Business 9832: Information Systems I: Information Technologies, Individuals and Organizations
Fall 2025

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Class Schedule: Mondays – 1 pm to 4 pm
(12 Sessions)
Class Location: Ivey 2127

COURSE DESCRIPTION

This course is intended to develop the students' understanding of major research streams in the field of Information Systems. The course builds on the reading and discussion of various seminal papers covering major topics in Information Systems, supplemented by relevant papers from reference disciplines, such as sociology, psychology, and economics, as well as from other business disciplines, such as Organization Theory, Organizational Behavior, Operations Management, and Strategy. The course emphasizes the integration of diverse literature streams and the application of different perspectives. You are encouraged to use this course as an opportunity to identify or refine research topics that would be of interest to you and to leverage the course to broaden your understanding of digital phenomena and to grow as a well-rounded Information Systems researcher.

LEARNING OBJECTIVES

At the end of this course, you should be able to:

- Identify major research streams in the study of information systems
- Draw on and problematize the Information Systems literature to develop research proposals
- Critically evaluate Information Systems papers
- Plan and write the front end of an Information Systems paper

COURSE REQUIREMENTS / EVALUATION

Activity	Grade	Due Date
Classroom Contributions	25%	Every week
Reflection Essays	20%	Every week
Session lead	10%	Assigned weeks
Information Systems paper review	5%	Week 10
Final Paper & Presentation	40%	End of term

Classroom Contribution

The class contribution grade will be based on a 3-point grading scale.

Grade	Performance
3	Excellent contributions
2	Good contributions
1	Attended class, limited contributions
0	Absent from class

Excellent contributions are inquisitive, thoughtful, analytical, insightful, and respectful. To make such comments, you will have to *prepare well* for class and *listen carefully* when others are contributing. You are encouraged to challenge ideas, not individuals. Classroom discussions should be fun, provocative, and enlightening. You are being judged on the quality, not the quantity of contributions.

Your class contributions should build on the assigned readings for each week. Some of the questions that you can consider as you prepare for the class include:

- Framing: What is the paper about? What is the IS phenomenon that is studied in the paper? Why is it important?
- Problematization: How do the authors problematize past research? How do they position their study in relation to existing literature?
- Methods: What methods are used? Are the details of the methods given in the paper sufficient? Do the methods fit the research objectives? Would other methods have worked better in achieving the same objectives?
- Theoretical foundation: What theory is used to support the paper's explanations? Why was that theory chosen? What other theories would have helped in supporting theory development or hypothesis formulation in the paper?
- Presentation of findings: What approach did the authors adopt in presenting their findings? How do they build on their findings to develop theoretical arguments?
- Contributions: What are the main contributions of the paper to the literature? How do the authors argue for the significance of those contributions?
- Assumptions: What assumptions do the authors make about technology, organizations, human nature, and society?
- Synthesis: What concepts or arguments link the various papers? How are the arguments supporting or contradicting each other?

Reflection Essays

Before each class, you are expected to write a short reflection essay on the topic of the week. Your essay can draw on the papers assigned in that week, but it does not need to be limited to those papers. The essay should address the following:

- Why the topic of the week (or a more specific manifestation of the topic) is important?
- What do we know about the topic from the existing literature?
- What aspects of the topic are worth investigating further?

The essays should not exceed one page, double-spaced.

The essays will only be graded as pass/fail. I will read all the essays prior to class, but will only send comments if there is something important to say.

The essays must be submitted on Learn before Sunday at 10 p.m. each week. When submitting the essays, please remember to include your name and the week number at the top of the document.

Review of an Information Systems Paper
You will be asked to review an Information Systems paper that has been submitted to a journal. The purpose of this exercise is not only to hone your reviewing skills but also to appreciate the challenges of going through the review process.

