

## James Howison Curriculum Vitae

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### Education

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- 2009 Ph.D. in Information Science and Technology, Syracuse University, USA  
Dissertation: “Alone Together: A socio-technical theory of motivation, coordination and collaboration technologies in organizing for free and open source software development.”  
Advisor: Kevin Crowston
- 1998 B. Economics (Social Sciences) Honours, University of Sydney, Australia.  
Majors: Political Economy and Government

### Professional Appointments

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- 2017 – Current Associate Professor, School of Information, University of Texas at Austin.
- 2011 – 2017 Assistant Professor, School of Information, University of Texas at Austin.
- 2009 – 2011 Post-doctoral Associate, School of Computer Science, Carnegie Mellon.  
Mentor: James. D. Herbsleb.

### Key Honors and Awards

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- 2019 PECASE award (through nomination from the NSF)
- 2015 Best Information Systems Publications Award. Association for Information Systems.
- 2015 NSF CAREER award (CISE division)
- 2010 Geraldine DeSanctis award for best single-authored paper from dissertation (AoM)

### Publications

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25 Journal articles, 21 Conference proceedings, 4 Book chapters, and 7 works in preparation.

As of December 2021, Google Scholar shows an h-index of 31, and an i10 index of 47 with 6,416 citations <https://scholar.google.com/citations?user=mN4sKEcAAAAJ>

Impact Factors listed below are from the 2014 Journal Citation Reports from ISI Web of Science. 5-year impact factors are used when available: “the average number of times articles from the journal published in the past five years have been cited in the JCR year.” If an Impact Factor was unavailable in JCR I report ranking from Google Scholar’s ranking of Information Science venues, which is based on the venue’s h-index.

[https://scholar.google.com/citations?view\\_op=top\\_venues&vq=eng\\_libraryinformationscience](https://scholar.google.com/citations?view_op=top_venues&vq=eng_libraryinformationscience)

Key Journal publications include:

- *MIS Quarterly* (IF: 8.6, One of two “A+” Information Systems journals)
- *Journal of the Association for Information Systems* (IF: 2.7, one of six “A” journals in Information Systems)
- *Information and Organization* (IF: 2.0)
- *Journal of the Association for Information Science and Technology (JASIST)* (Recently added to JCR, no IF available, No. 1 ranked Info. Science journal in Google Scholar)
- *Research Evaluation* (IF: 1.3)
- *ACM Computing Surveys* (IF: 5.9)

Key Conference Proceedings include:

- *ACM International Conference on Information and Knowledge Management (CIKM)* Acceptance rate ~20%. Top-tier Information Retrieval conference.
- *ACM Computer-Supported Cooperative Work (CSCW)*, historical acceptance rate ~23%, 2<sup>nd</sup> ranked conference in Human Computer Interaction by Google Scholar)
- *International Conference on Information Systems (ICIS)*, historical acceptance rate ~17%, 1<sup>st</sup> ranked Information Systems conference),
- *IFIP Open Source Software Conference* (historical acceptance rate ~40%)
- *Academy of Management best paper proceedings* (top 5% of papers from the Academy of Management conference).

### Peer-reviewed Journal Articles

1. Du, C., Cohoon, J., Lopez, P., & Howison, J. (2021). Softcite dataset: A dataset of software mentions in biomedical and economic research publications. *Journal of the Association for Information Science and Technology*. 72 (7), 870-884. <https://doi.org/10.1002/asi.24454>
2. Cohoon, J and Howison, J. (2021) The Role of Values and Cyberinfrastructure in Open Science. *Information and Culture*. 56 (2), 115-137. <https://doi.org/10.7560/IC56201>
3. Jay, C., Haines, R., Katz, D. S., Carver, J., Phillips, J. C., Dubey, A., Gesing, S., Turk, M., Wan, H., van Dam, H., Howison, J., Morozov, V., & Brandt, S. R. (2020). The Challenges of Theory-Software Translation. *F1000Research*. <https://doi.org/10.12688/f1000research.25561.1>
4. Moon, E., & Howison, James. (2020). Large-scale Refactoring Challenges and Coordination in Open Source Software (OSS) Development. *International Journal of Information Systems and Management*, 2 (2), 150-184.
5. Georg Link, ... James Howison, ... Becky Rother, ... (2019). Open Community Health: Workshop Report. *Journal of Peer Production*, 13. <http://peerproduction.net/editsuite/issues/issue-13-open/news-from-nowhere/open-community-health-workshop-report/>
6. Allen, A., Aragon, C., Becker, C., Carver, J., Chis, A., Combemale, B., ..., Howison, J., ..., Vinju, J. J. (2017). Engineering Academic Software (Dagstuhl Perspectives Workshop 16252). *Dagstuhl Manifestos*, 6(1), 1–20. <https://doi.org/10.4230/DagMan.6.1.1>
7. Bolici, F., Howison, J., & Crowston, K. (2016). Stigmergic coordination in FLOSS development teams: Integrating explicit and implicit mechanisms. *Cognitive Systems Research*, 38: 14–22. doi:10.1016/j.cogsys.2015.12.003 5-year IF: 1.3
8. Katz, D. S., Choi, S.-C. T., Wilkins-Diehr, N., Hong, N. C., Venters, C. C., Howison, J., ... Littauer, R. (2016). Report on the Second Workshop on Sustainable Software for Science:

