ISM 785
THEORIES OF INFORMATION SYSTEMS
Spring 2006
Department of Information Systems and Operations Management
The Bryan School of Business
University of North Carolina, Greensboro

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Class Time: W 9:30am – 12:30pm  Mail Box: 479 Bryan Building

SEMINAR OBJECTIVES

This course is designed to provide you exposures to theories underlying IS research and to help you transition from consumers of research to active participants in conducting quality research. To achieve this aim, fundamental knowledge of what constitutes a theory and how to develop and test a theory from the formulation of concept or thought to theory to stream or school of research will be introduced at the beginning of this class. This should help establish a common language or furnish you with some useful research tools (as Weick calls it) to appreciate and astutely evaluate the evolution in IS research.

Research articles from IS area will be presented based on the level of analysis or population of focus from individual, group, organization to global level. Empirical or conceptual papers from other disciplines will be weaved in to broaden your understanding and knowledge of how similar research issues are investigated in various fields. In addition to studying the research genres important to the IS field, we will also discuss issues affecting the research process including rigor versus relevance issues; reporting, submitting, and revising papers; reviewing manuscripts; developing a program of research and managing your career. By the end of the semester, you are expected to have an expanded understanding of the IS research streams and research questions that identify the core identity of the IS research field and are able to conduct theory-based research independently. Please keep in mind that this seminar emphasizes critical but constructive discourse aiming toward help you designing state of the art research studies that build on and extend the current body of knowledge.

SEMINAR STRUCTURE

This class will be carried out as an engaging seminar. Everyone contributes and builds upon each other’s discussion based on the ideas presented in the assigned articles and insights you gain from integrating these ideas with your own knowledge and experiences. This class will be successful only if you come prepared to discuss all assigned reading materials. Since we only have 160 minutes to discuss 4~ 5 papers each week, please be sensitive and conscientious about how you use the air time. Long winding rambling is not considered effective communication or active participation. You are also required to review every paper and turn in your one-page summaries/critiques to me before the end of each Friday (5pm) with the following categories:
1. Full citation, your name and date (You can see how your thinking changes as your exposure with research increases).

2. Summary or overview of the paper (Learn to write abstract with 50 ~100 words)

3. The significance of problem(s) – the so what question, the potential contribution with respect to current IS research (How is the research question addressed here advance IS field?).

4. The logic or theoretical development or framework and how it relates to other articles, theories and practices and appropriateness of the hypotheses or propositions (Did you have a light bulb moment? Or Hum..... I see your point, Cool!)

5. The validity and reliability of the research design and empirical findings (Can I trust the results?)

6. Are there aspects that are unclear, flawed, making too many assumptions or could be subject to other criticism? (Any fish bone left in your throat (metaphor) after reading the paper and you can not wait to get rid of it.)

7. List three new ideas you have learned from this paper and suggest one possible future research question that can extend this study (learning to be a thoughtful researcher....)

One person will be responsible to lead the discussion of one paper per week. Please prepare your article discussion using power point presentation. Your presentation will be graded based on your familiarity with 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 or other scholarly articles to support or refute the readings, and the ability to ask and/or answer relevant questions.

REQUIRED READINGS

All required readings can be found on the Blackboard.

ASSIGNMENTS

There are three major assignments for this class. One assignment is to present a prominent IS scholar who makes or shakes the IS research traditions or directions. The second assignment is to submit a theory-based research paper and the third assignment is to submit two reports after evaluating two research papers written by your peers.

**Assignment One:** Each student will study one major IS scholar in our field. The study of IS scholars aims to provide a unique perspective on the development of new theories, to form a sense of history, to develop better understanding of exemplary personal scholarship, and to make you acquainted with the work of some **upcoming or established leading active researchers in our field**. The review will be presented at the later part of the semester. Your presentation should integrate and synthesize the main overarching themes in the scholar’s work and their relation to the IS research evolution and directions and identify chief contributions and most significant publications. List the research questions, dependent and independent variables addressed and important findings that propel the field or the body of knowledge. Identify, if possible, who influenced the scholar’s thoughts, others who were inspired by the reviewed scholars, those who were at odds, and those who developed his or her work further. Your review should also
demonstrate highlights of the scholar’s academic career. Please also provide the following in your presentation: A recommended reading list of 5-10 major writings to your peers (articles and books) and a related list about the person’s work (articles, books, and online resources). If you can find photos, anecdotes or famous sayings of this scholar, please present them as well. Your deliverables are (1) a 20~30 minute presentation and (2) your power point file. We will start your presentation after the spring break – March 15. You can choose the week to present your study and let me know before February 22, 2006.

