New Service Innovation, MGMT/ENGR 158
University of California, Merced
Fall, 2015
Thursdays, 5:30PM, COB 267

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Welcome to a new and experimental hybrid/online course in which you will be responsible for doing lots of the work on your own, including watching video-recorded lectures and doing short assignments and readings, and even taking exams. We'll meet once a week in class mainly for discussion of a case study. In addition to video lectures by Professor Maglio, there will also be videos lectures by Professor Vish Krishnan of the Rady School of Management at UCSD and by Professor Bob Glushko of the School of Information at UC Berkeley. And we have created a number of other video interviews with business leaders and other experts on service innovation.

What is Service and Service Innovation All About?
Service thinking is revolutionizing businesses all over the world. It is important to understand and prepare for this revolution from educational, skills development, and career opportunity perspectives. Because the service sector is the fastest-growing economic sector, accounting for more than 80% of jobs in the US, this course can also be helpful for students to discover employment and entrepreneurial opportunities. The course begins with a basic introduction to service, and moves quickly through high performance organization design, service management and delivery, and industrialization of service for improved productivity and scalability. Overall, the course focuses on *service innovation*, generation of new successful service ventures. It will help students gain the skills necessary to be successful in three main aspects of service production and delivery systems: the back office, the front office, and service design. The course has the following objectives:

(1) To develop awareness of the characteristics of service and also skills of service thinking.
(2) To learn about opportunities offered by technology to improve productivity and value creation in service organizations.
(3) To understand service growth and expansion both domestically and internationally, and to appreciate the entrepreneurial opportunities in service.

Online Course Materials

To access the online course materials, which are hosted on the UC Online Canvas site:

1. Visit the UC Online login page (https://login.uconline.edu/)
2. Click "UC Campus Student and Faculty" in the login box
3. Click "UC Merced" from the list that appears
4. Log in using your UC Merced login ID and password
5. Click on the course title, "MGMT 158: Service Innovation"

Videos, Readings, Cases, Assignments
This course provides a hybrid or blended learning experience. One primary aspect of instruction is course videos. These videos, developed by sponsorship of the University of California Online Learning Technology Initiative, will help you prepare for the work required in this class. There is a text and a set of readings as well, including business case studies. The readings and videos are required. There will be short assignments due each week in conjunction with viewing the lecture videos. There will be an exam during Week 6 and an exam during Week 12.

Each week is structured with a series of video lectures, which you are to review on your own, and a single class period, which will require preparation and in-class discussion of a business case. You need to prepare for the discussion of every case study, as that will determine the participation grade. For background on how to think about cases, see McGraw-Hill's *Guide to Case Analysis*, available at: http://highered.mcgraw-hill.com/sites/dl/free/0072969431/362614/guide_to_case_analysis.pdf

Final Project: New Service Innovation. Part way through the semester (Week 3), we will form project teams. Your team will design a new service offering, and present it to the class in the last class session. To do well in this exercise, it is imperative that the proposed new service incorporates correctly the key concepts covered in the course. The service needs to have a reasonable chance of success in the marketplace. One class session will (Week 7) be devoted to teams sharing their projects with the class, and one short assignment will require each student to summarize his to her team's idea and progress (Week 10). The final deliverable is a team presentation and a final team paper describing the new service, both due the last week of the semester (Week 15).

Grading and Policies
Grades will be calculated as follows:

Component	Percentage
Class Participation	25%
Assignments	25%
Exams	25%
Final Project	25%

Attendance. Attendance and participation in class discussions is required. Your participation during discussion accounts for 25% of your grade. If you don't come to class, you can't get many of those points. Simple.

Late Work. Late work will not be accepted. If you have a question about this or you have some specific issue, please contact Paul, pmaglio@ucmerced.edu, or Jessica, jross8@ucmerced.edu.

Plagiarism. We encourage working together. But don't cheat. Don't copy off your friend's exam, and don't copy your roommate's assignment. We'll know. Nevertheless, there may be a fine line between copying and working together. It is fine to work together, to study together, to discuss with friends and classmates, but when it comes to individual assignments, please complete these on your own.   UC Merced has a formal [Policy on Academic Honesty](#).   Don't make me use it.

Readings
You can access all UC Merced library resources online while connected to the campus network either while physically on campus or virtually through the campus VPN

Textbook
- Teboul, J. (2006). *Service is front stage: Positioning services for value advantage.* Insead Business Press/Palgrave Macmillan.

  Available at the bookstore and online for free through the UC Merced library at
  http://www.ucm.eblib.com/patron/FullRecord.aspx?p=370470

Articles
- Allmendinger, G. & Lombreglia, R. (2005). Four Strategies for the Age of Smart Services, *Harvard Business Review*, 83(1), 131-145.
- Berry, L. L., Zeithaml, V. A. & Parasuraman, A. (1990). Five Imperatives for Improving Service Quality, *Sloan Mgmt Review,* Summer.
- Berry, L. et al. (2006). Creating New Markets Through Service Innovation, *Sloan Management Review*, Vol. 47, No. 2.
- Bitner, M. J., Ostrom, A. & Morgan, F. (2008). Service blueprinting: A practical technique for service innovation. *California Management Review*, 50, 66–94.
- Boynton, A. (2011). Are you an "I" or a "T"? *Forbes Magazine*.
- Chesbrough, H. (2011). Bringing open innovation to services. *Sloan Management Review*, 52, 85-90.
- Frei, F. X. (2006). Breaking the trade-off between efficiency and service. *Harvard Business Review*, 84, 93 – 101.
- Gardiner, B. (2013). How an Army of Sensors Helps Us Track Tsunamis and Score Parking Spots, *Wired*.
- Glushko, R. J. (2010). Seven Contexts for Service System Design, in Maglio, P. P., Kieliszewski, C, & Spohrer, J. (Eds.), Handbook of Service Science, 219-249.
- Glushko, R. J. (2013). Describing Service Systems, *Human Factors and Ergonomics in Manufacturing & Service Industries*, 23(1), 11-18.
- Glushko, R. J., and Nomorosa, K. J. (2013). Substituting Information for Interaction: A Framework for Personalization in Service Encounters and Service Systems, *Journal of Service Research*, 16(1), 21-38.
- Kirsh, D. (1995). The Intelligent Use of Space. *AI Journal*, 73, 31-68.

