MIS 381N.2 Research in Information Systems: Organizational and Behavioral Perspectives

Spring 2014

Instructor
Professor Sirkka L. Jarvenpaa
Dept. of Information, Risk, and Operations Management (IROM)

Class Times and Location
Tuesdays 1:00 p.m. – 4:00 p.m., GSB 5.154

Office
CBA 6.480

Office Hours
By appointment and Tuesdays 4 to 5 p.m.

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Course Overview

The new generation of information and communication technologies including social media, mobile devices, augmented reality has led to new forms of virtual work and digitization in business processes, products and services, to new avenues of intellectual and social capital creation, to new organizational, network, and community structures, to a new cadre of business models and competitive platforms, and raised a variety of other behavioral, social, and economic challenges.

This course is designed to provide doctoral students across different disciplines a broad introduction to theoretical perspectives and foundations in the key topics of information and communication technologies, virtual environments, digitization, and digital systems. The course is designed for both information systems (IS) and non-IS Ph.D. students (e.g., fields of business, information science, communications, computer science, social work, education, psychology, public policy). The course is appropriate for newly entered as well as advanced doctoral students. The course requirements will be tailored to fit the students’ needs depending on the stage of their doctoral program.

In this course, the students learn to:

• Appreciate the breadth, diversity, and significance of the digital phenomena and opportunities for new theory development
• Enhance their ability to theorize about information technology/digital related phenomena to their own various research themes
• Understand the strengths and weaknesses of the commonly used research methodologies in information systems
• Develop a research project dealing with IT enabled and impacted contemporary societal, business, organizational, and behavioral phenomenon of their choice
• Be well versed in the process of publishing information technology related research in information systems (IS) and non-IS journals

The course covers topic areas such as adoption of digital media and systems, IT-mediated communication and collaboration, social networks and IT, corporate strategy and IT, business value of IT, knowledge management and organizational learning, organizational change and IT, and IT-supported market, community, and interorganizational relationships and open innovation. We examine topics at varying levels of analysis (societal, market, organization, group, individual).
We will achieve the course objectives through the following means

- **Final research paper:**
  - Outline due at week of 8; Use “Matrix” to structure your outline
  - 6+ pages write-up (+ revised outline) due at week 12;
  - Presentation
  - 12-15 pg. write-up due at final exam time
- Short homework assignments in developing theory building skills and getting started on your final research paper.
- Leading one discussion in first half and one discussion in second half. Discussion should identify 4 to 5 questions that should be discussed based on an analysis of the multiple articles. **The questions need to integrate the readings not focus on a single reading per question.**
- Reading the **required readings** for each session, complete matrix columns for one or two of the required articles (as specified), and be prepared to share your thoughts on all required articles, as well as your thoughts on a novel hypothesis and future directions. Completing a Matrix for the required articles as indicated in the syllabus.
- For each week, read **one additional article beyond the required readings** from the partial list provided or select an article on the same theme from the approved journals. Be prepared to show your thoughts on that article as it pertains to the topic. You may choose to prepare a matrix on your chosen article for distribution to the class (you can bring a matrix to class or email it to classmates). You may choose to show how the article conflicts with or embellishes upon, or provides an alternative way of thinking from the assigned required articles.
- We have **guest speakers** for some the sessions. Please sure to read their papers for the particular session and **prepare two questions in advance**. We have underlined these papers if they are not part of required reading.
- Being prepared in class to discuss your progress toward your final research paper: EACH WEEK

### Readings

All the **required** readings can be retrieved from the Canvas. All optional readings can be retrieved from PCL databases (EBSCO Business Source)


### Grading

The final letter grade for this course will be based on the following:
- Class participation: 20%
- Homework: 30%
- Discussion leader: 20% (each session is 10%)
- Final paper: 30% (includes class presentation)

**Discussion of Assigned Readings (all REQUIRED readings are posted on CANVAS)**

CLASS PARTICIPATION (20%)
Students will be graded based on their contribution to the discussion of the readings. All students are expected to be ready to discuss ALL required articles on the assigned day. **The methodology notes are mandatory readings. When an article is tagged with SKIM, you are expected to SKIM it, not SKIP it.**

In addition to the required readings, students are expected to be able to summarize and discuss one additional article of their choice. For each session, a list of optional articles is provided. The student is not limited to those articles but an article (a published paper) can be selected from one of the top journals in information systems.

The class discussion grade will be based on the relative contribution of each student to the class as a whole. In determining the class discussion grade we will consider the following: comprehension of the assigned readings, the ability to integrate material from a diverse set of readings, the ability to develop new ideas based on the readings, the ability to provide real-world examples to support or refute the readings, and the ability to ask and/or answer relevant questions.

