Technology and Innovation: Social and Business Perspectives (ISOM 1380)

Winter 2020

Course Outline

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Course Overview:

Managing technology and innovation is essential to the survival and growth of companies, but it is a tricky business. Even well-established companies often lose their edge, finding their very existence to be threatened by their inability to manage for innovation. Clearly there is no "one best way" to manage innovation.

The course aims to meet three objectives as the following: first, this course stimulates your curiosity and broadens your perspective by posing you puzzling critical dilemmas that deny some of your long-held assumptions and guiding you to think critically about them. You will understand that there is a critical gap between designing and developing innovative technologies and making them commercially successful (i.e., widely adopted); second, the course exposes you to various concepts and frameworks that will help you understand different aspects of technological innovation from a business strategy perspective; third, you will be able to apply the concepts and theoretical frameworks learned from the course to analyze the innovation of a company of your choice and propose sound and implementable recommendations to the company.

Course Readings:

- Lecturer's lecture notes
- Supplementary readings will be pointed

Group Project/Assignment:

As for the group project, each group can freely choose a company considered to be very innovative (in terms of technology, business model, target market, and so on) and conduct research about the company. Each group is responsible for delivering the company's innovative business activities clearly to the classmates. The presentation may include the company's background, competitors, business models as well as the future prospect.

An additional group assignment (a case analysis) will be given. Details will be announced later.

Exam:

Since the lecture is given online, no ordinary final exam will be administered. A few (3-5 times) online quizzes will be administered on the CANVAS instead. A couple of those quizzes will be pop quizzes (without any prior notice).

Individual Assignment:

Each student will be required to read and summarize an article.

Grading:

Quizzes: 25%

Group Project: 30%

Group Assignment (Case analysis): 15%

Individual Assignment: 10%

Class Attendance/Peer Evaluation: 20%

Peer Evaluation:

As the substantial part of the class work is to be done in groups, a peer evaluation will be conducted for each group work. The main purpose of this evaluation is to know whether all team members contributed equally to the group work.

Lecture Contents

| # | Topics |
|----|---|
| 1 | Introduction, The Importance of Technological Innovations |
| 2 | Creativity |
| 3 | Patterns of Technological Innovations |
| 4 | Standards Battles and Network Externalities |
| 5 | Continue "Standards Battles and Network Externalities" |
| 6 | Defining the Strategic Direction for Technological Innovation |
| 7 | Continue "Defining the Strategic Direction" |
| 8 | Open Innovations |
| 9 | Continue "Open Innovations" |
| 10 | Team Presentations |