



CARLSON
SCHOOL

IDSC 8801: Organization Theory and Research in Information Systems Spring 2002

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Enrollment restricted to Doctoral Students

This course is designed to acquaint you with the theories used to examine phenomena related to the introduction, adoption, use and exploitation of information systems in organizations. The bulk of the material we cover will be at the organizational level of analysis. We will examine leading contemporary research on organizational issues rather than attempting to familiarize you with the foundational classics in each theory, a conscious tradeoff to work within the constraints of a ten-week seminar covering the broad area. While critically examining empirical work drawing on these theories we will discuss how to formulate research questions, conduct research that applies these theoretical perspectives and the contributions that such research will make to our understanding phenomena related to IT and organizations. Overall, the course will be a stepping-stone in your transition from a consumer of research to an active researcher and contributor of insights.

We will achieve these objectives through individual reading of papers, class discussions and through work on a research paper. You will choose one paper each week (from those assigned for the session) to write a review and critique. The intent of this should not be to summarize the paper but rather, to thoughtfully evaluate the authors' approach to the issue and highlight some theoretical or empirical issues related to the paper. Further, you should attempt to suggest a research question that would extend the work. The critique you hand in should be about one to two pages long (single spaced). One student will take on the task of moderating the session and integrating the insights from different readings and placing them in the context of research in the field.

You will benefit considerably by using **WebNote**, a handy tool designed by Gove Allen. **WebNote** already has summaries of some of the papers in this seminar written by doctoral students during prior offerings of the course. *Make sure you do not fall into the trap of being framed by these views and end up repeating or paraphrasing prior comments!*

Essays:

This course requires you to submit two short essays in an attempt to get you used to writing and evolving theoretical perspectives on key issues involving information technologies faced by

organizations. Pick a topic of current interest e.g. videoconferencing, e-commerce, knowledge management, strategic alliances, ERP implementations, electronic medical records, security issues etc. On this topic, use a research source such as Lexis/Nexis to collect information on organizational initiatives in that area. The essay should provide a theoretically grounded analysis of organizational action and suggest specific propositions that could be empirically studied. Remember, the idea is not to provide an exhaustive report what organizations are doing but on explaining the rationale and anticipating some outcomes from such actions. For example, as consulting organizations increasingly establish knowledge repositories with proposals and documents created in prior engagements, you could deliberate on the extent to which the ready availability of answers constrains local innovation and expertise building by entry-level consultants. The essay should be about 5 double spaced pages and will be graded on the quality of the argument and the writing. As we don't have the luxury of spending class time on discussing essays, I will put up all submitted essays on the class website for you to read.

Conceptual Paper:

You are expected to select a phenomenon of interest, draw on an appropriate theoretical perspective (*not restricted* to the subset that is covered in the course) and submit a conceptual paper. The paper must display knowledge of related literature in the domain and of organizational theory, demonstrating the ability to integrate different perspectives. For instance, the paper can propose a theoretical model to examine a specific issue and suggest a research design to study it. Alternatively, the paper could review of the literature in any area of your interest and provide an organizing framework that reveals issues that require further exploration, laying out a research agenda for the field. This paper is expected to be of the quality accepted in conferences such as AIS, SIGCPR, WITS and WISE. I expect that you will at least hand in an outline of the paper accompanied by an annotated bibliography at the end of the term. I will be glad to negotiate the time when the completed paper itself will be due.

Grading

Participating and facilitation of class discussions: 20%

Critique of assigned papers 10%

Two essays 30% (15 percent each)

Final conceptual paper 40%

* 5%: research paper topic - motivation

* 5%: detailed outline and annotated bibliography

* 30%: final manuscript

Note: The outline of research and the bibliography are due by the end of the half-semester when the course ends. I expect that you will work on the final research paper over the summer and turn it in before the beginning of the next semester.

All assigned work can be handed in ahead of time and I will provide feedback if there is sufficient time for me to do so.