- Practice and Experiences (WSSSPE2). *Journal of Open Research Software*, 4(1):e7 (23 pages) doi:10.5334/jors.85 Not in JCR.
9. Howison, J., Deelman, E., McLennan, M. J., da Silva, R. F., & Herbsleb, J. D. (2015). Understanding the scientific software ecosystem and its impact: Current and future measures. *Research Evaluation*, 24(4): 454-470. doi:10.1093/reseval/rvv014 IF: 1.3
  10. Howison, J., & Bullard, J. (2015). Software in the scientific literature: Problems with seeing, finding, and using software mentioned in the biology literature. *Journal of the Association for Information Science and Technology*, Article first published online: 13 May 2015 (19 pages). doi:10.1002/asi.23538 No. 1 ranked Info. Science journal (Google Scholar)
  11. Bullard, J., & Howison, J. (2015). Learning from Elitist Jerks: Creating high-quality knowledge resources from ongoing conversations. *Journal of the Association for Information Science and Technology (JASIST)*, 66(11): 2267–2276. doi:10.1002/asi.23327 No. 1 ranked Info. Science journal (Google Scholar)
  12. Winter, S., Berente, N., Howison, J., & Butler, B. S. (2014). Beyond The Organizational ‘Container’: Conceptualizing 21st Century Socio-technical Work. *Information and Organization*. 24(4): 250-269. doi:10.1016/j.infoandorg.2014.10.003 2014 Best Paper in I&O Journal and 2014 “Best Publication in Information Systems” from the AIS. IF: 2.0
  13. Howison, J., and Crowston, K. (2014). Collaboration through open superposition: A theory of the open source way. *MIS Quarterly*, 38(1), 29–50. Nominated as UT Austin Research Paper of the Year for 2014 (Hamilton Book Awards). <http://misq.org/collaboration-through-open-superposition.html> IF: 8.5
  14. Katz, D. S., Choi, S.-C. T., Lapp, H., Maheshwari, K., Löffler, F., Turk, M., ... Howison, J., ..., Venters, C. (2014). Summary of the First Workshop on Sustainable Software for Science: Practice and Experiences (WSSSPE1). *Journal of Open Research Software*, 2(1):e6 (21 pages). doi: 10.5334/jors.an Not in JCR.
  15. Crowston, K., Wei, K., Howison, J., and Wiggins, A. (2012). Free/libre open source software development: what we know and what we do not know. *ACM Computing Surveys*. 44(2): Article 7 (35 pages), doi:10.1145/2089125.2089127 IF: 5.9
  16. Howison, J., Wiggins, A and Crowston, K (2011) Validity issues in the use of social network analysis for the study of online communities. *Journal of the Association for Information Systems*. 12(12): 767-797 <http://aisel.aisnet.org/jais/vol12/iss12/2> IF: 2.7
  17. Crowston, K., Howison, J., Masango, C., and Eseryel, U. Y. (2007). The role of face-to-face meetings in technology-supported self-organizing distributed teams. *IEEE Transactions on Professional Communications*, 50(3): 185-203. doi:10.1109/TPC.2007.902654 IF: 0.8
  18. Crowston, K., Li, Q., Wei, K., Eseryel, U. Y., and Howison, J. (2007). Self-organization of teams for free/libre open source software development. *Information and Software Technology*, 49(6): 564-575. doi:10.1016/j.infsof.2007.02.004 IF:1.6
  19. Howison, J., Conklin, M., and Crowston, K. (2006). FLOSSmole: A collaborative repository for FLOSS research data and analysis. *International Journal of Information Technology and Web Engineering*. 1(3): 17-26. doi:10.4018/jitwe.2006070102 Not in JCR
  20. Crowston, K., Howison, J., and Annabi, H. (2006). Information systems success in free and open source software development: Theory and measures. *Software Process: Improvement and Practice*, (11)2: 123-148. doi:10.1002/spip.259 IF: 0.6
  21. Crowston, K. and Howison, J. (2006). Assessing the health of open source communities. *IEEE Computer*, 39(5): 89–91. doi: 10.1109/MC.2006.152 IF: 2.1

22. Crowston, K. and Howison, J. (2006). Hierarchy and centralization in free and open source software team communications. *Knowledge, Technology and Policy*, 18(4): 65-85. doi: 10.1007%2Fs12130-006-1004-8 Not in JCR (now called Philosophy and Technology).
23. Crowston, K. and Howison, J. (2005). The social structure of open source software development teams. *First Monday*, 10(26): (16 pages) doi:10.5210%2Ffm.v10i2.1207 Not in JCR.
24. McKnight, L. W., Howison, J., and Bradner, S. (2004) Wireless grids: Distributed resource sharing by mobile, nomadic and fixed devices. *IEEE Internet Computing*, 8(4): 24–31. doi: 10.1109/MIC.2004.14 IF: 2.5
25. Burns, M. and Howison, J. (2001) Napster fabbing: Internet delivery of physical products. *Rapid Prototyping Journal*, 7(4): 194–196. doi:10.1108/EUM0000000005754 IF: 1.9

