Massachusetts Institute of Technology  
Sloan School of Management  

T-Lab: Enterprise Transformations in the Digital Economy  
15.571  
Spring 2016

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Class time:  Tuesdays 4-7 p.m.

Class Location:  E62-250

Course websites:  https://stellar.mit.edu/S/course/15/sp15/15.571/index.html  
http://mitsloan.mit.edu/actionlearning/labs/t-lab.php

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Texts:  The required Course Pack will be available at study.net.
COURSE DESCRIPTION

As the digital economy has fostered exciting opportunities for new businesses, it has demanded existing companies, particularly large, global companies, to rethink what they must do to succeed. Leaders who embarked on their careers in the pre-digital economy are finding that many old rules and established practices no longer apply. Powerful technologies are redefining jobs; data is becoming ubiquitous and speed to market has become a dominating force in strategies and business design decisions.

Technologies and markets are changing much faster than people and institutions, thus creating fascinating, and often perplexing, business challenges. This new business environment is also creating extraordinary opportunities for competitive advantage for companies who recognize the possibilities and manage needed changes most effectively.

In this course, we will explore, through case studies, in-class exercises, executive visits, and a semester-long action learning project, what firms must do to succeed in the digital economy. Based primarily on research conducted at MIT Sloan’s Center for Information Systems Research (CISR), this course is intended to make you a more effective leader or consultant in an increasingly digital, fast-paced business environment. We will study the inherent conflicts between enterprise-wide efficiencies and local innovations and between the need for stability and the need to change to absorb new technologies. We will examine why the digital economy is forcing business transformations.

This course neither assumes nor requires a technical background. In fact, a mix of technical and non-technical participants offers a valuable opportunity for students to learn from one another. In many firms, a lack of mutual understanding between IT and other business executives limits the ability to use technology strategically. This course offers an opportunity for both parties to gain experience communicating with managers with very different knowledge and perspectives.

COURSE GOALS

- Recognize new leadership demands of the digital economy
- Manage the risk-reward tradeoffs between greater business agility and increased technology dependence
- Learn how to convert IT investments into business value
- Identify steps to ensure evidence-based decision making in an organization
- Learn to debate alternative business architectures and their implications
- Recognize how to develop metrics for fast-changing businesses with empowered people
- Prepare managers to lead technology-enabled organizational change
STUDENT PERFORMANCE ASSESSMENT

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution to class learning</td>
<td>20%</td>
</tr>
<tr>
<td>Class assignments</td>
<td>20%</td>
</tr>
<tr>
<td>Group project</td>
<td>60%</td>
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</tbody>
</table>

CONTRIBUTIONS TO CLASS LEARNING

We will be discussing 6 case studies in class to highlight the challenges companies are facing as they transform themselves for the digital economy. You are expected to come to each class prepared to identify the specific challenges each company faces. **We will be cold-calling students during class to contribute to case discussions.** When preparing case studies, we suggest three steps:

1. Read the discussion questions and debate question for the case.
2. Read the case, check the company website, and analyze the firm’s competitive positions and critical success factors.
3. Prepare brief answers for each discussion question and take a position on the debate question.

You are expected to complete the additional readings for each class and to apply them, as appropriate, to your case analysis. Contributions don’t all have to be original flashes of insight—though such insights are very welcome! Class members who summarize, clarify, simplify, or suggest what else needs to be covered can also make a valuable contribution. If you are shy about contributing, talk with us about how we can make you more comfortable. If you are confident about speaking in public, focus on increasing the quality-to-airtime ratio of your contributions. Take some risks, but only after you have done the analysis and assessed the evidence. If you are concerned about your contribution to class learning please make an appointment to see a faculty member or TA. **Class participation points are awarded only for substantive comments and provocative questions**—students will vote on who shared the best insights at the end of each class. No points are awarded for simply talking in class.

CLASS ASSIGNMENTS

In addition to preparing for every class (as discussed above), for 2 cases you will be preparing a one-page memo supporting your position on the debate question. Your assignment must start with the debate question, followed by Yes or No. Then you should explain your position, referencing outside readings, prior cases, or points made by speakers, where appropriate. Do not submit more than one page and do not list every possible point (or answer all the discussion questions). Respond specifically to the debate question and make an argument that you feel is so compelling, a reader will have trouble disagreeing with you.