Course Outline

[Session 1 : Organizational Theory: What it is, What it is Not](#)

[Session 2: Structuration Theory & Perspectives on Organizational Change](#)

[Session 3: Computer Mediated Communications](#)

[Session 4: Control Theory](#)

[Session 5: Information Technologies and Organizational Form](#)

[Session 6: Expertise, Organizational Learning](#)

[Session 7: Learning the Crafting of Research and Writing](#)

Session 1 :

An Orientation to Organizational Theory: What it is, What it is Not

Whetten, David A. (1989). What Constitutes a Theoretical Contribution? *Academy of Management Review*, 14(4), 490-495.

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

Sutton, Robert I, and Barry M. Staw. (1995). What Theory is Not. *Administrative Science Quarterly*, 40, 371-384.

Weick, Karl E. (1995). What Theory is Not, Theorizing Is. *Administrative Science Quarterly*, 40, 385-390.

Demaggio, Paul J. (1995). Comments on "What Theory is Not". *Administrative Science Quarterly*, 40, 391-397.

Suggested Browsing:

Astley, W. Graham, and Andrew H. Van de Ven. (1983). Central Debates and Perspectives in Organization Theory. *Administrative Science Quarterly*, 28, 245-273. Van de Ven, Andrew. (1989).

Nothing is Quite So Practical as a Good Theory. *Academy of Management Review*, 14(4), 486-489.

Weick, Karl E. (1989). Theory Construction as Disciplined Imagination. *Academy of Management Review*, 14(4), 516-531.

Session 2:

Structuration Theory & Perspectives on Organizational Change

Barley, Stephen R. (1986). Technology as an Occasion for Structuring: Evidence from Observations of CT Scanners and the Social Order of Radiology Departments. *Administrative Science Quarterly*(March 1986), 78-108.

Gersick, Connie J. G. (1991). Revolutionary Change Theories: A Multilevel Exploration of the Punctuated Equilibrium Paradigm. *Academy of Management Review*, 16(1), 10-36.

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

Orlikowski, Wanda J. (1992). The Duality of Technology: Rethinking the Concept of Technology in Organizations. *Organization Science*, 3(3), 398-427.

DeSanctis, Gerardine, and M.Scott Poole. (1994). Capturing the Complexity in Advanced Technology Use: Adaptive Structuration Theory. *Organization Science*, 5(2), 121-147.

Tyre, Marcie J., and Wanda J. Orlikowski. (1994). Windows of Opportunity: Temporal Patterns of Technological Adaptation in Organizations. *Organization Science*, 5(1), 98-118.

Romanelli, Elaine, and Michael L. Tushman. (1994). Organizational transformation as punctuated equilibrium: An empirical test. *Academy of Management Journal*, 37(5), 1141-1166.

Orlikowski, Wanda J. (1996). Improvising Organizational Transformation Over Time: A Situated Change Perspective. *Information Systems Research*, 7(1), 63-92.

Orlikowski, W. J., Yates, JoAnne, Okamura, Kazuo, & Fujimoto, Masayo. 1995. Shaping electronic communication: The metastructuring of technology in the context of use. *Organization Science*, 6(4): 423-444.

Suggested Browsing:

March, James G. (1981). Footnotes to Organizational Change. *Administrative Science Quarterly*, 26, 563-577.

Markus, M. Lynne, and Daniel Robey. (1988). Information technology and organizational change: Causal structure in theory and research. *Management Science*, 34(5), 583-598.

Van de Ven, Andrew H., and Marshall Scott Poole. (1995). Explaining Development and Change in Organizations. *Academy of Management Review*, 20(3), 510-540.

Bacharach, Samuel B., Peter Bamberger, and William J. Sonnenstuhl. (1996). The Organizational Transformation Process: The Micropolitics of Dissonance Reduction and the Alignment of the Logics of Action. *Administrative Science Quarterly*, 41, 477-506.

