

# Lecia Jane Barker

Curriculum Vitae  
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## EDUCATION

Ph.D. Communication, University of Colorado, Boulder, CO, 1998  
M.B.A. Marketing, San Diego State University, San Diego, CA, 1987  
B.A. Linguistics and Spanish, Portuguese (minor), University of Iowa, Iowa City, IA, 1981

## ACADEMIC APPOINTMENTS

Associate Professor, Department of Information Science, University of Colorado Boulder, 2016-present  
Senior Research Scientist, National Center for Women & Information Technology, 2004-present  
Associate Chair of Undergraduate Studies, Department of Information Science, University of Colorado Boulder, 2016-2022  
Associate Professor, School of Information, University of Texas at Austin, 2013-2016  
Research Associate Professor, School of Information, University of Texas at Austin, 2008-2012  
Director, ATLAS Institute Assessment and Research Center, University of Colorado Boulder, 1998-2008  
Graduate Instructor and Graduate Teaching Assistant, Communication Department, University of Colorado at Boulder, 1990-1998  
Adjunct Instructor, Information and Decision Systems Department, College of Business, San Diego State University, 1988-1990  
Graduate Teaching Assistant, College of Business, Information and Decision Systems Department, San Diego State University, 1984-1987

## PUBLICATIONS

\*indicates student authors

### Refereed Conference Proceedings

Harrell, R. A.\*, Lentz, S.\* , Robledo Yamamoto, F.\* , Voida, A., and Barker, L. (2024). Putting the Service into Service Learning: A Report on a Survey of CS Faculty. *Proceedings of the 55th ACM Technical Symposium on Computer Science Education*, Portland, Oregon, USA, March 20-23, 2024.  
Dean, J.\* , Barker, L., and Voida, A.(2024). Bite-Sized Experiential Education for Computer and Information Science. *Proceedings of the 55th ACM Technical Symposium on Computer Science Education*, Portland, Oregon, USA, March 20-23, 2024.

Cowit, N.Q.\* & Barker, L. (2023). Measuring computing students' perceptions of social presence and engagement in synchronous remote v. in-person classes. *Proceedings of the 52nd Annual Frontiers in Education Conference*. College Station, TX, October 18-21, 2023.

Jiang, A. J.\* , Robledo Yamamoto, F.\* , Nagy, V.\* , Zander, M.\* , Barker, L. (2023). Data privacy in learning management systems: Perceptions of students, faculty, and administrative staff. In Zaphiris, P., et al. (Eds.) *HCI International 2023 – Late Breaking Papers*. Lecture Notes in Computer Science. Springer, Cham.

Cowit, N. Q.\* & Barker, L. (2023). How do teaching practices and use of conferencing features relate to student belonging in synchronous remote computing learning environments? *Proceedings of the 54th ACM Technical Symposium on Computer Science Education*, Toronto, Ontario, Canada, March 15 - 18, 2023. doi>[10.1145/3545945.3569876](https://doi.org/10.1145/3545945.3569876)

Kilkenny, M.\* , Robledo Yamamoto, F.\* , Voida, A., Hovey, C. L., Barker, L. (2022). Why should computer and information science programs require service learning? *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education*. ACM, New York, NY, USA. doi>[10.1145/3478431.3499390](https://doi.org/10.1145/3478431.3499390)

Barker, L., Voida, A., & Nagy, V.\* (2021). Service interruption: Managing commitment to community partners during a crisis. *ICER 2021: Proceedings of the 17th ACM Conference on International Computing Education Research*, August 16-19, 2021. Virtual Event, USA. <https://doi.org/10.1145/3446871.3469756>

Hovey, C. L. & Barker, L. (2020). Faculty adoption of CS education innovations: Exploring continued use. *Proceedings of the 51st ACM Technical Symposium on Computer Science Education* (pp. 570-576). ACM, New York, NY, USA. doi>[10.1145/3328778.3366874](https://doi.org/10.1145/3328778.3366874)

Hovey, C. L., Barker, L., & Nagy, V.\* (2019). Survey results on why CS faculty adopt new teaching practices. *Proceedings of the 50th ACM Technical Symposium on Computer Science Education* (pp. 599-605). ACM, New York, NY, USA. doi>[10.1145/3287324.3287420](https://doi.org/10.1145/3287324.3287420)

Hovey, C. L., Barker, L., & Luebs, M. (2019). Frequency of instructor- and student-centered teaching practices in introductory CS courses. *Proceedings of the 50th ACM Technical Symposium on Computer Science Education* (pp. 483-489). ACM, New York, NY, USA. doi>[10.1145/3287324.3287363](https://doi.org/10.1145/3287324.3287363)

Burd, B., Barker, L., Fermin Perez, F. A., Russell, I., Siever, B., Tudor, L., McCarthy, M., & Pollock, I. (2018). The internet of things in undergraduate computer and information science education: Exploring curricula and pedagogy. In *Proceedings Companion of the 23rd Annual ACM Conference on Innovation and Technology in Computer Science Education* (pp. 200-216). ACM, New York, NY, USA. doi:[10.1145/3293881.3295784](https://doi.org/10.1145/3293881.3295784)

Achenbach, G., Barker, L. J., & Thompson, L. (2018). A systemic approach to recruiting and retaining women in undergraduate computing. In *Proceedings of the 2018 CoNECD - The Collaborative Network for Engineering and Computing Diversity Conference*. <https://peer.asee.org/29502>

Thompson, L., & Barker, L. J. (2018). Increasing women's participation in undergraduate computing and engineering with systemic change. In *Proceedings of the 2018 ASEE Annual Conference & Exposition*. Retrieved from <https://peer.asee.org/board-146-increasing-women-s-participation-in-undergraduate-computing-and-engineering-with-systemic-change>

Burd, B., Barker, L., Divitini, M., Fermin Perez, F. A., Russell, I., Siever, B., & Tudor, L. (2018). Courses, content, and tools for internet of things in computer science education.

*Proceedings of the 2017 ITiCSE Working Group Reports* (pp. 125–139). ACM, New York, NY, USA. [doi:10.1145/3174781.3174788](https://doi.org/10.1145/3174781.3174788)

Buchanan, S. A.\* , Bullard, J.\* , Aspray, W., Bailey, D., Barker, L., Carter, D.\* , Clement, T., Gottschlich, N.\* , Howison, J., McLaughlin, S.\* and Ocepek, M.\* (2017). Collaborative syllabus design for studying information work. *Proceedings of the Association for Information Science and Technology*, 54(1), 630–632. [doi:10.1002/pra2.2017.14505401094](https://doi.org/10.1002/pra2.2017.14505401094)

Barker, L., Hovey, C. L.\* & Gruning, J.\* (2015). What influences CS faculty to adopt teaching practices? *Proceedings of the 46th ACM Technical Symposium on Computer Science Education* (pp. 604-609). [doi:10.1145/2676723.2677282](https://doi.org/10.1145/2676723.2677282).

