

ISYS 6133: Survey of IS Research Fall 2017



INSTRUCTOR

- Dr. Varun Grover, David D. Glass Endowed Chair & Distinguished Professor of Information Systems
- Official Class Hours: Tuesday (5:00-7:45pm) (typically, we will overshoot this duration by a few hours) in Business Building Seminar Room 405
- Office hours: WCOB 204. By appointment. I will be available after class (7:45-9:00pm) on Wednesday, but since the class might end late and doctoral issues could require significant time, your best option is to set up a meeting time.
- Phone: (479)-575-4500
- E-Mail: vgrover@uark.edu (use this for quick access!)
- Instructor url: <http://varungrover.com>
- Blackboard Access

BACKGROUND

You are embarking on a career in knowledge generation and dissemination. The doctorate is the first step in making this a successful career. Below, I present views (that I share) of The Carnegie Foundation which presents a first principle perspective on the question "What is the purpose of doctoral education?"

"Taken broadly, we believe the answer is to educate and prepare those to whom we can entrust the vigor, quality, and integrity of the field. This person is a scholar first and foremost, in the fullest sense of the term. Such a leader has developed the habits of mind and ability to do three things well: creatively generate new knowledge, critically conserve valuable and useful ideas, and responsibly transform those understandings through writing, teaching, and application. We call such a person a "steward of the discipline."

Generation. The Ph.D. is, at its heart, a research degree. Demonstrating one's ability to conduct research and scholarship that make a unique contribution and meets the standards of credibility and verifiability is the culminating experience of the Ph.D. degree. One skilled at knowledge generation is able to assess, critique, and defend knowledge claims. A steward is able to ask and frame important questions. Traditionally, this has been the most thoroughly developed aspect of doctoral education. Even so, we often do not deliberately consider what experiences teach students to become excellent researchers. The "pedagogy of research" is an underdeveloped field.

Conservation. Another facet of disciplinary leadership is an understanding of the history and foundational ideas of the discipline. Disciplines evolve continuously, and stewards have responsibility for maintaining the continuity, stability, and vitality of the field. A Ph.D. recipient should understand the foundations of the field; which ideas to keep and which to reject. Moreover, a steward should understand how their discipline fits into the intellectual landscape, have a respectful understanding of the questions and paradigms of other fields, and understand how their discipline can speak to important questions.

Transformation. Finally, the third facet, transformation, speaks of the importance of representing and communicating ideas effectively and clearly. Transformation implies teaching in the broadest sense of the word. Those who are expert practitioners of their field will be called upon to teach, regardless of their work setting. Whether working in a classroom, non-profit or governmental organization, industrial setting, or policy arena, a steward must be able to convey information and the value of their knowledge and skills. Transformation also implies application. Knowledge is used in a variety of settings, and a disciplinary leader must understand the range of uses to which knowledge can be applied. Such communication calls upon skills that ought to be developed during the apprenticeship period. A steward can communicate in oral and written forms to technical and lay audiences. Transformation also suggests that stewards must understand and appreciate how to communicate across traditional disciplinary boundaries.

The use of the term "steward" is deliberately intended to convey a role that transcends a collection of accomplishments and skills. A steward of the discipline is a person entrusted with care of the discipline by those in the discipline on behalf of those in and beyond the discipline. There are conservative aspects to the term, implying the preservation of the past. A Ph.D. holder thinks about the continuing health of the discipline, and how to preserve the best of the past, the heart and essence of the field, for those who will follow. But there are also important forward looking meanings; stewardship does not imply stasis. Stewards are caretakers who direct a critical eye toward the future. They must be willing to take risks and move the discipline forward. Ultimately, stewards consider how to prepare and initiate the next generations of leaders. And in all their work, they act with responsibility and according to the highest ethical standards."

While this course is offered for both 1st and 2nd year students, it is designed to be an early doctoral level exposure to the IS field and its foundations. It sets you on the path to becoming a "steward of the discipline." In many ways it represents your indoctrination into the program by exposing you to fundamental research concepts (thinking like a researcher) as well as an understanding of the IS field. The course should provide you with a **mind set** that will hold you in good stead as you undertake the various research challenges through the program. As with any course at the doctoral level, the more you put into it – the more you will get out of it. When you emerge from this course, you will not be an expert on IS research, but will (hopefully) be in a position to appreciate your field of choice as well as conserve, generate and transform the field.

COURSE OBJECTIVES

The major components of the course are described in the figure below:

- **Part I** includes the basic tenets of scientific research - including knowledge evolution, theory, hypotheses, constructs, variables, assumptions.

The objective of Part I is to get you in the mindset of a researcher. How should a researcher think? What is science and scientific knowledge? Is scientific knowledge developed cumulatively? What constitutes such knowledge? What are the basic tenets of knowledge creation and knowledge structure? What is theory – and how can theory be assessed and valued? What are the tradeoffs in made in theorizing? What are the underlying philosophical assumptions behind theorizing?

