

Baruch College, Zicklin School of Business
Ph.D. in Information Systems

CIS 84000 – IS Digital Strategies and Organization

Spring 2025

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Information technology is rapidly transforming the nature of work and reshaping organizations. Organizational processes and inter-organizational linkages are being transformed by the emergence of IT solutions in general and Internet based applications in particular. These technologies are facilitating market exchanges, access to consumers, and collaboration. They also affect transaction economics and enabling new business relationships within the supply chain. However, throughout the last decade, digitalization has fundamentally transformed the business world and put into question traditional strategy wisdom. As information technologies are the driver of this digital transformation, we can expect an even more fundamental change in IT/IS strategy thinking.

This course is a doctoral seminar that examines the assumptions, theories, and methodologies used in the study of the impact of information technology strategies on organizations and organizing in the digital era. The course involves extensive reading and discussion of research literature. The goal of the course is to provide doctoral students with exposure to diverse theoretical approaches, methods, levels of analysis, and viewpoints that underlie research on IT's impact on organizations and on markets.

WEEKLY ASSIGNMENTS:

In addition to having read all the papers for the week and be ready to discuss them, students will also be given individual weekly assignments:

- Each week, one student will be assigned one paper to present to the class. The student is responsible for preparing and presenting a very quick summary of the paper and a more thorough critical review of it. The student should present a list of questions, comments, suggestions, and criticisms that will help lead the discussion of the paper. The presentation should be a maximum of 20 minutes.
- In addition, each student will be required to write reports for all the other three papers each week. For each paper, they will prepare a brief report where they will briefly answer the following questions:
 - What do you think was the main theoretical contribution of the paper?
 - What are the practical implications of this paper?
 - Describe one thing in the paper/study that you thought was interesting/intriguing/different and explain why you thought so.
 - Provide one suggestion of how another researcher (such as yourself) could create a new research study based on one or more of the contributions of the paper.

FINAL PAPER

In addition to the weekly assignments, students are also required to write a full research paper proposal. The proposal must describe a study that is unique and thoroughly described. It should basically include everything that a final, publishable paper will include (introduction, theoretical discussion, full literature review, complete study design and methodology, expected data analysis method, potential theoretical contributions, and so on). Only the actual data analysis and discussion of actual results should be missing from the paper. Students should be able to complete the research after the completion of the class. The topic of the final paper must be approved by me in advance.

Students will present the paper in class on the last session of the semester and will then respond to questions from the rest of the class. They will use the questions and comments to improve the final paper. The final version of the paper will be due by one week after the final presentation. Late submissions will not be accepted.

CLASS PARTICIPATION

Seminar participation includes being prepared with the readings for the day and making a significant contribution to class discussion. Seminar leadership means being responsible for class discussion on the assigned date. Each student will be assigned a paper that he/she is responsible for leading the discussions. Students are expected to come prepared to lead the class discussions. The participation/leadership component of the course grade is awarded for your constructive contributions to class discussion at every class meeting. It is also awarded for your leadership of class discussion on appointed class meetings.

GRADE

Weekly assignments: 30%
Final paper: 50%
Class participation: 20%

COURSE OUTLINE

Week	Day	Topic	Assignments Due
1	Jan 31	Introduction-IS Strategies in Digital Age	Week 1 Report Due Jan 30
2	Feb 7	Digital Strategies in Digital Platforms	Week 2 Report Due Feb 6
3	Feb 14	Digital Strategies in Social Media	Week 3 Report Due Feb 13
4	Feb 21	Digital Strategies in Sharing Economy Platform	Week 4 Report Due Feb 21
5	Feb 28	Digital Ecosystem	Week 5 Report Due Feb 27
6	Mar 7	Research Project Proposal Presentation	
7	Mar 14	Digital Innovation	Week 7 Report Due Mar 13
8	Mar 21	Digital Transformation	Week 8 Report Due Mar 20
9	Mar 28	Digital and Smart Products	Week 9 Report Due Mar 27
10	April 4	Digital Strategies in Social Network	Week 10 Report Due April 3

11	April 11	AI Effects on Firm Performance and Innovation	Week 11 Report Due April 10
	April 18	Spring Recess	
12	April 25	Gen-AI in Organizations	Week 12 Report Due April 24
13	May 2	Quantify Unstructured Data to Drive Digital Strategies	Week 13 Report Due May 1
14	May 9	Research Project Final Presentation	Final Project Due May 16

Course Schedule

Week 1 Introduction-Information System Strategies in the Digital Age

Readings:

Weritz, P., Braojos, J., Matute, J., & Benitez, J. (2024). Impact of strategic capabilities on digital transformation success and firm performance: theory and empirical evidence. *European Journal of Information Systems*, 1-21.