### Peer-reviewed Conference Proceedings

1. Du, Caifan, Cohoon, J., Priem, J., Piwowar, H. A., Meyer, C., & Howison, James. (2021, October 23). CiteAs: Better Software through Sociotechnical Change for Better Software Citation. CSCW '21 Companion (Demo Paper). <https://doi.org/10.1145/3462204.3482889>
2. Lopez, P., Du, Caifan, Cohoon, J., & Howison, James. (2021). Mining Software Entities in Scientific Literature: Document-level NER for an Extremely Imbalanced and Large-scale Task. ACM International Conference on Information and Knowledge Management (CIKM 2021). <https://doi.org/10.1145/3459637.3481936> **Best paper award**
3. Dana Brunson, Henry Neeman, James Bottum, James Howison, Joel Cutcher-Gershenfeld, John Towns, ... Susan Winter. (2019). The Professionalization of Cyberinfrastructure Personnel? Presented at the Practice and Experience in Advanced Research Computing (PEARC), Chicago, IL. **Best paper award**
4. Gregory, T., Berente, N., & Howison, J. (2015). Digital Technologies and Patterns of Distributed Innovation. In Twenty-first Americas Conference on Information Systems (AMCIS), Puerto Rico, 13 August. (10 Pages)  
<http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1134&context=amcis2015> (2nd Tier Information Systems conference, acceptance rate ~45%)
5. Howison, J. (2015). Sustaining scientific infrastructures: transitioning from grants to peer production (work-in-progress). Proceedings of the iConference, Irvine, CA. 15 March. (15 pages) Retrieved from <https://www.ideals.illinois.edu/handle/2142/73439>.
6. Moon, E., & Howison, J. (2014). Modularity and Organizational Dynamics in Open Source Software (OSS) production. Proceedings of Americas Conference on Information Systems (AMCIS). 8 August, Savannah, GA. (11 Pages)  
<http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1235&context=amcis2014>
7. Howison, J., and Herbsleb, J. D. (2013). Incentives and integration in scientific software production. In *Proceedings of the ACM Conference on Computer Supported Cooperative Work* (pp. 459–470). San Antonio, TX. doi:10.1145/2441776.2441828 (acceptance rate ~23%, 2<sup>nd</sup> ranked conference in Human-Computer Interaction on Google Scholar),
8. Howison, J., and Herbsleb, J. D. (2011). Scientific software production: incentives and collaboration. In *Proceedings of the ACM Conference on Computer Supported Cooperative Work* (pp. 513–522). Hangzhou, China: ACM. doi:10.1145/1958824.1958904 (acceptance rate ~23%, 2<sup>nd</sup> ranked conference in Human-Computer Interaction on Google Scholar),
9. Olson, J. F., Howison, J., & Carley, K. M. (2010). Paying Attention to Each Other in Visible Work Communities: Modeling Bursty Systems of Multiple Activity Streams. In 2010 IEEE

- Second International Conference on Social Computing (SocialCom) (pp. 276–281).  
doi:10.1109/SocialCom.2010.46
10. Crowston, K., Wiggins, A., and Howison, J. (2010). Analyzing leadership dynamics in distributed group communication. In Proceedings of Hawaii Information Conference on System Science (HICSS), Hawaii. (10 Pages)  
<https://www.computer.org/csdl/proceedings/hicss/2010/3869/00/07-06-02.pdf>
  11. Wiggins, A., Howison, J. and Crowston, K. (2009) Heartbeat: Measuring active user base and potential user interest in FLOSS projects. Proceedings of the IFIP International Conference on Open Source Software. (pp. 94 - 104), Skövde, Sweden. doi:10.1007/978-3-642-02032-2\_10
  12. Howison, J., Wiggins, A., and Crowston, K. (2008). eResearch workflows for studying free and open source software development. In Proceedings of the IFIP International Conference on Open Source Software (pp. 405–411). Milan, Italy. doi:10.1007/978-0-387-09684-1\_39
  13. Wiggins, A., Howison, J., and Crowston, K. (2008). Social dynamics of FLOSS team communication across channels. In Proceedings of the IFIP International Conference on Open Source Software (pp. 131–142). Milan, Italy. doi:10.1007/978-0-387-09684-1\_11
  14. Howison, J., Inoue, K., and Crowston, K. (2006). Social dynamics of free and open source team communications. In Proceedings of the IFIP International Conference on Open Source Software (pp. 319–330). Lake Como, Italy. doi:10.1007/0-387-34226-5\_32
  15. Crowston, K., Howison, J., and Wiggins, A. (2008). eSocial science for free/libre open source software researchers. In Proceedings of the 4th International Conference on eSocial Science, Manchester, UK. (6 Pages).
  16. Scialdone, M., Li, N., Howison, J., Crowston, K., and Heckman, R. (2008). Group maintenance in technology-supported distributed teams. Academy of Management. Best Paper Proceedings of Academy of Management Annual Meeting. (23 Pages)  
doi:10.5465/AMBPP.2008.33645115
  17. Heckman, R., Crowston, K., Li, Q., Allen, E., Eseryel, U. Y., Howison, J., and Wei, K. (2006). Emergent decision-making practices in technology-supported self-organizing distributed teams. In International Conference on Information Systems (ICIS). (12 Pages)  
<http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1164&context=icis2006>
  18. Crowston, K., Wei, K., Li, Q., and Howison, J. (2006). Core and periphery in free/libre and open source software team communications. In Proceedings of the 38th Annual Hawaii International Conference on System Sciences (HICSS). (7 Pages)  
doi:10.1109/HICSS.2006.101
  19. Crowston, K., Wei, K., Li, Q., Eseryel, U. Y., and Howison, J. (2005). Coordination of free/libre and open source software development. In Proceedings of International Conference on Information Systems (ICIS). (13 Pages)  
<http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1222&context=icis2005>
  20. Howison, J. and Goodrum, A. (2004). Why can't I manage academic papers like MP3s? The evolution and intent of metadata standards. In Proceedings of the 2004 Colleges, Code and Intellectual Property Conference, number 57 in ACRL Publications in Librarianship, College Park, MD. (17 Pages).
  21. Crowston, K., Annabi, H., and Howison, J. (2003). Defining open source software project success. In Proceedings of International Conference on Information Systems (ICIS). Paper 28. (14 Pages) <http://aisel.aisnet.org/icis2003/28>.

### Peer-reviewed Book Chapters

1. Howison, J, Berente, N., and King, J. (2017) “New Directions Spotlight: Strategies for Success in Virtual Collaboration” **Chapter in Advancing Social and Behavioral Health Research through Cross-Disciplinary Team Science: Principles for Success.** Book edited by Staff of the National Cancer Institute of the National Institutes of Health (Kara Hall, Robert Croyle, and Amanda Vogel). (15 Pages)
2. Crowston, K., and Howison, J. 2011. “FLOSS Project Effectiveness Measures,” in Successful OSS project design and implementation: requirements, tools, social designs, reward structures and co-ordination methods, H. Benbya and N. Belbaly (eds.), Farnham: Gower. pp 149–168.
3. McKnight, L., Lehr, W and Howison, J. (2007) Coordinating user and device behavior in wireless grids. in Fitzek, Frank H.P.; Katz, Marcos D. (Eds.) Cognitive Wireless Networks: Concepts, Methodologies and Visions Inspiring the Age of Enlightenment of Wireless Communications. Springer. pp 697–699. doi: 10.1007/978-1-4020-5979-7\_35
4. Crowston, K., Rubleske, J., and Howison, J. (2006). Coordination theory: A Ten Year Retrospective. In Zhang, P. and Galletta, D., editors, Human-Computer Interaction in Management Information Systems: Foundations, Advances in Management Information Systems Series, pp 120–138. M. E. Sharpe, Inc.  
<https://books.google.com/books?id=SHesBwAAQBAJ&pg=PA120&lpg=PA120>

