Technology and Organizational Environments

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Soc. 344  Spring 2016
Wed. and Friday 11:45am-1:00pm
108 East Duke Building

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Goals:

This is an introductory course about the impacts of information revolution on organizations. Recent development of information technology has presented a great challenge to organizations. Many business leaders have argued that this is an era of either E-business or no business. The rapid development of information technology sometimes quickly reverses the successful path of previous winners. Nokia, for example, has encountered a rapid decline after failing to catch up the trend of smartphones. The decline of Japanese home electronic makers is another example. Strategic alliance based on new information technology can also provide companies that seem to have lost momentum with new opportunities to reclaim their dominance.

The impact of information technology on organizations can be seen not only in purchasing, R&D, and production, but also in marketing, distribution, and advertising. If you want to better prepare yourselves for the future, you need to understand these important changes. Technology is not the only determining factor that shapes the environments of business organizations, however. As the sociology literature has demonstrated, business organizations face many different environmental factors that affect their performance. In order to understand the impact of technology on organizations, we need to analyze not only the direct impacts of technology on organizations, but also how technology intersects with other facets of organizational environments.

In this course, we will explore the extent to which the information revolution has changed business environments in the past two decades.

The goals of this course include the following:

1. Provide students with an understanding of and the ability to discuss the basic social science perspectives on organizational environments.

2. Provide students with an understanding of and the ability to discuss the impact of information technology on organizational environments.
3. Provide students with opportunities to employ social science theories to analyze historical and contemporary, ongoing changes in the real world.

4. Provide students the opportunity to obtain and improve their research skills.

The class consists of three components designed to achieve the above goals. The first involves a review of social science literature as it pertains to technology and business organizations. The second is the organization of student team debates regarding ongoing changes in businesses and organizational fields due to recent developments in information technology. The third consists of a team research project in which students apply the theories covered in this class to study and explain how the development of information technology has affected the organizational environment of a specific industry that the student group has chosen.

During the semester, the team will be the basic unit around which the debates and research projects are organized. The professor will divide the class into 10 teams as soon as enrollment is finalized. Both team debates and team presentations of research projects are important components of this class and function as a valuable self-learning process. For each presentation, each team is expected to prepare a one-page handout to distribute to the class and the contents of these handouts may be included in quizzes or essay tests. Throughout the semester, each team needs to meet with the professor at least twice to discuss its team debate and team research projects.

Grade:

Your performance in the class is evaluated on an ongoing basis. Instead of having a big mid-term and final, your final grade in this class is an accumulation of points earned through several components. They can be divided into two categories: individual components and team components:

The individual components count for 60% of your final grade and they include: (1) four small quizzes, each comprising 10%. (2) two short-essay tests (each no more than one page, single-spaced), each comprising 10%. These quizzes and essays are spread throughout the semester and each covers only a specific portion of our class readings.

The team project components count for 40% of your final grade: (3) team debate, 13%; (4) the final presentation of the team research project, 13% and; (5) the final team research paper (15 pages, double-spaced) 14%. The class will be divided into ten teams after the enrollment is finalized. The ten industries that these teams will study include robotics, 3-D printing, cloud computing, the internet of things, individualized medicine, drone, self-driving car, virtual reality, and the hyper-loop transportation system.

You will be given an opportunity to use an individual project to replace the lowest grade from one of your quizzes or individual essay tests. For this individual project, you must create a
set of five power-point slides. Among these five, three must be empirical evidence or data in the form of a table, graph, or short video. The subject of the slides must be the impact of technology on an industry. You will find feedback from team debates and student team presentations useful in determining how to formulate this project. This project has to be original and you CANNOT use either team debate or team research project materials.

Rules and Expectations:

1. Students are expected to read the materials in advance and be prepared to answer questions. All readings will be on reserve and you will be able to find them on Sakai.

2. For both the team debates and the final team presentations, each team is required to create a one-page handout to distribute to the class, either by email before the class, or printed on paper to hand out at the beginning of class. These handouts may be used for quizzes. The professor and TA must receive a copy of your handout. Every team must send a copy of their power-point slides to the professor, for both the debate and project presentations. Team debates and final presentations will be evaluated on the basis of the quality of the research, the quality of the power-point slides, the quality of the presentation, the quality of the exchanges, internal division of labor, and team coordination. You need to take these requirements seriously as we really apply these criteria to evaluate your performance.

3. Students are expected to attend and participate in all classes. A missed class without an official excuse will lead to the deduction of one point from your final grade. Students are expected to write comments and suggestions on a feedback form (distributed during class) for all team debates and project presentations. The feedback form functions as a way to provide peer feedback to teams and as a means to check attendance during presentation days. If you have an official excuse to miss class, you must email your excuse to the TA (Molly). Be sure to keep a copy for your own records, as well. The TA will keep record of attendance on Sakai. “Official excuses are always in writing (e.g., paper or email) and include: STINF (Short-Term Illness Notification Form), NOVAP (Notification of Varsity Athletic Participation), original electronic job interview invitations, or a letter from your academic dean. The following do not count as official excuses: a plane ticket receipt, verbally telling the professor or TA, or a letter from your parents. If an emergency arises, talk to the TA to see what you need to do. IMPORTANT: SUBMIT ALL EXCUSED ABSENCE FORMS TO THE TA (Molly).