- **Part II** involves gaining familiarity with the IS field and understanding its rich history – with appreciation of academic writings that had a major impact in terms of setting the foundations and/or providing theoretical guidance that instrumentally transformed streams of work within the field.

The objective of Part II, the bulk of the course, is to help you appreciate the field of IS, its temporal and theoretical foundations. We are in the digital-age. Catalyzed by information technologies, the field of IS has evolved - and information, knowledge, information technologies and their manifestations at the individual, group, organizational and inter-organizational levels are becoming increasingly important and profound. As potential researchers in this area, we have tremendous opportunities to traverse growing and changing knowledge gaps regarding the transformational aspects of information technologies in business, organizations and society. The burgeoning information technology catalyst has propelled the “field” of information systems (IS) from one that was consistently challenged as a business school discipline, to one that is relatively more accepted within the academic context. The field has struggled with definitional issues and credibility – but IS researchers have responded through self-governance and enforcement of standards in the conduct and quality of research. Today, IS research is comparable in rigor to the best disciplines within the social sciences. Some have even suggested that it is far tougher to get published in top IS journals than other major journals in business disciplines. While many issues remain with the core of the field, such as the difficulty in building sustainable theory within a rapidly changing technological environment, the challenge in addressing the “big” questions of our time, the place of technical versus managerial research, the ability to create a strong conduit to practice, the degree to which IS can be absorbed by other business disciplines, I believe that there is room for optimism about the future. In fact, recent technological trends in cloud, analytics, big data, mobile and social computing have created a new “buzz” for businesses and opportunities to enhance and reconfigure existing theories in new and emerging IT contexts.

Despite the ongoing changes in technology, the field as it stands today, is very much influenced by its foundational thinkers who stimulated debate on (what was then considered) new and different perspectives. It also draws from a number of diverse theoretical lenses many of which are adapted from related (reference) disciplines. It is important for a new doctoral student venturing into this area to construct his or her own schema of the field so that new knowledge can be effectively synthesized. To do this, it is useful to understand key “anchor points” in the field over both time and domain. This course is intended to provide you with these anchor points – so that you can begin your journey of filling in the gaps and creating a logical structure of the field that will frame your further absorption of knowledge. Over time, we look at influential (classical) papers that made a difference in the field. While where we have been is not necessarily a prelude to where we are going, a sense of the roots of the disciplinary tree, history, socialization of knowledge, and the role of the technological catalyst puts the field in perspective. Over domain, we examine key but

necessarily incomplete theoretical underpinnings of the discipline. We will also observe a largely a positivist epistemology – so the perspectives espoused here represent an important skeleton of the field – and do not claim to be the only perspectives. Remember, this is only the beginning – and from the dots you encounter in this seminar, you will have the opportunity to build your own picture as you engage with further readings and research through your doctoral study and beyond. Of course, with a longer than 40-year history - there is greater subjectivity in selecting key anchor papers, as the knowledge-base is much larger and broader. Therefore, while I would encourage you to form your own schema of the field - with the caveat that this course represents one set of important anchors that I believe can help you structure your schema.

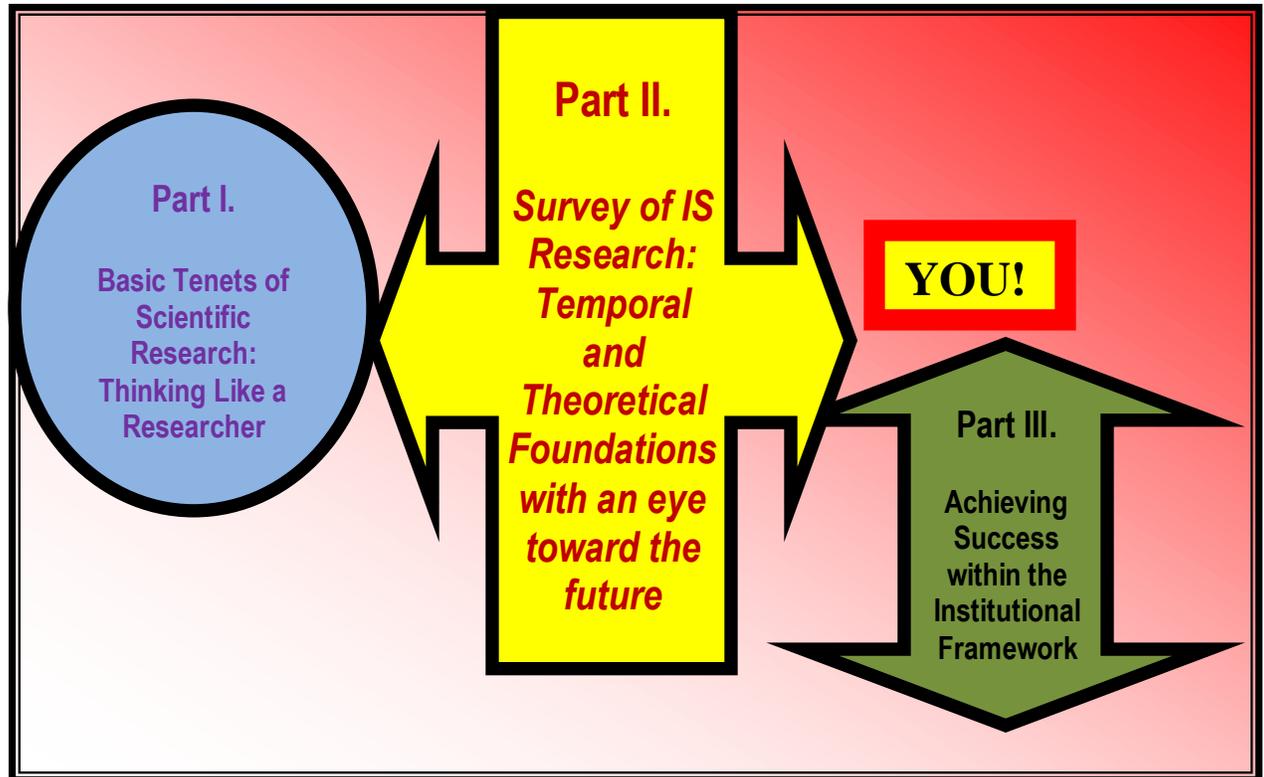
- **Part III** focuses on success in research. Here, you will learn about the research institutions (e.g., journals, conferences, societies, etc.) and their processes that contextualize our research and how to be successful in doctoral study and in a research environment.