Session lead
Each student will have two opportunities to lead and facilitate class sessions throughout the semester. In your assigned week, you need to prepare a 10-minute presentation on an empirical manifestation(s) of the week's topic. To do so, you can draw on technology news, industry analyses, or published cases. Present your chosen empirical phenomena/cases and explain why they might be theoretically relevant (what concepts can they help us explore?).

Final Paper & Presentation
The final paper requires you to write the front end of an Information Systems paper. This means you will need to

1. Identify an Information Systems phenomenon that you find interesting
2. Review the literature on that phenomenon and present a convincing problematization of that literature.
3. Describe briefly the research methods (research context, data sources, data analysis) that you would adopt to investigate the phenomenon

The paper should not exceed 15 pages of text, double-spaced, 12-point Times New Roman font, and one-inch margins. There are no limits placed on figures, tables, and references.

USE OF GENERATIVE ARTIFICIAL INTELLIGENCE (AI)
You may use generative AI tools to support your learning activities, such as for brainstorming, clarifying concepts, or improving the presentation of your own writing, provided you critically evaluate and verify the accuracy, originality, and appropriateness of any generated content. All substantive intellectual contributions to assignments and projects must remain your own, and use of GenAI must never replace your independent analysis, argumentation, or engagement with scholarly sources.

ENROLLMENT RESTRICTIONS
Enrollment in this course is restricted to graduate students in the Ivey PhD Program, as well as any student that has obtained special permission to enroll in this course from the course instructor as well as the Graduate Chair (or equivalent) from the student's home program.

ACADEMIC OFFENCES: PLAGIARISM AND ACADEMIC INTEGRITY

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism-detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com).

GENDER-BASED SEXUAL VIOLENCE SUPPORT

Western is committed to reducing incidents of gender-based and sexual violence (GBSV) and providing compassionate support to anyone who is going through or has gone through these traumatic events. If you are experiencing or have experienced GBSV (either recently or in the past), you will find information about support services for survivors, including emergency contacts at the following website: https://www.uwo.ca/health/student_support/survivor_support/get-help.html. To connect with a case manager or set up an appointment, please contact support@uwo.ca.

HEALTH AND WELLNESS SERVICES

As part of a successful graduate student experience at Western, we encourage students to make their health and wellness a priority. Western provides several on campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your graduate degree. See https://www.uwo.ca/health.

Students who are in emotional/mental distress should refer to Mental Health Support at https://www.uwo.ca/health/psych/index.html for a complete list of options about how to obtain help. Additionally, students seeking help regarding mental health concerns are advised to speak to someone they feel comfortable confiding in, such as their faculty supervisor, their program director or program coordinator.

ACCESSIBLE EDUCATION WESTERN

Western is committed to achieving barrier-free accessibility for all its members, including graduate students. As part of this commitment, Western provides a variety of services devoted to promoting, advocating, and accommodating persons with disabilities in their respective graduate program.

Graduate students with disabilities (for example, chronic illnesses, mental health conditions, mobility impairments) are strongly encouraged to register with Accessible Education Western (AEW), a confidential service designed to support graduate and undergraduate students through their academic program. With the appropriate documentation, the student will work with both AEW and their graduate programs (normally their Graduate Chair and/or Course instructor) to ensure that appropriate academic accommodations to program requirements are arranged. These accommodations include individual counselling, alternative formatted literature, accessible campus transportation, learning strategy instruction, writing exams and assistive technology instruction.