Session 3:

Computer Mediated Communications

Dennis, A. R., & Kinney, S. T. (1998). Testing Media Richness Theory in the New Media: The Effects of Cues, Feedback, and Task Equivocality. *Information Systems Research*, 9(3), 256-274. .

Fulk, Janet. (1993). Social construction of communication technology. *Academy of Management Journal*, 36(5), 921-950. .

Constant, David, Sara Kiesler, and Lee Sproull. (1994). What's mine is ours, or is it?: A study of attitudes about information sharing. *Information Systems Research*, 5(4), 400-421. .

Subramani, M.R. and Hahn, J. "Examining the Effectiveness of Electronic Group Communication Technologies: The Role of the Conversation Interface," *Proceedings of the Academy of Management Conference*, Toronto, 2000.

Orlikowski, Wanda & Yates, JoAnne. 1994. Genre Repertoire: The structuring of communicative practices in organizations. *Administrative Science Quarterly*, December, 541-574. .

Constant, David, Lee Sproull, . & Sara Kiesler. 1996. The kindness of strangers: the usefulness of electronic weak ties for technical advice. *Organization Science*, 7: 119-135. .

Hinds, Pamela. & Sara Kiesler. 1995. Communication across boundaries: work, structure, and use of communication technologies in a large organization. *Organization Science*, 6: 373-393. .

Walther, Joseph B. 1995. Relational Aspects of Computer-mediated communication: Experimental Observations over Time. *Organization Science*, 6(2): 186-203. .

Mantovani, Giuseppe. 1994. Is computer-mediated communication intrinsically apt to enhance democracy in organizations? *Human Relations*, 47(1): 45-62. .

Sussman, S. W., & Sproull, L. 1999. Straight Talk: Delivering Bad News Through Electronic Communication. *Information Systems Research*, 10(2), 150-166.

Session 4:

Essay 1 due.

Control Theory

Beniger., James R. (1986). *The control revolution : technological and economic origins of the information society*. Cambridge, MA. (select chapters)

Eisenhardt, Kathleen M. (1989). Agency Theory: An Assessment and Review. *Academy of Management Review*, 14(1), 57-74. .

Gurbuxani, Vijay, and Chris F. Kemerer. (1989,). *An Agent Theoretic Perspective on the Management of Information Systems* Paper presented at the Twenty-Second Annual Hawaii International Conference on System Science, Kailua-Kona, Hawaii..

Henderson, John. C, and Soonchul Lee. (1992). Managing I/S Design Teams: A Control Theories Perspective. , 38, No.6(June), 757-777..

Barker, James R. (1993). Tightening the iron cage: Concertive control in self-managing teams. *Administrative Science Quarterly*, 38(3), 408-437..

Kirsch, Laurie J. (1997). Portfolios of Control Modes and IS Project Management. *Informations Systems Research*, 8(3), 215-239..

Suggested Browsing:

Ouchi, William. (1979). A Conceptual Framework for the Design of Organizational Control Mechanisms. *Management Science*, 25(9), 833-848..

Ouchi, William. (1980). Markets, Bureaucracies and Clans. *Administrative Science Quarterly*, 25, 129-141. .

Eisenhardt, Kathleen M. (1985). Control: Organizational and Economic Approaches. *Management Science*, 31(2), 134-149..

Grant, Rebecca A., and Chris A. Higgins. (1991). The Impact of Computerized Performance Monitoring on Service Work: Testing a Casual Model. | *Information Systems Research*, 2(2), 116-142.

Session 5:

Information Technologies and Organizational Form

Powell, Walter W. (1990). Neither Market Nor Hierarchy: Network Forms of Organization, *Research in Organizational Behavior* (Vol. 12, pp. 295-336): JAI Press.

Subramani, Mani R., and N. Venkatraman. (2002 forthcoming). *Determinants of Hybrid Governance: An Empirical Test of the Role of Intangible Asset Specificity*, Academy of Management Journal.

Subramani, M.R. and Walden, E. The Impact of E-Commerce Announcements on the Market Value of Firms. 2001. *Information Systems Research*, 12: 135-154.

