IS8014: THEORY DEVELOPMENT AND QUALITATIVE METHODS IN INFORMATION SYSTEMS RESEARCH

Effective Term
Semester A 2025/26

Part I Course Overview

Course Title
Theory Development and Qualitative Methods in Information Systems Research

Subject Code
IS - Information Systems
Course Number
8014

Academic Unit
Information Systems (IS)

College/School
College of Business (CB)

Course Duration
One Semester

Credit Units
3

Level
R8 - Research Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
IS8002 Foundations of Information Systems Research

Precursors
Nil

Equivalent Courses
Nil

Exclusive Courses
Nil

Part II Course Details

Abstract

This course has two components: theory development and qualitative research methods. PhD students will first be equipped with the necessary foundations and skills to engage in both deductive and inductive theory building. Deductive theory building involves drawing on the relevant literature to identify opportunities for new theory. Inductive theory building involves drawing on data/phenomena, often informed by the literature, to identify opportunities for new theory. Theory building incorporates several stages, notably: identifying a theoretical space and focus; searching for appropriate literature; defining concepts; theorizing relationships between concepts; formalising concepts as constructs with proposals; testing the proposed theoretical relationships empirically. Second, students will acquire the appropriate skills to identify opportunities where they can apply qualitative research methods such as case studies and action research. The contribution of qualitative data to inductive theory building, for instance following the principles of data coding and grounded theory, will also be considered.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Develop a strong sense of intellectual curiosity, challenge assumptions and positions, and engage in a shared process of enquiry.		x		
2	Develop critical thinking skills associated with knowledge creation that can be applied to real-world problem solving.			x	
3	Develop the ability to reflect on their own discovery and innovation process.				x
4	Understand the challenges and strategies associated with theorizing and building a new theory.		x		
5	Appreciate the relative merits of deductive and inductive approaches to theory building.		x		
6	Apply appropriate qualitative methodologies to solve behavioural IS research problems			x	
7	Propose the foundations of a new theory (inductive or deductive) with a holistic description of the entire theory development process, including how the same theory should be validated.			x	x
8	Develop a research proposal in which a qualitative research method is applied to a specific problem situation, paying due regard to theoretical considerations.			x	x

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	LTA1: Seminar	The following items form the content of the seminar: 1. Introduction to and overview of the role of theory in IS research, including a focus on deductive and inductive theory building 2. Examination of the theorizing process, including the identification of a theoretical space, the use of literature, the development of concepts and their transformation into theoretical constructs, the formalization of theoretical proposals that link constructs, and the various techniques used for empirical theory validation. 3. Introduction to qualitative data, data collection and analytical techniques. 4. Introduction to research methods often associated with qualitative data, in particular case studies, ethnography and action research, and the application of these methods to specific research situations. 5. Detailed examination and critique of selected research papers from the perspective of theory and qualitative methodology.	1, 2, 3, 4, 5, 6, 7, 8	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	AT1. In-class participation, including discussion: The seminar will be designed to include opportunities for students to explore and discuss a variety of issues associated with the development of theory and the application of qualitative IS research. Students will be expected to act like engaged researchers and scientists.	1, 2, 3, 4, 5, 6, 7, 8	30	-	Yes
2	AT2.Critical Analysis: Each student is required to present a critical analysis of one theory paper and one qualitative research paper.	1, 2, 3, 4, 5, 6, 7, 8	30	-	No

3	AT3.Research Proposal: Each student is required to develop two research proposals: one related to theory building and one to qualitative research. For (a), the student must develop a proposal for a new theory (drawing on deductive or inductive techniques) in order to demonstrate how theories are developed from different source materials and then validated, thereby contributing to knowledge. For (b) the student is required to develop a research proposal founded on a qualitative methodology in order to demonstrate their ability to solve research problems and thereby contribute to the discovery of new knowledge.	1, 2, 3, 4, 5, 6, 7, 8	40	-	No

Continuous Assessment (%)

100

Examination (%)

0

Minimum Continuous Assessment Passing Requirement (%)

70

Assessment Rubrics (AR)

Assessment Task

AT1. In-class participation, including discussion (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion
Ability to explore and discuss different empirical and methodological issues associated with theory and qualitative IS research.

Excellent
(A+, A, A-) High

Good
(B+, B, B-) Significant

Fair
(C+, C, C-) Moderate

Marginal
(D) Marginal

Failure
(F) Not even reaching marginal levels

Assessment Task
AT2. Critical Analysis (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion
Capability to critique research papers constructively and effectively.

