

## BIT / MKT 678 - SERVICE INNOVATION MANAGEMENT V2

### 1. WHY TAKE THIS COURSE?

The service sector is roughly 70% of the US economy, and services are being transformed by information technology. Driven by relentless improvement in the functionality that technology can deliver as well as the decline in cost, IT-mediated services are everywhere, from online shopping, to airline kiosks, sustainable business practices, RFID tracking services, health care delivery, and education.

But when it comes to innovation, companies tend to focus on R&D and new product development, which leaves IT-mediated services and their unique innovation requirements on the sidelines. The result is a performance gap between a few companies that excel in the delivery of compelling IT-mediated services (Apple, [Skype](#), OnStar, etc.) and their competitors. Underperforming firms are well aware of this gap and demand new thinking and capabilities around how to create the next generation of IT-mediated services that will delight their customers, transform their processes, and boost the bottom line. Building out your innovation skill set, which is the focus of this class, will prove to be a valuable complement to your other business school courses and make you more attractive on the job market.

In this 1.5 unit class we will study the process of IT-mediated service innovation. We will adopt a powerful paradigm called design thinking, which is emerging throughout the business landscape including at Proctor & Gamble, *Harvard Business Review*, and the [Mayo Clinic](#), to name just a few. How does design thinking differ from traditional approaches to innovation? A few examples include a focus on solutions, not problems (in contrast to the human tendency to find a problem for an already-developed solution); the use of rapid prototyping and iteration for fast/best solutions (in contrast to spending a long time developing a prototype); an empathic orientation (instead of the human tendency to project our own feelings onto others regarding reactions to a new service); and the importance of framing and re-framing situations (instead of going with the flow and adopting whatever seems to make sense without questioning underlying assumptions).

This course will include a heavy component of "hands on," so if you prefer to sit back and analyze situations rather than immersing yourself in them, you may be uncomfortable (which may lead to valuable personal development: it's up to you). You will be snapping photos and taking videos, among other ways to capture research insights.

### 2. COURSE STRUCTURE

Each week you will learn new concepts related to developing new IT-mediated services and apply those concepts to a real-life situation (your team project and weekly assignments). This approach is intended to engage both halves of your brain: the analytical and the creative.

### 3. TEAM PROJECT

You will work on a team project throughout the course. The goal of the project will be to apply concepts learned in the course to develop an IT-mediated service. A significant part of the evaluation will concern

the means by which you achieved the outcome (i.e., the process you followed). Three key phases of the project are:

1. **Discovery:** empathic research, field observation, identify patterns, frame and re-frame problem, hypothesize about problem
2. **Development:** ideation, visualization, concept development, business case, iteration, refinement, technical requirements
3. **Implementation:** prototype, business case, pilot, launch plan

Given that this course is only a half semester, most of the project focus will be on the first two steps: Discovery and Development. I will assign project topics, though you may also suggest your own topic. However, the proposed project must satisfy the following criteria: 1) If a similar service does not exist, there are real people that grapple with a situation that you can observe; and 2) if a similar service does exist, there are real people that you can observe using it. At the end of Session 1, I will assign individuals to groups based on research that shows that team diversity is positively associated with positive outcomes. I will also assign project topics to groups. After class 1, use the Wiki to enter your name by your assigned project.

## PROJECT DELIVERABLES

- Short Update Presentation in weeks 3 and 6: peer graded
- Final project presentation: peer graded
- Final project written report: professor graded

## PROJECT GRADING

The grading criteria are as follows.

For the short updates, you will be graded on the clarity of how well you communicate your latest activities, as well as creativity employed. You will also be graded on the substance of your activities. For example, "we didn't do much this time because the users we wanted to observe went on a ski trip" is unacceptable. You will need to demonstrate good project planning skills to excel at the project, given that we only have a half semester together.

For the final project presentation, you will be graded on the content of your work, i.e., how well you demonstrate that you applied the concepts learned in class. You will also be graded on your creativity in presenting the results. Given the short duration of this course, the focus will be on how well you demonstrate learning of the design thinking approach to service innovation in the context of your project.

For the final project report (20 pages or less, including everything), you will be graded on substance and form.

For more details on each project topic, go to Wiki/Group Project.