Huber, George P. (1990). A Theory of the Effects of Advanced Information Technologies on

- Organizational Design, Intelligence and Decision Making. *Academy of Management Review*, 15(1), 47-71.
- Brynjolfsson, Erik, Thomas W. Malone, Vijay Gurbaxani, and Ajit Kambil. (1994). Does information technology lead to smaller firms? *Management Science*, 40(12), 1628-1644.
- Bensaou, M., and N. Venkatraman. (1995). Configurations of Interorganizational Relationships: A Comparison Between U.S. and Japanese Automakers. *Management Science*, 41(9), 1471-1492.
- Applegate, Lynda M. (1995). *In Search of a New Organizational Model for the 1990s: Lessons From the Field* (Working Paper #94-041). Boston, MA: Harvard Business School.
- Winter, S.J., and S.L Taylor. (1996). The Role of IT in the Transformation of Work: A Comparison of Post-Industrial, Industrial, and Proto-Industrial Organization. *Informations Systems Research*, 7(1), 5-21.
- Holland, Christopher P., and A. Geoffrey Lockett. (1997). Mixed Mode Network Structures: The Strategic Use of Electronic Communication by Organizations. *Organization Science*, 8(5), 475-488.
- Malone, Thomas W., Joanne Yates, and R.I. Benjamin. (1987). Electronic Markets and Electronic Hierarchies: Effects of Information Technologies on Market Structure and Corporate Strategies. *Communications of the ACM*, 30(6), 484-497.
- Gurbuxani, Vijay, and Seujin Whang. (1991). The Impact of Information Systems on Organizations and Markets. *Communications of the ACM*, 34(1), 59-73.
- Zaheer, Akbar, and N. Venkatraman. (1994). Determinants of Electronic Integration in the Insurance Industry: An Empirical Test. *Management Science*, 40(5), 549-566.

Suggested Browsing:

- Conner, Kathleen R. (1991). A Historical Comparison of Resource Based Theory and Five Schools of Thought Within Industrial Organization Economics: Do We Have a New Theory of the Firm? *Journal Of Management*, 17(1), 121-154.
- Sundaram, Anant, and N. Venkatraman. (1994). *Organizational Forms* (Work in Progress).
- Teece, David J. (1992). Competition, Cooperation and Innovation: Organizational arrangements for regimes of rapid technological progress. *Journal of Economic Behavior and Organization*, 18, 1-25.
- Nohria, Nitin. (1992). Is a Network Perspective a Useful Way of Studying Organizations. In N. Nohria & R. G. Eccles (Eds.), *Networks and Organizations: Structure, Form and Action* (pp. 544): Harvard Business School Press.
- Ciborra, Claudio U. (1996). The Platform Organization: Recombining Strategies, Structures, and Surprises. *Organization Science*, 7(2), 103-118.
- Meyerson, Debra, Karl E. Weick, and Roderick Kramer. (1996). Swift Trust and Temporary Groups. In R. M. Kramer & T. R. Tyler (Eds.), *Trust in Organizations: Frontiers of Theory and Research*. Thousand Oaks, CA: Sage Publications.
- Upton, David M., and Andrew McAfee. (1996?). The Real Virtual Factory. *Harvard Business Review*, ?
- Powell, Walter W., Kenneth W. Koput, and Laurel Smith-Doerr. (1996). Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology. *Administrative Science Quarterly*, 41, 116-145.

Session 6:

Essay 2 due.