Assignment Two: You will develop a theory-based research paper for this class. This paper can be conceptual or empirical based. You will need to submit a 4-6 page idea paper on March 15th (to me only) and 10-15 page draft on April 12th (to me only) to receive feedback from your peers as well as the instructor. When submitting your paper, please do not use any header or footer to reveal your identity. Based on the provided feedback, you are expected to make necessary revisions before your final submission on May 14th (Late submission will not be accepted and you will automatically receive 0 score for this assignment.). Your final paper (23-27 pages) should at least consist of:

1. Research Orientation
   Describe the substantive issue under investigation and discussion about the related domain(s) of knowledge and other relevant background information including
   - Research objective, problems, gaps and key research questions
   - Research rationale and relevance
   - Potential contributions to knowledge and implications

2. Literature Review and Framework Development
   Set a conceptual testable model and frame it in the context of the literature:
   - Describe overall rationale of your theories
   - Conduct an extensive literature review and summarize the research related to each of the constructs in your model and each of the hypothesized relationships. Your review should include but not limited to the basic concepts and theories, key research problems and their evolution, major findings and their evolution, major criticisms, an assessment of the theoretical and practical impact of the research, used research methods and their limitations. When possible, use tables to present a summary of your literature review findings.
   - Specify the mechanics of model or framework (use figures or boxes to present your framework if possible).
   - Discuss and substantiate its face validity
   - Identify the main constructs
   - Identify the relationships between the constructs
   - Formulate a set of testable hypotheses concerning the relationships between the constructs.
   - Attach a table that lists the constructs, their definitions, and list their main references.
   (If possible, also list known or established operationalizations of each construct)
   Use tables, charts, figures and classifications schemes to identify the issues, to organize your discussion, and to develop a solid research framework.

3. **Research Plan or Data Analysis and implications**

   Describe your plan for carrying out the research and include research materials such as survey, questionnaires or interview questions. Identity your data source and discuss potential statistics tests you will use to analyze your data. List potential results and contributions. If you can carry out the data collection, this is the section you will discuss your findings and implications.

4. **Discussion and Conclusion**

   In this section, you will need to highlight your study objective and your major findings again. You need to discuss if any surprise or conformance from your data results with your hypotheses. You will further present the contributions of this study, the specific, the better. Two more items need to be addressed in this section: caveat to the study limitations, thus, the degree of finding generalizability and the implications for management and researchers. You should conclude with suggestions or new focus for future studies.

**Assignment Three:** We will study some articles that address the other end of doing research—writing, reviewing and revising manuscripts. To get you a practical experience, you will review your peers’ writing in a critical and constructive manner using guidelines suggested from the readings such as:


You will provide a 2-page single spaced review to each of the paper you will evaluate. The review will be double-blinded review. However, please be critical but constructive (again!) when giving feedback and recommendations. You will submit your reviews to me only.
Grading Criteria:

Your work in the seminar will be based on the following:

Class Participation 10%
Summary/Critique Reports 10%
Weekly Paper Presentations 15%
IS Scholar Presentation 10%
Peer Paper Reviews 15%
Theory-based Research Paper 40%
COURSE SCHEDULE AND READINGS

Week 1 - 1/11/2006 - BUILDING COMMON LANGUAGE ON THEORY - ONE

Week 2 – 1/18/2006 - BUILDING COMMON LANGUAGES ON THEORY - TWO

Week 3 – 1/25/2006 - IS RESEARCH RELEVANCE AND RIGOR DEBATE

Week 4 – 2/1/2006 - THEORY OF ABSORPTIVE CAPACITY (Required: First 4)


Week 5 – 2/8/2006 - THEORY of DYNAMIC CAPABILITIES (Required: First 4)


**Week 6 – 2/15/2006 - RESOURCE DEPENDENCY THEORY (Required: First 5)**


**Week 7 – 2/22/2006 - STRUCTURATION THEORY (Required: First 6 articles)**


Week 8 – 3/1/2006 - ADAPTIVE STRUCTURATION THEORY and ACTOR NETWORK THEORY (Required: All 6 articles)


Week 9 – 3/8/2006 – SPRING BREAK (Required: READ, SLEEP, REFLECT and READ MORE)

Week 10 – 3/15/2006 – THEORY of HUMAN CAPITAL, MOTIVATION, COMMITMENT, HORIZONTAL WORK DESIGN, PSYCHOLOGICAL CONTRACT SOCIAL IDENTITY, CREATIVITY, JOB PERFORMANCE and TURNOVER  (Required: Select 4 that interest you the most)


Week 11 – 3/22/2006 – THEORIES ON INNOVATION ADOPTION, ADAPTATION, DISRUPTION, CONTINUED USE AND ROUTINES


**Week 12 – 3/29/2006 - TRANSACTION COST ECONOMICS THEORY (Required: First 4)**


**Week 13 – 4/5/2006 - AGENCY THEORY (Required: First 4)**


Week 14 – 4/12/2006 - ORGANIZATIONAL INFORMATION PROCESSING THEORY (First 2) and INFORMATION PROCESSING THEORY (Remaining) (Required: Next 3)


Week 15 – 4/19/2006 - THEORY of ADMINISTRATIVE BEHAVIOR or THEORY OF BOUNDED RATIONALITY (Required: First 4 articles)


**Week 16 – 4/26/2006 - Cultural and Global Theories (Distributed Teams)**


**BONUS: THEORY of TASK-TECHNOLOGY FIT**