#### 4. ASSESSMENT OF STUDENT LEARNING

- **Participation** You will be evaluated on attendance, quality of comments, and assignment participation. If you are absent, your participation grade will be lowered (emergencies will be excused), and absences will affect your grade. Please also be on time, use your name card, retain your seat, and use the sign in sheet. **(10%)**
- **Team project** See above and Wiki/Group Project: **(40%: 5% development presentations, 15% final presentation, 20% final report)**
- **Final exam** Will test your knowledge and use of all of the material from the course. A portion of the test will involve an integrative analysis of a real-world situation. **(45%)**
- **Innovation Journal** You will use a journal to record your reflections on what you are learning in the class, notes taken during observational exercises, etc. You will submit your innovation journal to the professor on the last day of class. **(5%)**

Summary of weekly deliverables:

| Week | Deliverable   | Points     |
|------|---|------------|
| 3    | <b>Project Presentation I</b>                         | <b>2.5</b> |
| 6    | Project Presentation II                               | 2.5        |
| 8    | Project Presentation & Project Report                 | 35         |
|      | Other (Participation, final exam, innovation journal) | 60         |
|      | Total   | 100        |

## 5. READINGS

Designing for Interaction, by Dan Saffer (2007), selected chapters.

For articles, see Course pack (available in Kresge) and refer to the detailed weekly schedule below.

## 6. SUMMARY WEEKLY SCHEDULE

| WK        | TOPIC   | OBJECTIVE   | Skills/Tools   |
|-----------|---|---|--|
| 1<br>1/5  | Introduction<br><br>Services<br><br>Design Thinking<br><br>IT-Mediated Services | Understand key questions/goals of course.<br><br>Understand concept of services.<br><br>Understand idea of design thinking.<br><br>Define IT-mediated service and understand why important and different from other services. |  |
| 2<br>1/12 | Discovery   | Understand design thinking aspects of discovery process. Generative research. Ethical issues.   | Process of design research.<br><br>Empathic research.<br><br>Field notes.<br><br>Observations.<br><br>Interviews.<br><br>User activities.<br><br>Divergent Thinking.<br><br>Framing and Re-framing.<br><br>Hypothesizing.<br><br>Customer journey mapping. |
| 3<br>1/26 | Discovery   | Understand strategy/marketing aspects of discovery process.   | Apply blue ocean concept.<br><br>Apply Porter's Five forces.   |
| 4<br>2/2  | Development   | Understand ideation and visualization processes of development.   | Brainstorming.<br><br>Ideation and visualization<br><br>Story telling, cartoons, videos, etc.<br><br>Service blueprint.  |

|           |                              |   |   |
|-----------|------------------------------|---|---|
| 5<br>2/9  | Development                  | Understand concept development and iteration/refinement processes of development. | Rapid prototyping.<br><br>Business case development.<br><br>Technical requirements. |
| 6<br>2/16 | Implementation               | Blueprint for implementation: final prototype, sales pitch, final business case.  | How to sell an idea.  |
| 7<br>TBD  | Guest Speaker                |   |   |
| 8<br>2/20 | Wrap-Up / Team Presentations |   |   |

## 7. DETAILED WEEKLY SCHEDULE

Each week comprises one 3-hour session on Monday evening.

## WEEK 1 – INTRODUCTION (January 5)

### Service economy, Design thinking, IT-mediated services

*Services* What is a service? How is the service sector defined? How large is the service sector? What is a service in the non-service sector?

*Design thinking* What is design thinking? Why is it important in business? Can the personality qualities of design thinking be learned? How?

*IT-mediated services* What is an IT-mediated service? How does this differ from an information system? What is the ISI framework and what problem does it try to solve?

How does the Tim Brown framework compare/contrast with the ISI framework. What is the difference between generative and evaluative innovation?

