

BUS 995: Introduction to Behavior Research in Information Systems
Department of Accounting and Information Systems
University of Kansas

Fall, 2004

Monday, 3:00pm to 6:00pm

Location: 320

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Office Hours: by appointment

Course Content

This seminar is intended to provide a significant depth of understanding with regard to the conduct of research in information systems (IS). Attention will be given to the research process, defining research questions, reviewing the literature, formulating a strategy for empirical investigation, weighing methodological alternatives, and preparing and presenting research findings.

Using a detailed examination of relevant topic areas contained within the IS research literature we will explore the motivations and contributions associated with the various research efforts and will engage in critical discussions intended to enhance our individual understandings of the issues as well as improve our ability to contribute to the body of knowledge in any of the selected areas.

Course Requirements

Note: A letter grade will be assigned for this course. It is expected that all participants will demonstrate sufficient acumen and effort to be awarded a grade of A or B. Any grade below a B will be considered to be unsatisfactory work.

The course requirements are divided into several areas each worth equal weight:

Participation: This course will be run as a seminar, therefore, active participation by all students is expected. Each participant is expected to arrive on time fully prepared to engage in meaningful discussion on any of the assigned readings for that day. Failure to arrive fully prepared will have a significantly negative impact on your course grade. In fact, it is arguably the most egregious mistake, short of plagiarism or cheating, that a doctoral student can make — so don't make it. This should also suggest that absences are strongly discouraged except under *extreme* circumstance.

Additionally, papers from the assigned weekly readings will be assigned to various members of the class (equity over the course of the semester will be the goal). The discussion leaders will prepare a brief summary of their assigned papers (using a format to be provided) and will distribute these summaries electronically to all class participants (including me) no later than 24 hours prior to our scheduled class meeting. These

summaries will be used by the discussion leaders to facilitate a meaningful discussion of the important issues with regard to the paper (not just a regurgitation of what the paper is about).

Written assignments: Each participant will be expected to prepare two topic analyses during the course of the semester (again, format to be provided). These analyses are intended to provide each student with an opportunity to explore potential topics for the assigned research proposal due at the end of the semester.

Additionally, a practice “comprehensive examination question” will be administered at mid-semester. The scope of possible material will include the literature covered to date. Exam conditions will be simulated and the response time will be limited to three hours or less. You will be expected to demonstrate skill in using relevant citations from the IS literature in support of your response.

Finally, a research proposal that identifies a specific issue related to one or more of the seminar topics will also be required. The proposal will be evaluated on its originality, sound use of theory, potential for contribution, and appropriate use of methodology and analytical techniques. This proposal is intended to serve as the basis for the required summer research project which for incoming students, occurs between years one and two.

Access to assigned readings: For the most part, the assigned readings will be available from my office library. Certain hard to locate manuscripts will be provided to you prior to their assigned dates. In yet other cases, the readings will not be found in my office library but will be available at the KU library. The point here is that I will not be copying the assigned readings and simply handing them to you. Part of the process of learning how to conduct research is knowing where to find it. During that process, you will see articles that, while not immediately relevant, will possibly spark an idea for some future research. As such, my suggestion is that each member of the class volunteer to bear the responsibility for securing and distributing the assigned readings for at least one class. To effectively carry out this responsibility, the readings should be distributed to all class members no later than one week before their assigned date (I highly recommend this suggestion be regarded as a bare minimum). Any difficulties in obtaining the assigned readings must be brought to my attention immediately so that I can assist in their location.

My office library is intended to be used by my doctoral students at any time. There is but one rule to follow: when I reach for a journal or book, I expect it to be there. Failure to abide by this simple but inviolate rule will result in suspension of library privileges and most likely a public flogging.

Semester Reading Schedule

08/23/04 Frameworks for Research in Information Systems

***** These readings are to be completed prior to our first class meeting and ready for discussion *****

Leavitt, H. J., and Whistler, T. L. "Management in the 1980's," *Harvard Business Review*, November-December 1958, pp. 41-48.

