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 <u>required</u> readings can be retrieved from the Canvas. All optional readings can be retrieved from PCL databases (EBSCO Business Source)

Recommended: Kuhn, T. The Structure of Scientific Revolutions, University of Chicago Press, 2nd Edition, 1970

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 REGUIRED 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 article 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

Session	Date	Due
S1	Jan 14	
S2	Jan 21	Matrix DUE (revise after class)
S3	Jan 28	Short homework assignment 1/ MATRIX DUE (Sessions 2,3)
S4	Feb 4	Matrix DUE (session 4)
S5	Feb 11	Short homework assignment 2/MATRIX DUE (Session 5)
S6	Feb 18	Short Homework assignment 3/ MATRIX DUE (Session 6)
S7	Feb 25	MATRIX DUE (Session,7)
S8	Mar 4	Outline for Research Paper
Spring break		
S9	Mar 18	MATRIX DUE (Session 9)
S10	Mar 25	MATRIX DUE (Session 10)
S11	Apr 1	MATRIX DUE (Session 11)
S12	Apr 8	Draft of final research paper / MATRIX DUE (Session 12)
S13	Apr 15	MATRIX DUE (Session 13)
S14	Apr 22	MATRIX DUE (14)
S15	Apr 29	Final research paper presentation
		May 7: Final research proposal DUE

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

Required Readings:

Orlikowski , W. J. and Iacono, C.S., "Research Commentary: Desperately Seeking the 'IT' in IT Research--A Call to Theorizing the IT Artifact," Information Systems Research, 2001, 12(2), 121-135.

Banker, R. D., and Kauffman, R. K., "The Evolution of Research in Information Systems: A Fiftieth-Year Survey of the Literature in Management Science," Management Science, 2004, 50(3), 281-298.

Walsham, G., "Are we making a better world with ICTs? Reflections on a future agenda for the IS field, Journal of Information Technology," Journal of Information Technology, 2012, 27, 87-93.

Wasko, M.M. and Faraj S., "Why should I share? Examining Social Capital and Knowledge Contribution in Electronic Networks of Practice," MIS Quarterly, 2005, 29(1), 35-51.

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)

Required Readings:

How to theorize: http://www.analytictech.com/mb313/howto.htm

Sutton, R.I. and Staw, B.M., "What Theory is Not," *Administrative Science Quarterly*, 1995, 40(3), 371-384.

Weick, K.E. "What theory is not, theorizing is," *Administrative Science Quarterly*, 1995, 40(3), 385-390.

Rindova, V., "Publishing Theory When You are New to the Game," Academy of Management Review. 2008, 33(2), 300-303.

*Jasperson, J.S., Carter, P.E., and Zmud, R.W., "A Comprehensive Conceptualization of the Post-Adoptive Behaviors Associated with IT-Enabled Work Systems," *MIS Quarterly*, 2005, 29(3), 525-557

Methodological Note: Webster, J. and Watson, R.T., "Analyzing the Past to Prepare for the Future: Writing a Literature Review," *MIS Quarterly*, 2002, 26(2), 13-23.

SKIM Eisenhardt, K.M. and Graebner, M.E. "Theory Building from Cases: Opportunities and Challenges," *Academy of Management Journal*, 2007, 50(1), 25-32.

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 Jasperson et al (2005).

Session 3: Jan 28 Online Communities

WHO WILL LEAD?

Assignment: **Short Assignment 1 Due**

Fill out Matrix for ONE of the required readings with *

MATRIX DUE (Session 2,3)

Required Readings: Faraj, S., Jarvenpaa, S.L., and Majchrzak, A. "Knowledge Co- Creation in Online Communities," *Organization Science*, 2011, 22(5), 1224-1239.

*Agarwal, Ma., "Through a Glass Darkly: Information Technology Design, Identify Verification, and Knowledge Contribution in Online Communities," *Information Systems Research*, 2007, 18(1), 42-67.

*Wang, X., Butler, B.S., and Ren Y., "The Impact of Membership Overlap on Growth: An Ecological Competition View of Online Groups," Organization Science, 2013, 24(2), 414-431.

