



## **Cologne Institute for Information Systems**

### **Reading List**

#### **How to use this document**

This document provides a broad collection of literature relevant to conducting research in information systems (IS). The reading list is assembled and organized by all professors of the Cologne Institute for Information Systems (CIIS). It addresses Bsc., Msc., PhD students preparing their thesis and scholars undertaking IS research.

The collection is organized in various topic areas, which will vary in relevance for any specific research project. It is structured into four parts:

1. Introduction (helps you to gain an understanding of what constitutes research in general and IS research in particular)
2. Publishing (familiarizes you with the role, processes and challenges of scientific writing)
3. Methodology (exposes you to various modes of research inquiry common in IS research)
4. Theory (provides you with an in-depth knowledge of the primary theoretical perspectives within the IS discipline).

This collection should be considered as an entry point for identifying seminal literature for various topics and research approaches. We will update this list if necessary.

If you have any further questions or suggestions concerning this document, please contact:

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## Contents

How to use this document .....	1
General .....	3
Introduction to Scientific Research in Information Systems and Related Fields.....	3
Research Standards .....	3
History of the Field of Information Systems .....	4
Publishing.....	4
Scientific Writing.....	4
Reviewing.....	5
Rankings and Outlets .....	5
Critique on Rankings .....	6
Views of Editors .....	6
Methodology .....	6
Literature Review Methods .....	6
Quantitative Methods.....	7
Survey Method .....	7
Experiments.....	8
Measurement .....	8
Statistics .....	8
Replication.....	8
Data Science .....	8
Qualitative Methods.....	9
Case Study Research.....	9
Grounded Theory.....	10
Interviewing.....	10
Action Research.....	11
Mixed Methods.....	10
Design Research .....	11
Action Design Research .....	13
Theory .....	13
What is Theory in Information Systems.....	13
Evaluating Theoretical Contributions .....	<b>Fehler! Textmarke nicht definiert.</b>
Rigor vs. Relevance .....	14

## General

### *Introduction to Scientific Research in Information Systems and Related Fields*

- Bhattacharjee, A. *Social Science Research: Principles, Methods and Practices*, (2nd ed.) Global Text Project, Tampa, Florida, 2012.
- Bundy, A., Du Bouley, B., Howe, J., & Plotkin, G. (1989). *The Researcher's Bible*. Retrieved from <http://www.cs.otago.ac.nz/research/resources-for-pgs/resbible.pdf>
- Choi, K. (2002). *How to Publish in Top Journals*. Retrieved from <http://www3.nccu.edu.tw/~jthuang/publish.pdf>
- Clark, T., Wright, M., & Ketchen, J. D. J. (2016). *How to Get Published in the Best Management Journals*. S.l.: Edward Elgar Publishing Ltd.
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3rd edition). Thousand Oaks: SAGE.
- Davidsson, P. *Researching Entrepreneurship: Conceptualization and Design*, (2nd edition ed.) Springer, Cham, Switzerland, 2016.
- Gauch, H. G. (2002). *Scientific Method in Practice*. Cambridge et al.: Cambridge University Press.
- Popper, K. R. (2002). *The Logic of Scientific Discovery [1959]*. London; New York: Routledge.
- Recker, J. *Scientific Research in Information Systems: A Beginner's Guide* Springer, Berlin, Germany, 2012.
- Saunders, M. N. K., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th edition). Harlow: Prentice Hall.
- Saunders, M. N. K., & Lewis, P. (1997). Great Ideas and Blind Alleys? A Review of the Literature on Starting Research. *Management Learning*, 28(3), 283-299.
- Simon, S. J. (2004). Rigor Vs. Relevance: Why Can't We All Just Get Along. *Journal of Information Science and Technology*, 1(1), 1-11.
- Schoder, D., Putzke, J., Metaxas, P. T., Gloor, P. A., & Fischbach, K. (2014). Information Systems for "Wicked Problems": Research at the Intersection of Social Media and Collective Intelligence. *Business & Information Systems Engineering*, 6(1), 3-10. doi:10.1007/s12599-013-0303-3
- Van Slyke, C., Bostrom, R. P., Courtney, J. F., & McLean, E. R. (2003). Experts' advice to information systems doctoral students. *Communications of the AIS*, 12(28), 469-478.
- Venkatesh, V. (2011). *Road to Success: A Guide for Doctoral Students and Junior Faculty Members in the Behavioral and Social Sciences* (1. ed. ed.). Indianapolis, IN: Dog Ear Publ.
- Weber, R. (2003). Editor's comments. The problem of the problem. *MIS Quarterly*, 27(1), iii-ix.
- Weber, M. (2002). *Wissenschaft als Beruf*. In D. Käsler (Ed.), *Schriften 1894 - 1922*. Stuttgart: Kröner.
- Whitman, M.E., Woczczyński, A.B. (Eds.) (2004) *The Handbook of Information Systems Research*, Hershey et al.: IGI Global.

