasing Case, case is only available on Canvas to students, **not** via the link below]

<https://www.thecasecentre.org/products/view?id=108089>

Preparation Questions:

- (1) Is the Paywall working?
- (2) How would you evaluate the current Paywall compared with the two prior ones? Do you think it is appropriately designed compared with the *Financial Times* or the *Wall Street Journal*?
- (3) Why are newspapers in trouble? What is the goal of NYT in creating the Paywall?
- (4) Should NYT actively manage its transition from print to digital?

Session 11: Emerging Technologies – Blockchain

Learning Material:

(a) [VIDEO] Understand the Blockchain in Two Minutes,

<https://www.youtube.com/watch?v=r43LhSUUGTQ>

(b)* An Introduction to Blockchain, G. Allayannis, Darden Business Publishing

(c)* What Blockchain Can't Do, C. Tucker and C. Catalini, HBR

(d) The great chain of being sure about things, The Economist

<https://www.economist.com/briefing/2015/10/31/the-great-chain-of-being-sure-about-things>

(e)* The Truth about Blockchain, M. Iansiti and K. Lakhani HBR

<https://hbr.org/2017/01/the-truth-about-blockchain>

Session 12: Guest Speaker from The New York Times

Session 13: Overview of Emerging Technologies & Course Wrap

Overview of other emerging technologies and reflections.