You can choose any 2 cases to do your assignment and if you aren’t satisfied with an early grade, you can do an extra assignment and drop the lowest. **To receive credit, you must submit your assignment on Stellar by 11:59 p.m. the day before the class, so that we can identify people in advance of class to stimulate class discussion.**

In addition to the 2 debate question assignments, we will have one assignment on prioritization of IT investments due on April 11 by midnight. This can be completed as an individual or group and will be discussed in class on April 12.

GROUP PROJECT

Spring 2016

Professor Jeanne W. Ross
Students will work in groups of 4 people for the class project. This project teams students with executives from large companies who sponsor CISR. The project applies the concepts from the course, as well as related concepts, to a particular organization’s business needs. A complete description of project requirements is included at the end of this syllabus.

**COURSE NORMS AND EXPECTATIONS**

As an integrative course, with case studies and fieldwork, much of the learning is dependent on accessing the combined knowledge and experience of the group. It is everyone’s job to keep the discussion productive and moving forward. In particular, when case studies are assigned, come to class ready to discuss, argue, interpret, and give advice on the major issues. We will give everyone an opportunity to contribute to case discussions. To focus your reading and analysis, a list of discussion questions for each case is provided at the back of this document.

Because class participation is essential, please also observe the following norms and expectations:

- Attendance is required for every class. Please arrive on time and email the TAs if you will be absent or late. Every unexcused absence and more than one excused absence will have a negative impact on your grade.

- Bring your name card to every class, as we will be hosting a number of guest speakers.

- Professional & ethical behavior is expected at all times. In particular, treat everyone in the room with respect.

- Long, rambling comments detract from the class. Please make your point or ask your question and then allow an opportunity for others to agree or challenge your point.

- Turn off cell phones and remember that laptops and e-readers may not be used without explicit faculty permission.
**TENTATIVE COURSE OUTLINE**

<table>
<thead>
<tr>
<th>Date</th>
<th>Team Deliverables</th>
<th>Class Prep</th>
<th>In Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/2</td>
<td></td>
<td></td>
<td>Class Introduction: Why pre-digital companies must transform and what that entails; Why strategy execution is a bigger stumbling block than strategy formulation; Class overview (lecture, debate, exercise)</td>
</tr>
<tr>
<td>2/9</td>
<td>Read project proposals; Group presentation on digital challenges</td>
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<td>Project Sponsor Pitches: Class discussion with sponsors about the challenges of the digital economy; Project pitches and team selection</td>
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<tr>
<td>2/16</td>
<td>Meet with project sponsor and advisor to define scope</td>
<td>No Class</td>
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<tr>
<td>2/23</td>
<td>Present project definition to class</td>
<td>Readings on business architecture</td>
<td>Introduction of the concepts of operating model and enterprise architecture; why maturity matters (lecture, debate, exercise)</td>
</tr>
<tr>
<td>3/1</td>
<td>Status report for team advisor</td>
<td>Prep USAA case</td>
<td>Discuss USAA case; Guest Speaker: Craig Hopkins, SVP, Strategy at USAA*</td>
</tr>
<tr>
<td>3/8</td>
<td>Video plan to team advisor</td>
<td>Prep Schneider case</td>
<td>Discuss Schneider case; Guest Speaker: Herve Coureil, CIO Schneider Electric</td>
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<td>3/15</td>
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<td>SIP</td>
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<td>3/22</td>
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<td>Spring Break</td>
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<tr>
<td>3/29</td>
<td>Prep 7-Eleven Japan case; readings on data</td>
<td></td>
<td>Discuss 7-Eleven Japan; Debate issues related to driving value from data; Guest Lecturer: Barb Wixom</td>
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<tr>
<td>4/5</td>
<td>Status report meeting with advisor</td>
<td>Prep IBM case</td>
<td>Discuss IBM case; Guest Speaker: Pat Toole; General Manager, Internet of Things, IBM</td>
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<tr>
<td>4/12</td>
<td>Prep UPS investment exercise; Prep Fidelity case</td>
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<td>Discuss investment challenges; Guest speaker: Bill Doyle, Fidelity</td>
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<td>4/19</td>
<td>Video due</td>
<td>Patriots Day</td>
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<td>4/26</td>
<td>Outline of final presentation; report</td>
<td>Prep data monetization case</td>
<td>Discuss data monetization; Guest Lecturer: Barb Wixom</td>
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<tr>
<td>5/3</td>
<td>Prep ING DIRECT case</td>
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<td>Discuss business innovation and business complexity</td>
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<tr>
<td>5/10</td>
<td>Class presentations</td>
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* Guest speakers not yet confirmed
CHOOSING A PROJECT