The objective of Part III is to advise you on the processes, institutions, and management skills that will help you succeed in the program and as a researcher. While we will allude to these during the course, we will likely not devote dedicated sessions to them. However, I have provided you with access to a variety of readings in this syllabus. As you are going through the course, I would strongly encourage you to read and assimilate these resources. You will also have opportunities during the seminar to raise questions for discussion on any topic pertaining to these readings.

LEARNING OBJECTIVES

By the end of the course, you should be indoctrinated to becoming a steward of the IS field. As part of this course, the following **learning objectives** will be emphasized and assessed. After this course students will be able to:

- Comprehend the fundamental tenets and philosophies of scientific research
- Recognize the limitations of science, research and theory
- Comprehend and apply the basic tenets of theory and methods
- Comprehend and communicate complex theoretical and philosophical concepts
- Comprehend the foundational systems elements of the IS field.
- Comprehend the evolution of the field and its relationship to information technologies
- Understand anchor papers that can be used to structure a schema of the IS field
- Compare and contrast tradeoffs in conducting research
- Provide basic front-end structure to a research project
- Present, explain and defend research products
- Critically assess the IS field and take a position on moving it forward.
- Comprehend and value the institutions of academic research
- Have the ability to partake in their fields as stakeholders and stewards



READINGS

The readings are assigned in the course schedule. Some readings are accessible on the digital version of the syllabus by clicking on the [here] button. Others will be made available on the Blackboard site (<http://learn.uark.edu>) for the course in pdf or Word format. In some cases, I will distribute copies of readings on class or give you specific instructions on how to obtain them. The scheduled readings are subject to change and/or additions as the semester progresses. I might also supplement these readings with additional material.

COURSE APPROACH

This is a doctoral seminar. It is expected that you will attend every scheduled class in its entirety. Some of you come to this seminar in the second year with exposure to research. I do expect that second-year students will be able to assimilate concepts at a more advanced level due to this exposure. However, first year students should continue to revisit this course's material as they advance through the program – as the material gets better contextualized with greater research exposure.

For both first and second year students - while I do not expect you to fully assimilate everything you read *I do expect significant effort and thought on your part.* I will present ideas, concepts, experiences, and guidelines throughout the course, often using conceptual maps or descriptions on the whiteboard. *It is your responsibility to create your own understanding and notes.* This can be

done as a part of the class, but more importantly should be assimilated through after class work. This might involve re-reading assigned articles, reading additional self-solicited material and discussions with your colleagues. The culmination of these efforts will result in a set of notes that reflect your understanding of a paper. These notes can be enhanced as the learning process continues through the program and can be an invaluable part of your research schema. Please do not try to decipher or use notes from other students. Every course discussion will proceed differently and it is important that you cultivate your own understanding of fundamental research concepts and represent them in a way that you can contextualize. Do not hesitate to ask questions in class or after class if something is unclear. It is my job to provide you with research guidance and your responsibility to put your best effort forward to imbibe it.