### *Research Standards*

- Allen, G. N., Ball, N. L., Smith, H. J. (2011). Information systems research behaviors: What are the normative standards? *MIS Quarterly*, 35(3), 533-551.
- Association of Information Systems (AIS) (n.d.). Code of Research Conduct. Retrieved August 27, 2012 from <http://home.aisnet.org/displaycommon.cfm?an=1&subarticlenbr=15>
- Dennis, A. R., Valacich, J. S., Fuller, M. A., & Schneider, C. (2006). Research standards for promotion and tenure in information systems. *MIS Quarterly*, 30(1), 1-12.
- Deutscher Hochschulverband (2012). Gute wissenschaftliche Praxis für das Verfassen wissenschaftlicher Qualifikationsarbeiten. Retrieved November 13, 2012 from [http://www.hochschulverband.de/cms1/uploads/media/Gute\\_wiss.\\_Praxis\\_Fakultaetentage\\_01.pdf](http://www.hochschulverband.de/cms1/uploads/media/Gute_wiss._Praxis_Fakultaetentage_01.pdf)

## History of the Field of Information Systems

- Burton-Jones, A., Recker, J., Indulska, M., Green, P., & Weber, R. (2017). Assessing Representation Theory with a Framework for Pursuing Success and Failure. *MIS Quarterly*, 41(4), 1307-1333.
- Chen, W. S., & Hirschheim, R. (2004). A paradigmatic and methodological examination of information systems research from 1991 to 2001. *Information Systems Journal*, 14(3), 197-235.
- Hirschheim, R., & Klein, H. K. (2012). A glorious and not-so-short history of the information systems field. *Journal of the Association for Information Systems*, 13(4), 188.
- Orlikowski, W.J., and Baroudi, J.J., (1991). Studying Information Technology in Organizations: Research Approaches and Assumptions. *Information Systems Research*, Vol. 2, No. 1, 1991, pp.1-28.
- Orlikowski, W.J., and Iacono, C.S. Research commentary: Desperately seeking the 'IT' in IT research – A call to theorizing the IT artifact. *Information Systems Research*, Vol. 12, No. 2, 2001, pp. 121–134.
- Sarker, S., Chatterjee, S., Xiao, X., and Elbanna, A. (2019). The Sociotechnical Axis of Cohesion for the IS Discipline: Its Historical Legacy and its Continued Relevance. *MIS Quarterly*, Vol. 43, forthcoming.

## Publishing

### Scientific Writing

- Barley SR (2006). When I Write My Masterpiece: Thoughts on What Makes a Paper Interesting. *Academy of Management Journal* 49(1):16–20. DOI: 10.5465/AMJ.2006.20785495
- Christensen, N.B., Kume, H., Autorino, R. (2009) How to write titles and abstracts for readers, *International Journal of Urology* 16(1), 2-3.
- Davison RM (2016). The Art of Storytelling. *Information Systems Journal* 26(3):191–194. DOI: 10.1111/isj.12105
- Evans, D., Gruba, P., & Zobel, J. (2011). How to write a better thesis. Melbourne Univ. Publishing.
- Grant, A.M. and Pollock, T.G. (2011). Publishing in AMJ—Part 3: Setting the Hook, *Academy of Management Journal* 54(5): 873-879. <http://aom.org/uploadedFiles/Publications/AMJ/FTE-SettingTheHook.pdf> (all other parts in the series as well!)
- Hardaway, D. E., & Scamell, R. W. (2012). Open knowledge creation: Bringing transparency and inclusiveness to the peer review process. *MIS Quarterly*, 36(2), 339-346.
- Kumar V (2016). My Reflections on Publishing in Journal of Marketing. *Journal of Marketing* 80(1):1–6. DOI:10.1509/jm.80.1.1
- Lyytinen, K., Baskerville, R., Iivari, J., & Te'Eni, D. (2007). Why the old world cannot publish? Overcoming challenges in publishing high-impact IS research. *European Journal of Information Systems*, 16(4), 317-326 (Zugang derzeit eingeschränkt).
- Peffers, K., & Hui, W. (2003). Collaboration and Author Order: Changing Patterns in IS Research. *Communications of the AIS*, 11(10), 166-190.
- Ragins BR (2012). Editor's Comments: Reflections on the Craft of Clear Writing. *Academy of Management Review* 37(4):493–501. DOI: 10.5465/amr.2012.0165
- Starbuck, W.H. "Fussy Professor Starbuck's Cookbook of Handy-Dandy Prescriptions for Ambitious Academic Authors or Why I Hate Passive Verbs and Love My Word Processor," 1999.
- Sorensen, C. (2005). This is not an article. Just some thoughts on how to write one. Retrieved August 27, 2012, from [mobility.lse.ac.uk/download/Sorensen2005b.pdf](http://mobility.lse.ac.uk/download/Sorensen2005b.pdf)
- Strunk Jr., W., and White, E.B. *The Elements of Style*, (4th edition ed.) Pearson, Essex, England, 1999.

- Wilkinson, A.M. *The Scientist's Handbook for Writing Papers and Dissertations* Prentice Hall, Englewood Cliffs, New Jersey, 1991.

### Reviewing

- Alt R, Militzer-Horstmann C, Zimmermann H-D (2015). Editorial 25/4: Electronic Markets on reviewing. *Electronic Markets* 25(4):255–261. DOI: 10.1007/s12525-015-0207-9
- Daft RL (1995). Why I Recommended That Your Manuscript Be Rejected and What You Can Do About It. *Publishing in the Organizational Sciences*, eds Cummings LL, Frost PJ (SAGE Publications, Inc., Thousand Oaks, CA), pp 164–183. DOI: 10.4135/9781452240466.n14. Available from <https://www.researchgate.net/publication/248440889>
- Hirschheim R (2008). Some Guidelines for the Critical Reviewing of Conceptual Papers. *Journal of the Association for Information Systems* 9(8). URL: <http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1451&context=jais>
- Lee AS (1995). Reviewing a Manuscript for Publication. *Journal of Operations Management* 13(1):87–92. DOI: 10.1016/0272-6963(95)94762-W
- Lee AS (2000). Submitting a Manuscript for Publication: Some Advice and an Insider's View. *MIS Quarterly* 24(2):197–197. URL: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=27196935&site=ehost-live>
- Pondy LR (1995). The Reviewer as Defense Attorney. *Publishing in the Organizational Sciences*, eds Cummings LL, Frost PJ (SAGE Publications, Inc., Thousand Oaks, CA), pp 183–195. URL: DOI: 10.4135/9781452240466.n15
- Romanelli E (1995). Becoming a Reviewer: Lessons Somewhat Painfully Learned. *Publishing in the Organizational Sciences*, eds Cummings LL, Frost PJ (SAGE Publications, Inc., Thousand Oaks, CA), pp 195–203. DOI: 10.4135/9781452240466.n16
- Zmud B (1998). Editor's Comments: A Personal Perspective on the State of Journal Refereeing. *MIS Quarterly* 22(3). URL: <http://misq.org/misq/downloads/download/editorial/53/>