### Read

1. [“Gross Domestic Product by Industry Accounts.”](#) Bureau of Economic Analysis.
2. [“1997 NAICS Industry Classification Tables,”](#) Bureau of the Census
3. Tim Brown, *Harvard Business Review* "Design Thinking" (2008) [packet]
4. Melville et al., “ISI Framework for IT-mediated Services” (2008) [packet]
5. Rae (2008) *IT's Star Turn*
6. [“Influx of Voters Expected to Test New Technology,”](#) NYTimes, 7/21/08
7. Designing for Interaction - Chapters 1 (skim) and 8 [book]

### Watch

1. [Tim Brown: Introduction to Design Thinking](#) From 5:28 - 18:21 Total run time: about 13 minutes
2. [Design thinking](#) applied to a bike cup holder. Total run time: about 7 minutes

## **Assignment Due**

Find a video or presentation on the service economy or design thinking using wikipedia, slideshare, youtube, ted, etc. Post a link on our wiki page together with a one-paragraph summary **in your own words**. This is due **BY NOON OF CLASS DAY** so that the instructor can examine your postings before class.

**Week 1 Preparation Crib Sheet:** 1) read readings; 2) watch 2 videos and take notes of important stuff in Innovation Journal; 3) do assignment by finding a media source, writing a 1-paragraph summary, and posting URL and summary to wiki.

## **Assignment for Next Week**

Choose an IT-mediated service that you can observe. This may be use of an online web site like facebook, use of an information kiosk such as the one we have here at Ross, use of a metaverse like SecondLife, or a student service like online course sign-up. Choose someone such as a friend to observe while they use the service. Observe the user while she uses the service and take notes of your observations in your Innovation Journal. Follow the ethical guidelines in next week's reading from the book. Pay special attention to the entire service system (service environment, emotions of the user, technology interface, etc.).

## **WEEK 2 - DISCOVERY I (JANUARY 12)**

**ISI Framework for IT-Mediated Services: Discovery Phase.**

**Developing a Point of View and Doing Design Research.**

*What is empathic research? How does it differ from traditional marketing research?*

*Why the need to include strategy and marketing dimensions in the ISI framework?*

*What is a Point of View? Why is it Important in Service Innovation?*

*Compare/contrast the experimental approach with field observation.*

## Read

1. Leonard (1997) “Spark Innovation through Empathic Design” HBR. [packet] (emphasis: STEPS 1 AND 2 of empathic design process).
2. Thomke, “R&D Comes to Services,” HBR (2003) [packet]
3. “Anthropologists Go Native in the Corporate Village,” Fast Company 2007
4. "[Information Technology Innovation](#)," Yan Chow, 2008.
5. Designing for Interaction – Chapter 4: Design Research [book]

## Watch

1. [Tim Brown on the Inspiration Phase of Design Thinking](#) From 18:21-24:24 Total run time: about 10 minutes
2. "[Stepping out from behind the wall](#)" - Rob Kozinets on ethnographic method & Web 2.0. Total run time: about 4.58 minutes

## Assignment Due

Be prepared to share the observational exercise you conducted with the entire class as well as submitting a 1-page description.

**Week 2 Preparation Crib Sheet:** 1) read the readings; 2) watch the 2 videos and take notes of the important stuff; 3) do the assignment by prepping to discuss the Tim Brown and ISI approaches.

## Assignment for Next Week

Conduct empathic research for your team project topic. Be prepared to report your findings to the class (powerpoint or other format), including such items as your goals and objectives, methods employed, findings, and challenges. There will be peer grading involved.

## WEEK 3 - DISCOVERY II (JANUARY 19)

### ISI Framework for IT-Mediated Services: Discovery Phase.

#### The business side of discovery.

*What is a generic strategy? What are Porter's Five Forces and what problem do they address? What is a blue ocean strategy? How does the blue ocean approach differ from conventional approaches? What are the types of market-creating service innovations and how do they relate to blue oceans?*

*What is the connection between blue oceans and design thinking?*

#### Read

1. Kim and Mauborgne, "Blue Ocean Strategy" *HBR*, 2004. [packet]
2. Berry et al. "Creating New Markets Through Service Innovation," *SMR*, 2006 [packet]
3. [Porter's Five Forces of Competition](#)
4. [Porter's Generic strategies](#)

#### Watch

1. Blue ocean video: [Blue Ocean Strategy Overview](#) Total run time: about 3 minutes

#### Assignment Due

Present results of empathic research for your team project topic. Report your findings to the class (powerpoint or other format). There will be peer grading involved.

**Week 3 Preparation Crib Sheet:** 1) read the 4 readings; 2) watch the video and take notes of the important stuff; 3) be prepared to wow us all with results of your empathic research.