Barker, L. & Gruning, J.\* (2015). The student prompt: Student feedback and change in teaching practices in postsecondary computer science. *Proceedings of the 44th Annual Frontiers in Education Conference* (pp. 2873-2880). [doi:10.1109/FIE.2014.7044464](https://doi.org/10.1109/FIE.2014.7044464) **Winner of the 2015 FIE Best Paper Award.**

Barker, L. J., Hovey, C. L.\* , & Thompson, L. D. (2014). Results of a large-scale, multi-institutional study of undergraduate retention in computing. *Proceedings of the 44th Annual Frontiers in Education Conference* (pp. 1693-1700). [doi:10.1109/FIE.2014.7044267](https://doi.org/10.1109/FIE.2014.7044267)

Barker, L., Hovey, C. L.\* , Subhlok, J., & Tuna, T.\* (2014) Student perceptions of indexed, searchable videos of faculty lectures. *Proceedings of the 44th Annual Frontiers in Education Conference* (pp. 1234-1242). [doi:10.1109/FIE.2014.7044189](https://doi.org/10.1109/FIE.2014.7044189)

Deshpande, R.\* , Tuna, T.\* , Subhlok, J. & Barker, L. J. (2014). A crowdsourcing caption editor for educational videos. *Proceedings of the 44th Annual Frontiers in Education Conference* (pp. 322-329). [doi:10.1109/FIE.2014.7044040](https://doi.org/10.1109/FIE.2014.7044040)

Barker, L., O'Neill, M., & Kazim, N.\* (2014). Framing classroom climate for student learning and retention in computer science. *Proceedings of the 45th ACM Technical Symposium on Computer Science Education* (pp. 319–324). [doi:10.1145/2538862.2538959](https://doi.org/10.1145/2538862.2538959)

Tuna, T.\* , Subhlok, J., Barker, L., Varghese, V.\* , Johnson, O., & Shah, S. (2012). Development and evaluation of indexed, captioned, searchable videos for STEM coursework. *Proceedings of the 43rd ACM Technical Symposium on Computer Science Education* (pp. 129-134). [doi:10.1145/2157136.2157177](https://doi.org/10.1145/2157136.2157177)

Barker, L., Cohoon, J. McGrath, & Thompson, L.D. (2010). A practical model for achieving gender parity in undergraduate computing: Change the system, not the student. *Proceedings of the 40<sup>th</sup> Frontiers in Education Conference* (pp. S1H-1-2). [doi:10.1109/FIE.2010.5673635](https://doi.org/10.1109/FIE.2010.5673635).

Barker, L. J. (2010). Science teachers' search behaviors, resource preferences, and classroom technology. *Proceedings of the 21st Annual Society for Information Technology & Teacher Education International Conference* (pp. 1340-1345). Chesapeake, VA: AACE.

Barker, L. J. (2009). Science teachers' use of online resources and the Digital Library for Earth System Education. *Proceedings of the 9th ACM/IEEE-CS Joint Conference on Digital Libraries* (pp. 1-10). [doi:10.1145/1555400.1555402](https://doi.org/10.1145/1555400.1555402).

Barker, L. J., McDowell, C., & Kalahar, K. (2009). Exploring factors that influence computer science introductory course students to persist in the major. *Proceedings of the 40th ACM Technical Symposium on Computer Science Education* (pp. 153-157). [doi:10.1145/1539024.1508923](https://doi.org/10.1145/1539024.1508923).

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Beheshti, M., Alo, R.A., Fernandez, J., Gates, A.Q., Ranjan, D., Boadi, A., Villaverde, K., Hug, S., Thiry, H., Barker, L., (2008). Work in progress: CS0 course implementation in computer science. *Proceedings of the 38<sup>th</sup> Annual Frontiers in Education Conference* pp.F4A-7-F4A-9. [doi:10.1109/FIE.2008.4720305](https://doi.org/10.1109/FIE.2008.4720305)

Almstrum, V. L., Applin, E. A. G., Owens, B. B., Adams, E., Barker, L. J., Impagliazzo, J., et al. (2008). Computing educators oral history project: Seeking the trends. *SIGCSE Bulletin*, 40(4) (pp. 122-141) . [doi:10.1145/1473195.1473238](https://doi.org/10.1145/1473195.1473238).

Townsend, G. C., Barker, L., Menzel, S., & Cohoon, J. M. (2008). Grace Hopper visits the neighborhood. *Proceedings of the 39th SIGCSE Technical Symposium on Computer Science Education* (pp. 513-517) . [doi:10.1145/1352322.1352307](https://doi.org/10.1145/1352322.1352307).

Barker, L. J. (2005). When do group projects widen the student experience gap? *Proceedings of the 10th Annual SIGCSE Conference on Innovation and Technology in Computer Science Education* (pp. 276-280) . [doi:10.1145/1151954.1067521](https://doi.org/10.1145/1151954.1067521).

Barker, L. J., Garvin-Doxas, K., & Roberts, E. (2005). What can computer science learn from a fine arts approach to teaching? *Proceedings of the 36th SIGCSE Technical Symposium on Computer Science Education* (pp. 421-425) . [doi:10.1145/1047124.1047482](https://doi.org/10.1145/1047124.1047482).

Almstrum, V. L., Barker, L. J., Owens, B. B., Adams, E., Aspray, W., Dale, N. B., et al. (2005). Building a sense of history: Narratives and pathways of women computing educators. *SIGCSE Bulletin*, 37(4), 173-189 . [doi:10.1145/1113847.1113895](https://doi.org/10.1145/1113847.1113895).

Daniels, M., Barker, L. Cajander, A. Laxer, C., & Moore, D., (2005). Work in progress: Managing cross-cultural differences in an open-ended group project course, *Proceedings of the 35th Frontiers in Education Conference*, pp.T4D-22. [doi:10.1109/FIE.2005.1611974](https://doi.org/10.1109/FIE.2005.1611974)

Barker, L. J., Garvin-Doxas, K., & Jackson, M. J. (2002). Defensive climate in the computer science classroom. *Proceedings of the 33rd SIGCSE Technical Symposium on Computer Science Education*, 43-47. [doi.org/10.1145/563517.563354](https://doi.org/10.1145/563517.563354).

## Refereed Journal Articles

Robledo Yamamoto, F.\*, Barker, L., & Voida, A. (2023) CISEing up service learning: A systematic review of service learning experiences in computer and information science. *ACM Transactions on Computing Education*. [doi-org.colorado.idm.oclc.org/10.1145/3610776](https://doi.org/10.1145/3610776)

Yuerong, H.\*, Ocepak, M.G., Downie, S.J., & Barker, L. (2022). Listen to librarians: Highlighted core competencies for librarianship from the perspectives of working librarians. *College and Research Libraries*. 83(6), 994-1013.

Cossa, J., & Barker, L. (2021). Motivation to pursue a Ph.D. in computing: Black students in HBCUs. *Journal of Interdisciplinary Studies in Education*, 10(1). Online: <https://ojed.org/index.php/jise/article/view/2685>

Buchanan, S.\*, Gruning, J.\* , Gursoy, A.\* , & Barker, L. (2017). Surveying archivists and their work toward advocacy and management, or “enterprise archiving.” *The American Archivist*, 80(2), 268–295. [doi:10.17723/0360-9081-80.2.268](https://doi.org/10.17723/0360-9081-80.2.268)

Tuna, T.\* , Subhlok, J., Barker, L., Shah, S., Johnson, O., & Hovey, C. (2017). Indexed captioned searchable videos: A learning companion for STEM coursework. *Journal of Science Education and Technology*, 26(1), 82-99. doi:10.1007/s10956-016-9653-1

Simons, R. G.\* , Ocepek, M. N.\* , & Barker, L. (2016). Teaching tweeting: Recommendations for teaching social media work in LIS and MSIS programs. *Journal of Education for Library and Information Science*, 57(1) 21-30. doi:10.12783/issn.2328-2967/57/1/2