*Ren, Y., Harper, M., Drenner, S., Terveen, L., Kiesler, S., Riedl, J., and Kraut, R. "Building Member Attachment in Online Communities: Applying Theories of Group Identity and Interpersonal Bonds," MIS Quarterly, 2012, 36(3), 841-864.

Methodology Paper: Edmondson A.C., and McManus, S.E., "Methodological Fit in Management Field Research," Academy of Management Review, 2007, 32(4), 1246-1264.

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)

Butler, B.S., "Membership Size, Communication Activity, and Sustainability: A Resource-based Model of Online Social Structures," *Information Systems Research*, 2001, 12(4), 346-362.

Roberts, J., Hann, I-H., and Slaughter, S. "Understanding the Motivations, Participation, and Performance of Open Source Software Developers: A Longitudinal Study of the Apache Projects," *Management Science*, 2006, 52(7), 984-999.

Bateman, P. J., Butler, B.S., and Gray, P. H., "The Impact of Community Commitment on Participation in Online Communities," *Information Systems Research*, 2011, 22(4), 841-854.

Ren, Y., Kraut, R., and Kiseler, S., "Applying Common Identity and Bond Theory to Design of Online Communities," Organization Studies, 2007, 28(3), 377-408.

Fang, Y. and Neufeld, D. "Understanding Sustained Participation in Open Source Software Projects," Journal of Management Information Systems, 2009, 25(4), 9-50.

Ren, Y., Harper, M., Drenner, S., Terveen, L., Kiesler, S., Riedl, J., and Kraut, R. "Building Member Attachment in Online Communities: Applying Theories of Group Identity and Interpersonal Bonds," MIS Quarterly, 2012, 36(3), 841-864.

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: *Venkatesh, V., Morris, M.G., Davis, G.B., and Davis, F.D., "User Acceptance of Information Technology: Toward a Unified View," *MIS Quarterly*, 2003, 27(3), 425-478.

*Lapointe, L., and Rivard, S., "A Multilevel Model of Resistance to Information Technology Implementation," *MIS Quarterly*, 2005, 29(3), 461-491.

*Lanha, H.J., Luci, L K., and Reuben M.R., "Understanding Differences in Electronic Health Record (EHR) Use: Linking Individual Physicians' Perceptions of Uncertainty and EHR Use Patterns in Ambulatory Care." *Journal of the American Medical Informatics Association*, 2012, 19, 282-391.
http://m.jamia.bmj.com/content/21/1/73.abstract?sid=d75f0dcb-9171-49e9-8874-002dc458c693

Methodological Note: Lee, A.S. "Integrating Positivist and Interpretive Approaches to Organizational Research," Organization Science, 1991, 2(4), 342-365.

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)

Agarwal, R. and Karahanna, E. "Time Flies When You're Having Fun: Cognitive Absorption and Beliefs about Information Technology Usage," MIS Quarterly, 2000, 24(4), 665-694.

Wixom, B.H., and Todd, P. A., "A Theoretical Integration of User Satisfaction and Technology Acceptance," Information Systems Research, 2005, 16(1), 85-102.

Limayem, M., Hirt, S.G. and Cheung, C.M.K. "How Habit Limits the Predictive Power of Intention: The Case of Information Systems Continuance," MIS Quarterly, 2007, 31(4), 705-737.

Beaudry, A., and Pinsonneault, A. "The Other side of Acceptance: Studying the direct and indirect effects of emotions on information technology use," MIS Quarterly, 2010, 34(4), 689-710.

Nan, N. "Capturing Bottom-Up information technology use processes: a complex adaptive systems model," MIS Quarterly, 2011, 35(2), 505-540.

Kane, G.C., and Labianca, G. "IS Avoidance in Health Care Groups: A Multilevel Investigation," Information Systems Research, 2011, 22(3), 504-522.

Kim, S., and Malhotra, N. "A Longitudinal Model of Continued IS Use: An Integrative View of Four Mechanisms Underlying Post Adoption Phenomena," Management Science, 2005, 51(5), 741-756.

