# Theory in Information Systems Research

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*Note: This course and the syllabus are, to a large extent, based on the course "Theory in Information Systems Research" by Dr. Dorothy Leidner, Baylor University. All errors are mine.*

## Course Overview

Knowledge creation and dissemination are key objectives of scientific endeavors. However, what constitutes knowledge is a highly contested issue. Certainly, at the core of social science disciplines, knowledge is inseparable from theory. Indeed, to seek theory-guided explanations of real-world phenomenon is what separates scholars from consultants, who seek to change reality without explaining it, and from journalists, who report reality but do not explain it. The pursuit of theory drives us to understand reality—to discover truth—before making recommendations on how to change reality. To pursue theory is to pursue knowledge; to pursue knowledge is to advance humanity. Consequently, many scholars emphasize the centrality of theories for any scientific endeavor—a thought widely reflected in many disciplines from the natural to the social sciences. While attention to theoretical work has been at the heart of the Information Systems (IS) discipline for a long time, the focus on theoretical debates and genuine conceptual contributions has been picking up recently. This is reflected by a number of journal sections and conference tracks dedicated to advancing theory and theorizing in IS research just as much as in many authors' experiences during the reviews of their work.

This course invites participants to join the ongoing discourse on theories and theorizing in the IS research community. It is designed to help participants build and extend their understanding of the nature and role of theory in IS research. Through discussions and analyses of current theoretical developments in the IS discipline and some of its main reference disciplines, participants will engage with theory and advance their skills of crafting their own theoretical contributions and evaluating those of others.

## Course Objectives

- To understand the importance and usefulness of theory in research
- To learn theorizing strategies
- To learn to evaluate theoretical contribution in research
- To develop basic theorizing skills
- To identify a theory that could be applicable to the participants' own research programs

**Course Organization**

This course will be driven by discussion and as such students are expected to come prepared for each class, having read and thought about all readings. During the first session, each student will volunteer to lead the discussion on the readings for the three following sessions.

The purpose of the classes is to discuss what students have learnt from the readings—both assigned and otherwise. My role as instructor will be to help guide the discussion, ensure that the key points have been identified and understood, and move the discussion forward. All students are expected to actively participate in the discussion on all readings by sharing their own thinking, raising questions, and making connections among the readings of this course and beyond.

**Theory Presentation**

Each student will present one theory not covered in the course readings that could be applicable to the students' own research program. The presentations will take place on the third and fourth sessions on July 30 and July 31. The presentations will be brief—no more than 15 minutes. The presentations are intended to expose students in the class to novel theories with which they were not previously familiar. The student should plan to diagram the theory in one or more PowerPoint slides, present the slides to the class, and distribute the slides among participants. The final slides should provide references to the seminal work as well as other references, as needed, to the theory.

**Course Grading**

The grade will be based on class discussion, leading the discussion of some of the articles, and a single individual project.

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| Class Discussion: | 1/3 |
| Discussion Leader: | 1/3 |
| Theory Presentation: | 1/3 |

**Course Schedule**

| Session | Topic | Date |
|---|---|---|
| 1 | Theory | July 25, 9h-12h, 13h-15h |
| 2 | Theorizing | July 26, 9h-12h, 13h-15h |
| 3 | Evaluating Theory Contribution/ Student presentations 1/2 | July 30, 9h-12h, 13h-15h |
| 4 | Theory Contribution Across Methods/ Student presentations 2/2 | July 31, 9h-12h, 13h-15h |

**Required Readings**

**Session 1: Theory**

Feldman, D. C. (2004). What are we talking about when we talk about theory? *Journal of Management,* 30(5), 565-567.

Gregor, S. (2006). The Nature of Theory in IS Research. *MIS Quarterly*, 30(3), 611-642.

Sutton, R. I. and Staw, B. M. (1995). What theory is *not. Administrative Science Quarterly,* 40, 371-384.

→[1] DiMaggio, P. J. (1995). Comments on "What theory is *not." Administrative Science Quarterly,* 40, 391-397.

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

Avison, D. and Malaurent, J. (2014). Is theory king? Questioning the theory fetish in Information Systems. *Journal of Information Technology*, 29, 327-336.