### Other Publications (not peer reviewed)

1. Lopez, P., Du, C., Cohoon, H., & Howison, J. (2021). Softcite software mention extraction from the CORD-19 publications [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.4961241>
2. Howison, J., Lopez, P., Du, C., & Cohoon, J. (2021) Softcite Dataset: A Dataset of Software Mentions in Research Publications [Data set]. Zenodo.  
<http://doi.org/10.5281/zenodo.4445202>
3. Bogart, C., Howison, J., & Herbsleb, J. (2020). Guiding Development Work Across a Software Ecosystem by Visualizing Usage Data. ArXiv:2012.05987 [Cs].  
<http://arxiv.org/abs/2012.05987>
4. Berente, N., Howison, J., Cutcher-Gershenfeld, J., King, J. L., Barley, S. R., & Towns, J. (2017). Professionalization in Cyberinfrastructure (SSRN Scholarly Paper No. ID 3138592). Rochester, NY: Social Science Research Network. Retrieved from <https://papers.ssrn.com/abstract=3138592>
5. Howison, J., Berente, N., Cheng, J., Sutton, A., & Naquin, H. (2017). Impact of a Cyberinfrastructure Enterprise on the Nation’s Workforce: Visualizations of a Decade of NCSA’s Diaspora (SSRN Scholarly Paper No. ID 3028931). Rochester, NY: Social Science Research Network. Retrieved from <https://papers.ssrn.com/abstract=3028931>
6. Berente, N., Howison, J., King, J. L., Cutcher-Gershenfeld, J., & Pennington, R. (2014). *Leading Cyberinfrastructure Enterprise: Value Propositions, Stakeholders, and Measurement* (SSRN Scholarly Paper No. ID 2416247). Rochester, NY: Social Science Research Network. (16 Pages) Retrieved from <http://papers.ssrn.com/abstract=2416247>
7. Berente, N., Howison, J., King, J. L., Lyytinen, K. J., & Wilkins-Diehr, N. (2013). Virtual Organizations as Sociotechnical Systems: Exploring How Organization Scientists and Virtual Organization Leaders Can Collaborate (SSRN Scholarly Paper No. ID 2204092). Rochester,

NY: Social Science Research Network. (23 Pages) Retrieved from <http://papers.ssrn.com/abstract=2204092>

8. Berente, N., Claggett, J., Howison, J., Knobel, C., and Rubleske, J. (2012). Managing CI Centers: An Agenda for Organizational Scholarship and Cyberinfrastructure Innovation. Report from NSF Sponsored-workshop. (28 Pages) Available at <http://ssrn.com/abstract=2128872>

### **Works under review and preparation**

1. Du, C., Cohoon, J., Lopez, P., & Howison, J. Understanding Current Progress in Software Citation: A Study of Software Citation in the CORD-19. Under review for PeerJ Computer Science Special Issue. (25 pages).
2. Cohoon & Howison “Routes to Peer Production” (expanded from AoM paper to over 100 projects, adding interview data for submission to Research Policy).
3. Moon, E., & Howison, James. (under review) Organizational Circumstances for Large-scale Refactoring in Open Source Software (OSS) Production. Revision under review at Information and Organization.
4. Howison, J. (in preparation) “Science and Software”. Book. Invited for MIT Press Infrastructure Series. (Proposal ~30 pages, book ~250 pages)
5. Lindberg, A., Berente, N., Howison, J., Lyytinen, K. (second round revision) Why Do Open Source Software Development Routines Vary? Configurations of Heuristics as Drivers of Heterogeneity. In revision for second round to MIS Quarterly. (~55 Pages)

### **Scholarly Presentations**

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13 Presentations at peer-reviewed conferences without proceedings (*Academy of Management, Science of Team Science, Atlanta Conference on Science and Innovation Policy, Industry Studies*). 3 peer-reviewed poster presentations (*ACM CSCW and Academy of Management*), 16 presentations at peer-reviewed workshops.

Invited presentations include 3 keynote or plenary addresses, 16 presentations at peer institutions or funding agencies, 7 presentations UT Austin, and 7 industry invited presentations.

### **Peer-reviewed Conference Presentations**

1. Cohoon, J., & Howison, J. (2018). Routes to Sustainable Software: Transitioning to Peer Production. *Academy of Management Proceedings*, 2018(1), 12182. <https://doi.org/10.5465/AMBPP.2018.12182abstract>
2. Moon, E., & Howison, J. (2018). Coordination Recipes for Tightly-Coupled Software Work in Open Source Software (OSS) Communities. *Academy of Management Proceedings*, 2018(1), 11106. <https://doi.org/10.5465/AMBPP.2018.11106abstract>
3. Crowston, K., Howison, J., Bolici, F., & Østerlund, C. (2017). Work features to support stigmergic coordination in distributed teams. *Academy of Management Annual Meeting*.
4. Lindberg, A., & Howison, J. (2015). Variations in Information Processing Capacity. Presented at the Academy of Management (OCIS Division), Vancouver, Canada. 10 August.
5. Bogart, C., Howison, J., & Herbsleb, J. D. (2015). Mapping the Network of Scientific Software. Presented at the Science of Team Science Conference, 4 June 2015, Washington, D.C.