Ackoff, R.L. "Management Misinformation Systems," *Management Science*, Vol. 14, No. 4, December 1967, pp. B147-B156.

Mason, O. and Mitroff, I. I., "A Program for Research on Management Information Systems," *Management Science*, Vol. 19, No. 5, January 1973, 475-487.

Ives, B., Hamilton, S, and Davis, G., "A Framework for Research in Computer-Based Information Systems," *Management Science*, Vol. 26, No. 9 September 1980, pp. 910-934.

Whetten, D.A., "What Constitutes a Theoretical Contribution?"
Academy of Management Review, Vol. 14, No. 4, 1989, 490-495.

Barki, H., Rivard, S., & Talbot, J., "A Keyword Classification Scheme for IS Research Literature: An Update," *MIS Quarterly*, 17(2), (1993) 209-226.

Van de Ven, Andrew H. "Nothing is Quite So Practical as a Good Theory," *Academy of Management Review*, Vol. 14, No. 4, October, 1989, 486-489.

08/30/04 Foundations of Information Systems Research

Argyris, C., "Management Information Systems: The Challenge to Rationality and Emotionality," *Management Science*, Vol. 17, (1971)pp. B 275-292.

Gorry, G.A. and Scott Morton, M. S., "A Framework for Management Information Systems," *Sloan Management Review*, Fall, (1971), pp. 55-70.

Dickson, G.W., Senn, J. and Chervany, N., "Research in management information systems: The Minnesota experiments," *Management Science*. 23(9), (1977), 913-923.

Keen, P., "MIS research: reference disciplines and a cumulative tradition," in *Proceedings of the First Conference on Information Systems*, E. McLean (ed.), Philadelphia, December 1980, pp. 9-18.

Keen, P. (1991): "Relevance and Rigor in Information Systems Research", In Nissen, H-E., Klein, H. and Hirschheim, R. (eds.) *Information Systems Research: Contemporary Approaches and Emergent Traditions*, North-Holland, Amsterdam, 27-49.

Benbasat, I. and Zmud, R.W. "Empirical Research in Information Systems: The Practice of Relevance," *MIS Quarterly*, 23 March 1999, 3-16.

09/06/04 Information Systems as an Academic Discipline

Orlikowski, W J & Baroudi, J (1991) Studying information technology in organizations: research approaches and assumptions, *Information Systems Research*, 2(1), March, 1-28.

- Benbasat, I. & Weber, R., "Research commentary: rethinking `diversity' in information systems research," *Information Systems Research*, 7(4), (1996), 389-398.
- Robey, D., "Research Commentary. Diversity in Information Systems research: threat, promise, and responsibility," *Information Systems Research*, 7(4), (1996), 400-408.
- Benbasat, Izak, and Zmud, Robert W., "Empirical Research in Information Systems: The Practice of Relevance," *MIS Quarterly*, 23(1), 1999, pp. 3-16.
- Avgerou, C, Siemer, J & Bjorn-Andersen, N., "The academic field of information systems in Europe," *European Journal of Information Systems*, 8, (1999), 136-153.
- Freeman, L.A., Jarvenpaa, S. L., and Wheeler, B. C., "The Supply and Demand of Information Systems Doctorates: Past, Present, and Future," *MIS Quarterly*, (24:3), 2000, pp. 355-380.
- Baskerville, R.L. and Myers, M.D., "IS as a Reference Discipline," *MIS Quarterly* (26:1), 2002, pp. 1-14.
- Myers, M.D. "Defining the Core Properties of the IS Discipline: Not Yet, Not Now," *Communications of the AIS* (12), 2003, pp. 582-587.