### Rankings and Outlets

- AIS Senior Scholars' Basket of Journals. Retrieved November 13, 2012, from <http://home.aisnet.org/displaycommon.cfm?an=1&subarticlenbr=346>
- Die Sprecher der Wissenschaftlichen Kommission Wirtschaftsinformatik im Verband der Hochschullehrer für Betriebswirtschaft (WKWI) und des Fachbereichs Wirtschaftsinformatik der Gesellschaft für Informatik (GI-FB WI) (2008). WI-Orientierungslisten. *Wirtschaftsinformatik* 50(2):155–163. DOI: 10.1365/s11576-008-0040-2
- Erasmus Journal List: <https://www.irim.eur.nl/about-irim/irim-journals-list-ejl/>
- Handelsblatt-Rankings: <http://tool.handelsblatt.com/tabelle/?id=34&so=2d>
- Harzing's Publish or Perish: <http://www.harzing.com/resources/publish-or-perish>
- Liu, F., & Myers, M. D. (2011). An analysis of the AIS basket of top journals. *Journal of Systems and Information Technology*, 13(1), 5-12.
- Lamp's collection: <http://lamp.infosys.deakin.edu.au/journals/?page=alljournals>
- Lowry, P. B., Romans, D., & Curtis, A. (2004). Global Journal Prestige and Supporting Disciplines: A Scientometric Study of Information Systems Journals. *Journal of the AIS*, 5(2), 29-77.
- Peffers, K., & Ya, T. (2003). Identifying and evaluating the universe of outlets for information systems research: Ranking the journals. *Journal of Information Technology Theory and Application*, 5(1), 63-84.
- VHB Jourqual3
  - Full list: <http://vhbonline.org/vhb4you/jourqual/vhb-jourqual-3/gesamtliste/>
  - list for Information Systems Research: <http://vhbonline.org/vhb4you/jourqual/vhb-jourqual-3/teilrating-wi/>
- Walstrom, K. A., & Hardgrave, B. C. (2001). Forums for information systems scholars: III. *Information & Management*, 39(2), 117-124.

- Willcocks, L., Whitley, E.A., & Avgerou, C. (2008). The ranking of top IS journals: a perspective from the London School of Economics. *European Journal of Information Systems*, 17(2), 163-168.

### *Critique on Rankings*

- Frey BS, Osterloh M (2011). *Rankings Games* (Social Science Research Network, Rochester, NY). URL: <https://papers.ssrn.com/abstract=1957162>
- Osterloh M, Frey BS (2015). Rankings und der Preis der Wissenschaft. *Zeitschrift für Kulturwissenschaften* 9(1):65–78. DOI: 10.14361/zfk-2015-0110
- Parnas DL (2007). Stop the Numbers Game. *Communications of the ACM* 50(11):19. DOI: 10.1145/1297797.1297815

### *Views of Editors*

- Bansal P (Tima), Corley K (2012). From the Editors: Publishing in AMJ--Part 7: What's Different about Qualitative Research? *Academy of Management Journal* 55(3):509–513. DOI: 10.5465/amj.2012.4003
- Bono JE, McNamara G (2011). From the Editors: Publishing in AMJ--Part 2: Research Design. *Academy of Management Journal* 54(4):657–660. DOI: 10.5465/AMJ.2011.64869103
- Colquitt JA, George G (2011). From the Editors: Publishing in AMJ--Part 1: Topic Choice. *Academy of Management Journal* 54(3):432–435. DOI: 10.5465/AMJ.2011.61965960
- Draft, R. L. (1995). Why I recommended that you manuscript be rejected and what you can do about it. In L L. Cummings, P. J. Frost (Eds.), *Publishing in the Organizational Sciences* (2nd edition, pp. 164-182). Thousand Oaks: SAGE.
- Geletkanycz M, Tepper BJ (2012). From the Editors: Publishing in AMJ--Part 6: Discussing the Implications. *Academy of Management Journal* 55(2):256–260. DOI: 10.5465/amj.2012.4002
- Grant AM, Pollock TG (2011). From the Editors: Publishing in AMJ--Part 3: Setting the Hook. *Academy of Management Journal* 54(5):873–879. DOI: 10.5465/amj.2011.4000
- Rai, A. (2018). Editor's Comments: Beyond Outdated Labels: The Blending of IS Research Traditions. *MIS Quarterly*, 42(1), 2018, pp. iii-vi.
- Rai, A. (2018). Editor's Comments: Avoiding Type III Errors: Formulating IS Research Problems that Matter. *MIS Quarterly*, 2017, 41(2), pp. iii-vii.
- Sparrowe RT, Mayer KJ (2011). From the Editors: Publishing in AMJ--Part 4: Grounding Hypotheses. *Academy of Management Journal* 54(6):1098–1102. DOI: 10.5465/amj.2011.4001
- Straub, D.W. (2009). Why top journals accept your paper. *MIS Quarterly*, 33(3), iii-x.
- Straub DW (2008). Editor's Comments: Why Do Top Journals Reject Good Papers? *MIS Quarterly* 32(3):iii–vii. URL: <http://www.jstor.org/stable/25148851>
- Zhang Y, Shaw JD (2012). From the Editors: Publishing in AMJ--Part 5: Crafting the Methods and Results. *Academy of Management Journal* 55(1):8–12. DOI: 10.5465/amj.2012.4001