6. Howison, J. (2014). Sharing the spoils: the trouble with reputation as a motivation and reward for teamwork. Presented at the Science of Team Science Conference, Austin, Texas, USA.
7. Berente, N., Howison, J. & King, J. (2013) Five Models for Interaction Between Science Enterprises and Organization Scientists” Presentation at Atlanta Conference on Science and Innovation Policy.
8. Howison, J., Berente, N. & King, J. (2013) "From Loss to Gain: Exploiting Diaspora in Cyberinfrastructure Enterprises" Presentation at Atlanta Conference on Science and Innovation Policy.
9. Howison, J and Herbsleb, J (2011) Sharing the spoils of system improvement: modularity and incentives. Presentation at Industry Studies Conference.
10. Howison, J. (2010) Layered Collaboration: A sociotechnical theory of organization in open source software development. Academy of Management. OCIS division award for best single authored paper.
11. Cogburn, D. L., Johnsen, J. F., Bhattacharyya, S., Sharif, R. M., and Howison, J. (2006). Distributed deliberative citizens: Exploring the impact of collaboratories on transnational NGO network participation in WSIS. In Proceedings of the 2006 International Communications Association (ICA) Conference of the Americas, Lima, Peru. August 3-5.
12. Crowston, K., Howison, J., Masango, C., and Eseryel, Y. U. (2005). Face-to-face interactions in self-organizing distributed teams. Academy of Management, OCIS. Hawaii, USA.
13. Crowston, K., Annabi, H., Howison, J., and Masango, C. (2005). Effective work practices for FLOSS development: A model and propositions. In Proc. of Hawaii International Conference On System Sciences (HICSS).

### **Peer reviewed Poster Presentations**

1. Howison, J., Lopez, P., Du, C., Gilmore, N., Cohoon J., Adams, N., & Ram, K. (2021). Softcite: Data- driven Software Visibility for Science. In Open Data Science Conference (ODSC) 2021.
2. Du, C., Howison, J., Piwowar H., Priem J., & Lopez, P. (2020) CiteAs.org : Bridging the Gap in Software Citation. Poster at Scientific Computing with Python (SciPy) Conference 2020.
3. Buchanan, S et al. (2017) Collaborative Syllabus Design for Studying Information Work. ASIST visual presentation.
4. Li, Q., Crowston, K., Heckman, R., and Howison, J. (2006). Language and power in self-organizing distributed teams. In Academy of Management (Poster presentation).
5. Moon, E., and Howison, J. (2013). Network effects and valuing social network services. Poster at ACM Conference on Computer Supported Cooperative Work. San Antonio, TX, USA.
6. Li, Q., Heckman, R., Allen, E., Crowston, K., Eseryel, U. Y., Howison, J., and Wiggins, A. (2008). Asynchronous decision-making in distributed teams. Poster at ACM Conference on Computer Supported Collaborative Work.

### **Peer-reviewed Workshops**

1. Cohoon, J., Du, C., & Howison, J. (2021) The Challenges of Transitioning to Peer Production. In Collegeville Workshop on Scientific Software 2021.



2. Du, C., Howison, J., & Lopez, P. (2020) Softcite : Automatic Extraction of Software Mentions in Research Literature. in SciNLP Workshop: Natural Language Processing and Data Mining for Scientific Text at the Automated Knowledge Base Construction (AKBC) Conference 2020.
3. Du, Caifan and Howison, James (2020) How to Study and Support Labor of a Nascent Category? Reflection on the Investigation and Intervention of Scientific Software Work. In Workshop on Worker-Centered Design: Expanding HCI Methods for Supporting Labor at the ACM Conference on Human Factors in Computing Systems (CHI) 2020.
4. Du, C. & Howison, J. Improving the Visibility of Scientific Software Work. In Collegeville Workshop on Scientific Software 2020.
5. Du, C. & Howison, J. (2020) An Ecosystem Perspective of Scientific Software Developer Productivity. In Collegeville Workshop on Scientific Software 2020.
6. Hannah Cohoon, Caifan Du, James Howison (2019) "Studying The Process of Transition to Peer Production" Paper at Workshop on "Mapping the How of collaborative action" CSCW 2019.
7. Caifan Du, Hannah Cohoon, James Howison, Jason Priem, Heather Piwowar (2019) "Studying Processes in Software Citation Towards Improved Collaboration Among Scientists" Paper at Workshop on "Mapping the How of collaborative action" CSCW 2019.
8. Open Community Health: Workshop Report » The Journal of Peer Production. (n.d.). Retrieved July 10, 2019, from /issues/issue-13-open/news-from-nowhere/open-community-health-workshop-report/
9. Allen, A, Aragon, C .... Howison, J, ..., Vinju, J. (2016) "I solemnly pledge": The Engineering Academic Software Dagstuhl Manifesto. Workshop on Sustainable Software for Science: Practice and Experiences (WSSSPE4).
10. Moon, E., & Howison, J. (2016). Do Open Projects "Break the Mirror"?: Re-conceptualization of Organizational Configurations in Open Source Software (OSS) Production. In Proceedings of the 9th International Workshop on Cooperative and Human Aspects of Software Engineering (pp. 19–25). New York, NY, USA: ACM. doi:10.1145/2897586.2897593
11. Howison, James. (2014). Governance in software ecosystems: achieving desirable architectures-in-use through strategies for insight into and influence over end-user development. Presented at the IFIP 8.2 OASIS Workshop, Auckland, NZ.
12. Howison, J. (2014). Retract bit-rotten publications: Aligning incentives for sustaining scientific software. In Working towards Sustainable Software for Science: Practice and Experiences (SuperComputing 2014 Workshop). New Orleans. 16 November.
13. Gil, Y., Moon, E., & Howison, J. (2014). No Science Software is an Island: Collaborative Software Development Needs in Geosciences. Presented at the Working towards Sustainable Software for Science: Practice and Experiences (SuperComputing 2014 Workshop), New Orleans. 16 November.
14. Howison, J. (2012). The problem of invisibility as an infrastructural goal, or Failing to arrive by trying to be there. In *Position paper for Knowledge Infrastructures Workshop* (Edwards, Bowker et al.). Michigan. <http://knowledgeinfrastructures.org/>
15. McConahy, A., Eisenbraun, B., Howison, J., Herbsleb, J. D., Sliz, P. (2012). Techniques for Monitoring Runtime Architectures of Socio-technical Ecosystems. In Workshop on Data-Intensive Collaboration in Science and Engineering at ACM Conference on Computer Supported Cooperative Work.