- Michel, S. et al. (2008). Service-Logic Innovations: How to innovate customers, not products, *California Mgmt Review*, Vol 50, No. 3.
- Michel, S. & Meuter, M. L. (2008). The service recovery paradox: true but overrated? *International Journal of Service Industry Management*, 19(4) , 441-457.
- Patrício, L., Fisk, R. P., Falcão e Cunha, J. & Constantine, L. (2011). Multilevel Service Design: From Customer Value Constellation to Service Experience Blueprinting, *Journal of Service Research*, 14, 180-200.
- Pew Internet Project (2014). The Internet of Things Will Thrive by 2025, 1-20.
- Qiu, R. (2013). We must rethink service encounters. *Service Science*, 5(1), 1-3.
- Sampson S. E. (2011). *Introduction to PCN analysis*. Technical report. Brigham Young University.
- Sawhney, M., Balasubramanian, S. & Krishnan, V. K. (2004). Creating Growth with Services, *Sloan Management Review,* 45(2), 34-43.
- Spohrer, J., Maglio, P. P., Bailey, J. & Gruhl, D. (2007). Steps toward a science of service systems. *Computer,* 40, 71-77.
- Spohrer, J. & Maglio, P. P. (2010). Toward a science of service systems: Value and symbols, in P. P. Maglio, C. A. Kieliszewski & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.
- Tax, S. S. & Brown, S. W. (1998). Recovering and Learning from Service Failure. *Sloan Mgmt Review*, Fall.
- Vargo, S., Maglio, P. and Akaka, M. (2008). On value and value co-creation: A service systems and service logic perspective. *European Management Journal*, 26(3), 145–152.

Week 1: Introduction

Introduces some background and context on service and service innovation.

Learning Objectives
- What is a service? How are services different from goods?
- Why are countries and companies moving toward service?
- What challenges and opportunities are presented in the migration to service?

Readings
- Teboul, Chapter 1
- Vargo, S., Maglio, P. and Akaka, M. (2008). On value and value co-creation: A service systems and service logic perspective. *European Management Journal*, 26(3), 145–152. Available at http://www.sciencedirect.com/science/article/pii/S026323730800042X

Video Lectures
- **Video**: Professor Krishnan, New Service Innovation [12:07]
  Assignment 1a: List five services you use everyday. Pick one of them, and describe in a few sentences your role (e.g., customer) and the roles of others (e.g., provider, suppliers, etc.) in using the service.

- **Video**: Professor Maglio, New Service Innovation [5:58]
  Assignment 1b: In a few sentences, describe one example of a technology-based service innovation that you are familiar with. What makes it innovative exactly? What is good about it and what is bad (if anything)?

Additional Required Assignments

- **Assignment 1c:** In a few sentences, compare and contrast the definition of service given by Teboul and by Vargo et al. in this week's readings. Do these two sources agree or disagree? How do they differ?

- **Assignment 1d:** In a few sentences, tell us who you are. What is your major? What is your year? What do you want to do when you grow up? What interests you about this class? In short, who are you and why are you here?

Additional Videos
- Classic differences between goods and services: https://www.youtube.com/watch?v=AyyvFASW6Nw

Additional materials
- The shift to a service economy: http://jobs.stateuniversity.com/pages/16/American-Workplace-SHIFT-SERVICE-ECONOMY.html

- Vargo, S. and Lusch, R. (2008). From goods to service(s): Divergences and convergences of logics. *Industrial Marketing Management*, 37(3), 254–259. http://link.springer.com/article/10.1007/s11747-007-0069-6
- Vargo, S. and Lusch, R. (2008). Service-dominant logic: Continuing the evolution. *Journal of the Academy of Marketing Science*, 36(1), 1-10. http://www.sciencedirect.com/science/article/pii/S0019850107001514

Case
- Golden State Travel (A)

Describes the practical aspects of human-human interactions in service, from customer-provider interaction to back-end processes, and what these mean for effective service skills, specifically T-shaped skills.

Learning Objectives
- Identify the ways in which a service enterprise different from manufacturing enterprise, particularly in terms of frontline interactions.
- Describe through examples the need for improvisation and spontaneity in service interactions.
- Discuss the need for T-shaped skills that are required for success in service settings, including depth and breadth, analysis and synthesis.
- Demonstrate creativity, empathy, and effective communication in service interactions.

Readings
- Teboul, Chapter 2
- Boynton, A. (2011). Are you an "I" or a "T"? _Forbes Magazine_. Available at http://www.forbes.com/sites/andyboynton/2011/10/18/are-you-an-i-or-a-t/
- Spohrer, J. & Maglio, P. P. (2010). Toward a science of service systems: Value and symbols. In P. P. Maglio, C. A. Kieliszewski & J. C. Spohrer (Eds.), _Handbook of service science_. New York: Springer.
- Qiu, R. (2013). We must rethink service encounters. _Service Science_, 5(1), 1-3. Available at: http://pubsonline.informs.org/doi/pdf/10.1287/serv.2013.0042

Video Lectures
- **Video:** Professor Maglio, T-Shaped Individual [4:54]
  Assignment 2a: First, list some of your own T-shaped qualities. Then, in a few sentences, explain why you would or would not make a good service worker?

- **Video:** Professor Maglio, Front-stage Interactions [7:54]
  Assignment 2b: Consider the discussion of "rethinking the service encounter": Explain in one or two sentences what this may mean for service skills.

- **Video:** Professor Maglio, T-shaped Skills in Context [4:45]
  Assignment 2c: List ten (10) service jobs that are high-skill jobs.

- **Video:** Professor Maglio, Empathy and Communication [3:32]
  Assignment 2d: In one or two sentences, describe why empathy is an important skill for frontline service workers.

Additional Required Assignments

- **Assignment 2e:** In a few sentences, describe one service experience you have had that went well, and describe one that did not go so well. Explain what what aspects of these experiences were front-stage and what aspects were backstage.

Interviews with Experts
- **Dr. Jim Spohrer** is Director of IBM's Global University Programs and a pioneer in the field of service science.

- **Professor Chris Oveis** studies management and strategy at UCSD, focusing on the role of emotion, power, and nonverbal behavior in social interactions.