Excellent
(A+, A, A-) High

Good
(B+, B, B-) Significant

Fair
(C+, C, C-) Moderate

Marginal
(D) Marginal

Failure
(F) Not even reaching marginal levels

Assessment Task
AT3 Research Proposal (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion
Ability to propose (a) the development of a new theory that includes all the major stages of theory building and validation and (b) the design of a research investigation that is founded on a qualitative methodology.

Excellent
(A+, A, A-) High

Good
(B+, B, B-) Significant

Fair
(C+, C, C-) Moderate

Marginal
(D) Marginal

Failure
(F) Not even reaching marginal levels

Assessment Task
AT1. In-class participation, including discussion (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion
Ability to explore and discuss different empirical and methodological issues associated with theory and qualitative IS research.

Excellent
(A+, A, A-) High

Good
(B+, B) Significant

Marginal
(B-, C+, C) Moderate

Failure
(F) Not even reaching marginal levels

Assessment Task
AT2. Critical Analysis (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion
Capability to critique research papers constructively and effectively.

Excellent
(A+, A, A-) High

Good
(B+, B) Significant

Marginal
(B-, C+, C) Moderate

Failure
(F) Not even reaching marginal levels

Assessment Task
AT3 Research Proposal (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Ability to propose (a) the development of a new theory that includes all the major stages of theory building and validation and (b) the design of a research investigation that is founded on a qualitative methodology.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Moderate

Failure

(F) Not even reaching marginal levels

Part III Other Information

Keyword Syllabus

1.1 Introduction to how to make a theoretical contribution in IS research; formulate a research problem from a theoretical perspective, including specifying research objectives/questions, and motivating their importance; draw on both the literature and practical contexts to identify an opportunity to develop a novel theoretical contribution; distinguish inductive and deductive approaches to theory building; recognise the importance of assumptions and context in theory; undertake the formulation of theoretical propositions and/or hypotheses; validate theories; understand the principles of theoretical critiques.

1.2 Introduction to qualitative IS research: types of qualitative data, collection and analysis of qualitative data; the value of qualitative methods for research; the nature and characteristics of qualitative IS research, with a focus on specific methods: case study, ethnography, action research; trends in current qualitative IS research; principles of excellence for qualitative research

Reading List

Compulsory Readings

	Title
1	Recent Issues of the AIS Basket of 8 Journals and equivalent journals in Management and Organization Studies

Additional Readings

	Title
1	Barley, S.R. (2006) When I Write My Masterpiece: Thoughts On What Makes A Paper Interesting. Academy of Management Journal, 49, 1, 16-20
2	Benbasat, I., & Zmud, R.W. (1999) Empirical Research In Information Systems: The Practice of Relevance. MIS Quarterly, 23, 1, 3-16.
3	Chughtai, H. and Myers, M.D. (2017) Entering the field in qualitative field research: A rite of passage into a complex practice world, Information Systems Journal 27, 6, 795-817.
4	Iivari, J., Hirschhem, R. and Heinz, K. (2001) A Dynamic Framework for Classifying Information Systems Development Methodologies and Approaches, Journal of Management Information Systems, 17, 3, 179-218.
5	Klein, H.K. and Myers, M.D. (1999) A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems, MIS Quarterly, 23, 1, 67-93.
6	Lee, A. (1999) Strategizing for Compelling and Significant Research. MIS Quarterly, 23, 2, 145-145.