16. Crowston, K., Østerlund C., Howison J., & Bolici F. (2011). Work as coordination and coordination as work: A process perspective on FLOSS development projects. Third International Symposium on Process Organization Studies.
17. Howison, J and Herbsleb, J D (2010) Socio-technical logics of correctness in the scientific software development ecosystem. Workshop on Dynamics of Scientific Collaboration at ACM Conference on Computer Supported Cooperative Work.
18. Howison, J. (2008). Cross-repository data linking with RDF and OWL. Towards common ontologies for representing FLOSS data. In *Proceedings of WoPDaSD (Workshop on Public Data at International Conference on Open Source Software)*.
19. Conklin, M. S., Howison, J., and Crowston, K. (2005). Collaboration using OSSmole: a repository of FLOSS data and analyses. In Proc. of Mining Software Repositories (MSR) Workshop at International Conference on Software Engineering (ICSE), St Louis, Missouri.
20. Howison, J. and Crowston, K. (2004). The perils and pitfalls of mining Sourceforge. In Proc. of Workshop on Mining Software Repositories at the International Conference on Software Engineering ICSE. pp 17–22.  
[http://2004.msrrconf.org/MSR2004ProceedingsFINAL\\_IEE\\_Acrobat4.pdf](http://2004.msrrconf.org/MSR2004ProceedingsFINAL_IEE_Acrobat4.pdf)
21. Crowston, K., Annabi, H., Howison, J., and Masango, C. (2004). Effective work practices for FLOSS development: A model and propositions. In AIS Sponsored Theory Development Workshop at ICIS 2004.
22. Crowston, K., Annabi, H., Howison, J., and Masango, C. (2004). Towards a portfolio of FLOSS project success measures. In Open Source Workshop of the International Conference on Software Engineering (ICSE 2004).
23. Howison, J. and Crowston, K. (2004). Studying free software with free software and free methods. In Australian Open Source Development Conference.
24. Crowston, K. and Howison, J. (2003). The social structure of open source software development teams. In OASIS 2003 Workshop (IFIP 8.2 WG).
25. Howison, J. (2003). The role of reputation in virtual markets for wireless grids. In position papers of The NSF Interdisciplinary Symposium on Reputation Mechanisms in Online Communities, MIT, Cambridge, MA, USA.

## **Invited Presentations**

### **Keynotes and Plenary Presentations**

- 2021 Distinguished Lecture Series at NSF CISE/SBE (January 2021)
- 2020 Invited Panelist at the OSTP Whitehouse Convening on Pioneering the Future Advanced Computing Ecosystem
- 2020 Invited Plenary Presentation at CZI Essential Open Source Meeting
- 2018 Keynote Speaker at (dot)Astronomy conference.
- 2018 Keynote Speaker at UK Research Software Engineer Conference.
- 2016 Keynote Speaker at NSF/NIH Workshop on Software Citation. Harvard Medical School.
- 2016 Keynote Speaker at NSF PI Meeting for Software Infrastructure for Sustained Innovation (SI2) program.
- 2014 Plenary Presentation at Earth Sciences Information Partners (ESIP) Summer Meeting.

**External Invitations**

- 2016 Invited Presentation at Texas State Computer Science. Host: Ziliang Zong
- 2016 “Rising Stars” Workshop on “CSCW at Scale” Part of retirement celebration of Judy and Gary Olson. University of Michigan.
- 2016 NSF CISE CAREER grant preparation workshop. Speaker and Panelist
- 2015 XSEDE Science Gateways Institute. Host: Marlon Pierce
- 2015 Invited presentation at Supercomputing 2015 Workshop on Software in Computer Science and Engineering
- 2015 Rutgers, Library and Information Science. Host: Rebecca Reynolds
- 2015 Trace Ethnography Workshop at iConference 2015. Invited By: David Ribes
- 2015 NSF Workshop on Scientific Discovery through Norms and Practices for Software and Data. Host: Daniel Katz, NSF
- 2014 Invited to “Collaboration Planning for Team Science” Workshop giving input to science agencies (NSF, NIH, NITRED). Host: Wayne Ludders
- 2013 University of Michigan, School of Information. Host: Paul Edwards
- 2013 Carnegie Mellon University, Human-Computer Interaction Institute. Host: Aniket Kittur
- 2012 University of Georgia. Information Systems. Host: Nick Berente
- 2012 Microsoft Research. Empirical Software Engineering. Host: Christian Bird.
- 2012 Microsoft Research. Scholarly Communications. Host: Alex Wade
- 2010 University of Pittsburgh, Information Systems. Host: Sherae Daniel
- 2009 Case Western Reserve University, Information Systems. Host: Kalle Lyytinen
- 2009 University of Pittsburgh, Information School. Host: Ronald Larson

**Presentations at University of Texas at Austin**

- 2016 Big Data in Biology Symposium. Host: Hans Hoffman
- 2016 Texas Advanced Computing Center, Scientific Software Days
- 2015 Invited Panelist at Big Data in Biology Symposium. Host: Hans Hoffman
- 2014 Business School (Information Systems). Host: Huseyin Tanriverdi
- 2014 School of Information Board of Visitors. Host: Andrew Dillon
- 2013 Texas Advanced Computing Center, Scientific Software Days
- 2013 School of Computer Science. Host: Robert van de Geijn