Course Timeline

Session #	Date	Topic
1	September 8	Course Introduction
2	September 15	Digital Innovation
3	September 22	Digital Transformation
4	September 29	Digital Platforms and Ecosystems
5	October 6	Work in the Digital Age
6	October 20	Technology and Institutional Change
7	October 27	Digitally Enabled Collective Action
8	November 3	Digital Inequality and Inclusion
9	November 10	Technology Enabled Learning and Sensemaking
10	November 17	Designing Digital Artifacts
11	November 24	Technology and Sustainability
12	December 1	Final research presentations and discussions

DETAILS OF SESSIONS

WEEK 1: Course Introduction

Readings

WEEK 2: Digital Innovation

Readings
Required

- **Hargadon, A. B., & Douglas, Y. (2001). When Innovations Meet Institutions: Edison and the Design of the Electric Light. Administrative Science Quarterly, 46(3), 476-501.**
- Yoo, Y., Henfridsson, O., & Lyytinen, K. (2010). The New Organizing Logic of Digital Innovation: An Agenda for Information Systems Research. Information Systems Research, 21(4), 724-735.
- Nambisan, S., Lyytinen, K., Majchrzak, A., and Song, M. 2017. “Digital Innovation Management,” MIS Quarterly (41:1), pp. 223–238.

- Svahn, F., Mathiassen, L., and Lindgren, R. 2017. “Embracing Digital Innovation in Incumbent Firms: How Volvo Cars Managed Competing Concerns,” MIS Quarterly (41:1), pp. 239–254.

Optional

- Garud, R., Tuertscher, P., & Van de Ven, A. H. (2013). Perspectives on Innovation Processes. Academy of Management Annals, 7(1), 775-819.
- Kohli, R., and Melville, N. P. 2019. “Digital Innovation: A Review and Synthesis,” Information Systems Journal (29:1), pp. 200–223.
- Teece, D. J. 2018. "Profiting from Innovation in the Digital Economy: Enabling Technologies, Standards, and Licensing Models in the Wireless World," Research Policy 48(8), 1367-1387
- Boland, R. J., Lyytinen, K., & Yoo, Y. (2007). Wakes of innovation in project networks: The case of digital 3-D representations in architecture, engineering and construction. Organization Science, 18(4), 631-647.

WEEK 3: Digital Transformation

Readings

Required

- **Scott, S., and Orlikowski, W. 2022. “The Digital Undertow: How the Corollary Effects of Digital Transformation Affect Industry Standards,” Information Systems Research (33:1), INFORMS, pp. 311–336.**
- Markus, M. L., and Robey, D. 1988. “Information Technology and Organizational Change: Causal Structure in Theory and Research,” Management Science, pp. 583–598.
- Wessel, L., Baiyere, A., Ologeanu-Taddei, R., Cha, J., and Blegind-Jensen, T. 2021. “Unpacking the Difference between Digital Transformation and IT-Enabled Organizational Transformation,” Journal of the Association for Information Systems (22:1), Association for Information Systems, pp. 102–129.
- Baskerville, R. L., Myers, M. D., & Yoo, Y. (2019). Digital first: The ontological reversal and new challenges for information systems research. MIS Quarterly, 44(2), 509-523.

Optional

- Vial, G. 2019. “Understanding Digital Transformation: A Review and a Research Agenda,” The Journal of Strategic Information Systems.
- Besson, P., and Rowe, F. 2012. “Strategizing Information Systems-Enabled Organizational Transformation: A Transdisciplinary Review and New Directions,” The Journal of Strategic Information Systems (21:2), pp. 103–124

- Lanzolla, G., A. Lorenz, E. Miron-Spektor, M. Schilling, G. Solinas, & C.L. Tucci (2020). Digital transformation: What is new if anything? Emerging patterns and management research. Academy of Management Discoveries, 6(3), 341-350

WEEK 4: Digital Platforms and Ecosystems

Readings

Required

- **Ribes, D., & Finholt, T. (2009). The Long Now of Technology Infrastructure: Articulating Tensions in Development. *Journal of the Association for Information Systems*, *10*(5). https://doi.org/10.17705/1jais.00199**

- de Reuver, M., Sørensen, C., & Basole, R. C. (2018). The Digital Platform: A Research Agenda. *Journal of Information Technology*, *33*(2), 124–135. https://doi.org/10.1057/s41265-016-0033-3

- Tiwana, A., Konsynski B., and Ashley A. Bush. 2010. "Platform Evolution: Coevolution of Platform Architecture, Governance, and Environmental Dynamics." Information Systems Research 21 (4): 675–87.