Bhattacherjee, A., and Premkumar, G., "Understanding Changes in Belief and Attitude Toward Information Technology Usage: A Theoretical Model and Longitudinal Test," MIS Quarterly, 2004, 28(2), 229-254.

Walden, E. A., and Browne, G.J. "Sequential Adoption Theory: A Theory for Understanding Herding Behavior in Early Adoption of Novel Technologies," Journal of the Association for Information Systems, 2009, 10(1), 31-62.

*Venkatesh, V. Thong, J., and Xu, X. "Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology," MIS Quarterly, 2012, 36(1), 157-78.

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)

Required Readings: Kane G.C., Alavi. M., Labianca, GJ., Borgatti, S.P., "What's Different about Social Media Networks? A Framework and Research Agenda," MIS Quarterly, Forthcoming.

*Susarla, A. Oh, J-H., Tan Y. "Social Networks and the Diffusion of User-Generated Content: Evidence from Youtube," Information Systems Research, 2012, 12(1), 23-41.

*Agarwal, N., Lim, M. and Wigand R., "Raising and Rising Voices in Social Media," Business and Information Systems Engineering," Business and Information Systems Engineering, 2012, 4(3), 113-126.

Garg, R., Smith, M.D., and Telang., R, "Measuring Information Diffusion in an Online Community," Journal of Management Information Systems Quarterly, 2011, 28(2), 11-38.

Methodological Note: Straub, D., Boudreau, M.C., and Gefen, D. "Validation Guidelines for IS Positivist Research," Communications of the AIS, 2004, 13(24), 380-427.

SKIM: Bagozzi, R.P. "Measurement and Meaning in Information Systems and Organizational Research: Methodological and Philosophical Foundations," MIS Quarterly, 2011, 35(2), 261-292.

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.

*Ahuja, M.K. Galletta, D.F., and Carley, K. "Individual Centrality and Performance in Virtual R&D Groups: An Empirical Study," Management Science, 2003, 49(1), 21-38.

Sykes, T. A., Venkatesh, V., and Gosain, S. "Model of Acceptance with Peer Support: A Social Network Perspective to Understand Employees' System Use," MIS Quarterly, 2009, 33(2), 371-39.

Venkatesh, V., Zhang, X., and Sykes, T.A. "Doctors Do Too Little Technology: A Longitudinal Field Study of an Electronic Healthcare System Implementation," Information Systems Research, 2011, 22(3), 523-546.

Gray, P.H., Parise, S. and Iyer, B. "Innovation Impacts of Using Social Bookmarking Systems", MIS Quarterly, September 2011, 35(3), 629-643.

Ahuja, M., Kirkeby, S., Saonee, S. and Sarker, S. "The Role of Communication and Trust in Global Virtual Teams: A Social Network Perspective," Journal of Management Information Systems, 2011, 28(1), 273-309.

Kane, G.C. and Borgatti, S.P. "Centrality-IS Proficiency Alignment and Workgroup Performance," MIS Quarterly, 2011, 35(4), 1063-1078.

Aral, S., and Walker, D., "Creating Social Contagion Through Viral Product Design: A Randomized Trial of Peer Influence in Networks," Management Science, 57(9), 1623-1639.

Any of the articles in the Special Issue—Social Media and Business Transformation: A Framework for Research, Information Systems Research, volume 24, Issue 1, March 2013.

Guest Professor: Rajiv Garg, University of Texas at Austin

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

Required Readings: Barley, S.R., "The Alignment of Technology and Structure through Roles and Networks," Administrative Science Quarterly, 1990, 35, 61-103.

Faraj, S., and Azad, B., "The Materiality of Technology: An Affordance Perspective." In: Leonardi, P.M., Nardi, B.A., and Kallinikos, J. (Eds.), "Materiality and organizing: Social Interaction in a Technological World," 2012, Oxford University Press, Oxford.

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*Leonardi, P. M., "When Flexible Routines Meet Flexible Technologies: Affordance, Constraint, and the Imbrication of Human and Material Agencies," MIS Quarterly, 2011, 35(1), 147–167.