**Industry Presentations**

- 2016 FLOSS Community Metrics workshop at O'Reilly Open Source Conference (OSCON)
- 2013 Facebook Faculty Summit (Online Communities)

- 2009 Google/O'Reilly SciFOO Camp. Science “Friends of O'Reilly” (Invite-only Meeting)
- 2006 Presented Tutorial Open Source and Business at O'Reilly Open Source Conference
- 2006 Presented Tutorial on Open Source Communities at LinuxWorld Asia
- 2005 O'Reilly FOOCamp (Friends of Tim O'Reilly, Invite only meeting)
- 2001 Presented on “Napster Fabbing” at O'Reilly Emerging Technology Conference

### **Awards and Honors**

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- 2019 Presidential Early Career Award for Scientists and Engineers (PECASE) award (via NSF)
- 2015 Best Information Systems Publications Award. Association for Information Systems. Given to an unranked group of five papers across all Information Systems Journals.
- 2015 Best Paper of 2014 Award. Information and Organization Journal.
- 2015 Nomination for UT Co-op Hamilton Book Awards Best Research Paper.
- 2010 Geraldine DeSanctis award for best single-authored paper derived from a dissertation. (Academy of Management OCIS Division).
- 2009 First runner up in ICIS/ACM SIGMIS Dissertation Competition.
- 2009 Syracuse University Dissertation Award.
- 2008 Selected for International Conference on Information Systems Doctoral Consortium.
- 2008 Academy of Management Best Paper Proceedings.
- 2006 First runner up for best paper at IFIP International Conference on Open Source Software.

### **Grants**

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**Awarded or In Preparation** (Total grant amount / Howison amount at UT Austin)

- 2020 Moore Foundation Valuing research software: Infrastructure to improve package management, citation tracking, and metrics (sub-contract from Berkeley) \$130,320 / \$130, 320
- 2020 NSF/CCC CIFellows (as Mentor) 2 year postdoc position for Marlen Promann on Studying Data Work.
- 2016 Sloan Foundation (Digital Science) “Research and tools for Software Visibility”. \$635,261 / \$327,465.
- 2016 Sloan Foundation grant (Digital Science) for “Workshop on field studies of data and software work in science” \$19,583 / \$19,583.
- 2015 Dagstuhl. Funding for Perspectives Workshop on “Engineering Academic Software”. Awarded. Subsidized workshop, costs paid to participants directly.
- 2015 PI. NSF CISE. CAREER “Sustaining Scientific Infrastructure: Researching Transition from Grants to Peer Production” \$535,349 / \$535,349. NSF #1453548.
- 2013 PI. NSF CISE (ACI). Virtual Organization Resources and Toolkits Exchange (VORTEX). Collaborative research with Nick Berente at University of Georgia. \$300,000 / \$94,996. NSF #1348463.

- 2012 Subcontract PI. NSF CISE. “Reporting for scientific software sustainability”. Collaborative research with Ewa Deelman at USC (Supplement to NSF # 1148515). \$2,153,597 / \$53,323.
- 2012 Co-PI. NSF CISE (ACI) Research Collaboration Network for Managing Research Centers. Collaborative research with Nicholas Berente (U Georgia) and John King Michigan) \$498,129 / \$46,926. NSF #1148996.
- 2012 Senior Personnel, “Preparing Tomorrow's Faculty to Study the Work of 21st Century Librarians.” Co-PIs William Aspray and Diane Bailey, Laura Bush 21st Century Librarian Program, Institute of Museum and Library Services, 2012 to 2016. \$498,359 / \$0 (Senior Personnel).
- 2012 Subcontract PI. “EAGER-Distilling a Process for a National CI Roadmap from NSF Collaboratories”. Collaborative research with John McGee at UNC. NSF #1153775. \$300,000 / \$48,848
- 2011 Co-PI “The Scientific Software Map” NSF OCI Science of Science Policy (SciSIP). (James D Herbsleb, PI) \$102,837 / \$111,546. NSF #1064209. Awarded.
- 2010 Co-PI “Socio-technical ecosystems for scientific software development” NSF OCI Virtual Organizations as Sociotechnical Systems (VOSS). (James D Herbsleb, PI). \$400,000 / \$111,546. NSF #0943168.

### **Patents Issued**

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- 2011 Grandinetti, D., Howison, J. and Molloy, I. (Filed 2008) System And Method For Distributed Audio Recording And Collaborative Mixing. WO/2009/026347. Assigned to Syracuse University and Wireless Grids Corporation, derived from Wireless Grids research with Lee McKnight at Syracuse University

### **Student Advising**

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#### **Doctoral Committee Chair**

- 2021–Current Hana Frluckaj (CMU). Coursework. Coursework.
- 2017–Current Caifan Du (Xiamen University Economics). Preparing Quals.
- 2016–Current Johanna Cohoon (U Virginia Psychology). Dissertation work.
- 2015–2016 Jeanine Finn. Graduated Summer 2016.
- 2012–2017 Eunyoung Moon. Graduated Summer 2017.
- 2015–2016 Nicholas Gottschlich (U. Michigan CS) Withdrew from program

#### **Doctoral Committee Member (graduated students)**

- 2018–2021 Autumn Caviness. UT Austin Communications. Graduated 2021.
- 2016–2016 Julia Bullard. Graduated 2016.
- 2016–Current Rachel Simons. Preparing Proposal.
- 2014–Current Caroline Stratton. Defended Proposal Fall 2015. Expected grad. Fall 2016.
- 2014–Current Daniel Sholler. Defended Proposal Fall 2016. Expected grad. Spring 2017.

2014–2015 Aron Lindberg. Case Western Reserve University. Graduated 2015.

2012–2013 Brandon Wiley. Committee Member.

2012–2015 Eryn Whitworth. Committee Member.