Monge, A. E., Fadjo, C. L., Quinn, B. A., & Barker, L. J. (2015). EngageCSEdu: Engaging and retaining CS1 and CS2 students. *ACM Inroads*, 6(1), 6-11. [doi:10.1145/2714569](https://doi.org/10.1145/2714569)

Swim, J.\* & Barker, L. (2012). Pathways into a gendered occupation: Brazilian women in IT. *International Journal of Social & Organizational Dynamics in Information Technology*, 2(4), 34-51. [doi:10.4018/ijisodit.2012100103](https://doi.org/10.4018/ijisodit.2012100103)

Barker, L. J., Cohoon, J. M., & Sanders, L. (2010, June). Strategy trumps money: Recruiting undergraduate women in computing. *Computer*, (43)6, 82-85. doi:[10.1109/MC.2010.179](https://doi.org/10.1109/MC.2010.179)

Barker, L. (2009) Student and faculty perceptions of undergraduate research experiences in computing. *ACM Transactions on Computing Education*, 9(1), 1-28. [doi:10.1145/1513593.1513598](https://doi.org/10.1145/1513593.1513598)

Jessup, E., Sumner, T., & Barker, L. (2005). Report from the trenches: Implementing curriculum to promote the participation of women in computer science. *Journal of Women and Minorities in Science and Engineering*, 11(3), 273-294. [doi:10.1615/JWomenMinorScienEng.v11.i3.50](https://doi.org/10.1615/JWomenMinorScienEng.v11.i3.50)

Barker, L. J. & Garvin-Doxas, K. (2004). Making visible the behaviors that influence learning environment: A qualitative exploration of computer science classrooms. *Computer Science Education*, 14(2), 119-145. [doi:10.1080/08993400412331363853](https://doi.org/10.1080/08993400412331363853) Reprinted as "Featured Article" in *National Academy of Engineering's Annals of Research in Engineering Education*, October, 2005.

Garvin-Doxas, K. & Barker, L. J. (2004). Communication in computer science classrooms: Understanding defensive climates as a means of creating supportive behaviors. *Journal of Educational Research in Computing*, 4(1), 1-18. [doi:10.1145/1060071.1060073](https://doi.org/10.1145/1060071.1060073)

Barker, L. J. (2003). Computer-assisted vocabulary acquisition: The CSLU Vocabulary Tutor in oral-deaf education. *Journal of Deaf Studies and Deaf Education*, 8(2), 187-198. [doi:10.1093/deafed/eng002](https://doi.org/10.1093/deafed/eng002)

Weston, T. J. & Barker, L. J. (2002). Student computing in higher education: A profile of student use, training, and proficiency. *Journal of Computing in Higher Education*, 14(1), 87-112. [doi:10.1007/BF02940952](https://doi.org/10.1007/BF02940952)

Weston, T. J. & Barker, L. J. (2001). Designing, implementing, and evaluating web-based learning modules for university students. *Educational Technology*, 41(4), 15-22.

## Refereed Book Chapters

Cowit, N. Q.\* & Barker, L. J. (2022). Student perspectives on distraction and engagement in the synchronous remote classroom. In *Digital distractions in the college classroom* (pp. 243-266). IGI Global.

Barker, L. J. & Aspray, W. (2006). The state of research on girls and Information Technology. In J. McGrath Cohoon & W. Aspray (Eds.), *Women and information technology: Research on underrepresentation* (pp. 3-54). Cambridge, MA: MIT Press.

Barker, L. J., Snow, E.\* , Garvin-Doxas, K., & Weston, T. (2006). Recruiting middle school girls into Information Technology: Data on girls' perceptions and experiences from a mixed

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demographic group. In J. McGrath Cohoon & W. Aspray (Eds.), *Women and information technology: Research on underrepresentation* (pp. 115-136). Cambridge, MA: MIT Press.

Barker, L. J. & Jessup, E. R. (2006). Student and faculty choices that widen the experience gap. In E. M. Trauth (Ed.). *Encyclopedia of gender and information technology* (pp. 1128-1133). Hershey, PA: IGI Global.

Archer (Barker), L. & Fitch, K. L. (1994). Communication in Latin American multinational organizations. In R. L. Wiseman & R. Shuter (Eds.), *Communicating in multinational organizations* (pp. 75-93). Beverly Hills, CA: Sage.

### Books

Barba, L.A., Barker, L.J., Blank, D.S., Brown, J., Downey, A.B., George, T., Heagy, L.J., Mandli, K.T., Moore, J.K., Lippert, D. and Niemeyer, K.E. (2019). Teaching and learning with Jupyter. <https://jupyter4edu.github.io/jupyter-edu-book>.

Stephenson, C., Derbenwick Miller, A., Alvarado, C., Barker, L., Barr, V., Camp, T., Frieze, C., Lewis, C., Cannon Mindell, E., Limbird, L., Richardson, D., Sahami, M., Villa, E., Walker, H., and Zweben, S. (2018). Retention in computer science undergraduate programs in the U.S.: Data challenges and promising interventions. New York, NY: ACM. <https://www.acm.org/binaries/content/assets/education/retention-in-cs-undergrad-programs-in-the-us.pdf>

### Other Publications

Cossa, J., Barker, L. J., & Almstrum, V. (2021). Seven stages of a survey piloting process. Academic Letters. <http://dx.doi.org/10.20935/AL2327>

Barker, L., & Cleveland, Angela. (2021, January). Gender focus in school counseling K12 career advising. *WSCAlink*. <https://www.wscaweb.org/wscalink-january-2020/>

Fiesler, C., Aspray, W., Barker, L., Brubaker, J., Devendorf, L., Keegan, B., ... Voda, S. (2017). Information Science at CU Boulder. *Interactions*, 24(4), 18–21. [doi:10.1145/3097266](https://doi.org/10.1145/3097266)

Barker, L. J., Camp, T., Walker, E., & Zweben, S. (2015, May). Booming enrollments: What is the impact? *Computing Research News*, 27(5), 52-53.

Barker, L. J. & Cohoon, J. M. (2013). Actively recruit girls with ICBI. *CSTA Voice*, 9(5), 6-7.

Barker, L. J., & DuBow, W.M. (2011, November). Get girls into computing: Free, evidence-based materials from the National Center for Women & Information Technology. *Journal for Computing Teachers*. International Society for Technology in Education.

Barker, L. J. (1999, April). [Review of the Book *Network & netplay: Virtual groups on the internet* by Fay Sudweeks, Margaret McLaughlin, Sheizaf Rafaeli]. *The Library Quarterly: Information, Community, Policy*, 69(2), 266-268. [doi:10.1086/603072](https://doi.org/10.1086/603072)

Archer (Barker), L. (1991). My favorite assignment: Answering difficult questions. *The Bulletin of the Association for Business Communication*, 14(3), 65-66.

### Technical Reports and White Papers

Catalyze Tech Working Group (Key Partner). 2021, October. “The ACT Report: Action to catalyze tech, a paradigm shift for DEI.” Published by the Aspen Institute and Snap Inc. October 2021. [ACTReport.com](http://ACTReport.com).

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Barker, L. J. (2015). (Invited “discussion starter” paper.) Changing perceptions and creating impressions: An overview of theory, practices, and evidence for attracting women into undergraduate engineering and computer science. *Transforming Undergraduate Education in Engineering Women in Engineering Workshop*. Seattle, WA, June 15-16, 2015.