## **Methodology**

### *Literature Review Methods*

- Baker, M. J. (2000). Writing a Literature Review. *Marketing Review*, 1(2), 219-247.
- Bandara W, Furtmueller E, Gorbacheva E, Miskon S, Beekhuyzen J (2015). Achieving Rigor in Literature Reviews: Insights from Qualitative Data Analysis and Tool-Support. *Communications of the Association for Information Systems* 37(1):154–204. URL: <http://aisel.aisnet.org/cgi/viewcontent.cgi?article=3873&context=cais>
- Levy, Y., & Ellis, T. J. (2006). A Systems Approach to Conduct an Effective Literature Review in Support of Information Systems Research. *Informing Science*, 9, 181-212.

- Paré, G. et al. (2015) "Synthesizing Information Systems Knowledge: A Typology of Literature Reviews", *Information & Management* 52(2), pp. 183-199
- Rowe, F. (2014) "What Literature Review is not: Diversity, Boundaries and Recommendations", *European Journal of Information Systems* 23(3), pp. 241-255
- Rowley, J. and Slack, F. (2004). Conducting a literature review. *Management Research News*, 27 (6), pp. 31-39.
- Schwarz A, Mehta M, Johnson N, Chin WW (2007). Understanding Frameworks and Reviews: A Commentary to Assist Us in Moving Our Field Forward by Analyzing Our Past. *The DATA BASE for Advances in Information Systems* 38(3):29–50. DOI: 10.1145/1278253.1278259
- Templier, M. and G. Paré (2015) "A Framework for Guiding and Evaluating Literature Reviews", *Communications of the Association for Information Systems* 37(6), pp. 112-137
- vom Brocke, J., Simons, A., Niehaves, B., Riemer, K., Plattfaut, R., & Cleven, A. (2009). Reconstructing the Giant: On the Importance of Rigour in Documenting the Literature Search Process. In *Proceedings of the 17th European Conference on Information Systems*. Verona, Italy.
- vom Brocke, Jan; Simons, Alexander; Riemer, Kai; Niehaves, Bjoern; Plattfaut, Ralf; and Cleven, Anne (2015) "Standing on the Shoulders of Giants: Challenges and Recommendations of Literature Search in Information Systems Research," *Communications of the Association for Information Systems*: Vol. 37, Article 9. Available at: <http://aisel.aisnet.org/cais/vol37/iss1/9>
- Webster, J., & Watson, R. T. (2002). Analyzing the Past to Prepare For the Future: Writing a Literature Review. *MIS Quarterly*, 26(2), xiii-xxiii.
- Yadav MS (2010). The Decline of Conceptual Articles and Implications for Knowledge Development. *Journal of Marketing* 74(1):1–19. DOI: 10.1509/jmkg.74.1.1

### *Quantitative Methods*

- Boudreau, M.-C., Gefen, D., & Straub, D. W. (2001). Validation in information systems research: A state-of-the-art assessment. *MIS Quarterly*, 25(1), 1-16.
- Cook, T. D. and D. T. Campbell (1979) *Quasi-Experimentation: Design and Analysis Issues*, Boston, Massachusetts, Houghton Mifflin
- Gefen, D., Straub, D. W., & Boudreau, M.-C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the AIS*, 4(7), 1-77.
- Haenlein, M., & Kaplan, A. M. (2004). A beginner's guide to partial least squares analysis. *Understanding Statistics*, 3(4), 283-297.
- Hair, J. F. et al. (2010) *Multivariate Data Analysis*, 7th edition, Upper Saddle River, New Jersey, Prentice Hall
- Hair, J. F., Ringle, C. M., & Sarstedt, M (2011) PLS-SEM: Indeed a silver bullet. *The Journal of Marketing Theory and Practice*, 19(2), 139-152.
- Jöreskog, K. G. and D. Sörbom (2001) *LISREL 8: User's Reference Guide*, Lincolnwood, Illinois, Scientific Software International
- Kim, G., Shin, B., & Grover, V. (2010). Investigating two contradictory views of formative measurement in information systems research. *MIS Quarterly*, 34(2), 345-A5.
- Petter, S., Straub, D. W., & Rai, A. (2007). Specifying formative constructs in information systems research. *MIS Quarterly*, 31(4), 623-656.
- Straub, D., Boudreau, M. C., & Gefen, D. 2004. Validation guidelines for IS positivist research. *Communications of the Association for Information Systems*, 13(24): 380-427.

### *Survey Methods*

- Anderson, J.C. & Gerbing, D. G. (1991) Predicting the Performance of Measures in a Confirmatory Factor Analysis With a Pretest Assessment of Their Substantive Validities. *Journal of Applied Psychology*, 75(5), 732-740.

- Moore, G. C. & Benbasat, I. (1991) Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation. *Information Systems Research* 2(3), 192-222.
- Fowler, F. J. (2001). *Survey Research Methods* (3rd edition). Thousand Oaks: SAGE.

### *Experiments*

- Field, A. & Hole, G. (2003) *How to Design and Report Experiments*, Los Angeles et al., SAGE.
- Friedman, D., Sunder, S. (1994) *Experimental Methods: A Primer for Economics*, Cambridge et al.: Cambridge University Press.