Additional Videos
- Seinfeld at car rental: http://www.youtube.com/watch?v=4T2GmGSNvaM
- Seinfeld soup Nazi: http://www.youtube.com/watch?v=2xqkpP59UgM
- United breaks guitars video: http://www.youtube.com/watch?v=5YGc4zOqozo
- IDEO's Duane Bray describes T-shaped-ness: https://www.youtube.com/watch?v=-P8GBz7D0Kw
- Recording of attempt to cancel Comcast: http://time.com/2985964/comcast-cancel-ryan-block/
- Moments of Truth: http://www.youtube.com/watch?v=HHc04o4d5vg
- Richard Branson on service: https://www.youtube.com/watch?v=Fy4lYDN1gz4
- Apples 5 steps of service: https://www.youtube.com/watch?v=GEhsoXxp-E4

Additional materials
- Zelenski, J. et.al. (2008). The Happy-Productive Worker Thesis Revisited. *Journal of Happiness Studies.* http://link.springer.com/article/10.1007/s10902-008-9087-4
- Tshaped: http://www.wordspy.com/words/T-shaped.asp
- T-Shaped People, Jobs, and Recruiting:
- http://coevolving.com/blogs/index.php/archive/t-shaped-professionals-t-shaped-skills-hybrid-managers/
- T-Shaped Professionals: http://www.ceri.msu.edu/t-shaped-professionals/

Case
- Golden State Travel (B) and (C)

Week 3: Service Experience Mapping and Blueprinting

Presents concepts and techniques for service system design, particularly coordinating front-stage and backstage activities.

Learning Objectives
- How to understand a service encounter?
- Mapping the customer journey with experience mapping
- Mapping the delivery process with blueprinting
- Introduction to the concepts of a theater and a factory

Readings
- Teboul, Chapter 3
- Bitner, M. J., Ostrom, A. & Morgan, F. (2008). Service blueprinting: A practical technique for service innovation. *California Management Review, 50,* 66 – 94. Available at http://www.ida.liu.se/divisions/hcs/ixs/material/servicedesignGbg10/1%20Methods%20and%20techniques/ServiceBlueprinting.pdf
- Glushko, R. J. (2013). Describing Service Systems, *Human Factors and Ergonomics in Manufacturing & Service Industries*, 23(1), 11-18. Available at http://onlinelibrary.wiley.com/doi/10.1002/hfm.20514/full

Videos
- **Video:** Professor Krishnan, Service Experience Mapping and Blueprinting [14:33]
- **Assignment 3a**: In a few sentences (no more than 5), explain what service blueprinting is and why it is a good approach for service design.

- **Video:** Professor Glushko, Describing Service Systems [16:13]
- **Assignment 3b**: In a few sentences (no more than 5), describe a service system that you use everyday either from a physical, experiential, process, or simulation perspective (that is, pick one perspective).

Additional Required Assignments

- **Assignment 3c:** In a few sentences, describe how services and goods differ, and why blueprinting and systems thinking are necessary for understanding (and innovating) in service.

Interviews with Experts
- **Michael Meyer** is a design leader, executive, educator, and speaker. He has led Adaptive Path as CEO, expanding the iconic Experience Design firm globally and opening their first overseas studio in Amsterdam. At frogdesign, he led the California studios as General Manager and focused their creative efforts on convergent physical / digital products. At IDEO he founded the

Product Strategy practice in their Boston studio, and served as a front-line team member on both strategy and design projects.
- **Tim Brown** is CEO and president of IDEO. He frequently speaks about the value of design thinking and innovation to business people and designers around the world.

Additional Videos
- The Customer Factory: https://www.youtube.com/watch?v=5iq3xDul0JY
- Waiter training: https://www.youtube.com/watch?v=7MVE1KwfR4A
- Example of Blueprinting: https://www.youtube.com/watch?v=2QCCEFMFNU8

Additional materials
- Pugh, S. D. (2001). Service with a Smile: Emotional Contagion in the Service Encounter, *Academy of Management Journal*, 44(5), 1018-1027. http://www.jstor.org/stable/3069445?seq=1#page_scan_tab_contents
- Arnould, E. J. and Price, L. L. (1993). River Magic: Extraordinary Experience and the Extended Service Encounter, *Journal of Consumer Research*, 20(1), 24-45. http://www.jstor.org/discover/10.2307/2489198?sid=21105684947983&uid=4&uid=2&uid=3739560&uid=3739256
- Article: Solomon, M. R., Surprenant, C. Czepiel, J. A. and Evelyn G. Gutman, E. G. (1985). A Role Theory Perspective on Dyadic Interactions: The Service Encounter, *Journal of Marketing*, 49(1), 99-111. http://www.jstor.org/discover/10.2307/1251180?sid=21105006689891&uid=3739256&uid=3739808&uid=2129&uid=2&uid=70&uid=4
- Article: Guiry, M. (1992). Consumer and Employee Roles in Service Encounters., *Advances in Consumer Research*, 19, 666-672. http://www.acrwebsite.org/search/view-conference-proceedings.aspx?Id=7372
- Article: Bitner, M. J. Booms, B. H. and Tetreault, M. S. (1990). The Service Factor: Diagnosing Favorable and Unfavorable Incidents, *Journal of Marketing*, 54(1), 71-84. http://www.jstor.org/discover/10.2307/1252174?sid=21105006689891&uid=3739256&uid=2&uid=4&uid=2129&uid=3739808&uid=70

Case
- California DMV

Week 4: Service Process Design

Describes more specific methods for service design including an extension of blueprinting and something called *PCN Analysis*, which takes more of a process view than a customer experience view on service design.

Learning Objectives
- Identify what is service blueprinting is good for and what Process Chain Network (PCN) analysis is good for, and the relative uses and benefits of the two design approaches
- Demonstrate several approaches to designing front-stage and backstage service processes through appropriate use of design techniques, including blueprinting and PCN analysis on example cases
- Demonstrate use of PCN analysis to service resign, service innovation, and increased service value creation on example cases.

Readings
- Sampson S. E. (2011). *Introduction to PCN analysis*. Technical report. Brigham Young University.
- Patrício, L., Fisk, R. P., Falcão e Cunha, J. & Constantine, L. (2011). Multilevel Service Design: From Customer Value Constellation to Service Experience Blueprinting, *Journal of Service Research*, 14, 180-200. Available at http://jsr.sagepub.com/content/14/2/180.abstract

Videos
- **Video:** Professor Maglio, What's a Process?
  Assignment 4a: In one or two sentences, describe what a process is.

- **Video:** Professor Maglio, Co-production
  Assignment 4b: Describe the three regions of a process domain in one sentence each.

- **Video:** Professor Maglio, Process Chains
  Assignment 4c: In one or two sentences, explain why it is necessary to think about chains of processes (rather than simply individual, isolated processes) in designing services.

- **Video:** Professor Maglio, Process Chain Networks
  Assignment 4d: Consider the complex service provided by a bank. List at least five (5) process entities in the process chain network of a bank.