Some days we will discuss research papers or articles in a debate format. For each article a student will be assigned to be an “advocate” of the paper/topic and another student will be assigned to be a “critic.” In class, each side will make a short presentation outlining the view of the paper/topic, followed by a brief period in which rebuttals can be made. A general debate will then ensue, in which other members of the class can ask questions of either side, or bring up other issues.

**STUDENTS ACTING AS DISCUSSION LEADERS (20%)**

Each student will take on a role of a discussion leader twice during the semester. This entails coming up with thought provoking discussion questions and leading the discussion for 40-50 minutes. The discussion should integrate the insights from different readings and place them in the context of research in the field. Discussion questions should help integrate across the readings, not discuss them one by one. The discussion leader needs to submit the discussion questions for APPROVAL to the instructor by SUNDAY night (9 p.m.) preceding the class.

**HOMEWORK (30%)**

Homework comprises of two types:

**Short homework exercises:** Early in the semester, there will be short homework assignments on (1) formulating a research question, (2) developing a research model, (3) developing hypotheses. These assignments build theory building skills and will help you to begin to formulate the core components of the research paper.

**Matrix:** For each week when requested in the syllabus, come to class prepared with your matrix for required readings. Also consider using the matrix for an additional read (bring matrix to class; bring copies to share or email to instructor and students).

The matrix consists of the following columns: a) practical problem addressed by the article, b) theoretical motivation for the article, c) research questions, d) theory logic, e) causal model and hypotheses for the article, f) research design, g) findings, h) plausible alternative interpretations of the findings, i) theoretical contribution, j) what I learned re research design that I might reuse, k) What I learned re theory
that I might reuse, l) key refs I should pursue, m) an interesting new hypothesis and interesting & opportunities for future research.

FINAL RESEARCH PAPER (30%)

On May 7 (5 p.m. or before), students will submit a final research paper. PLEASE SEND VIA EMAIL as an attachment.

The research paper should include the following required components: research question, motivation, the relevant literature review (not limited to the literature that is covered in the course), theoretical underpinnings, hypotheses, research method, potential alternative results/findings; develop at least three different scenarios of results/findings, limitations, and contributions to theory and practice. The evaluation criteria of the final paper includes:

1. Is the research question developed and justified in the compelling way?
2. Does the final paper include all the required components, integrate them to be logically consistent, and deliver a well argued and justified research proposal?
3. Does the literature review and theory development synthesize recent ideas and advances into a fresh theory, hypotheses, propositions?
4. Does the proposal exhibit high level of methodological fit (i.e., internal consistency among elements of a research project—research question, prior work, research design, and theoretical contribution)

To ensure that everyone is making good progress in selecting a topic for their research proposal, an outline is due before Spring Break. A partial draft of the paper is due on Week 12 along with an updated outline. Each student will present their papers on April 22 or April 29. The Final paper is due on May 7. There is no final exam in this course.

Key Due Dates

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<tr>
<th>Session</th>
<th>Date</th>
<th>Due</th>
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<tr>
<td>S1</td>
<td>Jan 14</td>
<td>Matrix DUE (revise after class)</td>
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<td>S2</td>
<td>Jan 21</td>
<td>Matrix DUE (session 4)</td>
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<td>S3</td>
<td>Jan 28</td>
<td>Short homework assignment 1 / MATRIX DUE (Sessions 2,3)</td>
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<td>S4</td>
<td>Feb 4</td>
<td>MATRIX DUE (Session 5)</td>
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<td>Feb 25</td>
<td>MATRIX DUE (Session 8)</td>
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<td>S8</td>
<td>Mar 4</td>
<td>Outline for Research Paper</td>
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<td>S9</td>
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<td>S11</td>
<td>Apr 1</td>
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<td>Apr 8</td>
<td>Draft of final research paper / MATRIX DUE (Session 12)</td>
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<td>S13</td>
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<td>S14</td>
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<td>S15</td>
<td>Apr 29</td>
<td>Final research paper presentation</td>
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<td>May 7: Final research proposal DUE</td>
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CHECKLIST BEFORE COMING TO CLASS
- Read required readings including methodological notes and those tagged with “SKIM”
- Fill matrix for two of the required readings (for some sessions, fill matrix for one article only)
- Thoughts learned from the additional read (use matrix to structure your thoughts)
- If you are leading discussion, send discussion questions to instructor TWO nights before
- Be prepared to share progress on your final paper with class

Course Schedule and Readings

Session 1: Jan 14  Introduction to the field of Information Systems


Learning Objective: What is the field of information systems? What is it not? What is the difference between “IS” and “IT”? Why did Orlikowski and Iacono write the article on the IT Artifact? Is the message of the article still relevant? Why or why not? How should the individual researcher balance disciplinary based goals (such as “making money” in business disciplines) with more interdisciplinary goals (such as “making a better world”)?