### *Measurement*

- Anderson, J. C., and Gerbing, D. W. 1991. "Predicting the Performance of Measures in a Confirmatory Factor Analysis with a Pretest Assessment of Their Substantive Validities," *Journal of Applied Psychology* (76:5), pp. 732-740.
- INN Database of Variables and Items - <http://inn.theorizeit.org/>
- Moore, G. C., and Benbasat, I. 1991. "Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation," *Information Systems Research* (2:3), pp. 192-222.
- O'Leary-Kelly, S. W., and J. Vokurka, R. 1998. "The Empirical Assessment of Construct Validity," *Journal of Operations Management* (16:4), pp. 387-405.
- Petter, S., Straub, D., and Rai, A. 2007. "Specifying Formative Constructs in Information Systems Research," *MIS Quarterly* (31:4), pp. 623-656.

### *Statistics*

- Bullock, J. G., Green, D. P., & Ha, S. E. 2010. Yes, but what's the mechanism?(don't expect an easy answer). *Journal of Personality and Social Psychology*, 98(4): 550.
- Faul, F., Erdfelder, E., Lang, A.-G., & Axel, B. (2007). G\*Power 3: A Flexible Statistical Power Analysis for the Social, Behavioral, and Biomedical Sciences. *Behavior Research Methods*, 39(2), 175-191.
- Field, A. (2005) *Discovering Statistics Using SPSS*, London et al.: SAGE.
- Mertens, W., A. Pugliese and J. Recker (2017) *Quantitative Data Analysis: A Companion for Accounting and Information Systems Research*, Cham, Switzerland, Springer
- Stock, J. H., & Trebbi, F. 2003. Retrospectives: Who Invented Instrumental Variable Regression? *Journal of Economic Perspectives*, 17(3): 177-194.
- Wasserstein, R. L., & Lazar, N. A. (2016). The ASA's Statement on P-values: Context, Process, and Purpose. *The American Statistician*, 70(2), 129-133.

### *Replication Studies*

- Dennis A, Valacich J (2014). A Replication Manifesto. *AIS Transactions on Replication Research* 1(1). URL: <http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1001&context=trr>
- Niederman F, March S (2015). Reflections on Replications. *AIS Transactions on Replication Research* 1(1). URL: <http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1009&context=trr>

### *Data Science*

- Angrist, J. D.; Pischke, J.-S (2014): *Mastering 'Metrics: The Path from Cause to Effect*. 1st ed. 1 volume: Princeton University Press.
- Brynjolfsson, E.; Mitchell, T. M. (2017): What can machine learning do? Workforce implications. In *Science* 358 (6370), pp. 1530–1534. DOI: 10.1126/science.aap8062.



- Brynjolfsson, E.; McElheran, K. (2016): The Rapid Adoption of Data-Driven Decision-Making. In *American Economic Review* 106 (5), pp. 133–139. DOI: 10.1257/aer.p20161016.
- Dietvorst, B. J.; Simmons, J. P.; Massey, C. (2016): Overcoming Algorithm Aversion. People Will Use Imperfect Algorithms If They Can (Even Slightly) Modify Them. In *Management Science* 64 (3), pp. 1155–1170.
- Frey, C. B.; Osborne, M. A. (2017): The future of employment. How susceptible are jobs to computerisation? In *Technological forecasting and social change* 114, pp. 254–280.
- Hastie, T. J.; Tibshirani, R. J.; Friedman, J. H. (2013): *The elements of statistical learning. Data mining, inference, and prediction. 2. ed., corr. at 7. printing.* New York, NY: Springer (Springer series in statistics).
- Ketter, W., Peters, M., Collins, J., & Gupta, A. (2015). Competitive benchmarking: an IS research approach to address wicked problems with big data and analytics. *MIS Quarterly*, 40(4), 1057-1080.
- Pearl, J. (2010): An introduction to causal inference. In *The international journal of biostatistics* 6 (2), Article 7.
- Schölkopf, B. (2015): Learning to see and act. In *Nature* 518, 486-487.

### *Qualitative Methods*

- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2005). *The Sage Handbook of Qualitative Research* (3rd edition). Thousand Oaks: SAGE.
- Miles, M. B. & Huberman, A. M. (1994) *Qualitative Data Analysis: A Sourcebook of New Methods*, Beverly Hills, CA, USA, Sage.
- Miles, M. B., Huberman, A. M. & Saldana, J. (2013) *Qualitative Data Analysis: A Methods Sourcebook*, Beverly Hills, CA, USA, Sage.
- Myers, M.: *Qualitative Research in Information Systems*. Retrieved November 13, 2012 from <http://www.qual.auckland.ac.nz/>.
- Myers, M. D. (2009) *Qualitative Research in Business & Management*, London, England, SAGE.
- Saldana, J. (2009) *The Coding Manual for Qualitative Researchers*, London, UK, Sage.
- Sarker, S.; Xiao, X.; Beaulieu, T. (2013) Guest Editorial: Qualitative Studies in Information Systems: A Critical Review of Some Guiding Principles. *MIS Quarterly*, 37(4), iii-xviii.
- Sarker, Suprateek; Xiao, Xiao; Beaulieu, Tanya; and Lee, Allen S. (2018) Learning from First-Generation Qualitative Approaches in the IS Discipline: An Evolutionary View and Some Implications for Authors and Evaluators (Part 1/2). *Journal of the Association for Information Systems*, 19(8), 752-774.
- Sarker, Suprateek; Xiao, Xiao; Beaulieu, Tanya; and Lee, Allen S. (2018) Learning from First-Generation Qualitative Approaches in the IS Discipline: An Evolutionary View and Some Implications for Authors and Evaluators (Part 2/2). *Journal of the Association for Information Systems*, 19(9), 909-923.
- Silverman, D. 1998. Qualitative research: meanings or practices? *Information Systems Journal*, 8(1): 3-20.
- Silverman, D. (2010) *Doing qualitative research : a practical handbook*. Los Angeles, CA, USA, SAGE.
- Walsham, G. (2006). Doing interpretive research. *European Journal of Information Systems*, 15, 320-330.
- Wolcott, H. F. (2001). *Writing up Qualitative Research* (2nd edition). Thousand Oaks: SAGE.