4. Deadlines: All forms, essays, and project materials must be submitted by the means described for that item in the syllabus. If you encounter any problems with submitting documents, contact the TA immediately. Missed deadlines will be treated as follows: within 30 minutes past the deadline, lose one point; within one hour, 2 points; within two hours, 3 points; and within three hours 4 points. If you anticipate missing a deadline, talk to the TA.

Schedule and Reading:
Note: The readings for each day are those that we will discuss on that day. Be sure to read the articles in preparation for class.

1/15  First day of class, business meeting

1/20  Introduction: Organizations in the Era of Internet


   Video: Internet Money Machine

1/22. The Information Revolution


   Videos: Did You Know? The power of the internet

1/27. Organizations and Environments: Three Approaches


   Video: The State of Wikipedia by JESS3

1/29. We will divide the whole class into small teams. Each team will choose an organizer and exchange email addresses and phone numbers. We will also decide the topics for both the team debates and the final presentation for each team. We will decide the order of presentations for both the debates and the final presentations by drawing lots. For the debate teams, the affirmative team will take the position that answers the debate prompt with “Yes” and the dissent team will take the position that answers the debate prompt with “No.” If the prompt asks you to choose between two options, the affirmative team will take the position of the first option and the dissent team will take the position of the second option, as written in the prompt. If you are unsure of which position your team should take, talk to the TA.
2/3. The Internet Boom and Burst


**Quiz no. 1 covers readings and lectures on 1/20, 1/22, and 1/27**

2/5. Lecture: How to do a social science research project.

2/10. Team Debate No.1 (Teams 1A and 1B): Should Uber be banned? Uber is a very successful company with a huge valuation. Nevertheless, it is also arguably the most controversial company in 2015. Take a look at the news reports from the links below.

http://www.foxnews.com/travel/2015/05/28/should-uber-be-banned/

2/12. Social Structure of the Market


2/17. Team Debate No. 2 (Teams 2A and 2B): Can the United States Compete with Germany in Smart Manufacturing?

Industry 4.0 is a project in the high-tech strategy of the German government, which promotes the computerization of the manufacturing industry. The goal is the intelligent factory (Smart Factory), which is characterized by adaptability, resource efficiency and ergonomics as well as the integration of customers and business partners in business and value processes. Technological basis are cyber-physical systems and the Internet of Things. Experts believe that Industry 4.0 or the fourth industrial revolution could be a reality in about 10 to 20 years.

http://en.wikipedia.org/wiki/Industry_4.0

2/19. Technological Development


2/24. Team Debate No. 3 (Teams 3A and 3B): Does Alibaba Have A Serious Competitor? Alibaba from China launched the largest IPO in history in September of 2014, raising $24 billion. It plans to start its business operation in the U.S. market soon.


2/26. Resource Dependence Theory


Quiz no. 2 covers readings and lectures on 2/3, 2/12, and 2/19.

3/2. Team Debate No. 4 (Teams 4A and 4B): Would Silicon Valley catch up with WeChat?

WeChat is probably the most successful app a Chinese company has ever invented. A number of leading U.S. companies have begun to pay attention to this competitor. Could they fence off the challenge from WeChat?


https://www.linkedin.com/pulse/wechat-better-than-any-social-mobile-app-comes-out-silicon-peterson
3/4. Neo-Institutional Theory


3/9. Team Debate No.5 (Teams 5A and 5B): Does Bitcoin have a future? Bitcoin witnessed some dramatic growth in 2013 but stagnation in 2014. There is intense debate about its future. Do research on both sides of the argument to develop and support your position.

http://www.wsj.com/articles/do-cryptocurrencies-such-as-bitcoin-have-a-future-1425269375
https://www.stratfor.com/analysis/examining-future-bitcoin

3/11. Transaction Cost Theory


First essay due (you will receive the essay question through Sakai in the morning of 3/2). Please submit the essay using Sakai. The essay is due by 5:00pm.

Spring Break

3/23 Final Project Presentation, Teams 1A and 1B

3/25 Organizational Ecology


Quiz No. 3 covers readings and lectures on 2/26, 3/4 and 3/11.

3/30. Final Presentation Teams 2A and 2B

4/1 Political Influence


4/6 Final Presentation Teams 3A and 3B

4/8 Cultural Environment


Quiz No. 4 Covers the contents on 3/25, 4/1, and 4/8

4/13. Final Presentation Teams 4A and 4B

4/15 International Competition


4/20. Final Presentation Teams 5A and 5B

4/22 Second Essay Due Class time (the essay topic will be sent to you in the morning of 4/13) As before, submit your essay using Sakai. The essay is due by 5:00pm.

4/27 Final research paper due by 12:00 noon. Please send you paper to Professor Gao through email. We do not accept other forms of submission.

4/29 Optional individual project due by 12:00 noon. Submit your project power-point
slides to the drop box on Sakai. We do not accept other forms of submission.

Grading Sheet: You will receive a numeric score for coursework. When totaled, including any deductions due to unexcused absences or missed deadlines, this score will be assigned a letter grade according to the following rubric. I will report this letter grade to the university as your final grade for this course.

See Next Page for the Grade Conversion Table

Conversion of Your final Grade (all fractions will be rounded up)

A+=100-97
A =96-93
A-=92-90
B+=89-87
B =86-83
B-=82-80
C+=79-77
C =76-73
C-=72-70
D+=69-67
D =66-63
D-=62-60