Barker, L. J. & Subhlok, J. (2012, April). *Indexed, captioned, searchable videos: Assessment report (Technical Report UH-CS-11-07)*. Houston, TX: University of Houston.

National Science Foundation Advisory Committee for Cyberinfrastructure (2011, March). *Report of the Task Force on Cyberlearning and Workforce Development*. Washington, DC: National Science Foundation.  
[https://www.nsf.gov/cise/oac/taskforces/TaskForceReport\\_Learning.pdf](https://www.nsf.gov/cise/oac/taskforces/TaskForceReport_Learning.pdf)

Barker, L. J. and Hovey, C. (2008). *Scholars of the Future Evaluation Report*. Blacksburg, VA: Virginia Polytechnic Institute and State University.

Barker, L. J. (2008) *Collaborative Research Experiences for Undergraduates: Final evaluation report*. Washington, DC: Computing Research Association Committee on the Status of Women in Computing Research.

Barker, L. J. (2006). *Grace Hopper Celebration of Women in Computing: Evaluation Report October 3-7, 2006*. Palo Alto, CA: Anita Borg Institute.

Barker, L. J. (2005). *Revising Training for GLOBE Trainers: The GLOBE Trainer Certification Program summative evaluation report*. Boulder, CO: University Corporation for Atmospheric Research Education and Outreach Group.

Barker, L. J. (2005). *Grace Hopper Celebration of Women in Computing: Evaluation report October 6-9, 2004*. Palo Alto, CA: Anita Borg Institute.

Barker, L. J., Snow, E. S., Bunch, K., & Garvin-Doxas, K. (2004). *Girls Exploring Science, Engineering, And Technology Event February 23, 2004: Girls' survey report*. Denver, CO: The Rocky Mountain Section of the Society of Women Engineers, Lockheed Martin, Junior Achievement of Rocky Mountain, Inc., The Women's Foundation of Colorado.

Barker, L. J. (2004). *Richard Tapia Celebration of Diversity in Computing Conference: Evaluation Report, October 15-18, 2003*. Coalition to Diversify Computing.

Barker, L. J. (2002). *Special Project: Visiting Scientist Programs for Minority Institutions and Small Colleges: Final evaluation report*. Houston, TX: University of Houston-Downtown.

Barker, L. J., Garvin-Doxas, K., & Schnabel, R. (2002). *National Science Foundation Information Technology Workforce Principal Investigator Meeting October 14-16, 2001: Panel report*. Washington, DC: National Science Foundation.

Barker, L. J. (2001). *Richard Tapia Celebration of Diversity in Computing Symposium October 19-21, 2001, Final evaluation report*. Coalition to Diversify Computing.

## Publications for Broad Impact

Cowit, N. Barker, L. J. (2020). Virtual Classroom Décor for Computer Science and Tech Educators. <https://www.ncwit.org/resources/virtual-classroom-d%C3%A9cor-computer-science-and-tech-educators>

Barker, L. J. (2020). Framing a Supportive Classroom Climate: Setting Up and Maintaining a Frame Instructions Guide for Teachers.

Barker, L. J. (2020). Questionnaire for Setting Up Frame for Supportive Classroom Climate for Teachers.

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Barker, L. J. (2020). Presentation Template for Framing Classroom Climate Setting Up the Frame for Teachers.

Barker, L. J., Luebs, M. (2019) Set Up a Mentoring Culture for Graduate Students: Roles of Faculty and Peers. [www.ncwit.org/peer-and-faculty-mentors](http://www.ncwit.org/peer-and-faculty-mentors)

Barker, L. J. (2019) Communicating Research-based Interventions to Change Agents. [www.ncwit.org/communicating](http://www.ncwit.org/communicating)

Barker, L. J. (2019) You Can Actively Recruit Girls Into High School Computing Classes: A Workbook for High School Teachers. [www.ncwit.org/HSTeacherWorkbook](http://www.ncwit.org/HSTeacherWorkbook)

Barker, L. J., Hovey, C. L.\*, & O'Neill, M. (2015) How do you retain women through inclusive pedagogy? Framing a supportive classroom climate. <https://www.ncwit.org/resources/how-do-you-recruit-or-retain-women-through-inclusive-pedagogy/framing-supportive-classroom>

Barker, L. J. & Mancha, C.\* (2015). Recruit Strategically: A "High Yield in the Short Term" Workbook for Attracting Women to Undergraduate Computing and Engineering." [www.ncwit.org/recruitingworkbook](http://www.ncwit.org/recruitingworkbook)

Barker, L. J., Hovey, C. L.\*, & Thompson, L. D. (2015). Student experience of the major survey-in-a-box. [www.ncwit.org/sem](http://www.ncwit.org/sem)

Barker, L. J., Mancha, C.\* & Ashcraft, C. (2014) What is the impact of gender diversity on technology business performance? Research summary. [www.ncwit.org/businesscase](http://www.ncwit.org/businesscase)

Barker, L. J., Frydman, A.\* & Cohoon, J. M. (2011). How do you retain women through inclusive pedagogy? Equal access: Inclusive strategies for teaching students with disabilities. <http://bit.ly/1IH429v>

Hamilton, S. & Barker, L. J. (Eds.). (2011). NCWIT REU-in-a-box: Expanding the pool of computing researchers. [www.ncwit.org/reubox](http://www.ncwit.org/reubox)

Jacobson, N., Kraus, J., Kay, D., Williams, L., Almstrum, V., Schaefer, S., McDowell, C., Barker, L. J. & Cohoon, J. M. (2009). Pair programming-in-a-box: The power of collaborative learning. [www.ncwit.org/pairprogramming](http://www.ncwit.org/pairprogramming)

Barker, L. J. (2010). How can reducing unconscious bias increase women's success in IT? Avoiding unintended gender bias in letters of recommendation. [www.ncwit.org/biasletters](http://www.ncwit.org/biasletters)

Barker, L. J. (2009). Talking points: Moving beyond computer literacy: Why should schools teach computer science? [www.ncwit.org/schools](http://www.ncwit.org/schools)

Barker, L. J. & Cohoon, J. M. (2009). Strategic planning for retaining women in undergraduate computing workbook. [www.ncwit.org/retainingworkbook](http://www.ncwit.org/retainingworkbook)

Barker, L. J. & Cohoon, J. M. (2009). Key practices for retaining undergraduates in computing. [www.ncwit.org/retainundergrads](http://www.ncwit.org/retainundergrads)

Barker, L. J. (2009). Strategic planning for recruiting women into undergraduate computing and engineering: High yield in the short term workbook. Replaced by 2015 update.