### *Case Study Research*

- Benbasat, I., Goldstein, D. K., & Mead, M. (1987). The case research strategy in studies of information systems. *MIS Quarterly*, 11(3), 369-388.
- Darke, P., Shands, G., & Broadbent, M. (1998). Successfully completing case study research: Combining rigour, relevance, and pragmatism. *Information Systems Journal*, 8(4), 273-289.

- Dubé, L., & Paré, G. (2003). Rigor in information systems positivist case research: Current practices, trends, and recommendations. *MIS Quarterly*, 27(4), 597-635.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532-500.
- Klein, H. K., & Myers, M. D. (1999). A set of principles for conducting and evaluating interpretive field studies in information systems. *MIS Quarterly*, 23(1), 67-93.
- Lee, A. S. (1989). A scientific methodology for MIS case studies. *MIS Quarterly*, 13(1), 33-50.
- Lee, A. S. (1989). Case Studies as Natural Experiments. *Human Relations*, 42 (2), pp. 117-137.
- Walsham, G. (1995). Interpretive case studies in IS research: Nature and method. *European Journal of Information Systems*, 4, 74-81.
- Yin, R. K. (2009). *Case Study Research: Design and Methods* (4th edition). Thousand Oaks: SAGE.

### *Grounded Theory*

- Bryant, A., & Charmaz, K. C. (Eds.). (2007). *The SAGE Handbook of Grounded Theory*. London: SAGE.
- Glaser, B. G., & Strauss, A. L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine.
- Strauss, A. L., & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (2nd edition). Thousand Oaks: SAGE.
- Strauss, A. L., & Corbin, K. (1994). Grounded theory methodology: An overview. In N. K. Denzin, Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 273-285). Thousand Oaks: SAGE.
- Urquhart, C. Lehmann, H., & Myers, M. D. (2010). Putting the ‘theory’ back into grounded theory: Guidelines for grounded theory studies in information systems. *Information Systems Journal*, 20(4), 357-381.

### *Interviewing*

- Fontana, A., & Frey, J. H. (2000). The Interview: From Structured Questions to Negotiated Text. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed., pp. 645-672). Thousand Oaks, California: Sage.
- Kvale, S. (1996). *InterViews: Introduction to Qualitative Research Interviewing*. Thousand Oaks, California: Sage.
- Leech, B. L. (2002) *Asking Questions: Techniques for Semistructured Interviews*. *Political Science & Politics* (35:4), 665-668.
- Myers, M. & Newman, M. (2007) The qualitative interview in IS research: Examining the craft. *Information and Organization* (17) 1, 2-26.
- Rubin, H. J., & Rubin, I. S. (2004). *Qualitative Interviewing: The Art of Hearing Data* (2nd ed.). Thousand Oaks, California: Sage.
- Schultze, U., & Avital, M. (2011). Designing Interviews to Generate Rich Data for IS Research. *Information and Organization*, 21(1), 1-16.

### *Mixed Methods*

- Gable, G. G. (1994). Integrating case study and survey research methods: An example in information systems. *European Journal of Information Systems*, 3(2), 112-126.
- Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly*, 24(4), 602-611.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.

- Kaplan, B., & Duchon, D. (1988). Combining qualitative and quantitative methods in information systems research: A case study. *MIS Quarterly*, 12(4), 571-586.
- Lee, A. S. (1991). Integrating positivist and interpretive approaches to organizational research. *Organization Science*, 2(4), 342-365.
- Mingers, J. (2001). Combining IS research methods: Towards a pluralist methodology. *Information Systems Research*, 12(3), 240-259.
- Venkatesh, Viswanath; Brown, Sue A.; and Sullivan, Yulia W. (2016) "Guidelines for Conducting Mixed-methods Research: An Extension and Illustration," *Journal of the Association for Information Systems*: Vol. 17: Iss. 7, Article 2. Available at: <http://aisel.aisnet.org/jais/vol17/iss7/2>

### Action Research

- Baskerville, R., & Myers, M. D. (2004). Special Issue on Action Research in Information Systems: Making IS Research Relevant to Practice – Foreword. *MIS Quarterly*, 28(3), 329-335.
- Baskerville, R., & Wood-Harper, A. T. (1998). Diversity in information systems action research methods. *European Journal of Information Systems*, 7(2), 90-107.
- Baskerville, R. (1999). Investigating Information Systems with Action Research. *Communications of the AIS*, 2(19), 1-31.
- Baskerville, R., & Wood-Harper, A. T. (1996). A critical perspective on action research as a method for information systems research. *Journal of Information Technology*, 11(3), 235-246.