Session 2: Jan 21  Basics in Theory Building

Assignment: Fill out Matrix for ONE ARTICLE: Jasperson et al (2005) (bring copies to share with classmates or email to classmates)


**Learning objective:** What is a theory? What is a theoretical contribution? Will theory maintain its importance when Big Data is here? Be ready to debate the theoretical contribution and rigor of Jaspersen et al (2005).

**Session 3: Jan 28**

**Online Communities**

**WHO WILL LEAD?**

Assignment: Short Assignment 1 Due

**Matrix DUE (Session 2,3)**

**Required Readings:**


**Partial List of Articles to Select From for Additional Reading on ONLINE COMMUNITIES (Read ONE ARTICLE below OR read one article of your own choosing from one of the following journals (Management Science, Journal of Management Information Systems (JMIS), MIS Quarterly (MISQ), Information Systems Research (ISR), Journal of Association for Information Systems (JAIS), Organization Science (OS), Decision Support Systems (DSS), Decision Sciences (DS), Journal of Information Technology, Journal of Strategic Information Systems)***


**Guest Professor: Y. Ren, Assistant Professor, University of Minnesota.**

### Learning Objectives:
- What have been the key IS research questions on online communities?
- What are the main theories that have been used to explain participation and behavior in online communities?
- What have been the theoretical strengths in this research to date?
- What have been the theoretical weaknesses in this research to date?
- Describe a hypothesis that could be used to overcome the weakness you identify.

### Session 4: Feb 4  Beyond Technology Acceptance Models

**WHO WILL LEAD?**

**MATRIX DUE (Session 4)**

**Assignment:** Fill out Matrix for TWO of the required readings with * (You can decide which two)

**Required Readings:**

[http://m.jamia.bmj.com/content/21/1/73.abstract?sid=d75f0dcb-9171-49e9-8874-002dc458c693](http://m.jamia.bmj.com/content/21/1/73.abstract?sid=d75f0dcb-9171-49e9-8874-002dc458c693)


**Partial List of Articles to Select From for Additional Reading (REMEMBER THAT YOU CAN ALSO CHOOSE AN ARTICLE FROM THE LIST OF INFORMATION SYSTEMS JOURNALS)**


Guest Professor: Holly Lanham, University of Texas at San Antonio

**Learning Objective:** What explains the continued popularity of TAM in IS research? How do the research questions, approaches change as the research moves out of the traditional business organization context? What new opportunities/challenges do new media environments (e.g., augmented reality, virtual worlds) present to acceptance an adoption research? Formulate a hypothesis that would advance adoption/acceptance research in information systems?

Session 5: Feb 11 Social Media and Social Networks

WHO WILL LEAD?

Assignment: Short Assignment 2 Due

Fill Matrix for one article with *:

MATRIX DUE (Session 5)


Partial List of Articles to Select From for Additional Reading

✓ Select one of the following articles or a social media related article in the approved journals.


Learning objective: What new has the social network perspective brought to the information systems research theoretically and practically? What are the weaknesses in the social network and social media research in information systems? What new combinations involving social networks/social media and other existing research areas (such as HCI) provide opportunities.

Session 6: Feb 18 Socio Materiality, Affordances, and Structuration Processes

WHO WILL LEAD?

Assignment: Fill Matrix for one required article (your choice which one)

MATRIX DUE (Session 6)

Short Assignment 3 Due


*Treem, J. W. “Technology Use as a Status Cue: The Influences of Mundane and Novel Technologies on Knowledge Assessments in Organizations,” Journal of Communications, 2013, 63(6), 1032-1053.


Partial List of Articles to Select From for Additional Reading


Guest Professor: Jeffrey Treem, School of Communications, University of Texas at Austin

Learning Objectives: Compare and contrast Practice Theory, Affordances, and Socio Materiality. You are assigned to one of the groups (Practice Theory, Affordances, and Socio Materiality). You need to develop 3 to 4 separate well-crafted arguments that argue your group’s perspective is superior to the other views.

Session 7: February 25  Organization Design, Information Processing, Governance

WHO WILL LEAD?

Assignment:  Fill out Matrix for TWO of the required readings (You can choose which two)

MATRIX DUE (Session 7)


Partial List of Articles to Select From for Additional Reading


Learning Objectives: What is the role of IT in this research and how is it different than other research read in this class? What are the key research questions in this theme? What are the key claims that information technology changes the way organizations organize and structure? What are the key theories on which the claims are based on? What are the limitations in this line of research? What is the next step of research that should be studied on this topic?