Expertise, Organizational Learning

- Levitt, Barbara, and James G. March. (1988). Organizational Learning. *Annual Review of Sociology*, 319-340.
- March, James G. (1991). Exploration and Exploitation in Organizational Learning. *Organization Science*, 2(1), 71-87.
- Cohen, Michael, and Lee Sproull. (1991). Learning From Samples of One or Fewer. *Organization Science*, 2(1), 1-13.
- Pentland, Brian T. (1992). Organizing moves in software support hot lines. *Administrative Science Quarterly*, 37(4), 527-548.
- Nonaka, Ikujiro. (1994). Dynamic Theory of Organizational Knowledge Creation. *Organization Science*, 5(1), 14-37.
- Boland, Richard J., and Ramkrishnan V. Tenkasi. (1995). Perspective Making and Perspective taking in communities of knowing. *Organization Science*, 6(4), 350-372.
- Madhok, Anoop. (1996). The Organization of Economic Activity: Transaction Costs, Firm Capabilities, and the Nature of Governance. *Organization Science*, 7(5), 577-590.
- Kogut, Bruce, and Udo Zander. (1996). What Firms Do? Coordination, Identity, and Learning. *Organization Science*, 7(5), 502-518.
- Foss, Nicolai J. (1996). Knowledge-based Approaches to the Theory of the Firm: Some Critical Comments. *Organization Science*, 7(5), 470-476.
- Hahn, J. and Subramani, M.R. "A Framework of Knowledge Management Systems: Issues and Challenges for Theory and Practice," *Proceedings of the Twenty-First International Conference on Information Systems*, Brisbane, 2000, 302-312.
- Nidumolu, S.R., Subramani, M.R. and Aldrich, A. Situated Learning and the Situated Knowledge Web: Exploring the Ground Beneath Knowledge Management. 2001. *Journal of Management Information Systems*, 18: 115-151.

Suggested Browsing:

- Conner, Kathleen R., and C.K. Prahalad. (1996). A Resource Based Theory of the Firm: Knowledge Versus Opportunism. *Organization Science*, 7(5), 477-501.
- Seely-Brown, J., and P. Duguid. (1991). Organizational Learning and Communities of Practice: Toward a Unified View of Working, Learning and Innovation. *Organization Science*, 2(1), 40-57.
- Kogut, Bruce, and Udo Zander. (1992). Knowledge of the Firm, Combinative Capabilities, and the Replication of Technology. *Organization Science*, 3, 383-397.
- March, James. (1994). Decision Engineering, from *A Primer on Decision Making* New York: Free Press, pp.221-271
- Simonin, Bernard L. (1997). The Importance of Collaborative Know-How: An Empirical Test of the Learning Organization. *Academy of Management Journal*, 40(5), 1150-1174.

Session 7: Conceptual Paper Outline and Annotated Bibliography Due

Learning the Craft of Research and Writing

Varadarajan, P. Rajan. (1996). From the Editor: The Journal of Marketing, 1993 to 1996. *Journal of Marketing* 60, 1-5. .

Davis, Murray S. (1971). That's Interesting: Toward a Phenomenology of Sociology and a Sociology of Phenomenology. *Philosophy of Social Science*(1), 309-344. .

Davis, Murray S. (19XX). That's Classic.

Martin, Joanne. (1982). A Garbage Can Model of the Research Process. In J. McGrath, J. Martin, & R. A. Kulka. (Eds.), *Judgment Calls in Research* (pp. 128). Beverley Hills: Sage Publishers.

Barley, Stephan, R(1990) Images of Imaging: Notes on Doing Logitudinal Field Work, *Organizational Science*, 1:3, 220-247. .

Daft, Richard, (1983) Learning the Craft of Organizational Research, *Academy of Management Review*, 8:4, 539-546 .

Gersick, Connie J.G., (1988) Time and The Transition in Work Teams: Toward a New Model of Group Development, *Academy of Management Journal*, Vol 33:1, 48-76. .

Golden-Biddle, Karen and Locke, Karen (1993), Appealing Work: An Investigation of How Ethnographic Texts Convince, 4:4, 595-616 .