- **Video:** Professor Maglio, Using PCN Analysis
  Assignment 4e: Consider again the complex service provided by a bank. Using one of the "principles of PCN Design" (i.e., efficiency, economies of scale, customization, and surrogate positioning), describe a possible improvement to a banking process in a few sentences at most.

Guest Lecture

Professor Scott Sampson (BYU). Basic PCN Analysis. Professor Sampson's research focuses on service design, management, and innovation. He is the James M. Passey Professor of Business Management at Brigham Young University (Provo, Utah, U.S.) where he teaches CRM and Service Analysis and Design. He has been recognized as a world leader in the field of service operations management and design, and has given professional seminars on service design and innovation in Europe, Asia, and the United States. He is the author of two major books including Essentials of Service Design and Innovation and Understanding Service Businesses. Professor Sampson received his MBA and PhD degrees from the University of Virginia.

Additional Videos
- Sampson (short): http://www.youtube.com/watch?v=njftiXd-elo

Additional materials
- Sampson, S. E. (2012). Visualizing Service Operations. *Journal of Service Research,* 15, 182-198 (available at http://jsr.sagepub.com/content/14/2/180.abstract).
- Service Blueprint. http://en.wikipedia.org/wiki/Service_blueprint

Case
- **Case**: Sampson's Malawi Pizza Case
- **Video**: Malawi's catering case: http://www.youtube.com/watch?v=GYTfyB67OuQ

Project Preparation
- This week at the end of class on Tuesday, we will form project teams so that you can begin to work together to develop a new service innovation.

Week 5: Service Analysis and Improvement

Discusses many of the tradeoffs among operational and experience aspects of a service. Traditional ways for firms to handle these tradeoffs, such as simplifying offerings or hiring more skilled workers, often lead to less than optimal results. What are some other ways improving service outcomes while at the same time operational keeping costs low?

Learning Objectives
- Identify ways to improve service outcomes
- Identify the different stakeholders and their priorities in a service experience
- Discuss tradeoffs between efficiency and various aspects of service experience
- Discuss ways to apply creativity to improve service outcomes in specific circumstances

Readings
- Teboul, Chapter 4
- Frei, F. X. (2006). Breaking the trade-off between efficiency and service. *Harvard Business Review*, 84, 93 – 101. http://www.researchgate.net/publication/6666163_Breaking_the_trade-off_between_efficiency_and_service/file/72e7e52877022c2438.pdf

Videos
- **Video:** Professor Maglio, Service Analysis
- **Assignment 5a**: List 5 things the customer has to know how to do get effective service at Starbucks (or similar) coffee house.

- **Video:** Professor Maglio, Intensity and Bottlenecks
- **Assignment 5b**: Describe in one or two sentences an example of showing a tradeoff between customer-side and provider-side "service intensity."

- **Video:** Professor Maglio, Customer Variability
- **Assignment 5c**: Describe in one or two sentences an example of "request variability" that **does not** involve Starbucks or any other food service setting.

- **Video:** Professor Maglio, Breaking the Tradeoffs
- **Assignment 5d**: Describe in one or two sentences an example of **either** a low-cost accommodation or uncompromised reduction that aim to address customer effort variability.

- **Video:** Professor Glushko**,** Stakeholders and Point of View in Service Systems
- **Assignment 5e**: Describe in one or two sentences why perspective or point of view matters in a service system (**hint**: an example may help).

Interviews with Experts

- **Bob Rodio** was Chief Technologist for Ciena's Network Transformation Solutions organization for North America, and was recently appointed Vice President of Business Development at Crossfiber Inc. (See http://www.prweb.com/releases/2015/01/prweb12440334.htm).

Additional Videos
- Five Easy Pieces, "Hold the chicken": https://www.youtube.com/watch?v=hdIXrF34Bz0
- How to order coffee at Starbucks: https://www.youtube.com/watch?v=SiZ9TBxvKGU
- Hotel Satisfaction Ratings, 2014: http://www.jdpower.com/press-releases/2014-north-america-hotel-guest-satisfaction-index-study

Additional materials
- Frei, F. X. (2008). The four things a service business must get right. Harvard Business Review (April): 70-80. http://www.ahrenstech.com/cms/site_files/staging/documents/FourThingsService Organizations.pdf
- Bringing out the best in people, McKinsey. http://www.mckinsey.com/insights/operations/bringing_out_the_best_in_people

Case
- **Case**: Pret-A-Manger
- **Web**: "Would you like a smile with that?" http://www.nytimes.com/2011/08/07/business/pret-a-manger-with-new-fast-food-ideas-gains-a-foothold-in-united-states.html?pagewanted=all
- **Video**: Pret A Manger: https://www.youtube.com/watch?v=YKdRbUQJUB4
- **Video**: Pret A Manger: Motivate Employees with Recognition: https://www.nytsyn.com/videos/videos/f725d444-9fe3-4a54-b099-6741ba617a33:en-US?channel_id=975

Week 6: Exam 1

This week you will take an exam during the regular discussion period, Tuesday at 5:30. It will be an essay exam, administered through Canvas. You will take the exam on your own. It is an open-book and open-web exam. You will have up to 2 hours to complete it.

Week 7: Service Strategy and Positioning

Discusses how to develop the strategy and positioning of a new service, which also aids understanding the strategy of an existing service. In addition, discusses spatial and physical aspects of service delivery and service settings.

Learning Objectives
- Understand how to find competitive advantage in a service setting
- Apply mapping and blueprinting to create a competitive advantage
- Discuss how aspects of the spatial layout and physical components of a service affect service outcomes

Readings
- Teboul, Chapter 5
- Kirsh, D. (1995). The Intelligent Use of Space. *AI Journal,* 73, 31-68. http://adrenaline.ucsd.edu/kirsh/Articles/Space/AIJ1.html

Videos
- **Video:** Professor Krishnan, Service Strategy and Positioning
- **Assignment 7a:** List five basic considerations in developing a service strategy, and in no more than five sentences, describe how they apply in the Southwest Airlines example.

- **Video:** Professor Glushko, The Servicescape: Toward the intelligent use of space in service systems
- **Assignment 7b:** In no more than five sentences, describe one example that illustrates how strategy decisions may influence spatial and physical design of a service (or vice versa).

- **Guest Lecture**: Professor David Kirsh, UCSD, Service Design
- **Assignment 7c:** In a few sentences, describe one of the examples Kirsh uses to demonstrate how the use of space can influence service design.