*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.

Methodological Paper: Mohr, L.B, "Variance and Process Theories." In: Bass, J., "Explaining Organizational Behavior: The Limits and Possibilities of Theory and Research," 1982, Sanfrancisco.

Partial List of Articles to Select From for Additional Reading

Orlikowski, W.J., and Scott, S. "Sociomateriality: Challenging the Separation of Technology, Work, and Organization," The Academy of Management Annals, 2008, 2(1), 433-474.

Markus, M.L., and Silver, M.S. "A Foundation for the Study of IT Effects: A New Look at DeSanctis and Poole's Concepts of Structural Features and Spirit," Journal of the Association for Information Systems, 2008, 9, 609-632.

Davidson, E., and Vaast, E. "Digital Entrepreneurship and its Sociomaterial Enactment," 43rd Hawaii International Conference on Systems Sciences, 2010.

Chomic, G. "Change over Time: Research Approaches to ICT-enabled Emergent Change," From the Head of Group, London School of Economics, 2009, 28-31.

Angelo, H. "Hard-wired Experience: Sociomateriality and the Urban Everyday," City, 2011, 15(5), 570-576.

Vaast, E. and Davidson, E.J., Mattson, T., "Talking about Technology: The Emergence of a New Actor Category Through New Media," MIS Quarterly, 2013, 37(4), 1069-1095.

Select an article from the forthcoming MIS Quarterly special issue on sociomateriality. e.g., Scott, S.W. and Orlikowski, W.J. "Entanglements in Practice: Performing Anonymity Through Social media," MIS Quarterly, forthcoming.

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)

Required Readings: Tushman, M. L., and Nadler, D. A. "Information Processing as an Integrating Concept in Organizational Design," Academy of Management Review, 1978, 3(3), 613-624

*Mani, D., Barua, A., and Whinston, A.B. "An Empirical Analysis of the Impact of Information Capabilities Design on Business Process Outsourcing Performance," MIS Quarterly, 2010, 34(1), 39-62.

*Chi, L., Ravichandran, T., and Andrevski, G. "Information Technology, Network Structure, and Competitive Action," Information Systems Research, 2010, 21(3), 543-570.

*Koch, H., and Schultze, U. "Stuck in the Conflicted Middle: A Role-Theoretic Perspective on B2B E-Marketplaces," MIS Quarterly, 2011, 35(1) 123-146.

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Methodological Note: Venkatesh, V., Brown, S. A. and Bala, H. "Bridging The Qualitative-Quantitative Divide: Guidelines For Conducting Mixed Methods Research In Information Systems," MIS Quarterly, forthcoming.

Partial List of Articles to Select From for Additional Reading

Sahaym, A., Steensma, H.K., and Schilling, M.A., "The Influence of Information Technology on the Use of Loosely Coupled Organizational Forms: An Industry-Level Analysis," Organization Science, 2007, 18(5), 865-880.

Ray, G., Wu, D., and Konana, P., "Competitive Environment and the Relationship Between IT and Vertical Integration," Information Systems Research, 2009, 20(4), 585 - 603.

Rai, A. Maruping, L.M. Venkatesh, V. "Offshore Information Ssytems Project Success: The Role of Social Embeddedness and Cultural Characteristics," MIS Quarterly, 2009, 33(3), 617-641.

Xue, L, Ray, G., and Gu, B. "Environmental Uncertainty and IT Infrastructure Governance: A Curvilinear Relationship," Information Systems Research, June 2011, 22(2), 389-399.

Tallon, P. P., and Pinsonneault. A., "Competing perspectives on the link between strategic information technology alignment and organizational agility: Insights from a mediation model," MIS Quarterly, 2011, 35(2), 463–484.

Aral, S., Bynjolfsson, E. and Wu. L., "The Effect of Information Technology-Enabled Flexibility on Formation and Market Value of Alliances," Management Science, 2012, 58(5), 913-931.

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**

Required Readings:

Webster, J. and Watson, R.T., "Analyzing the Past to Prepare for the Future: Writing a Literature Review," MIS Quarterly, 2002, 26(2), 13-23.