The project’s primary objective is to recommend value-adding management practices to leaders at MIT CISR sponsor companies. This will involve understanding the company’s need, doing research on relevant management topics both within the company and externally, preparing a video tutorial on a management issue important to your project, and presenting final recommendations to your sponsor and the class. Teams will choose from proposals submitted by MIT CISR sponsor companies (see proposals on the T-Lab website). You may form your own team of 4 students, or we will assign you to a team based on preferences. You will submit your project preferences as a team at the end of class on February 9. At that class project sponsors will make a short pitch and during class you will have the opportunity to meet with sponsors and learn more about the specific projects. You will receive an email by February 12 formally introducing you to your sponsor.

KEY DELIVERABLES

1. **In-class presentation of project scope.** On February 23, one or more members of your team will make a short presentation to describe the problem your team is addressing and the approach you are taking. In this presentation, briefly introduce the sponsor (the individual, team, organizational unit), define the problem and its context, and describe the approach you will take to address the problem. Be specific—list activities and target dates.

2. **Teaching video.** By 8:00 am on April 21, your team will submit a 3-5 minute teaching video on a topic you have researched for your project. The idea is to teach your classmates something you’ve had to learn for purposes of delivering on your project. Your faculty advisor will help you choose a topic. You will also give the video to your sponsor. This video will reflect your literature review for your project and is intended to educate your classmates and your sponsor on a topic that you know well. This video is not about your sponsor company! It is about the topic you are researching to deliver value to your sponsor. Select videos will be shown in class on April 26 with Q&A to follow. Outstanding videos may also be posted on the MIT CISR website. For examples, see TED talks, like this one on gamification: [http://www.ted.com/talks/seth_priebatsch_the_game_layer_on_top_of_the_world?language=en](http://www.ted.com/talks/seth_priebatsch_the_game_layer_on_top_of_the_world?language=en) and Common Craft videos, like this one on net neutrality: [https://www.commoncraft.com/video/net-neutrality](https://www.commoncraft.com/video/net-neutrality).

3. **Sponsor Deliverable:** You are expected to determine with your sponsor what your final deliverable will be. Traditionally, this has taken the form of a presentation but a written report is also acceptable. Your sponsor will submit a grade for your deliverable, so be sure you understand the expectations.

4. **Final Class Presentation:** Your team will present a project summary to the class on May 10, during our regularly scheduled class. Your entire presentation will be about 10 minutes, which includes Q&A. Please use this time to inform your classmates about your specific project objectives and the
insights you gained from the project. You should provide just enough information about the firm you’ve studied to enable the class to understand the context of the problem you are trying to solve. Then you should explain (a) the problem you were addressing, (b) the methodology you used to study the problem, (c) your key findings and insights, and (d) your recommendations. Your presentation will be evaluated for clarity, quality of insights, and professionalism in both the slides and the delivery. It is not essential that all team members present. We will be on a strict schedule, so be sure to rehearse! We don’t want to cut you off in the middle of a sentence—but we will do so when the buzzer goes off.

**CRITICAL SUCCESS FACTORS**

From experience we have learned that three key factors determine a team’s success:

1. Successful teams meet with their sponsor weekly, either by phone or in person.
2. Successful teams address problems with sponsors quickly by seeking guidance from faculty or the course TA.
3. Successful teams divide and conquer by having different team members handle different tasks, but maintain awareness of overall goals and progress.