Barker, L. J. & Cohoon, J. M. (2009). Communicating for change: Persuade colleagues to get on board. [www.ncwit.org/commchange](http://www.ncwit.org/commchange)

Barker, L. J. (2009). How can REUs help retain female undergraduates? Affinity research groups. [www.ncwit.org/reuaffinity](http://www.ncwit.org/reuaffinity)

Barker, L. J. & Cohoon, J. M. (2008). How do you retain women through inclusive pedagogy? Designing for diversity. [www.ncwit.org/pedagogydesign](http://www.ncwit.org/pedagogydesign)

Barker, L. J. & Cohoon, J. M. (2008). How do you introduce computing in an engaging way? Snap, create, and share with Scratch. [www.ncwit.org/scratch](http://www.ncwit.org/scratch)

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Barker, L. J. (2008). Talking points: ¿Por qué las jóvenes deberían considerar una carrera en tecnología de la información? [www.ncwit.org/lasjovenes](http://www.ncwit.org/lasjovenes)

Cohoon, J. M. & Barker, L. J. (2008). How can you re-engineer your undergraduate program to increase women's representation in computing? Small steps toward systemic change. [www.ncwit.org/reengineerundergrad](http://www.ncwit.org/reengineerundergrad)

Barker, L. J. & Ashcraft, C. (2008). Talking points: Why should young women consider a career in information technology? [www.ncwit.org/youngwomen](http://www.ncwit.org/youngwomen)

Barker, L. J. (2007). How do you support completion of graduate degrees and engender commitment to a research career? Advisor as steward of the discipline. [www.ncwit.org/gradadvisor](http://www.ncwit.org/gradadvisor)

Barker, L. J. (2007). How can REUs help retain female undergraduates? Faculty perspectives. [www.ncwit.org/reufaculty](http://www.ncwit.org/reufaculty)

Barker, L. J., Schaefer, S., & Cohoon, J. M. (2007). Student experience of the major survey-in-a-box. Replaced by 2015 edition.

Barker, L. J. & Cohoon, J. M. (2007). How do you retain women through inclusive pedagogy? The conversational classroom. <http://bit.ly/1Mt6TTd>

Barker, L. J. & Cohoon, J. M. (2007). How do you retain women through collaborative learning? Pair programming. [www.ncwit.org/pairpractice](http://www.ncwit.org/pairpractice)

Barker, L. J. & Cohoon, J. M. (2007). How do you retain women through collaborative learning? Peer-led team learning. [www.ncwit.org/pltl](http://www.ncwit.org/pltl)

Barker, L. J. & Cohoon, J. M. (2007). How do you introduce computing in an engaging way? Unplugged. [www.ncwit.org/unpluggedpractice](http://www.ncwit.org/unpluggedpractice)

Barker, L. J. & Cohoon, J. M. (2007). How do you introduce computing in an engaging way? Storytelling with Alice. [www.ncwit.org/storytellingalice](http://www.ncwit.org/storytellingalice)

Barker, L. J. & Cohoon, J. M. (2007). How do you introduce computing in an engaging way? Meet them where they are. [www.ncwit.org/girlscoutbus](http://www.ncwit.org/girlscoutbus)

Barker, L. J. & Cohoon, J. M. (2006) How do you provide intentional role modeling? Regional celebrations of women in computing – R-CWIC. [www.ncwit.org/rcwic](http://www.ncwit.org/rcwic)

Barker, L. J. & Cohoon, J. M. (2005). How do you introduce computing in an engaging way? Teaching programming and language concepts using LEGOs. [www.ncwit.org/legos](http://www.ncwit.org/legos)

## PRESENTATIONS

### Invited Talks

ICBI: Reaching Girls with Persuasive Messaging. NCWIT Counselors for Computing, virtual, May 10, 2021.

Keynote: Barker, L. (2020). Systemic Change in IT Education: Frameworks and Stories from the Field. Proceedings of the 21st Annual Conference on Information Technology Education, 354. <https://doi.org/10.1145/3368308.3416902>

Classroom Climate: Why it's important and some ways to create/maintain, even virtually. NCWIT Webinar, August 11, 2020. <https://www.ncwit.org/resources/virtual-classroom-d%C3%A9cor-computer-science-and-tech-educators>

NCWIT Programs and Resources for Recruiting and Retaining Undergraduates. New Educators Wednesday Roundtable, ACM SIGCSE Conference, Portland, OR, March 11, 2020.

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Strategies for Addressing Gender Bias in Letters. Susan Bulkeley Butler Center for Leadership Excellence, Purdue University, February 20, 2020.

Creating Inclusive CS Programs for Youth. American Libraries Association. Webinar, July 22, 2019.

Mountain Region Learning Circle. Framing Classroom Climate. NCWIT Extension Services for Undergraduate Programs, Webinar, November 19, 2018.

Libraries Can Influence Girls' Participation in Computing. Young Adult Library Services Association, Webinar, September 13, 2018

Accomplishing CS for All: Attracting Girls to High School CS. CSforAZ Fall Summit, Webinar, August 18, 2018.

Creating Inclusive CS Programs for Youth. American Libraries Association Midwinter Conference, Denver, CO. February 9, 2018.

Helping Schools Diversify CS Classes. TEALS Jamboree. Microsoft Corporation, Redmond, WA. February 1, 2018.

Counselors Can Influence CS Course Taking. C4C@CSPdWeek. Colorado School of Mines July 18, 2017

Pursuing Gender Equality in Technical Education. GenderInSITE Elsevier Foundation Thematic Workshop Integration of gender perspectives in science and technology in Higher Education: Contributions to the advancement of the SDGs. Buenos Aires, Argentina, April 20-21, 2017.

Tackling Unconscious Bias and Stereotype Threat Through Our #CSforAll Work. ECEP Alliance webinar, January 31, 2017.

Recruiting and retaining women in CS. BRAID Summit, Snowbird, UT, July 16-17, 2016.

Gender and computing: Why this matters. University of Virginia Tapestry Workshop, Charlottesville, VA, June 27-29, 2016.

Stereotype threats: What keeps people away. University of Virginia Tapestry Workshop, Charlottesville, VA, June 27-29, 2016.

Active Recruiting: Get Girls into Computing. WeTeachCS Summit, Austin, TX June 7, 2016.

Recruiting Girls into CS/IT. UTeachCS, Austin, TX, May 26, 2016.

Joanne McGrath Cohoon: Scholarship and strategy for gender parity in computing. Grace Hopper Celebration of Women in Computing, Houston, TX, October 16, 2015.

Attracting girls into high school CS. Computer Science Principles for High School, Department of Computer Science, University of Alabama. Webinar, July 11, 2014.

<https://www.youtube.com/watch?v=bHLtFe1sekY>

Attracting girls into high school CS. Computer Science Principles Professional Development Workshop at SIGCSE. March 5, 2014.

Diversifying high school computer science classes. College of St. Scholastica CS for HS, Webinar, July 22, 2013. [https://www.youtube.com/watch?v=kyU\\_zNrBeOw](https://www.youtube.com/watch?v=kyU_zNrBeOw)

Keynote. Overcoming the challenges: Issues, solutions, and resources for recruiting and retaining women in IT, Texas A&M University Forum on Women in IT, College Station, TX, April 26, 2013.

Unconscious bias and stereotype threat. University of Puerto Rico Mayagüez, December 17, 2010.

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Women in computing. Saint Mary-of-the-Woods College. Saint Mary-of-the-Woods, IN, November 16, 2010.

Unconscious bias and stereotype threat. FemProf Workshop, Atlanta, GA, October 1, 2010.

Broadening participation of underrepresented groups in computing: Resource and community access. Broader Impacts for Research and Discovery Summit, National Science Foundation, Washington, DC, June 23, 2010. <https://www.youtube.com/watch?v=TnhrLk8VSv0>

Ibaraki, S. (2010. Audio Interview with Lecia Barker, Unconscious bias, attracting diversity into computing, maximizing educational environments and technologies. Canadian IT Managers Blog. March 16, 2010. <http://bit.ly/1Fsu2kd>

Unconscious bias and retaining students through gender awareness in teaching. Workshop on Gender Awareness in Teaching. Uppsala University Information Technology Department. Uppsala University, Uppsala, Sweden. November 13, 2009.