Additional Required Assignment
- **Assignment 7d:** One-paragraph project write-up. Write one paragraph (no more than 250 words) describing your team's project idea. Though this is a team project, this is your write up, so please do your own writing! Be sure to include your project name or title, the "pain" or problem your service is going to solve and description of the solution/service offered.

Additional Videos
- Hilarious Southwest Airline Safety Presentation: https://www.youtube.com/watch?v=TxNrizGdhtY
- Southwest: Strategy Genius or Common Sense: https://www.youtube.com/watch?v=Szn-TbvEL2I

- Fast-food Marketing (Montage): https://www.youtube.com/watch?v=-QqIdwB0yT4

Additional materials
- Bitner, M. J. (1992). Servicescapes: The Impact of Physical Surroundings on Customers and Employees, *Journal of Marketing*. http://www.jstor.org/stable/1252042

Case

No case discussion this week!

Project Discussion
- This week during the Tuesday class period, we will have preliminary reports from each project team. Each team will have 5 minutes to present their initial idea. You can use at most 2 slides, but slides are not necessary. The class will have 5 minutes to discuss and comment on each proposal.

Week 8: Service Innovation

Discusses some theoretical and practical approaches to new service innovation, including service design patterns and service business models.

Learning Objectives
- Understand various ways to develop an idea for a new service
- Orchestrate service delivery through service design
- Discuss methods for creating a business model for a service

Readings
- Berry, L. et al. (2006). Creating New Markets Through Service Innovation, *Sloan Management Review*, Vol. 47, No. 2. http://sloanreview.mit.edu/article/creating-new-markets-through-service-innovation/
- Sawhney, M., Balasubramanian, S. & Krishnan, V. K. (2004). Creating growth with services, *Sloan Management Review,* 45(2), 34-43. http://sloanreview.mit.edu/article/creating-growth-with-services/
- Glushko, R. J. (2010). Seven Contexts for Service System Design, in Maglio, P. P., Kieliszewski, C, & Spohrer, J. (Eds.), *Handbook of Service Science*, 219-249.

Videos
- **Video**: Professor Maglio, What is Innovation?
- **Assignment 8a:** In one sentence, describe what service innovation is and what service innovation depends on.

- **Video:** Professor Maglio, Creating Markets
- **Assignment 8b:** In a few sentences (no more than 4), give two examples of "market innovation" that do not come from the lecture or reading, describe which of the four quadrants they fall into and why.

- **Video:** Professor Maglio, Creating Growth
- **Assignment 8c:** In a few sentences (no more than 4), give two examples of "market innovation" that do not come from the lecture or reading, describe which of the four quadrants they fall into and why.

- **Video:** Professor Glushko, Seven Contexts for Service System Design
- **Assignment 8d**: In a few sentences (less than 5), describe a service scenario that involves at least three of Glushko's "contexts" for design (but don't use any his scenarios!).

Additional Videos
- Shouldice Hospital Hernia Care: http://en.wikipedia.org/wiki/Shouldice_Hernia_Centre

Additional materials

- Froehle, C. M. (2006). Service Personnel, Technology, and Their Interaction in Influencing Customer Satisfaction, *Decision Sciences,* 37(1), 5–38. http://onlinelibrary.wiley.com/doi/10.1111/j.1540-5414.2006.00108.x/full
- Service Innovation: http://en.wikipedia.org/wiki/Service_innovation
- International Society of Service Innovation Professionals: http://www.issip.org/
- Three imperatives for service innovation: http://www.forbes.com/sites/georgebradt/2013/02/20/three-imperatives-for-service-innovation/
- The Outlook: Services Sector Gauge Finally Gets Its Due http://www.wsj.com/articles/the-outlook-services-spending-report-gains-wider-attention-1410113378
- http://en.wikipedia.org/wiki/Uber_(company)

Case
- **Case**: Short Shouldice Hospital
- **Web:** Shouldice and Harvard: http://www.theglobeandmail.com/report-on-business/hernia-hospital-teaches-harvard-about-service/article701286/
- **Video**: Shouldice Hospital Case https://www.youtube.com/watch?v=Yr1Jg9gC3QA

Week 9: Service Innovation II

Discusses open service innovation, technology-based service innovation, and customer-led service innovation.

Learning Objectives
- Discuss the concept of "open innovation", especially as applied to service innovation
- Describe various in which technology innovation can influence or lead to service innovation
- Discuss the role of the customer (relative to the role of the firm) in service innovation

Readings
- Chesbrough, H. (2011). Bringing open innovation to services. *Sloan Management Review*, 52, 85-90. http://sloanreview.mit.edu/article/bringing-open-innovation-to-services/
- Michel, S. Brown, S. W. & Gallan, A. (2008). Service-Logic Innovations: How to innovate customers, not products, *California Mgmt Review*, Vol 50, No. 3. http://www.researchgate.net/profile/Stephen_Brown8/publication/230816557_Service-Logic_Innovations_How_to_Innovate_Customers_not_Products/links/00b495213ed6d6581f000000.pdf

Videos
- **Video**: Professor Maglio, Open Service Innovation
- **Assignment 9a:** In a few sentences, describe one example of an "open service innovation", either coming from outside the firm or inside the firm. What makes it "open exactly?

- **Video**: Professor Maglio, Systematic Social Innovation
- **Assignment 9b**: In a few sentences, describe the key idea behind IKEA's innovation, as presented in the video. What was new and innovative, exactly?

- **Video**: Professor Maglio, Service-Logic Innovation
- **Assignment 9c**: In a few sentences, describe one example of a "service logic innovation" and why it is a service logic innovation (eg, what was it triggered by or what role changed?).

Additional Required Assignment
- **Assignment 9d:** Two-paragraph project write-up. (1) Write one paragraph (no more than 250 words) describing your team's project idea -- the pain/problem, solution/service, progress to date. (2) Write one paragraph (no more than 250 words) describing the revenue and cost model associated with your project idea -- how will the service make money? Though this is a team project, this is your write up, so please do your own writing!

Guest Lecture
- Henry Chesbrough: Open Services Innovation:
  https://www.youtube.com/watch?v=fWr_PLbBxno

  Note: Dr. **Henry Chesbrough**, Hank, Ph.D. serves as an Executive Director of Center for Open Innovation Institute of Management and Adjunct Professor at Haas School of Business. Dr. Chesbrough serves as a Technology Advisor of NetBase Solutions, Inc. He worked at Bain and Company. Dr. Chesbrough worked at seven of those years at Quantum Corporation. Prior to embarking on an academic career, Dr. Chesbrough served for ten years in various product planning and strategic marketing positions in Silicon Valley companies. He serves as a Member of Advisory Board at New Venture Partners LLC and InnoCentive Inc. He served as Director of innovaro, Inc. Dr. Chesbrough teaches in the Management of Technology Program at Haas. Previously, he was an Assistant Professor of Business Administration, and the Class of 1961 Fellow at the Harvard Business School.