09/13/04 Overview of IS Research Strategies

- Jarvenpaa, S. L., Dickson, G. W., and DeSanctis, G., "Methodological Issues in Experimental IS Research : Experiences and Recommendations," *MIS Quarterly*, Vol. 9, No. 2, June 1985, pp. 141-156.
- Galliers, R. D. and Land, F. F., "Choosing Appropriate Information Systems Research Methodologies," *Communications of the ACM*, Vol. 30, No. 11, November 1987, pp. 900-902.
- Markus, M.L. and Robey, D. (1988): "Information technology and organizational change: causal structure in theory and research," *Management Science*. 34(5) May, 583-598.
- Benbasat, I., Goldstein, D and Mead, M., "The Case Research Strategy in Studies of Information Systems," *MIS Quarterly*, Vol. 11, No. 3, September 1987, pp. 369-388.
- Walsham, G., "The emergence of interpretivism in IS research," *Information Systems Research*, 6(4), December, (1995), 376-394.
- Mingers, J., "Combining IS research methods: towards a pluralist methodology," *Information Systems Research*, 12 (3), (2001), 240-259.

09/20/04 Issues Surrounding the Various Validities

- Campbell, Donald T. and Donald W. Fisk. "Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix," *Psychological Bulletin*, 56, March 1959, 81-105.
- Cronbach, Lee J. "Test Validation" in *Education Measurement*, 2nd ed., R. L. Thorndike, ed. Washington D. C.: American Council on Education, 1971, 443-507.
- Baroudi, J. J., and Orlikowski, W. J. "The Problem of Statistical Power in MIS Research," *MIS Quarterly*, March 1989, pp. 87-106.

- Gordon, M.E., L.A. Slade, and N. Schmitt. "The 'Science of the Sophomore' Revisited: From Conjecture to Empiricism," *Academy of Management Review*, Vol. 11, No. 1, 1986, 191-207.
- Carte, T. and Russell, C., "In Pursuit of Moderation: Nine Common Errors and Their Solutions," *MIS Quarterly*, 27(3), (2003), pp. 479-501.
- Lee, Allen S.; Baskerville, Richard L., "Generalizing Generalizability in Information Systems Research," *Information Systems Research*, Sept. 2003, Vol. 14 Issue 3, 221-243.

09/27/04 Issues in Experimental and Quasi-Experimental Design

- Orne, Martin T. "On the Social Psychology of the Psychological Experiment: With Particular Reference to Demand Characteristics and Their Implications," *American Psychologist*, Vol. 17, No. 11, 1962, pp. 776-783.
- Rosenthal, Robert. "On the Social Psychology of the Psychological Experiment: The Experimenter's Hypothesis as Unintended Determinant of Experimental Results," *American Scientist*, (51:2) June, 1963, pp. 268-283.
- Cook, Thomas D. and Donald T. Campbell. *Quasi-Experimentation: Design and Analytical Issues for Field Settings*. Chicago: Rand McNally, 1979.
- Marakas, G.M. & Elam, J.J., "Creativity enhancement in problem solving: Through software or process?" *Management Science*, 43(8), (1997), 83-97.
- Marakas, G., and J. Elam, "Semantic Structuring in Analyst Acquisition and Representation of Facts in Requirements Analysis," *Information Systems Research*, 9, 1 (January 1998), pp. 37-63.
- Hunton, J.E., Beeler, J.D., (1997). "Effects of User Participation in Systems Development: A Longitudinal Field Experiment", *MIS Quarterly*, 21(4), 359 - 388.

10/04/04 Survey Research, Measurement, and Questionnaire Design

- Pinsonneault & K.L. Kraemer, "Survey Research Methodology in Management Information Systems: An Assessment," *Journal of Management Information Systems*, Volume 10, Number 2, Fall 1993, pp. 75-105.
- Hufnagel, Ellen M., and Christopher Conca, "User Response Data: The Potential for Errors and Biases," *Information Systems Research*, 5(1), (1994), 48-73.
- Moore, G. C. and Benbasat, I., "Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation," *Information Systems Research*, Vol. 2, No. 3, September 1991, pp. 192-222.
- Straub, D. W. "Validating Instruments in MIS Research," *MIS Quarterly*, June 1989, pp. 147-167.
- Boudreau, M.-C., Gefen, D. and Straub, D., "Validation in IS Research: A State-of-the-Art Assessment," *MIS Quarterly*, Vol. 25, No. 1, pp. 1-16, 2001.