→ Lee, A. (2014). Theory is king? But first, what is theory? *Journal of Information Technology*, 29, 350-352.

→ Silverman, D. (2014). Taking theory too far? A commentary on Avison and Malaurent. *Journal of Information Technology*, 29, 353-355.

→ Gregor, S. (2014). Theory – still king but needing a revolution! *Journal of Information Technology*, 29, 337-340.

→ Markus, M. L. (2014). Maybe not the king, but an invaluable subordinate: A commentary on Avison and Malaurent's advocacy of 'theory light' IS research. *Journal of Information Technology*, 29, 341-345.

**Session 2: Theorizing**

Colquitt, J. and Zapata-Phelan, C. (2007). Trends in theory building and theory testing: A five-decade study of the Academy of Management Journal. *Academy of Management Journal*, 50(6), 1281-1303.

Alvesson, M. and Sandberg, J. (2011). Generating research questions through problematization. *Academy of Management Review*, 36(2), 247-271.

Poole, M. S. and van de Ven, A. H. (1989). Using paradox to build management and organization theories. *Academy of Management Review,* 14(4), 562-678.

Shepherd, D. and Sutcliffe, K. M. (2011). Inductive top-down theorizing: A source of new theories of organization. *Academy of Management Review,* 26(2), 361-380.

Hong, W., Chan, F., Thong, J. Chasalow, L., and Dhillon, G. (2014). A framework and guidelines for context-specific theorizing in Information Systems research. *Information Systems Research*, 24(1), 111-136.

[1] "→" denotes responses to the previous paper.

Oswick, C., Fleming, P., and Hanlon, G. (2011). From borrowing to blending: Rethinking the processes of organizational theory building. *Academy of Management Review*, 36(2), 318-327.

**Session 3: Evaluating Theory Contribution**

Whetten, D. (1989). What constitutes a theoretical contribution? *Academy of Management Review*, 14(4), 490-495.

Corley, K. G. and Gioia, D. A. (2011). Building theory about theory: What constitutes a theoretical contribution. *Academy of Management Review*, 36(10), 12-32.

Bacharach, S. B. (1989). Organizational theories: Some criteria for evaluation. *Academy of Management Review*, 14(4), 496-515.

Lee, A. S., & Baskerville, R. L. (2003). Generalizing generalizability in information systems research. *Information Systems Research*, 14(3), 221-243.

Agerfalk, P. J. (2014). Insufficient theoretical contribution: A conclusive rationale for rejection? *European Journal of Information Systems*, 23, 593-599.

*Theory contribution in different journals:*

Yoo, Y. (2010). Computing in everyday life: A call for research on experiential computing. *MIS Quarterly*, 24(2), 213-231.

Yoo, Y., Boland Jr, R. J., Lyytinen, K., an Majchrzak, A. (2012). Organizing for innovation in the digitized world. *Organization Science*, *23*(5), 1398-1408.

Eaton B., Elaluf-Calderwood S., Sørensen C., and Yoo, Y. (2015). Distributed tuning of boundary resources the case of Apple's iOS service system. *MIS Quarterly*, 39(1), 217-243.

Ghazawneh, A. and Henfridsson, O. (2013) Balancing platform control and external contribution in third-party development: The boundary resources model. *Information Systems Journal*, 23(2), 173-192.

**Session 4: Theory Contribution Across Methods**

*Case:* Huber, T., Kude, T., and Dibbern, J. (2017). Governance practices in platform ecosystems: Navigating tensions between co-created value and governance costs. *Information Systems Research*, 28(3), 563-584.

*Survey:* Tiwana, A. (2015). Evolutionary Competition in Platform Ecosystems. *Information Systems Research*, 26(2), 266-281.

*Panel Data:* Chen, H., De, P., and Hu, Y. H. (2015). IT-enabled broadcasting in social media: an empirical study of artists' activities and music sales. *Information Systems Research*, 26(3), 513-531.

*Experiment:* Adomavicius, G., Bockstedt, J. C., Curley, S. P., and Zhang, J. (2013). Do recommender systems manipulate consumer preferences? A study of anchoring effects. *Information Systems Research*, 24(4), 956-975.