### Design Research

- Aken JE van (2004). Management Research Based on the Paradigm of the Design Sciences: The Quest for Field-Tested and Grounded Technological Rules. *Journal of Management Studies* 41(2):219–246. DOI:10.1111/j.1467-6486.2004.00430.x
- Baskerville RL, Kaul M, Storey VC (2015). Genres of Inquiry in Design-Science Research: Justification and Evaluation of Knowledge Production. *MIS Quarterly* 39(3):541-A9. URL: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=108873988&site=eds-live>
- Baskerville R, Lyytinen K, Sambamurthy V, Straub D (2011). A Response to the Design-Oriented Information Systems Research Memorandum. *European Journal of Information Systems* 20(1):11–15. DOI:10.1057/ejis.2010.56
- Bichler, M., Gupta, A., & Ketter, W. (2010). Designing Smart Markets. *Information Systems Research*, 21(4), 688-699.
- Gregor, S.; Hevner, A. R. (2013). Positioning and Presenting Design Science Research for Maximum Impact. *MIS Quarterly*, 37(2), 337-355.
- Germonprez M, Hovorka D, Gal U (2011). Secondary Design: A Case of Behavioral Design Science Research. *Journal of the Association for Information Systems* 12(10):662–683. URL: <http://aisel.aisnet.org/jais/vol12/iss10/2>
- Goes P (2014). Editor’s Comments: Design Science Research in Top Information Systems Journals. *Management Information Systems Quarterly* 38(1):iii–viii. URL: <http://aisel.aisnet.org/misq/vol38/iss1/2>
- Gregor S, Hevner AR (2013). Positioning and Presenting Design Science Research for Maximum Impact. *MIS Quarterly* 37(2):337–356. URL: <http://dl.acm.org/citation.cfm?id=2535658.2535660>
- Gregor, S., & Jones, D. (2007). The anatomy of a design theory. *Journal of the Association for Information Systems*, 8(5), 312-335. Available at: <http://aisel.aisnet.org/jais/vol8/iss5/19>.
- Hevner, A. R. (2007). A three cycle view of design science research. *Scandinavian Journal of Information Systems*, 19(2), 87-92.
- Hevner, A. R., & Chatterjee, S. (2010). *Design Research in Information Systems: Theory and Practice*. New York: Springer.
- Hevner, A. R., March, S. T., Park, J., & Ram, S. (2004). Design Science in Information Systems Research. *MIS Quarterly*, 28(1), 75-105.

- Iivari J (2015). Distinguishing and contrasting two strategies for design science research. *European Journal of Information Systems* 24(1):107–115. DOI: 10.1057/ejis.2013.35
- Iivari, J. (2007). A paradigmatic analysis of information systems as a design science. *Scandinavian Journal of Information Systems*, 19(2), 39-64.
- Ketter, W., Peters, M., Collins, J., & Gupta, A. (2016). A multiagent competitive gaming platform to address societal challenges. *MIS Quarterly*, 40(2), 447-460.
- Kuechler W, Vaishnavi V (2008). The emergence of design research in information systems in North America. *Journal of Design Research* 7(1):1–16. DOI: 10.1504/JDR.2008.019897
- Kuechler, W.; Vaishnavi, V. (2012). A Framework for Theory Development in Design Science Research: Multiple Perspectives. *Journal of the Association for Information Systems*, 13(6), Article 3. Available at: <http://aisel.aisnet.org/jais/vol13/iss6/3>.
- Lee AS, Thomas M, Baskerville RL (2015). Going back to basics in design science: from the information technology artifact to the information systems artifact. *Information Systems Journal* 25(1):5–21. DOI:10.1111/isj.12054
- March, S. T., & Smith, G. F. (1995). Design and natural science research on information technology. *Decision Support Systems*, 15, 251-266.
- Mettler T, Eurich M, Winter R (2014). On the Use of Experiments in Design Science Research: A Proposition of an Evaluation Framework. *Communications of the Association for Information Systems* 34:223–240.
- Müller-Wienbergen, F., Müller, O., Seidel, S., & Becker, J. (2011). Leaving the beaten tracks in creative work: A design theory for systems that supports convergent and divergent thinking. *Journal of the AIS*, 12(11),714-740.
- Niederman F, March ST (2012). Design Science and the Accumulation of Knowledge in the Information Systems Discipline. *ACM Transaction on Management of Information Systems* 3(1):1:1–1:15. DOI:10.1145/2151163.2151164
- Nunamaker JF, Chen M (1990). Systems development in information systems research. *Proceedings of the 32rd Annual Hawaii International Conference on System Sciences*, pp 631–640 vol.3. DOI:10.1109/HICSS.1990.205401
- Österle H, Becker J, Frank U, Hess T, Karagiannis D, et al. (2011). Memorandum on Design-Oriented Information Systems Research. *European Journal of Information Systems* 20(1):7–10. DOI:10.1057/ejis.2010.55
- Peffers, S., Tuunanen, T., Rothenberger, M. A., & Chatterjee, S. (2008). A design science research methodology for information systems research. *Journal of Management Information Systems*, 24(3), 45-77.
- Rai A (2017). Editor's Comments: Diversity of Design Science Research. *MIS Quarterly* 41(1):iii–xviii. URL: <http://aisel.aisnet.org/misq/vol41/iss1/2>
- Rossi M, Henfridsson O, Lyytinen K, Siau K (2013). Design science research: the road traveled and the road that lies ahead. *Journal of Database Management* 24(3):1–8. DOI: 10.4018/jdm.2013070101
- Simon HA (1996). *The Sciences of the Artificial* (MIT Press, Cambridge, MA, USA), 3rd Ed. ISBN: 978-0-262-69191-8
- Thakurta R, Müller B, Ahlemann F, Hoffmann D (2017). The State of Design – A Comprehensive Literature Review to Chart the Design Science Research Discourse. *Proceedings of the 50th Annual Hawaii International Conference on System Sciences*. DOI: 10.24251/HICSS.2017.571
- Vaishnavi, V., Kuechler, W. (2008) Design Science Research Methods and Patterns. New York et al.: Taylor & Francis.
- Vaishnavi V, Kuechler W, Petter S eds. (2017). Design Science Research in Information Systems. URL: <http://desrist.org/desrist/content/design-science-research-in-information-systems.pdf>
- Venable J, Pries-Heje J, Baskerville R (2016). FEDS: a Framework for Evaluation in Design Science Research. *European Journal of Information Systems* 25(1):77–89. DOI: 10.1057/ejis.2014.36