10/11/04 Case Research Design and Methods

- Kathleen M. Eisenhardt, "Building Theories from Case Study Research," *Academy of Management Review*, Volume 14, Number 4, 1989, pp. 532-550.
- Barley, S. R., "Technology as an Occasion for Structuring: Evidence from Observations of CT Scanners and the Social Order of Radiology Departments" *Administrative Science Quarterly*, 31, (1986), 78-108.
- Allen S. Lee, "Case Studies as Natural Experiments," *Human Relations*, Volume 42, Number 2, 1989, pp. 117-137.
- Markus, M. Lynne "Electronic Mail as the Medium of Managerial Choice", *Organizational Science*, V5 (1994), pp. 502-527.
- Lee, A. "Integrating Positivist and Interpretive Approaches to Organizational Research," *Organization Science*, V2, N4, 1991, pp. 342-365.
- Klein, H K & Myers, M D (1999) A set of principles for conducting and evaluating interpretive field studies in Information Systems, *MIS Quarterly*, 23(1), March, 67-94.

10/18/04 Variance, Process, and Structuration Theories

- Orlikowski, W. and Robey, D., "Information Technology and the Structuring of Organizations", *Information Systems Research*, 2(2), June, 1991, pp.143-169.
- Orlikowski, W., "The Duality of Technology: Rethinking the Concept of Technology in Organizations", *Organizational Science*, Vol. 3, No. 3, August, 1992, pp. 398-427.
- DeSanctis, Gerardine, and M. Scott Poole, "Capturing the Complexity in Advanced Technology Use: Adaptive Structuration Theory," *Organization Science*, 5(2), 1994, 121-147.
- Mohr, L. B. (1982). *Explaining Organizational Behavior*. Jossey-Bass, San Francisco. Chapter 3 only.
- Newman, M. and Robey, D., "A Social Process Model of User-Analyst Relationships", *MIS Quarterly*, June, 1992, pp. 249-266.
- Sabharwal, Rajiv, and Dan Robey, "Reconciling Variance and Process Strategies for Studying Information Systems Development," *Information Systems Research*, 6(4), 1996, 303-327.

10/25/04 Sample Comprehensive Examination Question

11/01/04 Understanding and Measuring Constructs **Lessons from User Satisfaction and Computer Self-Efficacy**

- Bailey, James E. and Sammy W. Pearson, "Development of a Tool for Measuring and Analyzing Computer User Satisfaction," *Management Science*, Vol. 29, No. 5, May 1983, pp. 530-545.

- Ives, Blake, Margrethe H. Olson and Jack J. Baroudi, "The Measurement of User Information Satisfaction," *Communication of the ACM*, Vol. 26, No. 10, October 1983, pp. 785-793.
- Doll, William J. and Gholamreza Torkzadeh, "The Measurement of End User Computing Satisfaction," *MIS Quarterly*, Vol. 12, No. 2, June 1988, pp. 259-274.
- Doll, W. J., W. Xia, and G. Torkzadeh, "A Confirmatory Factor Analysis of the End-User Computing Satisfaction Instrument," *MIS Quarterly*, Vol. 18, No. 4, December 1994, pp. 453-461.
- Marakas, G. M., Yi, M. Y., & Johnson, R. D., "The multilevel and multifaceted character of computer self-efficacy: Toward clarification of the construct and an integrative framework for research," *Information Systems Research* 9(2), 1998, 126-163.
- Richard D. Johnson, George M. Marakas, "The Role of Behavioral Modeling in Computer Skills Acquisition: Toward Refinement of the Model," *Information Systems Research*, 11(4), 2000, pp. 402-417.