### **Assignment for Next Week**

Prepare a customer journey map for your team project topic. Be prepared to report your findings to the class (powerpoint or other format). There will be peer grading involved.

## **WEEK 4 - DEVELOPMENT I (FEBRUARY 2)**

### **ISI Framework for IT-Mediated Services: Development Phase.**

#### **Imagining what doesn't exist: abductive logic.**

*What is ideation? Why is it important?*

*What is the difference between divergent and convergent thinking? Which is more important?*

*What is a customer journey map?*

#### **Read**

1. Cooper and Edgett (2003) "Ideation for product innovation: What are the best methods?" [packet]
2. Kandybin (2004), "Raising your Return on Innovation Investment," *Strategy and Business* [packet]
3. Fraterman (2007) "[Improving the customer experience through customer journey mapping](#)"
4. "[Inspiration can be found in many places, but you need to be looking](#)," NYTimes October 23, 2008.

## **Watch**

1. [Tim Brown on the Ideation Phase of Design Thinking](#) From 24:25 - 34:52 Total run time: about 10 minutes

## **Assignment Due**

Present results of your customer journey mapping exercise. Report your findings to the class (powerpoint or other format). There will be peer grading involved.

**Week 4 Preparation Crib Sheet:** 1) read the 4 readings; 2) watch the video and take notes of the important stuff; 3) be prepared to discuss results of your customer journey map exercise.

## **Assignment for Next Week**

Prepare a service blueprint for your team project topic. Be prepared to report your findings to the class (powerpoint or other format). There will be peer grading involved.

# **WEEK 5 - DEVELOPMENT II (FEBRUARY 9)**

## **ISI Framework for IT-Mediated Services: Development Phase.**

### **Developing a concept and iterating.**

- > What is a service blueprint? What is a customer journey? What is a customer touch point?
- > Why is a blueprint more important in a service than for a product?
- > What is the service imperative?

## Read

1. Bitner et al. "Service blueprinting: A Practical Tool for Service Innovation" (2008) *California Management Review*. [packet]
2. "The beauty of simplicity – design for users," Fast Company
3. "The Service Imperative," Mary Jo Bitner, Business Horizons [packet]
4. [Wicked Problems](#), Wikipedia
5. Scan some of the blog posts [here](#) to learn more about service blueprinting and the customer journey in practice.

## Watch

1. [Tim Brown on the Development Phase of Design Thinking](#) From 34:52 - end Total run time: about 23 minutes

## Assignment Due

**Present results of your service blueprint exercise. Report your findings to the class (powerpoint or other format). There will be peer grading involved.**

**Week 5 Preparation Crib Sheet:** 1) read the 5 readings; 2) watch the video and take notes of the important stuff; 3) be prepared to discuss results of your service blueprint exercise.

**WEEK 6 - IMPLEMENTATION (FEBRUARY 16) [GUEST SPEAKER]**

## **ISI Framework for IT-Mediated Services: Implementation Phase.**

### **Service pilot, launch plan.**

- > What gets in the way of successfully launching a new IT-mediated service?
- > How is the launch of a new IT-Mediated service different from the launch of a product?

### **Read**

1. Hargadon and Bechky, “When collections of creatives become creative collections,” (2006) *Organization Science* [packet]
2. “The Agenda – Total Teamwork,” Fast Company
3. Elsbach, “How to pitch a brilliant idea,” (2003) *Harvard Business Review* [packet]
4. Iyer and Davenport (2008) “Reverse Engineering Google's Innovation Machine,” *Harvard Business Review* [packet]
5. “Design Thinking for IT-Mediated Service Innovation” Melville (2008) [packet]

**Week 6 Preparation Crib Sheet:** 1) read the 5 readings.

## **SESSION 7 - GROUP PROJECT PRESENTATIONS (FEBRUARY 20)**

### **Read**

1. Ezell et al. (2007) "Seizing the White Space: Innovative Service Concepts in the United States" Technology Review 205: Tekes, 2007.

### **Assignment Due**

**Group project presentations and reports are due.**

**Week 7 Preparation Crib Sheet:** 1) read the 1 reading; 2) prepare your final presentation and final project paper.