Identifying research potential: What is appropriate and meaningful? Developing and Strengthening the Contributions of Science and Technology Centers for K-20 STEM Education, Dallas, TX, October 15, 2009.

Fostering diversity and creating an inclusive classroom climate. Increasing Success in Information Technology Education: Fostering Retention of Women and Minorities Conference, Virginia Beach, VA, October 9-10, 2008.

Structuring undergraduate IT programs that build diversity. Thematic Session on Diversifying STEM Fields: Challenges and Advances. American Sociological Association Annual Meeting, Boston, MA, August 1-4, 2008.

What research tells us about best practices for recruiting girls into computing. Computer Science Teachers Association/SIGCSE Roadshow Workshop at Google, Mountain View, CA, May 30, 2008. <http://csta.acm.org/Communications/sub/Videos.html>

Schlender, S. Audio documentary production: The great research challenge: Engaging girls in computing. Women in Science, Technology, Engineering, and Mathematics ON THE AIR! WAMC Northeast Public Radio. January 1, 2008. <http://www.womeninscience.org/story.php?storyID=4>

“ACM Invited Speaker.” Defensive climate in the computer science classroom. The 6th Baltic Sea Conference on Computing Education, Koli Calling. Koli, Joensuu, Finland, November 9-12, 2006.

Increasing women in undergraduate computing through systemic change. Presented to Forskarutbildningskurs: Methods and Results in Computing Education Research, Science and Technology Studies, Uppsala University, Uppsala, Sweden. November 7, 2006.

Retaining and recruiting STEM students for diversity: The impacts of classroom climate. Xavier University of Ohio, March 14, 2005.

Ethnographic research in the computer science classroom: Practices that hinder and enable a collaborative learning environment. Institutionen för lärarutbildning universitetsområdet, Luleå, Sweden, December 9, 2004.

## Peer-Reviewed Contributed Talks

Jiang, A. J.\*, Robledo Yamamoto, F.\*, Nagy, V.\*, Zander, M.\*, Barker, L. (2022). "I Have Literally Never Thought About The Privacy of My Academic Information Like This": Perceptions of Data Privacy in Learning Management Systems. EDULEARN22.

Barker, L. (2018) Active Recruiting: Get Girls into Computing. WeTeachCS Summit 2018, Austin, TX, June 19, 2018.

Barker, L. and Achenbach, G. (2018). Translating Research to Actionable Practices to Accomplish Parity in Research Careers. Understanding Interventions Conference, Baltimore, MD, March 2, 2018.

Cohoon, J., Cohoon, J. McGrath, Cintron, L., Tychonievich, L., Barker, L., Williamson, M. (2016). Teaching teachers to teach diverse students in computer science: Content and resources for in-person and online delivery. Frontiers in Education Conference, Erie, PA, October 12-15.

Camp, T., Hall, M., Barker, L., Forbes, J., & Rutenbar, R. (2016). Booming enrollments: Understanding the surge: Student profiles/motivations during the enrollment growth. CRA Conference at Snowbird, Snowbird, UT, July 17-19, 2016.

Barker, L. & Hovey, C. L.\* (2016). What influences computer science faculty to adopt teaching practices? Results of the qualitative phase. Envisioning the Future of Undergraduate STEM Education: Research and Practice. Washington, DC, April 27-29, 2016.

Barker, L., Topi, H., Thatcher, J., Cooper, S., & McGettrick, A. (2015). Towards grand challenges for computing education research. *The 46th ACM Technical Symposium on Computer Science Education*. Kansas City, KS, March 4-7, 2015.

Camp, T., Kurose, J., Walker, E., & Barker, L. J. (2015). Booming enrollments – good times? *The 46th ACM Technical Symposium on Computer Science Education*. Kansas City, KS, March 4-7, 2015.

Topi, H., Barker, L., Thatcher, J., Nelson, M., & Parrish, J. (2014). Integrative perspectives on computing education research: A panel building on PACE workshop. Presented at the International Conference on Information Systems, Auckland, NZ, December 14-17, 2014.

Johnson, L. Y. and Barker, L. J. (2014). The engagement and retention of students in undergraduate computer science programs. ACM Special Interest Group in Computer Science Education Conference, Atlanta, GA, March 6-8, 2014.

Barker, L. J. (2013). Active recruiting: Attracting girls into high school CS. Computer Science Teachers Association Annual Conference, Quincy, MA, July 15-16, 2013.  
<https://www.youtube.com/watch?v=Wany9hiZtm0>

Thompson, L. D., Barker, L. J., Powell, R. M., Brawner, C. E., & McKlin, T. (2012). Diversity initiatives to support systemic change in undergraduate computing. 43rd ACM Technical Symposium on Computer Science Education, Raleigh, NC, February 29-March 3, 2012.

Barker, L. J., Cohoon, J. M., & Cohoon, J.P. (2011) How to organize a professional development workshop for high school CS teachers, Journal of Computing Sciences in Colleges, 26, 4, p. 139. (Despite its name, this is a conference presentation.)

Barker, L. J. & Cohoon, J. M. (2010) Minimum motion with maximum effect: Strategically recruiting and retaining undergraduate women. Grace Hopper Celebration of Women in Computing Conference, Atlanta, GA, September 28-October 1, 2010.

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Barker, L. J. (2010). Free, research-based resources for gender parity. Society for Information Technology and Teacher Education Conference. San Diego, CA, March 30-April 2, 2010.

Barker, L. J. (2010). Undergraduate women in computing: Research-based initiatives for retention. Kentucky Women in Computing Conference, Gilbertsville, KY, February 26-27, 2010.

Barker, L. J. (2010). Undergraduate women in computing: Being strategic about recruiting and retaining. Minnesota Women in Computing Conference, Minneapolis, MN, February 12-13, 2010.

Barker, L. J. (2010). Undergraduate women in computing: Strategic recruiting. Indiana Women in Computing Conference, Spencer, IN, February 5-6, 2010.

Barker, L. J. (2009). Implicit bias in recommendation letters. Grace Hopper Celebration of Women in Computing Conference, Tucson, AZ, September 30-October 2, 2009.

Barker, L. J. (2009). Undergraduate women in computing: Strategic recruiting. WEPAN Annual Conference, Austin, TX, June 17-19, 2009.

Simard, C., Gable, L., Prentiss, T., Townsend, G., & Barker, L. J. (2008). Leveraging an ecosystem of supporters: Measuring the effectiveness of the Anita Borg Institute for Women and Technology. Grace Hopper Celebration of Women in Computing Conference, Keystone, CO, October 1-4, 2008.

Townsend, G., Bair, B., Barker, L., Camp, T., Cohoon, J., Dillon, L. K., Lang, C., Stewart, K., & Walker, E. (2009). Planning, organizing, and holding Regional Celebrations of Women in Computing. Grace Hopper Celebration of Women in Computing Conference, Keystone, CO, October 1-4, 2008.

Barker, L. J., Guzdial, M., Schaefer, S., Richardson, D., & Williams, L. (2006). A framework for changing undergraduate computer science curriculum and teaching. Grace Hopper Celebration of Women in Computing Conference, San Diego, CA, October 4-6, 2006.

Barker, L. J. (2006). A view of alternative entry experiences from social science and educational research. Computing Research Association Chairs Conference at Snowbird, Snowbird, UT, June 25-27, 2006.

Buhr, S., Barker, L. J., Reeves, T.C. (2005). The DLESE Evaluation Services Group: A framework for evaluation within a digital library. JCDL '05. The 5th ACM/IEEE-CS Joint Conference on Digital Libraries, 2005, June 7-11, 2005.