Interviews with Experts
- **Charlie Bess** is a Fellow in the HP Services and Solutions Research lab focusing on next generation business value generation. In his career, he has been the leader of HP's global architecture capability, the Chief Technologist for numerous large clients and internal structures for HP and EDS. He is an avid blogger and regularly publishes outside HP. He has also led HP's internal global technical conference. Charles received a BSEE degree from Purdue and an MBA from SMU.

Additional Videos
- Car2Go Tutorial: https://www.youtube.com/watch?v=vEmYbjFNekU&list=PLg5HbnwBQxupuGZbHergLS_UX2CkucNhw
- Using a Zipcar: https://www.youtube.com/watch?v=MaiSk9_aShA
- The Value of Service Design: http://vimeo.com/74102483
- Being an Uber driver: https://www.youtube.com/watch?v=5rxh4IjknwE
- How can you build a growth factory? http://www.innosight.com/impact-stories/procter-and-gamble-growth-factory-case-study.cfm
- The era of open innovation: http://www.ted.com/talks/charles_leadbeater_on_innovation

Additional materials
- Cusumano, M. (2015). How traditional firms must compete in the sharing economy. *Communications of the ACM*, 58(1), 32-34. http://cacm.acm.org/magazines/2015/1/181613-how-traditional-firms-must-compete-in-the-sharing-economy/fulltext
- Normann, R. & Ramirez, R. (1993). From value chain to value constellation: Designing interactive strategy. *Harvard Business Review*, 71, 65 – 77.

http://www3.uma.pt/filipejmsousa/ge/Normann%20and%20Ramirez,%201993.pdf

- Lusch, R. & Nambisian, S. (2015). Service Innovation: A Service-Dominant Logic Perspective, *MIS Quarterly*, 39(1), 155-175. http://air.eller.arizona.edu/docs/papers/2012/Service_Innovation_Lusch_Nambisan.pdf
- Connect and Develop: Inside Procter & Gamble's New Model for Innovation http://www.mbym.it/public/pdffree/mbym_10_11_2010_19_11_59.pdf
- GE: Profiting from Open Services Innovation: http://www.openinnovation.net/featured/ge-profiting-from-open-services-innovation/
- Understanding the Services Revolution: http://www.mckinsey.com/Insights/Operations/Understanding_the_services_revolution?cid=DigitalEdge-eml-alt-mip-mck-oth-1406

Case

- **Case**: "I'll take an Uber"
- **Web:** The rise of the sharing economy http://www.economist.com/news/leaders/21573104-internet-everything-hire-rise-sharing-economy
- **Web:** This is how Uber's surge pricing works http://time.com/3633469/uber-surge-pricing/
- **Web:** Uber, a Rising Business Model that Could Change How You Work http://www.nytimes.com/2015/01/29/technology/personaltech/uber-a-rising-business-model.html?hpw&rref=technology&action=click&pgtype=Homepage&module=well-region&region=bottom-well&WT.nav=bottom-well&_r=0
- **Video:** How Uber Moves Your City Forward with Innovation https://www.youtube.com/watch?v=P2M0RD7bhYY

Week 10: Service Quality

Discusses the basics of service quality, as distinct from quality in other areas, and particularly as relates to innovation, including technology-based innovation.

Learning Objectives
- Describe some of the ways in which quality in service differs from quality in manufacturing and other areas
- Discuss tangible and intangible aspects of service quality
- Describe ways to measure and assess service quality
- Discuss the relation between innovation and quality

Readings
- Teboul, Chapters 6 and 7

Videos
- **Video**: Professor Krishnan, Achieving Service Quality Excellence
- **Assignment 10a**: In five sentences or less, describe a (somewhat) unsatisfactory service experience have had, relating the problems you perceived specifically to the dimensions of quality and/or the gaps model.

Additional Required Assignments
- **Assignment 10b:** Teboul's Chapter 7 describes a number of approaches (or movements) to improving or assuring service quality. In five sentences or less, describe one of the approaches and the kinds of service problems or issues it can be used to address.

Interviews with Experts
- **Deborah Stokes** is the Leader, Global External Research at EMC, responsible for program management and collaboration with universities and research institutions to drive innovation and advanced technology exploration. Deborah has served in various ICT leadership positions for 25+years in both academia and industry.

Guest Lecture
- Joseph Pine on What Consumers Want: https://www.ted.com/talks/joseph_pine_on_what_consumers_want#t-20099

   Note: A writer and veteran consultant to entrepreneurs and executives alike, **Joseph Pine**'s books and workshops help businesses create what modern consumers really want: authentic experiences. Full bio

Additional Videos
- Grover on Customer Service - High Expectations: https://www.youtube.com/watch?v=s2oRwZIIFq4

- How bad is bad customer service?
  https://www.youtube.com/watch?v=OrxvmM5aUzY
- Four Principles Lean Management - Get Lean in 90 Seconds:
  https://www.youtube.com/watch?v=wfsRAZUnonI
- Joseph Pine and the Experience Economy:
  https://www.youtube.com/watch?v=amU9Kqomb4I

Additional materials
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1988). Communication and Control Processes in the Delivery of Service Quality, *Journal of Marketing*, 52(2), 35-48.
  http://www.jstor.org/discover/10.2307/1251263?sid=21105149832811&uid=2&uid=4&uid=3739560&uid=3739256

Case
- **No case discussion this week!**

Informal Project Discussion
- This week's Tuesday class period provides time for project teams to meet with one another and with Paul and Jessica about the final project. Attendance is optional… but may be helpful.

Continues discussion of service quality, focusing on approaches for improving quality and recovering from failures.