7	Myers, M.D. (1997) Qualitative Research in Information Systems, MIS Quarterly, 21, 2, 241-242. MISQ Discovery, archival version, June 1997, http://www.misq.org/discovery/MISQD_isworld/. MISQ Discovery, updated version, last modified: May 13, 2010 www.qual.auckland.ac.nz
8	Van De Ven, A.H. (2007) Engaged Scholarship: A Guide for Organizational and Social Research, Oxford University Press.
9	Walsham, G. (1995) The Emergence of Interpretivism in IS Research, Information Systems Research 6, 4, 376-394
10	Zmud, B. (1996). On rigor and relevancy. MIS Quarterly, 20(3), xxxvii-xi.
11	Alavi, M., & Leidner, D.E. (2001) Review: Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues. MIS Quarterly 25, 1, 107-136.
12	Alvesson, M., & Karreman, D.A.N. (2007) Constructing Mystery: Empirical Matters in Theory Development. Academy of Management Review 32, 4, 1265-1281.
13	Bacharach, S.B. (1989) Organizational Theories: Some Criteria for Evaluation. Academy of Management Review 14, 4, 496-515.
14	Berthon, P., Pitt, L., Ewing, M. and Carr, C.L. (2002) Potential Research Space in MIS: A Framework for Envisioning and Evaluating Research Replication, Extension and Generation. Information Systems Research 13, 4, 416-427.
15	Burton-Jones, A., & Gallivan, M.J. (2007) Toward a Deeper Understanding of System Usage in Organizations: A Multilevel Perspective. MIS Quarterly 31, 4, 657-679.
16	Colquitt, J.A. and Zapata-Phelan, C.P. (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.
17	Feldman, D.C. (2004) What are We Talking About When We Talk About Theory? Journal of Management 30, 565-567.
18	Gersick, C.J.G. (1991) Revolutionary Change Theories: A Multilevel Exploration of the Punctuated Equilibrium Paradigm, Academy of Management Review 16, 1, 10-36.
19	Gregor, S. (2006) The Nature of Theory in Information Systems, MIS Quarterly 30, 3, 611-642.
20	Grover, V. and Lyytinen, K. (2015) New State of Play in Information Systems Research: The Push to the Edges, MIS Quarterly 39, 2, 271-296.
21	Grover, V., Lyytinen, K., Srinivasan, A. and Tan, B.C.Y. (2008) Contributing to Rigorous and Forward Thinking Explanatory Theory, Journal of the AIS 9, 2, 40-47.
22	Lee, A.S. and Baskerville, R.L. (2003) Generalizing Generalizability in Information Systems Research, Information Systems Research 14, 3, 221-243.
23	Lee, A.S. and Baskerville, R.L. (2012) Conceptualizing Generalizability: New Contributions and a Reply, MIS Quarterly 36, 3, 749-761.
24	Locke, E.A. (2007) The Case for Inductive Theory Building, Journal of Management 33, 6, 867-890.
25	Mitchell, T.R., & James, L.R. (2001) Building Better Theory: Time and the Specification of When Things Happen, Academy of Management Review 26, 4, 530-547.
26	Petter, S., Straub, D., & Rai, A. (2007) Specifying Formative Constructs in Information Systems Research, MIS Quarterly 31, 4, 623-656.
27	Poole, M.S., & van de Ven, A.H. (1989) Using Paradox to Build Management and Organization Theories, Academy of Management Review 14, 4, 562-578.
28	Rivard, S. (2014) The Ions of Theory Construction, MIS Quarterly 38, 2, iii-xiii.
29	Romanelli, E. and M.L. Tushman. (1994) Organizational Transformation as Punctuated Equilibrium: An Empirical Test, Academy of Management Journal 37, 5, 1141-1666.
30	Straub, D.W. (2012). Editor's Comments: Does MIS Have Native Theories? MIS Quarterly 36, 2, iii-xii.
31	Straub, D.W. (2009) Editor's Comments: Why Top Journals Accept Your Paper. MIS Quarterly 33, 3, iii-x.
32	Sutton, R.I., & Staw, B.M. (1995) What Theory is Not, Administrative Science Quarterly 40, 3, 371-384.
33	Truex, D., Holmstrom, J. and Keil, M. (2006) Theorizing in Information Systems Research: A Reflexive Analysis of the Adaptation of Theory in Information Sytems Research. Journal of the AIS 7, 12, 797-821.