Barley, S.R. "When I Write My Masterpiece: Thoughts on What Makes a paper Interesting," Academy of management Journal, 2006, 49(1), 16-20.

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**

Knock, N. and Davison, R., "Dealing with Plagiarism in the Information Systems Research Community: A Look at Factors that Drive Plagiarism and Ways to address them," MIS Quarterly, 2003, 27(4), 511-532.

http://www-old.lib.sfu.ca/researchhelp/tutorials/interactive/plagiarism/tutorial/table-of-contents.htm

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

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

Allen, G.N., Ball, N.L., and Smith, H.J. "Information systems research behaviors: what are the normative standards," MIS Quarterly, 2011, 35(3), 533-551.

SPRING BREAK [MAR 10 – 15]

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:

Barney, J.B., "Firm Resources and Sustained Competitive Advantage," Journal of Management, 1991, 17(1), 99-120.

Wade, M., and Hulland, J., "The Resource-Based View and information Systems Research: Review, Extension, and Suggestions for Future Research," MIS Quarterly, 2004, 28(1), 107-142.

Nevo, S., and Wade, M.R. "The Formation and Value of IT-Enabled Resources: Antecedents and Consequences of Synergistic Relationships," MIS Quarterly, 2010, 34(1), 163- 84.

Tanriverdi, H., Rai, A. and Venkatraman, N. "Reframing the Dominant Quests of Information Systems Strategy Research for Complex Adaptive Business Systems," Information Systems Research, 2010, (21), 822-834.

Partial List of Articles to Select From for Additional Reading

Tanriverdi, H. "Information technology relatedness, knowledge management capability, and performance of multibusiness firms," *MIS Quarterly*, 2005, 29(2), 311-334.

Ray, G., Muhanna, W., and Barney, J. "Information Technology and the Performance of the Customer Service Process: A Resource-Based Analysis," *MIS Quarterly*, 2005, 29(4), 625-652.

Pavlou, P.A., and El Sawy, O.A., "From IT Leveraging Competence to Competitive Advantage in Turbulent Environments: The Case of New Product Development," Information Systems Research, 2006, 17, 198-227.

Saraf, N., Schlueter, C.L., and Gosain, S "IS Application Capabilities and Relational Value in Interfirm Partnerships," Information Systems Research, 2007, 18(3), 320-339.

Rai, A., and Tang, X. "Leveraging IT Capabilities and Competitive Process Capabilities for the Management of Interorganizational Relationship Portfolios," Information Systems Research, 2010, 21(3) 516-542.

Lu, Y., and Ramamurthy, K. R. "Understanding the Link between Information Technology Capability and Organizational Agility: An Empirical Examination," MIS Quarterly, 2011, 35(4), 931-954.

Rai, A., Pavlou, P.A., Im, G., and Du, S., "Interfirm IT Capability Profiles and Communications for CoCreating Relational Value: Evidence from the Logistics Industry," MIS Quarterly, 2012, 36(1), 233-262.

Williams, C. and Karahanna, E "Causal Explanation in the Coordinating Process: A Critical Realist Case Study of Federated IT Governance Structures," MIS Quarterly, 2013, 37-3, 933-941.

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:

DiMaggio, P.J., and Powell, W.W., "The Iron Cage Revisited: Institutional Isomoprhism and Collective Rationality in Organizationsl Fields," American Sociological Review, 1983, 48(2), 147-160.

Orlikowski, W., and Barley, S. "Technology and Institutions: What Can Research on Information Technology and Research on Organizations Learn from Each Other," MIS Quarterly, 2001, 25(2), 145-165.

*Gosain, S. "Enterprise Information Systems as Objects and Carriers of Institutional Forces: The New Iron Cage?," Journal of the Association for Information Systems, 2004, 5(4), 151-182.

*Berente, N. and Yoo, Y., "Institutional Contradictions and Loose Coupling: PostImplementation of NASA's Enterprise Information Systems," Information Systems Research, 2012, 23(2), 376-396.

Wen, W. "Patent Commons, Thickets, and Open Source Software Entry by Start-up Firms," 2013, working paper.