Learning Objectives
- Describe various ways to improve or foster service quality
- Identify examples of and reasons for service failures
- Describe specific approaches for service recovery, and also implications of recovery processes

Readings
- Berry, L. L., Zeithaml, V. A. & Parasuraman, A. (1990). Five Imperatives for Improving Service Quality, *Sloan Mgmt Review,* Summer. http://sloanreview.mit.edu/article/five-imperatives-for-improving-service-quality/
- Tax, S. S. & Brown, S. W. (1998). Recovering and Learning from Service Failure. *Sloan Mgmt Review*, Fall. http://sloanreview.mit.edu/article/recovering-and-learning-from-service-failure/
- Michel, S. & Meuter, M. L. (2008). The service recovery paradox: true but overrated? *International Journal of Service Industry Management*, 19(4) , 441-457. http://www.dienstleistungsmarketing.ch/documents/ijsimparadoxmichelmeuter.pdf

Videos
- **Video**: Professor Maglio, Service Quality and Improvement
- **Assignment 11a**: The paper by Berry, Zeithaml and Parasuraman describe five ways to improve service quality. The first is to define clearly the "service role" of the front line employees. In no more than three sentences describe why this important (e.g., what can go wrong?) and how this can be accomplished (e.g., how can you learn what the proper role should be?).

- **Video**: Professor Maglio, Service Failure and Service Recovery
- **Assignment 11b**: The paper by Tax and Brown describe a four stage process of service recovery. They say that the biggest barrier to effective recovery is in fact learning about a failure in the first place. In no more than two-sentences, describe two reasons why customers may not complain.

- **Video**: Professor Maglio, Service Recovery and the Service Recovery Paradox
- **Assignment 11c**: In no more than four sentences total, describe (a) what the "service recovery paradox" is, (b) under what conditions there may in fact be a paradox, and (c) the best strategy for ensuring customer satisfaction.

Additional Required Assignment
- **Assignment 11d:** Two-paragraph project write-up, plus references. (1) Write one paragraph (no more than 500 words) describing your team's project idea -- the pain/problem, solution/service, revenue and cost model, progress to date. (2) Write one paragraph (no more than 250 words) describing the basic innovation of your project. (3) Provide a list of at least 3 references that you will use in your final project write up, with one sentence for each describing why it is useful to you. Though this is a team project, this is your write up, so please do your own writing!

Guest Lecture
- Stefan Michel on Service Recovery:
  https://www.youtube.com/watch?v=9H_NBsqHPMs

  Note: Professor **Stefan Michel**'s major research interests are in customer-focused marketing strategy, service innovation and pricing. He is a professor at IMD Business School in Switzerland, and has written six books, eight book chapters, and many academic articles that have appeared in journals including Harvard Business Review, California Management Review and the Journal of the Academy of Marketing Science.

Additional Videos
- The Best Service Recovery Story... Ever!
  https://www.youtube.com/watch?v=5xlUShkZdIY
- Service Recovery - Service Guarantee - Fast times at Ridgemond High:
  https://www.youtube.com/watch?v=2lw96ajS_Zk
- Boston Market (Undercover Boss):
  https://www.youtube.com/watch?v=84Z5GYEtprY
- Dr Van Nostrum and Elaine:
  https://www.youtube.com/watch?v=pyossoHFDJg&list=RDpyossoHFDJg#t=0
- Speaking of Service Excellence:
  https://www.youtube.com/watch?v=eouGdV62jfE&index=28&list=PLHSzhrMYvzPgo7e8hDg2xXxUq8z3mCy5x
- Customer Service Failure Equals Leadership Failure:
  https://www.youtube.com/watch?v=w6QDfXFtclY&list=PLHSzhrMYvzPgo7e8hDg2xXxUq8z3mCy5x&index=29
- What Steve Jobs Learned From The Ritz-Carlton:
  https://www.youtube.com/watch?v=i91dDT_M0LM&index=44&list=PLHSzhrMYvzPgo7e8hDg2xXxUq8z3mCy5x
- The Future of the Healthcare Sector:
  https://www.youtube.com/watch?v=q_NzvptBXBU
- Health Service Innovation Panel at Stanford:
  https://www.youtube.com/watch?v=nSbvtHEsXI8&list=PL__SIrkUkOnbMsXcJ8X4vxrJi_1_Sv_zw&index=11
- IBM's Watson to take on healthcare:
  https://www.youtube.com/watch?v=950fbQfdoj8

- Rural Healthcare in America:
  https://www.youtube.com/watch?v=g872yS5OXDY
- Tom Davenport: The three '..tives' of business analytics; predictive, prescriptive and descriptive: https://www.youtube.com/watch?v=nv2HTRWhbB4

Additional materials
- Parasuraman, A., Berry, L. L. & Zeithaml, V. A. (1991). Understanding Customer Expectations of Service. *Sloan Mgmt Review*, Spring. http://sloanreview.mit.edu/article/understanding-customer-expectations-of-service/
- Dixon, M., Freeman, K. & Toman, N. (2010). Stop trying to delight your customers. *Harvard Business Review*. http://www.customerdelight.nu/content/04-artikelen/03-artikel-c/stopcustomerdelight.pdf
- Service Recovery: http://en.wikipedia.org/wiki/Service_recovery
- When does the Service Recovery Paradox work and when does it fail? http://www.genroe.com/blog/when-does-the-service-recovery-paradox-work-and-when-does-it-fail/763
- How Disney Leaders Recover from a Service Failure: https://disneyinstitute.com/blog/2013/08/how-disney-leaders-recover-from-a-service-failure/187/
- Smart Machines and the Decisions they Support: http://mobile.blogs.wsj.com/cio/2014/12/03/smart-machines-and-the-decisions-they-support/
- NY Times: What can Mississippi learn from Iran? http://www.nytimes.com/2012/07/29/magazine/what-can-mississippis-health-care-system-learn-from-iran.html?pagewanted=all&_r=0

Case
- **Case**: Future of Rural Healthcare
- **Web**: The Affordable Care Act: What it means for rural America: http://www.hhs.gov/healthcare/facts/factsheets/2013/09/rural09202013.html
- **Web:** What's different about rural healthcare: http://www.ruralhealthweb.org/go/left/about-rural-health/what-s-different-about-rural-health-care
- **Video**: Applying IBM Watson and Cognitive Computing to Healthcare: https://www.youtube.com/watch?v=cs6rVt8kAuo
- **Video**: Telemedicine: https://www.youtube.com/watch?v=JstL39NaVvI

Week 12: Exam 2

This week you will take an exam during the regular discussion period, Tuesday at 4:30. It will be an essay exam, administered through Canvas. You will take the exam on your own. It is an open-book and open-web exam. You will have up to 2 hours to complete it. More details to follow.

Week 13: Service Scaling

Discusses the problems of scaling services, that is, the problems unique to growth in service settings. For certain sorts of service businesses, growing revenue means growing the workforce, and for others, technology can substitute for labor. What sorts of service innovations can lead to real, sustainable growth?