Ela Zur, E., Irani, L., Barker, L. J., & Guzdial, M. (2005). Contrasting women's experiences in computer science at different institutions. ACM SIGCSE Technical Symposium on Computer Science Education, St. Louis, Missouri, February 23-27, 2005, pp. 63-64.

Barker, L. J. (2005). Factors that influence girls' entry into IT careers: A cross-national analysis of research. Crossing Cultures, Changing Lives International Research Conference in Oxford, England, July 31-August 3, 2005.

Barker, L. & Snow, E.\* (2005). Recruiting middle school girls into information technology: Data on girls' perceptions and experiences from a mixed demographic group. American Educational Research Association Annual Meeting, Montréal, Quebec, Canada, April 11-15, 2005.

Weston, T, McMillan, R., & Barker, L. J. (2004). Evaluating implementation and sustainability for a collaborative learning partnership between a large state university and an historically

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Black university. American Evaluation Association Conference. Atlanta, GA, November 5, 2004.

Barker, L., Weston, T., & McMillan, R. (2003). Enabling diverse experiences in higher education with information and communication technologies: Processes and outcomes. National Communication Association Convention, Miami, FL, November 18-21, 2003.

Barker, L., Sanders, L., & Keyek-Franssen, D. L. (2003). Making IT work: Enabling collaboration among diverse university faculty and staff. EDUCAUSE Conference, Anaheim, CA, November 6-8, 2003.

Buhr, S. M., Barker, L. J., & Reeves, T. C. (2003). The DLESE Evaluation Core Services project. *Eos. Trans., American Geophysical Union*, 84(46), Fall Meeting Supplement, Abstract ED11A-08, December 8-12 2003.

James, J., Best, T., Barker, L. J., Smith, M. O., & Zittle, R. (2003). Threshold conditions for using technology to support system-wide change in higher education. American Evaluation Association Conference, Reno, NV, November 5-9, 2003.

Buhr, S. M., Barker, L. J., & Reeves, T. C. (2003). DLESE Evaluation Core Services. Geological Society of America Annual Meeting, Seattle, WA, November 2-5, 2003.

Weston, T., Garvin-Doxas, K., & Barker, L. J. (2003). Evaluating the use of teleconferencing and courseware for discussion and collaboration among diverse campuses. American Evaluation Association Conference, Reno, NV, November 5-9, 2003.

Barker, L. J., Best, T., Smith, M. J., & Zittle, R. (2002). "Threshold Tool": Planning and evaluating educational technology integration programs. 17th Annual Conference of the American Evaluation Association, Washington, DC, November 6-10, 2002.

Barker, L. J. (2002). Summary of the 2001 National Science Foundation Information Technology Workforce Principal Investigator Meeting. 2nd Annual IT Workforce PI Meeting, College Park, MD, October 21-22.

Buhr, S., Barker, L. J., Mangan, J., & Marlino, M. (2002). The DLESE Evaluation Toolkit project. Paper No. 199-6. Abstracts of the 2002 Geological Society of America Annual Meeting, Denver, CO, October 27-30, 2002.

Barker, L. J., Foster, S., Calvin, C., Frant, A., Davis, A., Petty, K., & Chace, T. (2002). "Web Weather For Kids": Evaluation of an online middle school inquiry and learning resource about dramatic weather. Paper No. 132-15. Abstracts of the 2002 Geological Society of America Annual Meeting, Denver, CO, October 27-30, 2002.

Weston, T. J. & Barker, L. J. (2002). Profile of student computer use. Teaching With Technology Conference, Boulder, Colorado, June 4-6, 2002.

Barker, L. J., Weston, T. J., Keyek-Franssen, D. & Stanek, M. (2002). Faculty integration of technology for teaching and learning at CU-Boulder. Teaching With Technology Conference, Boulder, Colorado, June 4-6, 2002.

Barker, L. J. (2002). Educational technology strategic planning at the University of Colorado. EDUCAUSE National Learning Infrastructure Initiative Transformative, Denver, CO, March 15, 2002.

Barker, L. J. (2001). Attracting and retaining women in IT programs. IT Workforce PI Meeting, Boulder, CO, November 18, 2001.

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Barker, L. J. & Garvin-Doxas, K. (2001). Systemic reform and the evaluation of technology-based preservice programs. American Evaluation Association PT3\*L3 Team Leadership Meeting, St. Louis, MO, November 6, 2001.

Barker, L. J. (2001). Assessing the value of self-contained learning materials. MERLOT International Conference, Tampa, FL, August 12-15, 2001.

Weston, T. J. & Barker, L. J. (2001). Comparative technology evaluation: From the medical model to mixed methods. Teaching With Technology Conference, Boulder, CO, June 7, 2001.

Weaver, G. & Barker, L. J. (2001). Dialogue on assessing instructional technology: A participatory workshop. Teaching With Technology Conference, Boulder, Colorado, June 7, 2001.

Keyek-Franssen, D. & Barker, L. J. (2001). Planning for educational technology integration: Data on faculty and student needs and concerns. Colorado Association of Planners and Institutional Researchers Annual Meeting, Fort Collins, CO, May 15, 2001.

Barker, L. J. (2000). Evaluating the use of human language technologies in oral-deaf education: The CSLU Toolkit and Tucker-Maxon Oral School. EuroCALL 2000, Dundee, Scotland, August 31, 2000.

Keyek-Franssen, D., Barker, L. J., & Weston T. (2000). Data on the educational technology landscape at the University of Colorado, Boulder. Teaching with Technology Conference, Colorado Springs, CO, July 7, 2000.

Barker, L. J., & Weaver, G. (2000). Approaches to assessing the impacts of learning with technology. Teaching with Technology Conference, Colorado Springs, CO, July 7, 2000.

Cole, R., Massaro, D. W., Jurafsky, D., & Barker, L. J. (1999). Interactive learning tools for human language technology. In *ESCA Workshop on Interactive Dialogue in Multi-Modal Systems (IDS-99)*, 77-80, June 22-25, 1999.

Barker, L. J. (1999). Learning climate and learning: Comparing face-to-face and online classes. New Media in Higher Education Conference, Los Angeles, CA, October 18, 1999.

Barker, L. J. (1993). Organizational culture change: Applying Burke's *Permanence and Change*. Western States Communication Association Convention, Albuquerque, NM, March 7, 1993.

Barker, L. J. (1991). Technology for organizational work groups. Colorado Speech Communication Association Convention, Denver, CO, November 8, 1991.

### Conference Posters

Cowit, N. Q.\* & Barker, L. (2023). How do Computing Students Compare Social Presence Factors in Synchronous Remote v. In-Person Courses? Importance, Ease, and Preferences. Refereed. Proceedings of the *54th ACM Technical Symposium on Computer Science Education*, Toronto, Ontario, Canada, March 15 - 18, 2023.

Hu, Yuerong, Ocepek, Melissa, Barker, Lecia, Downie, J. Stephen (2020). Refereed. The real library world is dirty and you don't learn that at all in schools. *iConference 2020*. Borås, Sweden, March 23-26, 2020.

Sanders, L., Barker, L., & DuBow, W. (2019). Recruit, retain, and advance women and girls in computing at all levels and sectors: Proven resources you can use now. NSF INCLUDES National Network Convening, Alexandria, VA, May 29-30, 2019.