OPTIONAL Additional Reading (NO REQUIREMENT)

Liang, H., Saraf, N., Hu, Q., and Xue, Y. "Assimilation of Enterprise Systems: The Effect of Institutional Pressures and the Mediating Role of Top Management," MIS Quarterly 2007, 31(1), 59-87.

Soh, C., and Sia, S. K. "An Institutional Perspective on Sources of ERP Package-Organisation Misalignments," Journal of Strategic Information Systems, 2004, 13(4), 375-397.

Volkoff, O., Strong, D. M., and Elmes, M. B. "Technological Embeddedness and Organizational Change," Organization Science, 2007, 18(5), 832-848.

Davidson, Elizabeth J.; Chismar, William G. "The Interaction Of Institutionally Triggered And Technology-Triggered Social Structure Change: An Investigation Of Computerized Physician Order Entry," MIS Quarterly, 2007, 31(4), 739-758.

*Wang, P., "Chasing the Hottest IT: Effects of Information Technology Fashion on Organizations," MIS Quarterly, 2010, 34(1), 63-85.

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)

Required Readings: Nonaka, I., "A Dynamic Theory of Organizational Knowledge creation," Organization Science, 1994, 5(1), 14-37.

Alavi, M., and Leidner, D.E., "Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues," MIS Quarterly, 2001, 25(1), 107-136.

*Kellogg, K.C., Orlikowski, W.J., and Yates, J., "Life in the Trading Zone: Structuring Coordination Across Boundaries in Post Bureaucratic Organizations", Organization Science, 2006, 17(1), 22-44.

*Majchrzak, A., Wagner, C., and Yates, D., "The Impact of Shaping on Knowledge Reuse for Organizational Improvement with Wikis," MIS Quarterly, 2013, 37(2), 455-469.

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

Stein, E.W., and Zwass, V., “Actualizing organizational memory with IS,” Information Systems Research, 1995, 6(2), 85-117.

Gray, P.H., and Meister, D.B., “Knowledge sourcing effectiveness,” Management Science, 2004, 50(6), 371-386.

Kankanhalli, A., Tan, B.C.Y., and Wei, K.-K. "Contributing knowledge to electronic knowledge repositories: An empirical investigation," MIS Quarterly, 2005, 29(1), 113-143.

Carlile, P. R., “Transferring, translating, and transforming: An integrative framework for managing knowledge across boundaries,” Organization Science, 2004, 15(5), 555–568.

Majchrzak, A., Malhotra, A. and John, R., “Perceived Individual Collaboration Know-How Development Through Information Technology-Enabled Contextualization: Evidence from Distributed Teams,” Information Systems Research, 2005, 16(1), 9-27.

Chaudhury, A., Kim, Y.J., Rao, H.R. and Ryu, C., “Knowledge acquisition via three learning processes in enterprise information portals: learning-by-investment, learning-by-doing, and learning-from-others,” MIS Quarterly, 2005, 29(2), 245-278.

Dabbish, L. and Kraut, R., “Awareness displays and social motivation for coordinating communication,” Information Systems Research, 2008, 19(2), 221-223.

Tiwari, V., van Fenema, P.C., and Vlaar, P.W., “Cocreating understanding and value in distributed work: How members of onsite and offshore vendor teams give, make, demand, and break sense,” MIS Quarterly, 2008, 32(2), 227-255.

Dennis, A.R. and Ko, D., “Profiting from Knowledge Management: The Impact of Time and Experience,” Information Systems Research, 2011, 22(1), 134-152.

Ravishankar, M. N., Pan, S.L. and Leidner. D.E., “Examining the strategic alignment and implementation success of a KMS: A subculture-based multilevel analysis,” Information Systems Research, 2011, 22 (1), 39–59.

Levina, N., “Collaborating on Multiparty Information Systems Development Projects,” Information Systems Research, 2005, 6(2), 109-130.

Wang, Y., Meiser, D.B., and Gray, P. H,. “Social Influence And Knowledge Management Systems Use: Evidence From Panel Data,” MIS Quarterly, 2013, 37(1), 299-313.