As a seminar, your participation is essential. You will be expected to perform a major role in contributing to class discussions. This requires thorough preparation for every class. It is assumed that you have read the assigned readings and are fundamentally familiar with what each has to say. The real test is in the thought process you have put into the readings, rather than merely muddling through them. As I indicated before, follow cycles of read – think – class – think – re-read – think -- document

The class discussions will be directed by discussion leaders (1 or 2) that I will be assigning the previous week. While everyone must carefully read the assigned readings, the discussion leaders should:

- ✓ Interact with each other PRIOR to class and organize the discussion of their article(s)
- ✓ Prepare a 1-page handout for distribution to the class that (a) summarizes the major points of the article(s) and/or material to facilitate your leading of the class discussion, and (b) your interpretation of the article. Use the handout well. These write-ups can be useful compilations for comprehensive exam preparation. You have complete discretion on how to organize it. For instance:
 - You can summarize the key concepts in the paper and highlight points of discussion
 - You can highlight key issues that were unclear
 - You can highlight what you see as the key takeaways from the paper
 - You can link the paper to other papers
 - You can create a game or some structure that enables participation in bringing out key concepts

In the case of an IS paper, your interpretation (part b above) could include responses to questions like:

- How did this article influence thinking in the IS field at that time?
- What is its contribution with respect to contemporary IS environments?
- How does it relate to other articles and practices?
- Does it espouse a theoretical perspective that is useful to study IS phenomena and why?
- How has it influenced your thinking of the field?
- Are there aspects here that are unclear, make too many assumptions or could be subject to other criticism?

While not all these questions may be relevant for every article under consideration, the essence is to demonstrate that you have gone through the read-think-interpret process.

Keep in mind that the write-ups (or class discussions) are not primarily intended to be critiques. While you will have many opportunities to criticize, at this stage of your career it is more useful to assimilate and interpret. The critical element of the write-ups and discussion will increase as we move into the latter half of the course. With a stronger foundation under your belt, you will increasingly be in a position of strength about criticism of others' work.

- ✓ Ensure that the class interaction is continuous and brings out the major points (takeaways) of the article(s). Be creative in stimulating class discussion. This involves preparing leading questions and discussion points and acting as master of ceremonies of a fairly informal discussion of the paper. The discussion leader should be organized and work to ensure that all attendees at the seminar get involved in the discussion (whether they want to be involved or not). Some ways of facilitating the discussion are: (1) ask key questions (issue – students don't respond and you end up presenting the paper), (2) prepare a quiz (issue – deep coverage of a complex topic), (3) frame the paper on the whiteboard (issue – you end up explaining the paper yourself), (4) create a debate (issue – some papers cannot be effectively formulated as debates). There are many other ways. All students should be prepared with the paper and must be responsive to the discussion leader. (Tips: successful discussions -- do not have the discussion leader regurgitating the entire paper; do not involve physically opening the actual paper during the session – rather referring to notes; benefit from a-priori interaction among students).
- ✓ Although there is not set period for discussion of a paper, typically it will be around an hour. One of the goals in allowing an open forum discussion is to gauge the extent of understanding of the paper. While I try not to intervene in this discussion there will be occasions where I might try to steer the discussion in more productive directions or call upon students to respond to question pertaining to the topic under discussion. Based on how the discussion proceeds, I will try to complement or supplement the discussion with my thoughts before we move on to the next topic or paper. *A good discussion will enhance understanding of the article and its key takeaways, allow readers to see why the article made a substantive contribution to the field and allow visibility on how other studies have or can build on this work.*
- ✓ Please note that there have been occasions in the past where a 2.5-hour class has gone over 6 hours. But, this is doctoral study.... I assume that you are here to learn and I am willing to make the commitment to you if you are toward yourselves. This makes time (almost) irrelevant.

Finally, I expect classes to be productive and challenging. Such an environment requires that we maintain professional behavior. I expect honesty, maturity, courtesy, and sensitivity. I want you to enjoy attending class and to feel relaxed – but there is no room for unprofessional behavior. We will hopefully learn from one another and push each other to a higher level of understanding and appreciation.

PROPOSAL WRITE-UP

In addition, the course will also start you on the conceptualization of a research paper – which can hopefully be implemented in subsequent semesters. Learning-by-doing and learning-through-frustration is perhaps the best way to struggle through the vagaries of the research process.

The purpose of the research proposal is to observe how you apply your research skills and your understanding of the IS field in developing a strong research idea.

The project will involve developing testable hypotheses and describing, in detail, how you would go about testing them.

You may choose any information systems topic area, as long as your proposal represents an original empirical research project that is practically feasible. By original, I mean that the proposal should not include a study already implemented in published or unpublished work. By practically feasible, I mean that the proposal could be executed over a reasonable period of time, with a reasonable level of resources. I encourage you to choose a topic you are interested in pursuing or at least exploring in your program. The extent to which you can create synergies between the projects in various doctoral level courses will go a long way in facilitating both program and project success.

The proposal is not to exceed 6 double-spaced pages in a 12-point font with 1” margins on all sides. This is typically the length required for internal research proposals that are being submitted for competitive funding. You should be able to convince a reviewer of the importance of your idea in 6 pages. You can add references and up to 2 tables and 2 figures at the end of the 6 pages. If time permits, we will have short presentations of the proposals.