Learning Objectives
- Identify potential growth patterns in services
- Describe cases in which service can scale effectively (growing revenue and profit) and cases in which it cannot
- Discuss several approaches for scaling service businesses

Readings
- Teboul, Chapters 8 and 9
- Glushko, R. J., and Nomorosa, K. J. (2013). Substituting Information for Interaction: A Framework for Personalization in Service Encounters and Service Systems, *Journal of Service Research*, 16(1), 21-38. http://jsr.sagepub.com/content/early/2012/10/29/1094670512463967

Videos
- **Video**: Professor Krishnan, Achieving Scalability in Services
- **Assignment 13a**: In a sentence or two, describe the tradeoff between high-quality/high-touch services and scalability/sustainability of services. Give one example from your own experience of a service that can scale well and one example of a service that cannot.

- **Video**: Professor Glushko, Design Patterns for Service Systems
- **Assignment 13b**: Provide examples of a technology-enabled service in which (1) the technology assists the frontline employee, (2) the technology is used jointly by provider and customer, and (3) the customer improvises use of technology not expected by the provider. Provide one example of each from your own experience, and explain the use of technology.

Interviews with experts
- **Ammar Rayes** is a Distinguished Engineer at Cisco Systems. He has been at the core of developing IP-based network and service management solutions for over 15 years. His main areas of expertise include Smart Services, Network and Service Management, Could Computing, Mobility, Triple Play over Ethernet, Performance and Traffic Engineering, and Embedded management. Prior to joining Cisco Systems, He was a Director in the Traffic Capacity Management and Planning Department at Telcordia Technologies (formerly Bell Labs).

Additional Videos

- Tim Brown on service design thinking:
  https://www.youtube.com/watch?v=lGOTwFvkfhU&list=PLpR7Ud2cAmkTSer0oCoA-RwC3xR0111Pb

Additional Readings
- Glushko, R. J. & Tabas, L. (2009). Designing Service Systems by Bridging the 'Front Stage' and 'Back Stage', *Information Systems and E-Business Management*, 7(4):407-427.
  http://people.ischool.berkeley.edu/~glushko/glushko_files/FrontBackStage-April2008.pdf

Case
- **No case discussion this week!**

Informal Project Discussion
- This week's Thursday class period provides time for project teams to meet informally with Paul and Jessica to prepare for the final presentation. Attendance is optional… but may be helpful.

Discusses the role of technology in scaling service systems and in creating "smart service systems". What might make services smarter? How can technology help services to scale? What some sorts of technology-based innovations in service?

Learning Objectives
- Describe the notions of "smart services" and "smart service systems".
- Discuss the nature of service innovation in the context of technology-based and technology-enabled services.
- Describe aspects of a scientific approach to service innovation.

Readings
- Teboul, Chapter 10
- Allmendinger, G. & Lombreglia, R. (2005). Four Strategies for the Age of Smart Services, _Harvard Business Review_, 83(1), 131-145. http://www.cdrlm.com/press_releases/Harbor%20Research%20HBR%20Article%20October%202005.pdf
- Spohrer, J., Maglio, P. P., Bailey, J. & Gruhl, D. (2007). Steps toward a science of service systems. _Computer,_ 40, 71-77. http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=4069198
- Gardiner, B. (2013). How an Army of Sensors Helps Us Track Tsunamis and Score Parking Spots, _Wired_. (http://www.wired.com/2013/05/sensors-listen-to-world/)

Videos
- **Video**: Professor Maglio, Service Innovation Revisited
- **Assignment 14a**: In no more than five sentences, explain how "service innovation" relates to "value-proposition design".

- **Video:** Professor Glushko, Smart Services
- **Assignment 14b:** List the five attributes of a "smart service", and describe one "smart service" from your experience (that is not discussed in the video) in terms of the five attributes.

Guest Lecture

- Jim Spohrer, ICT and Service Innovation https://www.youtube.com/watch?v=ZwqHDuAIbzU

  Jim Spohrer is Director of IBM's Global University Programs and a pioneer in the field of service science.

Additional Videos
- The Day before tomorrow, Smart cities: https://www.youtube.com/watch?v=HgPx_TuF-Js

- Corning: A day made of glass: https://www.youtube.com/watch?v=6Cf7IL_eZ38
- IBM Smarter Cities: https://www.youtube.com/user/SmarterCities
- Precision farming: https://www.youtube.com/watch?v=tEj__Vo1WxQ
- Bill Gates on online education:
  https://www.youtube.com/watch?v=p2Qg80MVvYs
- Ted Talks on Education: https://www.youtube.com/watch?v=dilnw_dP3xk

Additional materials
- Professional vs. Scalable Services:
  http://www.inc.com/articles/201104/professional-services-vs-scalable-business.html
- Service innovation in a digital world:
  http://www.mckinsey.com/insights/operations/Service_innovation_in_a_digital_world?cid=other-eml-alt-mkq-mck-oth-1502
- Maglio, P. P. & Spohrer, J. (2013). A service science perspective on business model innovation. *Industrial Marketing Management, 42*, 655-670.
  http://www.sciencedirect.com/science/article/pii/S0019850113000758
- Stroulia, E. (2010). Smart services across the real and virtual worlds. In M. Chignell, J. Cordy, J. Ng, & Y. Yesha (Eds.). *The smart internet*. Springer-Verlag, Berlin, Heidelberg, pp. 178-196.
  http://research.cs.queensu.ca/~cordy/SITCON/5.%20Stroulia-SITCON-Key-SS.pdf
- Pew Internet Project (2014). The Internet of Things Will Thrive by 2025, 1-20 (http://www.pewinternet.org/2014/05/14/internet-of-things/)
- Harker, P. (2014). Making sense of higher education's future. *Service Science, 6(4).*
  http://pubsonline.informs.org/doi/abs/10.1287/serv.2014.0079?journalCode=serv
- Larson, R. (2009). Education: Our most important service sector. *Service Science, 1(4).* http://pubsonline.informs.org/doi/pdf/10.1287/serv.1.4.i
- edX: https://www.edx.org/
- Coursera: https://www.coursera.org/
- Kahn Academy: https://www.khanacademy.org/

Case
- **Case**: The Future of Higher Education

Week 15: Project Presentations

This week you and your teams will complete your projects. The final paper is due the last day of class, and you will present your project during class this week. We may need to use both Tuesday and Thursday sessions to accommodate all presentations.