APA Styleguide

Some useful resources:

[Resources on APA Style](#)

['Writing with Style': A hypertext guide](#)

[Strunk and White: The classic now available online](#)

[Research Resources Maintained Through ISWorld](#)

The finite length of a half semester course dictates tough choices of theories to include and those to leave out. Some of the theoretical perspectives not covered in this course are important to IS research and you should attempt to become familiar with them. To help you in this personal journey, here are some of the theories not included and some readings in the area:

Diffusion of Innovation

Cooper, R. , and R. Zmud. (1990). Information Technology Implementation Research: A Technological Diffusion Approach. *Management Science*, 36(2), 123-139.

Attewell, P. (1992). Technology diffusion and organizational learning: The case of business computing. *Organization Science*, 3(1), 1-19.

Loh, Lawrence, and N. Venkatraman. (1992). Diffusion of Information Technology Outsourcing: Influence Sources and the Kodak Effect. *Information Systems Research*, 3(December), 334-358.

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.

Rogers, Everett M. (1995). The Change Agent, from *Diffusion of Innovations*. (4th ed.). New York: Free Press, pp. 336-441

Abrahamson, Eric, and Lori Rosenkopf. (1997). Social Network Effects on the Extent of Innovation Diffusion: A Computer Simulation. *Organization Science*, 8(3), 289-309.

Hu, Qing, Carol Saunders, and Mary Gebelt. (1997). Research Report: Diffusion of Information Systems Outsourcing: A Reevaluation of Influence Sources. *Informations Systems Research*, 8(3), 288-301.

Methodological Issues

McGrath, Joseph E. (1992). Dilemmatics: The Study of Research Choices and Dilemmas. In J. E. McGrath, J. Martin, & R. A. Kulka (Eds.), *Judgment Calls in Research* (pp. 69-102). Beverley Hills: Sage Publications.

Venkatraman, N. (1989). The Concept of Fit in Strategy Research: Toward Verbal and Statistical Correspondence. *Academy of Management Review*, 14(3), 423-444.

Eisenhardt, Kathleen M. (1989). Building Theories from Case Study Research. *Academy of Management Review*, 14(4), 532-550.

Van de Ven, Andrew H. (1992). Suggestions for Studying Strategy Process: A Research Note. *Strategic Management Journal*, Summer, 169-188

Hufnagel, Ellen M., and Christopher Conca. (1994). User Response Data: The Potential for Errors and Biases. *Information Systems Research*, 5(1), 48-73.

Doty, D. Harold, and William H. Glick. (1994). Typologies as a Unique Form of Theory Building: Toward Improved Understanding and Modeling. *Academy of Management Journal*, 19(2), 230-251.

Klein, Katherine J., Fred Dansereau, and Rosalie J. Hall. (1994). Levels issues in theory development, data collection, and analysis. *Academy of Management Review*, 19(2), 195-229.

Sabharwal, Rajiv, and Dan Robey. (1996). Reconciling Variance and Process Strategies for Studying Information Systems Development. *Information Systems Research*, 6(4), 303-327.

Other Good Stuff:

Salancik, Gerald R. (1979). Field Stimulations for Organizational Behavior Research. *Administrative Science Quarterly*, 24, 638-649.

Webb, Eugene, and Karl E. Weick. (1979). Unobtrusive Measures in Organizational Theory: A Reminder. *Administrative Science Quarterly*, 24, 650-659.

Bagozzi, Richard P., and Lynn W Phillips. (1982). Representing and testing organizational theories: A holistic construal. *Administrative Science Quarterly*, 27, 459-489.

Bagozzi, R.P. (1984). A prospectus for theory construction in marketing. *Journal of Marketing* 48(Winter), 11-29.

Barley, Stephen R. (1990). Images of Imaging: Notes on Doing Longitudinal Fieldwork. *Organization Science*, 1(3), 220-247.

Kumar, Nirmalya, Louis W. Stern, and James C. Anderson. (1993). Conducting interorganizational research using key informants. *Academy of Management Journal*, 36(6), 1633-1651.

Parkhe, Arvind. (1993). 'Messy' research, methodological predispositions, and theory development in international joint ventures. *Academy of Management Review*, 18(2), 227-268.