- Weber R (1987). Toward A Theory of Artifacts: A Paradigmatic Base For Information Systems Research. *Journal of Information Systems* 1(2):3. URL: <http://connection.ebscohost.com/c/articles/4786563/toward-theory-artifactsparadigmatic-base-information-systems-research>
- Winter R (2008). Design science research in Europe. *European Journal of Information Systems* 17(5):470–475. DOI:10.1057/ejis.2008.44

### Action Design Research

- Iivari, J., & Venable, J. (2009). Action Research and Design Science Research: Seemingly Similar but Decisively Dissimilar. In *Proceedings of the 17th European Conference on Information Systems*. Verona, Italy.
- Sein, M. K., Henfridsson, O., Purao, S., Rossi, M., & Lindgren, R. (2011). Action design research. *MIS Quarterly*, 35(1), 37-56.

## Theory

### What is Theory in Information Systems?

- Avgerou, C. (2019). Contextual Explanation: Alternative Approaches and Persistent Challenges. *MIS Quarterly*, Vol. 43, forthcoming.
- Brigham Young University, Theories Used in IS Research Wiki. Retrieved November 13, 2012 from [http://istheory.byu.edu/wiki/Main\\_Page](http://istheory.byu.edu/wiki/Main_Page).
- Dwivedi, Y., Lal, B, Williams, M.D., Schneberger, S., Wade, M. (Eds.) (2009) *Handbook of Research on Contemporary Theoretical Models in Information Systems*, Hershey et al.: IGI Global.
- Gregor, S. (2006). The nature of theory in Information Systems. *MIS Quarterly*, 30(3), 611-642.
- Hatch, M.J., Cunliffe, A.L. (2006) *Organization Theory (2nd)*, Oxford et al.: Oxford University Press.
- Markus, M. L. & Robey, D. (1988) Information Technology and Organizational Change: Causal Structure in Theory and Research. *Management Science*, 34, 583-598.
- Markus, F.R., and Markus, M.L. (2018). Is IT Changing the World? Conceptions of Causality for Information Systems Theorizing. *MIS Quarterly*, 42(4), pp. 1255-1280
- Mingers, J., Willcocks, L. (Eds.) (2004) *Social Theory and Philosophy for Information Systems*, Chichester et al.: Wiley.
- Recker, J., Indulska, M., Green, P., Burton-Jones, A., & Weber, R. (2019). Information Systems as Representations: A Review of the Theory and Evidence. *Journal of the Association for Information Systems*, forthcoming.
- Straub D (2012). Editor’s Comments: Does MIS Have Native Theories? *MIS Quarterly* 36(2), iii–xiii.
- Van De Ven, A. H. & Poole, M. S. (1995) Explaining Development and Change in Organizations. *The Academy of Management Review*, 20, 510-540.
- Van De Ven, A. H. & Poole, M. S. (2005) Alternative Approaches for Studying Organizational Change. *Organization Studies*, 26, 1377-1404.

### Developing and Evaluating Theory

- Ågerfalk PJ (2014). Insufficient Theoretical Contribution: A Conclusive Rationale for Rejection? *European Journal of Information Systems* 23(6):593–599
- Alvesson, M., & Sandberg, J. (2011). Generating research questions through problematization. *Academy of management review*, 36(2), 247-271.
- Bacharach, S. B. (1989). Organization theories: Some criteria for evaluation. *Academy of Management Review*, 14(4), 496-515.

- Orlikowski WJ, Baroudi JJ (1991). Studying Information Technology in Organizations: Research Approaches and Assumptions. *Information Systems Research* 2(1):1–28. DOI: 10.1287/isre.2.1.1
- Rivard S (2014). The Ions of Theory Construction. *MIS Quarterly*: iii–xiv.
- Sutton RI, Staw BM (1995). What Theory is Not. *Administrative Science Quarterly* 40(3):371–384. DOI: 10.2307/2393788
- Thatcher, S. M., & Fisher, G. (2022). From the Editors—The Nuts and Bolts of Writing a Theory Paper: A Practical Guide to Getting Started. *Academy of Management Review*, 47(1), 1-8.
- Wacker, J. G. (1998). A definition of theory: Research guidelines for different theory-building research methods in operations management. *Journal of Operations Management*, 16, 361-385.
- Weber, Ron (2012). Evaluating and Developing Theories in the Information Systems Discipline. *Journal of the Association for Information Systems*, 13(1), 1-30.
- Weick KE (1995). What Theory Is Not, Theorizing Is. *Administrative Science Quarterly* 40(3):385–390.
- Whetten, D. A. (1989). What constitutes a theoretical contribution? *Academy of Management Review*, 14(4), 490-495.

#### *Rigor vs. Relevance*

- Benbasat I, Zmud RW (1999). Empirical Research in Information Systems: The Practice of Relevance. *MIS Quarterly* 23(1):3–16.
- Davenport TH, Markus ML (1999). Rigor vs. Relevance Revisited: Response to Benbasat and Zmud. *MIS Quarterly* 23(1):19–23.
- Lee AS (1999). Rigor and Relevance in MIS Research: Beyond the Approach of Positivism Alone. *MIS Quarterly* 23(1):29–33.
- Straub D, Ang S (2011). Editor’s Comments: Rigor and Relevance in IS Research: Redefining the Debate and a Call for Future Research. *MIS Quarterly* 35(1):iii–xi.