- Jacobides, M. G., Cennamo, C., and Gawer, A. 2018. "Towards a Theory of Ecosystems," Strategic Management Journal 39(8), 2255-2276.

Optional

- Gawer, A. 2022. "Digital Platforms and Ecosystems: Remarks on the Dominant Organizational Forms of the Digital Age," Innovation (24:1), Routledge, pp. 110–124.

- Gawer, A. (2014). Bridging differing perspectives on technological platforms: Toward an integrative framework. Research Policy, 43(7), 1239-1249.

- Huang, J., Henfridsson, O., Liu, M.J., and Newell, S., 'Growing on Steroids: Rapidly Scaling the User Base of Digital Ventures Through Digital Innovation,' MIS Quarterly, 41 (1), 2017, 301-314.

WEEK 5: Work in the Digital Age

Readings

Required

- **Rahman, H. A., and Valentine, M. A. 2021. "How Managers Maintain Control Through Collaborative Repair: Evidence from Platform-Mediated 'Gigs,'" Organization Science, Orsc.2021.1428.**

- Baptista, J., Stein, M.-K., Klein, S., Watson-Manheim, M. B., and Lee, J. 2020. "Digital Work and Organisational Transformation: Emergent Digital/Human Work Configurations in Modern Organisations," The Journal of Strategic Information Systems (29:2)

- Möhlmann, M., Zalmanson, L., Henfridsson, O., and Gregory, R. W. 2021. "Algorithmic Management of Work on Online Labor Platforms: When Matching Meets Control," MIS Quarterly (45:4).

Optional

- Pentland, B. T., and Feldman, M. S. 2008. "Designing Routines: On the Folly of Designing Artifacts, While Hoping for Patterns of Action," Information and Organization (18:4), pp. 235–250.

- Baer, M. (2012). Putting Creativity to Work: The Implementation of Creative Ideas in Organizations. Academy of Management Journal, 55(5), 1102–1119

WEEK 6: Technology and Institutions

Readings

Required

- **Marti, E., Lawrence, T. B., & Steele, C. W. J. (2024). Constructing Envelopes: How Institutional Custodians Can Tame Disruptive Algorithms. *Academy of Management Journal*, *67*(5), 1273–1301. https://doi.org/10.5465/amj.2019.1343**

- Barley, S. R. (1986). Technology as an occasion for structuring: Evidence from observations of CT scanners and the social order of radiology departments. Administrative science quarterly, 78-108.

- Swanson, E. B., and Ramiller, N. C. 1997. "The Organizing Vision in Information Systems Innovation," Organization Science (8:5), pp. 458–474.

- Faik, I., Barrett, M., and Oborn, E. 2020. "How Information Technology Matters in Societal Change: An Affordance-Based Institutional Logics Perspective," MIS Quarterly (44:3), pp. 1359–1390.

Optional

- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. American sociological review, 147-160.

- Hinings, B., Gegenhuber, T., & Greenwood, R. (2018). Digital innovation and transformation: An institutional perspective. Information and Organization, 28(1), 52-61.

- Berente, N., & Yoo, Y. (2012). Institutional contradictions and loose coupling: Postimplementation of NASA's enterprise information system. Information systems research, 23(2), 376-396.

- Nielsen, J. A., Mathiassen, L., & Newell, S. (2014). Theorization and translation in information technology institutionalization: Evidence from Danish home care. Mis Quarterly, 38(1), 165-186.

