

Carnegie Mellon University, Heinz College Digital Transformation (95-722)

Meets Tuesday and Thursday - HBH 2008	Professor: Ari Lightman
Section A3: 1:30 – 2:50	Office Location: HBH 2107c
Section C3: 3:00 – 5:50	Office Hours Anytime just e-mail/txt
	- e-mail: aligh@andrew.cmu.edu
TAs:	- cell: 412-512-7134
Uttara Ananthakrishnan	
umadurai@andrew.cmu.edu	
Samuel Rajesh Vanambattina	
sam1305@cmu.edu	

Course Description

Digital Transformation (DT) is a capstone course integrating the technical and managerial aspects surrounding increased levels of digitization. As data starts to play a larger role in managerial decision-making, what are the unique ramifications of these actions for organizational dynamics? How can new information and communication technologies (ICT) be deployed across an enterprise? What role does culture, organizational structure and even adoption patterns play in understanding technology selection, user design and how to derive value from technology? When analyzing DT, we need to examine change from two perspectives:

- From a technology perspective: integration of new technologies, normalization of data, and digitization of business processes.
- From a managerial perspective: new coordination and communication within and across entities, new organizational forms, changing the information environment underlying the business, and new incentive structures.

Successful efforts at digitization have to keep both technical and managerial perspectives in mind. Using a collection of cases, this course will study how the deployment of ICT changes interactions and processes within organizations, across organizations, within industries, and across society.

The case analyses will require students to engage in multi-faceted problem solving including: proposing technical solutions, analyzing business value and address the change management issues that arise in implementing any digital transformation initiative.

Learning Objectives

- Master case analysis using IT frameworks to understand technical and business issues associated with market and industry based disruptions
- Apply critical thinking and reasoning to examine industry and organization related context while analyzing various strategic and technical options

- Develop and apply good project management skills to divide work, develop tasks, analyze options and integrate team thinking into a case analysis
- Build ability to convey breadth and depth of understanding on an industry, organization, technology, situation, analysis and resolution
- Assimilate previous work experience, class discussion and research to develop a plausible and implementable plan of action

Required Text

There is no required text for this class. A course pack will be made available through Harvard Business Publishing

Participation/Engagement

This class is focused on case analysis, class discussion and guest presentations. In order to participate, students need to be present, so attendance is required. Excuses will always come up, but they need to be communicated to the professor and associated TA ahead of time. Engagement includes active involvement in class discussion, sharing experiences, engaging with a TA/Professor and presenting materials to the class. Non-participation and disengagement will be reflected in a student's grade.

Case Solutions

Please note: Cases are context and time specific. Unless otherwise stated, you should prepare the case in the time it was written. Because these cases are used at a variety of schools, there may be slides and other materials available for them on the web. I am asking you not to use these materials for the following reasons:

1. Presumably you are here to learn how to best design, implement, and manage digital transformations. The best way to do that is to struggle with these issues yourself and with your teammates and classmates. Anything less and you are wasting your time and money as a student and short-changing your long-term career growth. Making (and learning from) mistakes today is a very low cost way to improve your skills. Once you hit the corporate world, the mistakes become much more costly.
2. Case analysis is not like algebra where there is a particular answer that the grader is looking for. These cases are typically written with multiple possible recommendations. Don't assume that just because someone in some business school says you should do X, that X is the "correct" way (or even a good way) to approach a particular case.
3. You run the risk that others in the class will come across the same materials, make the same recommendation as you (possibly using very similar words) — which raises huge red flags regarding plagiarism.

4. It damages our classroom discussion. If everyone gives the same recommendation, we don't have the opportunity to fully explore other options — and exploring and learning from other options is part of the joy and excitement of case work.
5. It makes you subservient to the recommendations of others — who may or may not know anything about the underlying technology, IT project management, etc. One of the premises of the MISM program is that people with a strong IT background will be able to do a better job managing IT projects than others who don't have a tech background. I'm assuming that's why you are here and not somewhere else.

So, for the sake of your professional development, our classroom discussion, your academic integrity, and your pride in the Heinz/CMU brand, using someone else's case “solutions” is a bad idea. However if you insist on using these resources, you must cite your sources in the body of your report and on your slides, whether you use direct quotes from them or not. You are, of course, perfectly free (and encouraged) to research any of the companies or issues that we discuss in class. I am just asking that you not use outside discussions of the cases themselves.