Proposal Outline Description:

1. Introduction: Describe why your topic is important for practice and research. Conclude with specific research questions you plan to address.
2. Literature Review: Concisely outline relevant literature on which your research is based. The gaps in the literature motivating the need for your research and/or the theory relevant to your research should be evident.
3. Model & Hypotheses: Describe your research model. Develop a set of testable hypotheses. Briefly justify the logic of your hypotheses based upon the literature reviewed and tight logical arguments. In the model define all constructs precisely.
4. Methodology: Describe the methodology you plan to use, its rationale, and how you intend to conduct it. This section could include information on the sample, operational definition of the variables, unit of analysis, procedures, and methods to be used for validation and analysis of the data. Actual measures are not needed.
5. Implications of your study for research/practice - assuming your hypotheses are supported,

QUIZZES AND FINAL EXAM

I will try to have a couple of “random” quizzes during the semester to gauge the level of student understanding of basic concepts we have covered. It is important to continue to revisit the course material after each class to make sure you have assimilated the concepts. The quizzes will be oral and could influence your contribution grade.

At the end of the semester, I will administer a final examination. This exam will be in an oral format and will involve a one on one Q&A session on the course content with the instructor. The exam will cover all the readings in the class, and will typically be around 30 minutes in duration.

COURSE EVALUATION

Preparation & General Contribution to Class Discussions (including any quizzes):	50%
Discussion Leadership & Handouts:	10%
Final Examination:	20%
Proposal Write-Up:	20%

EXPECTATIONS

NOTE 1: We will be discussing many elements of the research proposal throughout the course. Ideally, this proposal should be done after the course is completed. However, I would like you to start the process earlier. Read and explore literature in an area of your interest so that the project does not creep up on you. *You will struggle with this*, but I believe will be better off for the experience. Alas, such is the life of a doctoral student.

NOTE 2: If you are experiencing any problems with the course, please do not hesitate to schedule a private meeting with me. I am not unreasonable and will give you a fair hearing. E-mail (vgrover@uark.edu) is the best vehicle to get quick access or schedule an appointment.

NOTE 3: This is a doctoral seminar. As such, the primary goal is to maximize your learning potential. If necessary that might involve investing in greater class time or effort outside the classroom. While I do not have a specific attendance policy for this course, it is expected that you will not miss any class. If unforeseen circumstances prevent you from attending class, please inform me in advance. If unforeseen circumstances prevent me from reaching class on time and you have not heard from me, you may leave after 30 minutes.

UNIVERSITY OF ARKANSAS

Academic Honesty

“Academic dishonesty involves acts that may subvert or compromise the integrity of the educational or research process at the University of Arkansas, when such acts have been performed by a UA student. Academic dishonesty includes, but is not limited to, any act by which a student gains or attempts to gain an academic advantage for him/herself or another by

misrepresenting his/her or another's work or by interfering with the independent completion, submission, or evaluation of academic work.""As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail." As a University of Arkansas student, you are required to be familiar with and abide by the University's Academic Integrity Policy which may be found at <http://catalogofstudies.uark.edu/2882.php>.

Inclement Weather Policy

I will "officially" cancel classes only if the University cancels all classes. Information concerning University closings can be obtained by calling 575-7000 or 575-2000. When in doubt, check your email as well as Blackboard for any pre-class announcements because I will post a message on Blackboard and send an email if class is cancelled. If weather prevents you from attending class, please notify me as quickly as possible. Likewise, if weather prevents me from attending class, I will notify you as quickly as I can and adjustments will be made to the schedule as necessary.

Guidelines for Accommodations for Students with Disabilities:

It is the Walton College policy that reasonable accommodations will be made for students with disabilities. Students must request any accommodations from their instructor in addition to requesting accommodations from the Center for Students with Disabilities (CSD). Please contact the CSD for details on seeking accommodations for disabilities.

TENTATIVE SCHEDULE

This represents a tentative schedule which will be adapted as the semester progresses. Additional papers might be provided (or substituted) as deemed necessary.

SESSION 1:

Introduction: An Academic Career

Introduction to the course, its content, approach, and expectations. An exercise involving career profile of students with respect to the doctoral program will be conducted (Appendix A). Discussion will focus on doctoral programs, knowledge and research.

SESSIONS 2, 3, 4 & 5

Thinking Like a Researcher

Focus here will be on understanding how a scientist should think – recognizing the importance of theory in constructing knowledge, and the philosophical limitations of all research.

Science

Read: Kuhn, T., *The Structure of Scientific Revolutions* (1962) publ. University of Chicago Press, 1962 (republished in 1970). Chapter 1 and postscript. [\[here\]](#)

Scientific American article [\[here\]](#)

Theory

- Knowledge → Theory.
- Theory → Hypotheses.
- Hypotheses, Constructs & Variables.

Whetten, D.A., "What constitutes a theoretical contribution?" *Academy of Management Review*, 14, 1989, 490-495.

Bacharach. S.B., "Organizational Theories: Some Criteria for Evaluation," *Academy of Management Review*, 14(4), 1989, 496-515.

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

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

Suddaby, R., "Construct Clarity in Theories of Management and Organization," *Academy of Management Review*, 35(3), 2010, pp.346-357.