WEEK 7: Digitally Enabled Collective Action

Readings

Required

- **Vaast, E., Safadi, H., Lapointe, L., and Negoita, B. 2017. "Social Media Affordances for Connective Action: An Examination of Microblogging Use During the Gulf of Mexico Oil Spill," MIS Quarterly (41:4).**
- Davis, G. F., Morrill, C., Rao, H., and Soule, S. A. 2008. "Introduction: Social Movements in Organizations and Markets," Administrative Science Quarterly (53:3), pp. 389–394.
- Leong, C., Faik, I., Tan, F. T., Tan, B., and Khoo, Y. H. 2020. "Digital Organizing of a Global Social Movement: From Connective to Collective Action," Information and Organization (30:4), Elsevier, p. 100324.
- Oh, O., Eom, C., and Rao, H. R. 2015. "Research Note—Role of Social Media in Social Change: An Analysis of Collective Sense Making During the 2011 Egypt Revolution," Information Systems Research (26:1), pp. 210–223.

Optional

- Zald, M. N. 2008. "Epilogue: Social Movements and Political Sociology in the Analysis of Organizations and Markets," Administrative Science Quarterly, pp. 568–574.
- Den Hond, F., and De Bakker, F. G. 2007. "Ideologically Motivated Activism: How Activist Groups Influence Corporate Social Change Activities," Academy of Management Review (32:3), pp. 901–924.
- Benford, R. D., and Snow, D. A. 2000. "Framing Processes and Social Movements: An Overview and Assessment," Annual Review of Sociology (26), pp. 611–639.

WEEK 8: Information Technology for Development

Readings

Required

- **Faik, I., Sengupta, A., and Deng, Y. Forthcoming. "Inclusion by Design: Requirements Elicitation with Digitally Marginalized Communities," MIS Quarterly.**
- Walsham, G. 2017. "ICT4D Research: Reflections on History and Future Agenda," Information Technology for Development (23:1), pp. 18–41.
- Srivastava, S. C., and Shainesh, G. 2015. "Bridging the Service Divide Through Digitally Enabled Service Innovations: Evidence from Indian Healthcare Service Providers.," MIS Quarterly (39:1).

Optional

- Ransbotham, S., Fichman, R. G., Gopal, R., and Gupta, A. 2016. "Special Section Introduction—Ubiquitous IT and Digital Vulnerabilities," Information Systems Research (27:4), pp. 834–847.
- DiMaggio, P., Hargittai, E., Celeste, C., and Shafer, S. 2004. "From Unequal Access to Differentiated Use: A Literature Review and Agenda for Research on Digital Inequality," in Social Inequality, K. Neckerman (ed.), New York: Russell Sage Foundation Publications, pp. 355–400.
- Ravishankar, M. N. 2021. "Social Innovations and the Fight against Poverty: An Analysis of India's First Prosocial P2P Lending Platform," Information Systems Journal (31:5), Wiley Online Library, pp. 745–766.

WEEK 9: Technology-Enabled Learning and Sensemaking

Readings

Required

- **Bauer, K., von Zahn, M., & Hinz, O. (2023). Expl(AI)ned: The Impact of Explainable Artificial Intelligence on Users' Information Processing. *Information Systems Research*, *34*(4), 1582–1602. https://doi.org/10.1287/isre.2023.1199**
- Leidner, D. E., & Jarvenpaa, S. L. (1995). The Use of Information Technology to Enhance Management School Education: A Theoretical View. *MIS Quarterly*, *19*(3), 265–291. https://doi.org/10.2307/249596
- Brown, J. S., and Duguid, P. 1991. "Organizational Learning and Communities-of-Practice: Toward a Unified View of Working, Learning, and Innovation," Organization Science, pp. 40–57.
- Boland Jr, R. J., and Tenkasi, R. V. 1995. "Perspective Making and Perspective Taking in Communities of Knowing," Organization Science, pp. 350–372.