Session 8: Mar 4 Writing Research Papers

Assignment: Outline (4 pages) for Research Paper


AMJ: Author Resources http://aom.org/Publications/AMJ/Author-Resources.aspx

M. Grant, Timothy G. Pollock. Publishing in AMJ Part 3: Setting the Hook
Raymond T. Sparrowe, Kyle J. Mayer Publishing in AMJ Part 4: Grounding Hypotheses


http://deanofstudents.utexas.edu/sjs/scholdis_plagiarism.php

http://www.lib.utexas.edu/services/instruction/learningmodules/plagiarism/

Session 9: Mar 18  Resource-based and Dynamic Capabilities: Business Value of IT

WHO WILL LEAD?

Assignment: Fill out Matrix for ONE of the required readings (You can decide which one) and ONE Optional reading (make sure your OPTIONAL reading is an empirical paper: Matrix for two articles

MATRIX DUE (Session 9)

Required Readings:


Partial List of Articles to Select From for Additional Reading


Guest Professor: Professor Huseyin Tanriverdi, University of Texas at Austin

**Learning Objectives:** What is the relevance of resource-based theory to IS research? What are the theoretical mechanisms underlying IT and firm performance in the studies? How can practitioners use these findings for their organization’s benefits? How do you decide on the level of analysis if doing research on this topic? What is the research question that should be studied on this topic?

**Session 10: Mar 25** Institutional Theory and Information Technology

**WHO WILL LEAD?**

Assignment: Fill out Matrix for ONE of the required readings (You can decide which one)

**MATRIX DUE (Session 10)**

Required Readings:
- Wen, W. “Patent Commons, Thickets, and Open Source Software Entry by Start-up Firms,” 2013, working paper.

**OPTIONAL Additional Reading (NO REQUIREMENT)**


**Guest Professor: Professor Huseyin Tanriverdi, University of Texas at Austin**

**Learning Objectives:** Institutional theory is one of the most dominant theories in management and organization science? Why has institutional theory remain as a rarely used lens in information systems? How can institutional theory contribute to IS? How can IS contribute to institutional theory? What research questions from past sessions would have benefited from institutional theory?

**Session 11: Apr 1 Knowledge Management**

**WHO WILL LEAD?**

Assignment: Fill out Matrix for **ONE of the required readings with *and ONE Optional reading** (make sure your OPTIONAL reading is an empirical paper: Matrix for two articles

**MATRIX DUE (Session 11)**


**Methodological Note:** Schultze, U. and Avital, M., “Designing interviews to generate rich data for information systems research,” Information and Organization, 2011, 21(1), 1-16.

**Partial List of Articles to Select From for Additional Reading**


**Guest Professor: Ann Majchrzak, University of Southern California**

**Learning Objectives:** What are the main theoretical perspectives that have been brought to bear to understand KMS and knowledge in information rich environments? What are the main findings in the field? What issues remain underexplored? Formulate an hypothesis on this underexplored issue.
Session 12 April 8

Design Science Research in Information Systems

WHO WILL LEAD?

Assignment: Fill out Matrix for ONE of the required readings with asterisk.

MATRIX DUE (Session 12)

DRAFT OF FINAL RESEARCH PAPER


Partial List of Articles to Select From for Additional Reading


**Learning Objectives:** How should design science be evaluated? When does design science become engineering and is no longer “IS”? Does it matter? What are the key research questions in this topic? Identify at least 2 future research questions that should be addressed.

**Session 13: April 15 Human Computer Interaction: Aesthetics, Emotion, Creativity, Neuroscience.**

**WHO WILL LEAD?**

Assignment: Fill out Matrix for ONE of the required readings. No Optional reading requirement.

**MATRIX DUE (Session 13)**

**Required Readings:**


**Session 14: April 22 Innovation and Open Innovation**

**WHO WILL LEAD?**

Assignment: Fill out Matrix for ONE of the required readings (You can decide which one)

**MATRIX DUE (Session 14)**
Required Readings:


Methodological Note:


Partial List of Articles to Select From for Additional Reading (REMEMBER THAT YOU CAN ALSO CHOOSE AN ARTICLE FROM THE LIST OF INFORMATION SYSTEMS JOURNALS)


**Learning Objectives:** How are theories of IT for creativity and innovation different from theories of IT for knowledge coordination and IT for firm performance? Are there theories from other reference disciplines that could be considered? What would these other theories provide that existing theories don’t provide? Formulate a hypothesis that addresses this underserved issue.

**Session 15: April 29 Wrap-Up and Presentations**

15 Minute Presentations on Your Research Study

**Required Readings:**


Available online at: [http://dbem.ws/WritingArticle.2.pdf](http://dbem.ws/WritingArticle.2.pdf)


**May 10 (Thursday): RESEARCH PAPERS ARE DUE**