Corley, K.G., and Giona, D.A., "Building Theory about Theory Building: What Constitutes a Theoretical Contribution?" *Academy of Management Review*, 2011, 36(1), pp12-32.

Healy, K., "F\$#! Nuance," *American Sociological Association Meeting*, 2015

Application Exercise: Identifying and Leveraging Theory

Feldman, D., "The Decision to Retire Early: Review and Conceptualization," *Academy of Management Review*, 19(2),1994, 285-387

Grover, V. and Malhotra, M., "The Use of the Transaction Cost Framework in Operations and Supply Chain Management Research: Theory and Measurement," *Journal of Operations Management*, 21 (4), 2003, pp. 457-473.

Philosophy

Orlikowski, W. J. and J. J. Baroudi (1991). "Studying Information Technology in Organizations: Research Approaches and Assumptions." *Information Systems Research*, 2(1): 1-28.

Lee, A.S. 1991. Integrating positivist and interpretive approaches to organizational research. *Organization Science*, 2(4):342-365.

SESSION 6 & 7

The IS Field: Survey of Classical Anchor Points

Articles that had a profound foundational influence on the field, and shape thinking through today.

Russell L. Ackoff: "Management Misinformation Systems," *Management Science* (14:4), December 1967, pp. 147-156.

Jay R. Galbraith: *Organization Design*, Addison-Wesley Pub. Co., Reading, Mass., 1977. (And Jay R. Galbraith: "Organization Design: An Information Processing View," *Interfaces* (4:3), May 1974, pp. 28-36).

Peter G. W. Keen: "MIS Research: Reference Disciplines and a Cumulative Tradition," *Proceedings of the First International Conference on Information Systems*, Philadelphia, Pennsylvania, 1980, pp. 9-18.

William R. King: "Strategic Planning for Management Information Systems," *MIS Quarterly* (2:1), March 1978, pp. 27-37.

Richard L. Nolan: "Managing the Crises in Data Processing," *Harvard Business Review* (57:2), March/April 1979, pp. 115-126.

George P. Huber: "Cognitive Style as a Basis for MIS and DSS Designs: Much Ado about Nothing?" *Management Science* (29:5), May 1983, pp. 567-577.

Traditional Information Systems Frameworks

G. Anthony Gorry and Michael S. Scott Morton: "A Framework for Management Information Systems," *Sloan Management Review* (30:3), Spring 1989, pp. 49-61.

Richard O. Mason and Ian I. Mitroff: "A Program for Research on Management Information Systems," *Management Science* (19:5), January 1973, pp. 475-487.

Ralph H. Sprague Jr.: "A Framework for the Development of Decision Support Systems," *MIS Quarterly* (4:4), December 1980, pp. 1-26.

Blake Ives, Scott Hamilton and G. B. Davis: "A Framework for Research in Computer-Based Management Information," *Management Science* (26:9), September 1980, pp. 910-934.

Richard L. Nolan and James C. Wetherbe: "Toward a Comprehensive Framework for MIS Research," *MIS Quarterly* (4:2), June 1980, pp. 1-20.

SESSIONS 8, 9, 10, 11 & 12

The IS Field: Survey of Theoretical Anchor Points

These articles are a representation of key papers that were instrumental in setting the theoretical basis for many streams in the field.

Shirley Gregor: "The Nature of Theory in Information Systems," *MIS Quarterly*(30:3), September, 2006, pp. 611-642.

Economic

Thomas W. Malone, Joanne Yates and Robert I. Benjamin: "Electronic Markets and Electronic Hierarchies," *Communications of the ACM* (30:6), June 1987, pp. 484-497.

J. Yannis Bakos and Michael E. Treacy: "Information Technology and Corporate Strategy: A Research Perspective," *MIS Quarterly* (10:2), June 1986, pp. 106-119.

Vijay Gurbaxani and Seungjin Whang: "The Impact of Information Systems on Organizations and Markets," *Communications of the ACM* (34:1), January 1991, pp. 59-73

Eric K. Clemons and Sashidhar P. Reddi: "The Impact of Information Technology on the Organization of Economic Activity: The "Move to the Middle" Hypothesis," *Journal of Management Information Systems* (10:2), Fall 1993, pp. 9-35

Varun Grover and Pradipkumar Ramanlal: "Six Myths of Information and Markets: Information Technology Networks, Electronic Commerce, and the Battle for Consumer Surplus," *MIS Quarterly*, (23:4), December 1999, pp. 465-495

Organizational

Kathleen M. Eisenhardt: "Control: Organizational and Economic Approaches," *Management Science* (31:2), February 1985

M. Lynne Markus and Daniel Robey: "Information Technology and Organizational Change: Causal Structure in Theory and Research," *Management Science* (34:5), May 1988, pp. 583-598. (Organizational)

Wanda Orlikowski and Daniel Robey: "Information Technology and the Structuring of Organizations," *Information Systems Research* (2:2), June 1991, pp. 143-169.