### **Masters Reports and Theses**

2021 Sanjana Tripathi (2<sup>nd</sup> Reader with Ying Ding)

2016 Nan Guo (2<sup>nd</sup> Reader)

2015 Andrew Gordon (Advisor), Yan Gao (2<sup>nd</sup> Reader).

2014 Hilary Funk (Report Advisor).

2013 Cary-Anne Olson (2<sup>nd</sup> Reader), Sara Snow (2<sup>nd</sup> Reader).

2012 Stephen Wolfson (2<sup>nd</sup> Reader), Steven Johnson (2<sup>nd</sup> Reader).

### **Undergraduate Plan II Honors Theses**

2016 – 2017 Sonali K Arora (Business Honors and MIS). Awarded “Model Thesis” award.

### **Other Activities**

2015 Jurist for UT Austin Undergraduate paper competition (Technology & Information Policy Institute Communications and Technology competition).

### **Professional Service**

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#### **Service to Academic Discipline**

In 2015 I provided 31 peer reviews across grants, journals, and conference papers (I did not keep count in previous years).

#### *Grant Reviewing*

NSF: 3 NSF Panels (NSF CISE) and 6 NSF ad-hoc reviews (CISE, SBE)

Sloan Foundation: Ad-hoc reviewer (Digital Science)

#### *Journal peer review*

Information Systems Research (Associate Editor, Special Editions)

Management Science (reviewer)

MIS Quarterly (reviewer)

Information and Organization (reviewer)

ACM Transactions on MIS (reviewer)

Communications of the AIS (reviewer)

Journal of the AIS (reviewer)

IEEE Transactions on Software Engineering (reviewer),

ACM Transactions on Software Engineering and Management (reviewer),

Social Networks (reviewer)

International Journal of Communication (reviewer)

*Conference Peer review*

iConference (Program Committee)

Academy of Management (OCIS) (Associate Editor, Discussant)

Wikisym (Program Committee)

ICIS - International Conference on Information Systems (Associate Editor)

CSCW - ACM Computer Supported Collaborative Work (reviewer)

CHI - ACM Computer Human Interaction (reviewer)

HICSS - Hawaii International Conference on System Sciences (reviewer)

*Other Service to discipline*

- 2020-21      Organizer of Consortium for the Science of Sociotechnical Systems (CSST) (postponed due to COVID19, ran virtually in Summer 2021)
- 2019        Mentor at Consortium for the Science of Sociotechnical Systems (CSST).
- 2016        Organizer of Dagstuhl Seminar on “Engineering Academic Software”. Dagstuhl Seminars are well-known agenda setting events in Computer Science.
- 2016        Organized Sloan funded workshop on “Workshop on field studies of data and software work in science”
- 2016        Invited to join Force11 working group on Software Citation
- 2015        Organized Infrastructure Research Paper development Workshop (with David Ribes and Nick Berente), bringing together the US-based Knowledge Infrastructures community with the largely Europe based III community studying corporate information infrastructures.
- 2014 –      Advisory board for NSF funded GeoSoft: Software Stewardship for Geosciences
- 2014 –      Editorial Board member for NIH funded Science of Team Science Toolkit (Virtual Collaboration)
- 2012 – 2017   Co-PI for NSF Research Coordination Network on Managing Scientific Research Centers (6 Workshops over 5 years, 2012–2017).
- 2005 – 2009   Co-founded FLOSSmole data repository (widely used for research on open source)

**Service to University of Texas at Austin**

- 2019 – 2020   Invited member UT Austin President’s Council for Texas Impact (Grand Challenges); Chair of data and software group
- 2019 – 2020   Member Faculty Council for LGBTQ+ Access, Equity, and Inclusion (Q+AEI)
- 2019 – 2020   Graduate Education Faculty Taskforce and Implementation Taskforce

- 2014 – 2016 Faculty Council Committee on IT (CS-13).  
 2015 Planning Committee for New Faculty Orientation.  
 2015 Working group on Faculty Professional Development (Campus Conversations).

### **Service to School of Information**

- 2020 – Chair of Promotion and Tenure committee  
 2020 – Chair assistant professor in Social Justice Informatics Hiring Committee  
 2016 – 2020 Director of Doctoral Program  
 2016 – 2020 Deputy Graduate Advisor (focus on CPT applications).  
 2013 – 2016 Research Environment Committee (Research Colloquium), Chair.  
 2012 – 2013 Professional Development (Exec Ed.) Committee, Member.  
 2011 – 2013 Doctoral Studies Committee, Member.

### **Professional Society Memberships**

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- Association for Computing Machinery (ACM)  
 Association for Information Systems (AIS)  
 Academy of Management

### **Non-academic Employment**

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- 2006-2007 **Research Consultant, Charles River Venture Capital**, Boston, MA.  
 Prepared research based presentation to VC board on Free and Open Source Software space. Prepared ad-hoc reports on open source projects for background in investment decisions. “Cool spotting” for new technology ventures.
- 2001–2002 **Consultant, Control Risks Group**, Sydney, Australia.  
 Control Risks is a London-based global business risk consultancy specializing in Political & Security Risks, Crisis Management, Investigations and IT Security. Responsibility for online political risk product in Australia and the Pacific.
- 2000 **Project Officer, PECC/TIIF**, Los Angeles, USA.  
 Project Officer, Pacific Economic Cooperation Council's Telecommunications and Information Industries Forum (PECC/TIIF) a Pacific Rim region non-profit trade and development promotion council.
- 1999 **Research, Asian Forum on Human Rights and Development**, Bangkok, Thailand.  
 Coordinated logistics for a conference on human rights campaigning for internally displaced peoples. Produced report for UN meeting including analysis, case studies and campaigning strategies.
- 1999 **Editor and Assessor, DEP**, Chiangmai, Thailand.



Editor and Assessor for Distance Education Program, an independent NGO providing distance education to Burmese refugees.

1996–1998    **Consultant, KPMG Management Consulting**, Sydney, Australia.

Researched and wrote reports for national management consulting committee. Reports included critique of KPMG's international electronic networking arrangements.