11/08/04 IT Adoption and Diffusion

- Cohen, M., March, J., and Olsen, J., A Garbage Can Model of Organizational Choice, *Administrative Science Quarterly*, Vol 17, (1972) pp. 125.
- Huber, G.P. "A Theory of the Effects of Advanced Information Technologies on Organizational Design, Intelligence, and Decision Making," *Academy of Management Review*, 1990, 15, 1, 47-71.
- Cooper, R. , and R. Zmud. (1990). Information Technology Implementation Research: A Technological Diffusion Approach. *Management Science*, 36(2), 123-139.
- Fichman, Robert G. (1992). *Information Technology Diffusion: A Review of Empirical Research* Paper presented at the 13th International Conference on Information Systems (ICIS), New York.
- Fichman, R.G. and Kemerer, C.F. "The Assimilation of Software Process Innovations: an Organizational Learning Perspective," *Management Science*, 43, 10 (October 1997), 1345-1363.
- Wheeler, B.C. (2002). NeBIC: A dynamic capabilities theory for assessing net-enablement. *Information Systems Research*. 13(2).

11/15/04 Collaborative and Decision Support Technologies

- Dennis, A. R., & Kinney, S. T., "Testing Media Richness Theory in the New Media: The Effects of Cues, Feedback, and Task Equivocality," *Information Systems Research*, 9(3), 1998, 256-274.
- Hinds, Pamela. & Sara Kiesler, "Communication across boundaries: work, structure, and use of communication technologies in a large organization," *Organization Science*, 6: 1995, 373-393.
- Orlikowski, Wanda & Yates, JoAnne, "Genre Repertoire: The structuring of communicative practices in organizations," *Administrative Science Quarterly*, December, 1994, 541-574.

- Todd, Peter and Izak Benbasat. "Process Tracing Methods in Decision Support Systems Research: Exploring the Black Box," *MIS Quarterly*, Vol. 11, No. 4, December, 1987, 493-512.
- Zigurs, I., & Buckland, B., "A theory of task/technology fit and group support systems effectiveness," *MIS Quarterly*, 22(3), 1998, 313-334.
- Alavi, M., Marakas, G., & Yoo, Y., "A comparative study of technologies for distance learning. *Information Systems Research*, 13:4, 2002, 404-415.

11/22/04 Making Sense of Publishing Quality IS Research

- Weick, Karl E., "Theory Construction as Disciplined Imagination," *Academy of Management Review*, Vol. 14, No. 4, October, 1989, 516-531.
- Daft, Richard L. "Why I Recommended that Your Manuscript Be Rejected and What You Can Do About It." In L.L. Cummings and Peter J. Frost. (Eds.) *Publishing in the Organizational Sciences*. Homewood, IL: Irwin, 1985, pp. 193-209.
- Ives, B. "Editors' Comments: Bridging Research and Practice," *MIS Quarterly*, March 1992, pp. iii-vi.
- Lee, A., "Reviewing a Manuscript for Publication," *Journal of Operations Management*, Volume 13, Number 1 (July 1995), pp. 87-92.
- Lee, A., "The MIS Field, the Publication Process, and the Future Course of MIS Quarterly," *MIS Quarterly*, 23, 1999, No. 1, v-xi.
- Berthon, P., Litt, L., Ewing, M. and Carr, C. L., "Potential Research Space in MIS: A Framework for Envisioning and Evaluating Research Replication, Extension, and Generation," *Information Systems Research*, 13(4), 2002, pp. 416-427.
- Kock, N. and Davison, R. (2003), Dealing with Plagiarism in the IS Research Community: A Look at Factors that Drive Plagiarism and Ways to Address Them, *MIS Quarterly*, V.27, No.4, pp. 511-532.

11/29/04 Presentation of Research Proposals

12/06/04 Presentation of Research Proposals

12/13/04 Final Research Proposals Due