Baiyere, A., Grover, V., Lyytinen, K. J., Woerner, S., & Gupta, A. (2023). Digital “x”—Charting a path for digital-themed research. *Information Systems Research*, 34(2), 463-486.

Teubner, R. A., & Stockinger, J. (2020). Literature review: Understanding information systems strategy in the digital age. *The Journal of Strategic Information Systems*, 29(4), 101642.

Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. V. (2013). Digital business strategy: toward a next generation of insights. *MIS quarterly*, 471-482.

Week 2 Digital Strategies in Digital Platforms in General

Readings:

Schreieck, M., Huang, Y., Kupfer, A., & Krcmar, H. (2024). The Effect of Digital Platform Strategies on Firm Value in the Banking Industry. *Journal of Management Information Systems*, 41(2), 394-421. **.- Ameya**

Brunswicker, S., Almirall, E., & Majchrzak, A. (2019). Optimizing and satisficing: The interplay between platform architecture and producers’ design strategies for platform performance. *MIS quarterly*, 43(4), 1249-1277. **Naseem**

Constantinides, P., Henfridsson, O., & Parker, G. G. (2018). Introduction—platforms and infrastructures in the digital age. *Information Systems Research*, 29(2), 381-400. **.-Wenxuan**

Karhu, K., Gustafsson, R., & Lyytinen, K. (2018). Exploiting and defending open digital platforms with boundary resources: Android's five platform forks. *Information Systems Research*, 29(2), 479-497. - Zhaoyi

Week 3. Digital Strategies in Social Media

Readings:

Yao, Q., Tang, H., Liu, Y., & Boadu, F. (2024). The penetration effect of digital leadership on digital transformation: the role of digital strategy consensus and diversity types. *Journal of Enterprise Information Management*, 37(3), 903-927. - Ameya

da Silva Wegner, R., da Silva, D. J. C., da Veiga, C. P., de Fátima Barros Estivaleta, V., Rossato, V. P., & Malheiros, M. B. (2023). Performance analysis of social media platforms: evidence of digital marketing. *Journal of Marketing Analytics*, 1-12. Naseem

Lee, D., Hosanagar, K., & Nair, H. S. (2018). Advertising content and consumer engagement on social media: Evidence from Facebook. *Management Science*, 64(11), 5105-5131. - Wenxuan

Selander, L., & Jarvenpaa, S. L. (2016). Digital action repertoires and transforming a social movement organization. *MIS quarterly*, 40(2), 331-352. - Zhaoyi

Week 4. Digital Strategies in Sharing Economy Platform

Readings:

Zhang, C., Chen, J., & Raghunathan, S. (2023). When Sharing Economy Meets Traditional Business: Coopetition Between Ride-Sharing Platforms and Car-Rental Firms. *Information Systems Research*. - Ameya

Zhang, S., Lee, D., Singh, P. V., & Srinivasan, K. (2022). What makes a good image? Airbnb demand analytics leveraging interpretable image features. *Management Science*, 68(8), 5644-5666. Naseem

Li, Z., Hong, Y., & Zhang, Z. (2021). The empowering and competition effects of the platform-based sharing economy on the supply and demand sides of the labor market. *Journal of Management Information Systems*, 38(1), 140-165. -Wenxuan

Guo, Y., Li, X., & Zeng, X. (2019). Platform competition in the sharing economy: Understanding how ride-hailing services influence new car purchases. *Journal of Management Information Systems*, 36(4), 1043-1070. - Zhaoyi

Week 5. Digital Ecosystem

Readings:

Ofe, H. A., & Sandberg, J. (2023). The emergence of digital ecosystem governance: An investigation of responses to disrupted resource control in the Swedish public transport sector. *Information systems journal*, 33(2), 350-384. . - Ameya

Suseno, Y., Laurell, C., & Sick, N. (2018). Assessing value creation in digital innovation ecosystems: A Social Media Analytics approach. *The Journal of Strategic Information Systems*, 27(4), 335-349. Naseem

Tan, B., Pan, S. L., Lu, X., & Huang, L. (2015). The role of IS capabilities in the development of multi-sided platforms: The digital ecosystem strategy of Alibaba. com. *Journal of the Association for Information systems*, 16(4), 2. .-Wenxuan

Tiwana, A., Konsynski, B., & Bush, A. A. (2010). Research commentary—Platform evolution: Coevolution of platform architecture, governance, and environmental dynamics. *Information systems research*, 21(4), 675-687. .- Zhaoyi

Week 6. Research Project Proposal Presentation

Week 7. Digital Innovation

Readings:

Hanelt, A., Firk, S., Hildebrandt, B., & Kolbe, L. M. (2021). Digital M&A, digital innovation, and firm performance: an empirical investigation. *European Journal of Information Systems*, 30(1), 3-26. . - Ameya

Kohli, R., & Melville, N. P. (2019). Digital innovation: A review and synthesis. *Information Systems Journal*, 29(1), 200-223. Naseem

Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. (2017). Digital innovation management. *MIS quarterly*, 41(1), 223-238. .-Wenxuan

Lee, J., & Berente, N. (2012). Digital innovation and the division of innovative labor: Digital controls in the automotive industry. *Organization Science*, 23(5), 1428-1447. .- Zhaoyi

Week 8. Digital Transformation

Readings:

Soh, C., Yeow, A., & Goh, Q. W. (2023). Shaping digital transformation pathways: dynamics of paradoxical tensions and responses. *Journal of the Association for Information Systems*. - Ameya

Chanas, S., Myers, M. D., & Hess, T. (2019). Digital transformation strategy making in pre-digital organizations: The case of a financial services provider. *The Journal of Strategic Information Systems*, 28(1), 17-33. Naseem

Majchrzak, A., Markus, M. L., & Wareham, J. (2016). Designing for digital transformation. *MIS quarterly*, 40(2), 267-278. -Wenxuan

Hess, T., Benlian, A., Matt, C., & Wiesböck, F. (2016). How german media companies defined their digital transformation strategies. *MIS Quarterly Executive*, 15(2), 103-119. - Zhaoyi

Week 9. Digital and Smart Products

Readings:

Wang, G., Henfridsson, O., Nandhakumar, J., & Yoo, Y. (2022). Product Meaning in Digital Product Innovation. *MIS quarterly*, 46(2). - Ameya

Kim, B. C., Park, S. E., & Straub, D. W. (2022). Pay-what-you-want pricing in the digital product marketplace: A feasible alternative to piracy prevention?. *Information Systems Research*, 33(3), 784-793. Naseem

Jiang, Z. Z., Cui, S., He, N., Li, K., & Tian, L. (2023). Contract selection and piracy surveillance for video platforms in the age of social media. *Production and Operations Management*.. -Wenxuan

Yoo, Y., Henfridsson, O., & Lyytinen, K. (2010). Research commentary—the new organizing logic of digital innovation: an agenda for information systems research. *Information systems research*, 21(4), 724-735. - Zhaoyi

Week 10. Digital Strategies in Social Network

Readings:

Faraj, S., von Krogh, G., Monteiro, E., & Lakhani, K. R. (2016). Special section introduction—Online community as space for knowledge flows. *Information systems research*, 27(4), 668-684. - Ameya

Aral, S., & Walker, D. (2014). Tie strength, embeddedness, and social influence: A large-scale networked experiment. *Management Science*, 60(6), 1352-1370. Naseem

Sundararajan, A., Provost, F., Oestreicher-Singer, G., & Aral, S. (2013). Research commentary—information in digital, economic, and social networks. *Information Systems Research*, 24(4), 883-905. **-Wenxuan**