Francisco J. Mata, William L. Fuerst and Jay B. Barney: "Information Technology and Sustained Competitive Advantage: A Resource-Based Analysis," *MIS Quarterly* (19:4), December 1995, pp. 487-505

Individual Behaviors

Fred D. Davis, Richard P. Bagozzi and Paul R. Warshaw: "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models," *Management Science* (35:8), August 1989, pp. 982-1003.

Venkatesh, V.; Morris; Davis; Davis (2003), "User Acceptance of Information Technology: Toward a Unified View", *MIS Quarterly*, 27 (3), pp. 425-478

Media

Richard L. Daft and Robert H. Lengel: "Organizational Information Requirements, Media Richness and Structural Design," *Management Science*, (32:5), March 1986, pp. 554-571.

Alan Dennis, Robert Fuller and Joseph Valacich: "Media, Tasks, and Communication Processes: A Theory of Media Synchronicity," *MIS Quarterly*, 32(3), 2008, pp. 575-600.

Innovation

E. Burton Swanson: "Information Systems Innovation among Organizations," *Management Science* (40:9), September 1994, pp. 1069-1092.

Robert G. Fichman: "Real Options and IT Platform Adoption: Implications for Theory and Practice," *Information Systems Research* (15:2), 2004, pp.132-154.

Effectiveness/Value

William H. DeLone and Ephraim R. McLean: "Information Systems Success: The Quest for the Dependent Variable," *Information Systems Research* (3:1), March 1992, pp. 60-95

R. Kohli and Varun Grover: "Business Value of IT: An Essay on Expanding Research Directions to Keep Up With The Times," *Journal of the AIS (JAIS)*, (9), January 2008, pp.23-39.

Design/Implementation

M. Lynn Markus: "Power, Politics, and MIS Implementation," *Communications of the ACM* (26:6), June 1983, pp. 430-444.

Alan R. Hevner, Salvatore T. March, Jinsoo Park and Sudha Ram: "Design Science In Information Systems Research," *MIS Quarterly*, March 2004, pp.75-108

Liette Lapointe and Suzanne Rivard: "A Multilevel Model of Resistance to Information Technology Implementation," *MIS Quarterly*, September 2005, pp.461-492.

SESSIONS 13 & 14

The IS Field: Point of Inflexion – Looking Forward

These sessions will look forward and challenge the productivity of prior approaches in studying the changing nature of digital technologies in organizations.

V. Sambamurthy, Anandhi Bharadwaj and Varun Grover: "Shaping Agility through Digital Options: Reconceptualizing the Role of Information Technology in Contemporary Firms," *MIS Quarterly* (27:2), June 2003, pp. 237-263.

Wanda J. Orlikowski and C. Suzanne Lacono: "Research Commentary: Desperately Seeking the 'It' in IT Research--a Call to Theorizing the It Artifact," *Information Systems Research* (12:2), June 2001, pp. 121-134.

Cecez-Kecmanovic D; Galliers RD; Henfridsson O; Newell S; Vidgen R, 2014, 'The Sociomateriality of Information systems: Current Status, Future Directions' *MIS Quarterly*., vol. 38, pp. 809 - 830

V. Grover and K. Lyttinen, "New State of Play in IS Research: The Push To the Edge, *MIS Quarterly*, (39:2), June, 2015, pp.271-296.

Nambisan, S., Lyytinen, K., Majchrzak, A., Song, M., "Digital Innovation Management: Reinventing Innovation Management Research in a Digital World," *MIS Quarterly*, 41(1), 2017, pp.223-238.

WHILE WE WILL TOUCH UPON THE TOPICS BELOW THAT ARE CRITICAL TO DOCTORAL STUDY, IT IS UNLIKELY THAT WE WILL HAVE DEDICATED SESSIONS FOR THESE TOPICS DUE TO TIME CONSTRAINTS. HOWEVER PLEASE READ THESE MATERIALS AND BRING UP ANY ISSUES PERTAINING TO YOUR SUCCESS DURING ANY OF THE CLASS SESSIONS.

Research Success:

Readings here are devoted to more practical guidance in conducting research from selecting topics to writing up the research.

- The Research Process (from conceptualization to implementation)
- Organizing A Thesis Read: [\[here\]](#)
- The Workings of Research Institutions (e.g., Journals)
- Evaluating Research (Review and publication processes)
- Research Ethics Read [\[here\]](#)

Read:

Lee, A.S. "Reviewing a Manuscript for Publication," *Journal of Operations Management*, Volume 13, Number 1 (July 1995), pp.87-92. [\[here\]](#)

Editor's Comments, "What is Good Reviewing," *Academy of Management Review*, 34(3), 2009, pp.375-381. Also see "What Makes a Good Review" [\[here\]](#)

Anonymous, "The Publication Game," *Journal of Social Behavior and Personality*, 1987, Vol.2, No.1, pp.3-12. [\[here\]](#)

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

Glick, W.H., Miller, C.C., and Cardinal, L.B., Making a Life in the Field of Organization Science, *Journal of Organizational Behavior*, Vol.28, pp.817-835

Series of Brief Articles on Publishing in AMJ:

June 2011: Jason A. Colquitt, Gerard George. [Publishing in AMJ Part 1: Topic Choice](#)

August 2011: Joyce E. Bono, Gerry McNamara. [Publishing in AMJ Part 2: Research Design](#)

October 2011: Adam M. Grant, Timothy G. Pollock. [Publishing in AMJ Part 3: Setting the Hook](#)

December 2011: Raymond T. Sparrowe, Kyle J. Mayer. [Publishing in AMJ Part 4: Grounding Hypotheses](#)

February 2012: Yan (Anthea) Zhang, Jason D. Shaw. [Publishing in AMJ Part 5: Crafting the Methods and Results](#)

April 2012: Marta Geletkanycz, Bennett J. Tepper. [Publishing in AMJ Part 6: Discussing the Implications](#)

June 2012: Pratima (Tima) Bansal, Kevin Corley. [Publishing in AMJ Part 7: What's Different About Qualitative Research?](#)

Managing Your Program & Career:

These readings focus on managing the doctoral program successfully as well as post program career management in academia.

General

How to Be a Good Graduate Student. Read: [\[here\]](#)

Grover, V. "10 Mistakes Doctoral Students Make in Managing their Program." Read: [\[here\]](#)

Grover, V. "A Rough Model for Success in Doctoral Study." [\[here\]](#)

Grover, V., "How am I Doing? Checklist for Doctoral Students at Various Stages of their Program." Read: [\[here\]](#)

Grover V., "Hi, I'm Me" Judicious Networking for the Doctoral Student. Read: [\[here\]](#)

Aronson, J., "Working on the Doctoral Dissertation Read: [\[here\]](#)

Grover V. and Thatcher, J., "Building Cultures of Completion in PhD Programs," Read: [\[here\]](#)

Grover, V. & Malhotra, M., "Interaction Between a Doctoral Student and Advisor: Making it Work!" Read: [\[here\]](#)

Grover, V. and Thatcher, J., "The 10 Mistakes Doctoral Students Make in Managing their Program Revisited: The Student Response (Part One)." Read: [\[here\]](#)

Grover, V. and Thatcher, J., "The 10 Mistakes Doctoral Students Make in Managing their Program Revisited: The Student Response (Part Two)." Read: [\[here\]](#)

Grover, V. "Considerations for Building a Schema of the Field During Doctoral Study." Read: [\[here\]](#).

Grover, V. "How to Publish While in the Doctoral Program? Managing Research Projects." Read: [\[here\]](#)

Prahinski, C., "The Process of Getting a Position in Academia." Read: [\[here\]](#)

Grover, V. "The Many Roads to Success: Classifying Doctoral Students Into Archetypes." Read: [\[here\]](#)

Grover, V. & Sharda, R., "How to Be a Good Dissertation Advisor," Read [\[here\]](#)

Grover, V., "Putting on the Best Job Talk You Can: Guidelines and Tips for Doctoral Students," Read [\[here\]](#)

Grover, V. "Should You Negotiate the Job Offer? Guidelines for a PhD Student," (see Decision Line, May 2017 issue)

Additional Readings:

Books:

P. Gray, D. Drew, What They Didn't Teach You in Graduate School, Stylus Publishing, 2008 [\[here\]](#)

G. Davis, C. Parker, Writing the Doctoral Dissertation, Barron's Educational Series, 1997 [\[here\]](#)

Humor: A Day in the life of a grad student [\[here\]](#)

Humor (Cartoons): PhD Comics [\[here\]](#)

Appendix A: Critiques of Empirical Research

Review each article by summarizing and criticizing each of the following dimensions. Be sure to consider both the logic and clarity of the papers.

Abstract

Does the abstract highlight the significant points of the article?

Introduction

Does the background include a strong theory?

Is the background covered thoroughly and succinctly?

Independent Variables

Do the independent variables have conceptual and operational definitions that are reasonable?

Dependent Variables

Do the dependent variables have conceptual and operational definitions that are reasonable?

Hypotheses

Are the hypotheses meaningful and clearly stated?

Are they reasonably deduced from the background?

Methodology

How well does the methodology test key hypotheses?

Analysis

Were the appropriate statistical tests applied?

What alternative/Complementary statistical techniques may be used?

Results

Do the results follow reasonably from the analysis?

Implications for Future Research

How can this research be replicated?

What questions does it raise for future research?

How can such research be conducted?

Implications for Future Research

Does the research help improve the understanding of IS practitioners?

How in your opinion will this research improve the future practice of MIS?

APPENDIX B: Student Profile

NAME: _____

List two MAJOR reasons why YOU are pursuing a doctorate.

What position do you see yourself in once you graduate? Indicate the nature of the institution (research university, teaching university, community college, business enterprise, etc.). Provide a specific example of your "ideal" institution.

What do you see as the biggest impediment to YOUR completing the PhD successfully?

What personal trait do you see as critical in YOUR successful completion of the PhD?

Have you developed any general interest area in which you would like to pursue research? If yes, briefly describe the area.