Durcikova, A., Fadel, K. J., Butler, B. S. and Galletta, D.,
“Knowledge Exploration And Exploitation: The Impacts Of Psychological Climate And Knowledge Management System Access,” Information Systems Research, 2011, 22(4), 855-866.

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

Required Readings: Hevner, A.R., March, S.T., Park, J., and Ram, S., "Design Science in Information Systems Research," MIS Quarterly, 2004, 28(1), 75-105.

*Markus, M.L., Majchrzak, A., and Gasser, L., "A design theory for systems that support emergent knowledge processes," MIS Quarterly, 2002, 26(3), 179-213.

*Germonprez, M., Hovorka, D., and Gal, U., "Secondary design: A Case of Behavioral Science Research," Journal of the Association for Information Systems, 2011, 12(10), 662-683.

Kong, D. and Saar-Tsechansky, Collaborative Information Acquisition for Data-Driven Decisions, working paper, 2013.

Partial List of Articles to Select From for Additional Reading

Walls, J.G., Widmeyer, G.R., and El Sawy, O., "Building an IS design theory for vigilant EIS," MIS Quarterly, 1992, 3(1), 36-59.

March, S. T., and Smith, G. F., "Design and natural science research on information technology," Decision Support Systems, 1995, 15(4), 251-266.

Pries-Heje, J., and Baskerville, R., "The design theory nexus," MIS Quarterly, 2008, 32(4), 731-755.

Arazy, O., Kumar, N., and Shapira, B., "A Theory-Driven Design Framework for Social Recommender Systems," Journal of the Association for Information Systems, 2010, 11(9), 455-490.

Sein, M. K., Henfridsson, O., Purao, S., Rossi, M., and Lindgren, R., "Action Design Research," MIS Quarterly, 2011, 35(1), 37-56.

Kohler, T., Fueller, J., Matzler, K. and Stieger, D., "Co-Creation in Virtual Worlds: The Design of the User Experience," MIS Quarterly, 2011, 35(3), 773-788.

Tremblay, M. C., Hevner, A. R., and Berndt, D. J., "Design of an Information Volatility Measure for Health Care Decision Making," Decision Support Systems, 2012, 52(2), 331-341.

Reinecke, K. and Bertstein, A., "Knowing What a User Likes: A design science approach to interfaces that automatically adapt to culture," MIS Quarterly, 2013, 37(2), 427-453.

Sutanto, J., Palme, E., Tan, C-H. and Phang, C.W., "Addressing the Personalization-Privacy paradox: An Empirical Assessment from a Field Experiment on Smartphone Users," MIS Quarterly, 2013, 37(4), 1141-A5.

Guest Professor: Maytal Saar, University of Texas at Austin

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: Schultze, U., Hiltz, S. R., Nardi, B., Rennecker, J., and Stucky, S., "Using Synthetic Worlds for Work and Learning," Communications of the Association for Information Systems, 2008, 22(1), 9.

*Dimoka, A., "What Does the Brain Tell Us About Trust and Distrust? Evidence from a Functional Neuroimaging Study," MIS Quarterly, 2010, 34(2), 373-396.

*Tsai, J., Egelman, S., Cranor, L. and Acquisti, A., "The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study," Information Systems Research. 2011, 22(2), 254-268.

*Golander, G.K., Tractinsky, N. and Kabessa-Cohen, I., "Trends in Website Design," AIS Transactions on Human Computer Interaction, 2012, 4(3), 169-189.

Methodological Notes (SKIM both): Dimoka, A., Pavlou, P. A., and Davis, F. D., "NeuroIS: The Potential of Cognitive Neuroscience for Information Systems Research," Information Systems Research, 2011, 22(4), 687-702.

Compeau, D., Marcolin, B., Kelley, H. and Higgins, C., "Generalizability Of Information Systems Research Using student Subjects—A Reflection On Our Practices And Recommendations For Future Research," Information Systems Research, 2012, 23(4), 1093-1109.