34	Van de Ven, A.H. and M.S. Poole (1995) Explaining Development and Change in Organizations, Academy of Management Review 20, 3, 510-540.
35	Watson, R.T. (2001) Research in Information Systems: What We Haven't Learned - A Good Theory, MIS Quarterly 25, 4, vii-viii.
36	Weber, R. (2003) Editor's Comments: Theoretically Speaking, MIS Quarterly 27, 3, iii-xii.
37	Weber, R. (2003) Editor's Comments: The Problem of the Problem, MIS Quarterly 27, 1, iii-ix.
38	Weber, R. (2003) Theoretically Speaking, MIS Quarterly 27, 3, iii-xii.
39	Weber, R. (2012) Evaluating and Developing Theories in the Information Systems Discipline, Journal of the AIS 13, 1, 1-30.
40	Webster, J. and Watson, R. (2002) Analyzing the Past to Prepare for the Future: Writing a Literature Review, MIS Quarterly 26, 2, xiii-xxiii.
41	Weick, K.E. (1995) What Theory Is Not, Theorizing Is, Administrative Science Quarterly 40, 3, 385-390.
42	Whetten, D.A. (1989) What Constitutes a Theoretical Contribution? Academy of Management Review 14, 4, 490-495.
43	Zmud, R.W. (1998) Editor’s Comments, MIS Quarterly 22, 2, xxix-xxxii.
44	Baskerville, R.L. (1999) Investigating Information Systems with Action Research, Communications of the AIS, 2, 19: online.
45	Davison, R.M., Martinsons, M.G. and Kock, N. (2004) Principles of Canonical Action Research, Information Systems Journal 14, 1, 65-86.
46	Davison, R.M., Martinsons, M.G., & Ou, C.X. (2012). The Roles of Theory in Canonical Action Research. MIS Quarterly, 36, 3, 763-786.
47	Davison, R.M., Martinsons, M.G. and Malaurent, J. (2021) Improving Action Research by Integrating Methods, Journal of the AIS 22, 3, 851-873.
48	Davison, R.M. and Vogel, D.R. (2000) Group Support Systems in Hong Kong: An Action Research Project, Information Systems Journal 10, 1, 3-20.
49	Henfridsson, O. and Lindgren, R. (2005) Multi-Contextuality in Ubiquitous Computing: Investigating the Car Case through Action Research, Information and Organization 15, 2, 95-124.
50	Iversen, J.H., Mathiassen, L. and Nielsen, P.A. (2004) Managing Risk In Software Process Improvement: An Action Research Approach, MIS Quarterly 28, 3, 395-433.
51	Kohli, R. and Kettinger, W.J. (2004) Informating The Clan: Controlling Physicians' Costs And Outcomes, MIS Quarterly 28, 3, 363-394.
52	Malaurent, J., & Avison, D. (2015). Reconciling global and local needs: A canonical action research project to deal with workarounds. Information Systems Journal 26, 3, 227-257.
53	Mathiassen, L. (2002) Collaborative Practice Research, Information Technology & People 14, 4, 321-345.
54	McKay, J., & Marshall, P. (2001). The dual imperatives of action research. Information Technology & People 14(1), 46-59.
55	Simonsen, J. (2009). A Concern for Engaged Scholarship: The challenges for action research projects. Scandinavian Journal of Information Systems 21, 2, 1.
56	Susman, G.I. and Evered, R.D. (1978) An Assessment of the Scientific Merits of Action Research, Administrative Science Quarterly 23, 4, 582-603.
57	Avison, D.E. and Myers, M.D. (1995) Information Systems and Anthropology: An Anthropological Perspective on IT and Organizational Culture, Information Technology & People 8, 3, 43-56.
58	Bentley, R., Rodden, T., Sawyer, P., Sommerville, I., Hughes, J., Randall, R. and Shapiro, D. (1992) Ethnographically-Informed Systems Design for Air Traffic Control, ACM Conference on Computer-Supported Cooperative Work: Sharing Perspectives. New York, ACM Press, 123-129.
59	Harvey, L. and Myers, M.D. (1995) Scholarship and Practice: The Contribution of Ethnographic Research Methods to Bridging the Gap, Information Technology & People 8, 3, 13-27.

60	Myers, M.D. (1999) Investigating Information Systems with Ethnographic Research, Communications of the AIS 2, 23, 1-20.
61	Benbasat, I., Goldstein, D.K. and Mead, M. (1987) The Case Research Strategy in Studies of Information Systems, MIS Quarterly 11, 3, 369-386.
62	Dubé, L. and Paré, G. (2003) Rigor in Information Systems Positivist Case Research: Current Practices, Trends, and Recommendations, MIS Quarterly 27, 4, 597-636.
63	Eisenhardt, K.M. (1991) Better Stories and Better Constructs: The Case for Rigor and Comparative Logic, Academy of Management Review 16, 3, 620-627.
64	Lee, A.S. (1989) A Scientific Methodology for MIS Case Studies, MIS Quarterly 13, 1, 33-52.
65	Lee, A.S. (1994) Electronic Mail as a Medium for Rich Communication: An Empirical Investigation Using Hermeneutic Interpretation, MIS Quarterly 18, 2, 143-157.
66	Markus, M.L. (1983) Power, Politics and MIS Implementation, Communications of the ACM 26, 430-444.
67	Myers, M.D. (1994) A Disaster for Everyone to See: An Interpretive Analysis of a Failed IS Project, Accounting, Management and Information Technologies 4, 4, 185-201.
68	Orlikowski, W.J. (1996) Improvising Organizational Transformation Over Time: A Situated Change Perspective, Information Systems Research 7, 1, 63-92.
69	Pan, S.L. and Tan B. (2011) Demystifying case research: A structured---pragmatic-situational (SPS) approach to conducting case studies, Information & Organization 21, 3, 161-176.
70	Shanks, G. (1997) The Challenges of Strategic Data Planning: An Interpretive Case Study, Journal of Strategic Information Systems 6, 69-90.
71	Walsham, G. (1995) Interpretive Case Studies in IS Research: Nature and Method, European Journal of Information Systems 4, 74-81.
72	Yin, R.K. (2002) Case Study Research, Design and Methods, 3rd ed. Newbury Park, Sage Publications.