Grading

You will be evaluated on the basis of your case analyses, in-class discussions, and an individual final exam assignment handed out at the end of the mini. Your case analyses will be graded as group work. Your grades for the final exam and in-class participation will be your own.

The final grade for the course is distributed among various assignments and activities as follows:

- Engagement: 10%
- Case Analysis: 70%
- Final Exam: 20%

Class Participation: The quality of our learning environment is contingent on effective and informed participation of the class. The goal here is not to dazzle us with your individual brilliance or with the number of comments you make, but rather to help make the class smarter. Note that, in addition to providing new insights to the discussion, it is possible to make the class smarter by asking the right question or by assimilating comments from other students or sources.

The case analyses are designed to help you participate in an effective manner in class. The quality of your comments and your ability to build on and respond to threads in a conversation about a particular issue will be taken into account in assigning your Engagement grade.

It is important to note that class contribution is assessed on an individual basis. This is inherently a subjective assessment but will take the following factors into account:

- Preparation
- Ability to coherently present arguments and to contribute to a discussion (vs. creating new threads)
- Ability to influence and persuade others in class to agree with your opinions
- Note: The large class size is not conducive to long winded discussions. In order to move along the conversation and provide opportunity for other to contribute, students need to be succinct and not monopolize all the time for Q&A

Case Analysis: Your case analysis grade is based on a write-up (double-spaced, 12-point font, 1 inch margins). Your case submission is due to Blackboard by midnight the day before the case is discussed in class. Case write-ups should include a header section with To, From, Subject and Date. They can be up to 3 pages in length. Each team will have 5 cases to analyze. One of your case analyses will be presented to class. For the presentations, you should target 15-20 minutes of prepared content, but with enough backup slides/information to answer any questions that might arise about your recommendations. Those presenting do not have to write –up that case.

Your write-ups and presentation should address the issues raised in the case narrative and associated discussion questions. However, you are encouraged to go beyond the set of questions given and use additional resources to research the case. Case analysis documents are group work and may adopt the following perspectives:

- What are the business/strategic drivers of digitization?
- What is the role of technology in enabling or inhibiting process digitization?
- Do you agree with the recommendations and their deployment?
- Did the case describe the organizational challenges encountered? Do you agree with the manner in which those challenges were dealt with? If the case did not describe organizational challenges, what do anticipate them to be and what are your recommendations for overcoming them?

Final Exam: There will be a take home final exam. The exam question will be announced on the last week of classes and due approximately a week later. The exam will ask you to integrate information we have learned across the cases we covered in the semester.

Peer Review: Since the case analyses and the position paper are group work, I will use a peer review sheet to ensure that feedback from group members about contribution is taken into account in the determination of the final grade. This is taken very seriously. Failure to submit a peer review will result in a significant grade deduction.

Academic Conduct

Students are subject to Carnegie Mellon University’s policies on academic integrity. Plagiarism is a serious offense and can result in failing the course and other disciplinary

action. Plagiarism includes, but is not limited to:

- Presenting another writer's work as your own;
- Cutting and pasting content verbatim without using quotation marks to indicate a direct quote or paraphrasing content without citing the source in-text using parenthetical references, footnotes, or endnotes in addition to listing each source in a manner consistent with the format detailed in an approved style guide;
- Providing incomplete or incorrect information about the source cited.

Schedule of Classes and Assignments

<i>Date</i>	<i>Activity</i>
1/17	Introduction – class, schedule, teams, and grading
1/19	Frameworks, Digital Discussion Review
1/24	No Class
1/26	ITC eChoupal (as a class)
1/31	Dubai Port Authority (as a class)
2/2	Security Breach at TJX (odd)
2/7	VW in America (even)
2/9	Starbucks Mobile Payments (odd)
2/14	Threadless, The Business of Community (even)
2/16	Guest Speaker
2/21	Project Hugo (odd)
2/23	Newspapers (even)
2/28 & 3/2	Open vs. Closed Ecosystems – Developing an App for that (Open – Odd, Closed – Even)
3/7 & 3/9	TV Disruption – Comcast Corporation (Stay the Same – Odd, Disrupted – Even)

Class schedule and assignments are subject to change.

Important Dates:

- 3/17 – Team Evaluations and Final Exams Due