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: Roberts, N., Galluch, P. S., Dinger, M., and Grover, V., “Absorptive Capacity And Information Systems Research: Review, Synthesis, And Directions For Future Research,” Information Systems, 2012, 6(1), 25-40.

Boland, R., Lyytinen, K., and Yoo, Y., "Wakes of Innovation in Project Networks: The Case of Digital 3-D Representations in Architecture, Engineering, and Construction," Organization Science, 2007, 18(4), 631 - 647.

Boudreau, K. J., “Let a Thousand Flowers Bloom? An Early Look at Large Numbers of Software App Developers and Patterns of Innovation,” Organization Science, 2012, 23(5), 1409-1427.

Methodological Note: Venkatesh, V., Brown, S. A. and Bala, H., “Bridging The Qualitative-Quantitative Divide: Guidelines For Conducting Mixed Methods Research In Information Systems,” MIS Quarterly, 2013, 37(1), 21-54.

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)

Swanson, E.B., and Ramiller, N.C., “Innovating Mindfully with Information Technology,” MIS Quarterly, 2004, 28(4), 553–583.

Majchrzak, A., Cooper, L., and Neece, O., “Knowledge Reuse for Innovation,” Management Science, 2004, 50(2), 174-188.

Tiwana, A., and McLean, E.R., “Expertise integration and creativity in information systems development. J,” Management Information Systems, 2005, 22(1), 13-43.

Kane, G.C., and Alavi, M., “Information Technology and Organizational Learning: An Investigation of Exploitation and Exploration Processes,” Organization Science, 2007, 18(5), 786-812.

Tiwari, V., van Fenema, P.C., and Vlaar, P.W., “Cocreating understanding and value in distributed work: How members of onsite and offshore vendor teams give, make, demand, and break sense,” MIS Quarterly, 2008, 32(2), 227-255.

Wang, P., and Ramiller, N., “Community Learning In Information Technology Innovation,” MIS Quarterly, 2009, 33(4), 709-734.

Yoo, Y., Henfridsson, O., and Lyytinen, K., “The New Organizing Logic of Digital Innovation: An Agenda for Information Systems Research,” Information Systems Research, 2010, 21(4), 724-735.

Jeppesen, L.B., and Lakhani, K.R., “Marginality and Problem-Solving Effectiveness in Broadcast Search,” Organization Science, 2010, 21(5), 1016-1033.

von Hippel E., and von Krogh, G., "Open Source Software and the "Private-Collective" Innovation Model: Issues for Organization Science," Organization Science, 2003, 14(2), 209-223.

Lee, J., and Berente, N., “Digital innovation and the division of innovative labor: A dual-hierarchy view of complex product architectures,” Organization Science, 2012, 23(5), 1428-1447.

Afuah, A., and Tucci, C. L., "Crowdsourcing as a Solution to Distant Search," Academy of Management Review, 2012, 37(3), 355-375.

Carlo, J. L., Lyytinen, K., and Rose, G. M., "A Knowledge-Based Model of Radical Innovation in Small Software Firms," MIS Quarterly, 2012, 36(3), 865-A810.

Burtch, G., Ghose, A. and Wattal, S., "An Empirical Examination of the Antecedents and Consequences of Contribution Patterns in Crowd-Funded Markets," Information Systems Research, 2013, 24(3), 499-519.

Levine, S.S. and Prietula, M., "Open Collaboration for Innovation: Principles and Performance," Organization Science, forthcoming.

Boudreau, K.J. and Lakhani, K.R., "How Disclosure Policies Impact Search in Open Innovation," working paper, 2013.

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:

Bem, D.J., "Writing the empirical journal article," in the complete academic: A practical guide for the beginning social scientist, edited by M. P. Z. J. M. Darley, 1987, New York: Random House.
Available online at: http://dbem.ws/WritingArticle.2.pdf

Valacich, J.S., Fuller, M.A., Schneider, C., and Dennis, A.R., "Publication Opportunities in Premier Business Outlets: How Level is the Playing Field," Information Systems Research, 2006, 17(2), 107-125.

May 10 (Thursday): RESEARCH PAPERS ARE DUE