Optional

- Weick, K. E., Sutcliffe, K. M., and Obstfeld, D. 2005. "Organizing and the Process of Sensemaking," Organization Science (16:4), pp. 409–421.
- Vaast, E., and Walsham, G. 2009. "Trans-Situated Learning: Supporting a Network of Practice with an Information Infrastructure," Information Systems Research (20:4), pp. 547–564.
- Heverin, T., and Zach, L. 2012. "Use of Microblogging for Collective Sense-Making during Violent Crises: A Study of Three Campus Shootings," Journal of the Association for Information Science and Technology (63:1), pp. 34–47.

WEEK 10: Human-AI Interaction

Readings

Required

- **Strich, F., Mayer, A.-S., & Fiedler, M. (2021). What do I do in a world of artificial intelligence? Investigating the impact of substitutive decision-making AI systems on employees' professional role identity. *Journal of the Association for Information Systems*, *22*(2), 9.**

- Kordzadeh, N., & Ghasemaghaei, M. (2022). Algorithmic bias: Review, synthesis, and future research directions. *European Journal of Information Systems*, *31*(3), 388–409. https://doi.org/10.1080/0960085X.2021.1927212

- Raisch, S., & Krakowski, S. (2021). Artificial Intelligence and Management: The Automation–Augmentation Paradox. *Academy of Management Review*, *46*(1), 192–210. https://doi.org/10.5465/amr.2018.0072

- Turel, O., & Kalhan, S. (2023). Prejudiced against the Machine? Implicit Associations and the Transience of Algorithm Aversion. *Mis Quarterly*, *47*(4).

Optional

- Berente, N., Gu, B., Recker, J., and Santhanam, R. (n.d.). "Managing Artificial Intelligence," MIS Quarterly (45:3), pp. 1433–1450.
- Ågerfalk, P. J., Conboy, K., Crowston, K., Eriksson Lundström, J., Jarvenpaa, S. L., Ram, S., and Mikalef, P. 2022. Artificial Intelligence in Information Systems: State of the Art and Research Roadmap, Association for Information Systems.

- Fügener, A., Grahl, J., Gupta, A., and Ketter, W. 2022. "Cognitive Challenges in Human–Artificial Intelligence Collaboration: Investigating the Path Toward Productive Delegation," Information Systems Research (33:2), pp. 678–696.

WEEK 11: Digital Sustainability

Readings

Required Readings

- **Melville. 2010. "Information Systems Innovation for Environmental Sustainability," MIS Quarterly (34:1), p. 1. (https://doi.org/10.2307/20721412).**

- Falcke, L., Zobel, A.-K., Yoo, Y., & Tucci, C. (2024). Digital Sustainability Strategies: Digitally Enabled and Digital-First Innovation for Net Zero. *Academy of Management Perspectives*, amp.2023.0169. https://doi.org/10.5465/amp.2023.0169

- Kotlarsky, J., Oshri, I., & Sekulic, N. (2023). Digital sustainability in information systems research: Conceptual foundations and future directions. *Journal of the Association for Information Systems*, *24*(4), 936–952.

- Seidel, S., Recker, J., and Vom Brocke, J. 2013. "Sensemaking and Sustainable Practicing: Functional Affordances of Information Systems in Green Transformations," Mis Quarterly (37:4), pp. 1275–1299.

Optional

- George, G., R.K. Merrill, & S.J.D, Schillebeeckx (2021). Digital sustainability and entrepreneurship: How digital innovations are helping tackle climate change and sustainable development. Entrepreneurship Theory and Practice 45(5), 999-1027.

- vom Brocke, J., Watson, R., Dwyer, C., Elliot, S., & Melville, N. (2013). Green Information Systems: Directives for the IS Discipline. Communications of the Association for Information Systems (CAIS), 33(30), p.509-520

- Nambisan, S., & George, G. (2024). Digital Approaches to Societal Grand Challenges: Toward a Broader Research Agenda on Managing Global-Local Design Tensions. *Information Systems Research*, *35*(4), 2059–2076. https://doi.org/10.1287/isre.2023.0152

WEEK 12: Final research presentations and discussions

- **Final paper presentations**