Clemons, E. K., Kauffman, R. J., & Weber, T. A. (2011). Information and technology: understanding new strategies for firms, networks, and markets. *Journal of Management Information Systems*, 28(2), 7-10. **- Zhaoyi**

Week 11. AI Effects on Firm Performance and Innovation

Readings

Wu, L., Lou, B., & Hitt, L. M. (2024). Innovation Strategy After IPO: How AI Analytics Spurs Innovation After IPO. *Management Science*. **- Ameya**

Lee, D., Cheng, Z., Mao, C., Manzoor, E. (2024). “Guided Diverse Concept Miner (GDCM): Uncovering Relevant Constructs for Managerial Insights from Text”, *Information Systems Research*. **Naseem**

Cheng, Z., Lee, D., & Tambe, P. (2022). InnoVAE: Generative AI for Mapping Patents and Firm Innovation. Available at SSRN 3868599. **-Wenxuan**

Ahn, D., Lee, D., & Hosanagar, K. (2020). Interpretable deep learning approach to churn management. Available at SSRN 3981160. **- Zhaoyi**

Week 12 Gen-AI in Organization

Readings:

Kanbach, D. K., Heiduk, L., Blueher, G., Schreiter, M., & Lahmann, A. (2024). The GenAI is out of the bottle: generative artificial intelligence from a business model innovation perspective. *Review of Managerial Science*, 18(4), 1189-1220. **- Ameya**

Cook, S., Hagi, A., & Wright, J. (2024). Turn generative AI from an existential threat into a competitive advantage. *Harvard Business Review*, 102(1), 118-125. **Naseem**

Wessel, M., Adam, M., Benlian, A., & Thies, F. (2023). Generative AI and its transformative value for digital platforms. *Journal of Management Information Systems*. **-Wenxuan**

Susarla, A., Gopal, R., Thatcher, J. B., & Sarker, S. (2023). The Janus effect of generative AI: Charting the path for responsible conduct of scholarly activities in information systems. *Information Systems Research*, 34(2), 399-408. **- Zhaoyi**

Week 13. Quantify Unstructured Data to Derive Digital Strategies

Ghose, A., Ipeirotis, P. G., & Li, B. (2012). Designing ranking systems for hotels on travel search engines by mining user-generated and crowdsourced content. *Marketing Science*, 31(3), 493-520. . - Ameya

Ravichandran, T., & Deng, C. (2023). Effects of managerial response to negative reviews on future review valence and complaints. *Information Systems Research*, 34(1), 319-341. Naseem

Deng, C., & Ravichandran, T. (2023). Managerial Response to Online Positive Reviews: Helpful or Harmful?. *Information Systems Research*.-Wenxuan

Liu, X., Lee, D., & Srinivasan, K. (2019). Large-scale cross-category analysis of consumer review content on sales conversion leveraging deep learning. *Journal of Marketing Research*, 56(6), 918-943. .- Zhaoyi

Week 14. Final Research Project Presentation

ACADEMIC HONESTY

I fully support Baruch College's policy on Academic Honesty, which states:

“Academic dishonesty is unacceptable and will not be tolerated. Cheating, forgery, plagiarism and collusion in dishonest acts undermine the college's educational mission and the students' personal and intellectual growth. Baruch students are expected to bear individual responsibility for their work, to learn the rules and definitions that underlie the practice of academic integrity, and to uphold its ideals. Ignorance of the rules is not an acceptable excuse for disobeying them. Any student who attempts to compromise or devalue the academic process will be sanctioned.”

"The use of artificial intelligence (AI) is strictly prohibited in all coursework and assignments. This includes, but is not limited to, the use of AI-generated text, speech, or images, as well as the use of AI tools or software to complete any portion of a project or assignment. Any violations of this policy will result in disciplinary action, up to and including a failing grade for the assignment or course. Our goal is to encourage critical thinking and creativity, and the use of AI detracts from this objective. Students are expected to use their own knowledge, research and analysis to complete coursework."

You are responsible for familiarizing yourself with the information on academic honesty presented on the College's website. Please visit http://www.baruch.cuny.edu/academic/academic_honesty.html and read this information carefully. Also, each student is required to complete the online plagiarism tutorial at <http://newman.baruch.cuny.edu/help/plagiarism/default.htm>.