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Barker, L. J. (2016). NCWIT Extension Services for Undergraduate Programs. 2016 NSF ADVANCE/GSE Program Workshop, Baltimore, MD, May 22-24, 2016.

Barker, L. J. & Thompson, L. (2010). The Systemic Change Approach. National Science Foundation Education and Human Resources 2010 Joint Annual Meeting, National Science Foundation, Washington, DC, June 6-9, 2010.

Barker, L. J. (2010). Get the facts. Society for Information Technology and Teacher Education Conference. San Diego, CA, March 30-April 2, 2010. Outstanding poster award.

Owens, B. B., Almstrum, V. L., Barker, L. J. (2006). Making waves: Computing Educators Oral History Project. Grace Hopper Celebration of Women in Computing Conference, San Diego, CA, October 4-6, 2006.

Garvin-Doxas, K. & Barker, L. J. (2003). Creating learning environments that support interaction. *Proceedings of the 8th Annual Conference on Innovation and Technology in Computer Science Education*, 35(3), 276 . [doi:10.1145/961511.961641](https://doi.org/10.1145/961511.961641)

Barker, L. J. & Garvin-Doxas, K. (2003). The effect of institutional characteristics on participation of women in computer science bachelor's degree programs. Innovation and Technology in Computer Science Education Conference, Thessaloniki, Greece, June 30-July 1, 2003.

Barker, L. J. & Garvin-Doxas, K. (2003). Why project courses sometimes widen the experience gap among students. Innovation and Technology in Computer Science Education Conference, Thessaloniki, Greece, June 30-July 1, 2003.

Barker, L. J., Weston, T., Garvin-Doxas, K., & Jung, C. (2003). Computer science programs and gender: The “college of engineering effect” revisited. *Proceedings of the ACM SIGCSE 2003 Technical Symposium on Computer Science Education*, Reno, NV, February 19-22, 2003.

Buhr, S. M., Barker, L. J., & Marlino, M. (2002). The Digital Library for Earth System Education Evaluation Toolkit project. American Geophysical Union Fall Meeting, San Francisco, CA, December 5-9, 2002.

### Workshops and Tutorials Held

Barker, L. J. (2020). Framing a Supportive Classroom Climate: Setting Up and Maintaining a Frame. Accelerating Women's Success and Mastery in CS (AWSM in CS) Workshop, Texas Advanced Computing Center, virtual, June 23-26, 2020.

Barker, L. J. (2019). Accelerating Women's Success and Mastery in CS (AWSM in CS) Workshop, Texas Advanced Computing Center, Austin, TX, June 10-14, 2019.

Barker, L. J. & Quinn, B. (2019). Concepts, Recruiting, Bias and its Interruption, and Retention Modules for the Accelerating Women's Success and Mastery in CS (AWSM in CS) Workshop, Texas Advanced Computing Center, University of Texas at Austin, June 10-14, 2019.

Barker, L. J. (2016). What can Google Capacity Grantees Borrow from Engage-CSEdu as a Model for Scaling Innovation? Google Capacity Grantees Workshop. New York, NY, October 25, 2016.

Dodds, Z. & Barker, L. J. (2016). CUNY Computer Science Faculty Workshop. New York, NY, July 13-16, 2016.

Barker, L. J. (2016). Active recruiting: Get girls into CS & engineering. PLTW Summit, Indianapolis, IN, March 22, 2016.

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Barker, L. J. & Thompson, L. D. (2016). High yield in the short term: Planning strategically to get women into your major. SIGCSE 2016 Technical Symposium on Computer Science Education, Memphis, TN, March, 2016.

Barker, L. J., McGettrick, A., Topi, H., & Thatcher, J. (2014). Organizers: Partnership for Advancing Computing Education Workshop on Computing Education Research. National Academy of Engineering, Washington, DC. August 21-22, 2014.

Barker, L. J. (2011). (Organizer). Workshop on online communities research. Boulder, CO, August 9-10, 2011.

Salas, J., Barker, L. J., & Prey, J. (2011). Brazilian women in IT. Gender Diversity Workshop. Microsoft Research Latin American Research Summit. Cartagena, Colombia, May 19, 2011.

Barker, L. J. & Cohoon, J. M. (2011). Recruiting women into your computing major: Conference tutorial. Fourth Annual Consortium for Computing Sciences in Colleges Southwest Regional Conference, Los Angeles, CA, April 1-2, 2011

Barker, L. J. (2011). Research on attracting girls into computing. TAG Organizers Workshop. Philadelphia, PA, February 12, 2011.

Cohoon, J. M. & Barker, L. J. (2010). Train teachers to attract girls into high school computer sciences classes. National Alliance for Partnerships in Equity Professional Development Institute Conference, Washington, DC, April 13, 2010.

Barker, L. J. (2009). Assessment roundtable: Assessing your teaching initiatives. SIGCSE 2009 Technical Symposium on Computer Science Education, Chattanooga, TN, March, 2009.

Barker, L. J. & Cohoon, J. M. (2008). Strategic planning for recruiting undergraduate women: An NCWIT Extension Services Workshop. ACM SIGCSE 2008 Technical Symposium on Computer Science Education, Portland, OR, March, 2008.

Cohoon, J. M. & Barker, L. J. (2007). The way forward. Workshop on Gender and IT Education, Indiana University, Bloomington, IN, September, 2007.

Barker, L. J. (2007). What's the difference? Assessing the impact of your efforts. ACM SIGCSE Technical Symposium on Computer Science Education, Covington, KY, March 7, 2007.

Barker, L. J. & Cohoon, J. M. (2006). NCWIT Extension Services recruiting workshop. NCWIT Semi-Annual Meetings, National Academy of Science, Washington, DC, May 17, 2006 and Georgia Institute of Technology, Atlanta, GA, November 17, 2006.

Barker, L. J. (2005). Responsive technical solutions: Using qualitative research. Uppsala University, Uppsala, Sweden, October, 2005.

Reeves, T. C., Buhr, S., & Barker, L. J. (2005). Evaluating digital libraries. In *Proceedings of the 5th ACM/IEEE-CS Joint Conference on Digital Libraries*, ACM, New York, NY, USA, 420-420. DOI=<http://dx.doi.org/10.1145/1065385.1065525>

Barker, L. J. (2004). Research on pedagogic choices that engender or preclude a supportive and collaborative classroom climate. Collaboration in Engineering Education Workshop, Uppsala, Sweden, December 6-7, 2004.

Barker, L. J., Davis, L., & Khoo, M. (2004). Qualitative user-centered design in digital library evaluation. European Conference for Digital Libraries, Bath, England, September 12, 2004.

Barker, L. J., (2003). Workshop on women and minorities in computer science education. University of Colorado, Boulder, CO, August 11-13, 2003.

Buhr, S., & Barker, L. J. (2003). Collections evaluation: Tools and methods for project, resource, and whole collections evaluation and assessment. Digital Library for Earth Systems Education Annual Meeting, University of Colorado, Boulder, CO, August 2, 2003.

Garvin-Doxas, K., & Barker, L. J. (2003). Managing the learning environment for improved classroom interaction and learning. ACM SIGCSE Technical Symposium on Computer Science Education, Reno, NV, February 22, 2003.

Barker, L. J. & Buhr, S. (2002). Evaluating Geoscience Education Projects with the Digital Library for Earth Systems Education Evaluation Toolkit. American Geophysical Union 2002 Fall Meeting, San Francisco, CA, December 9, 2002.

Barker, L. J. (2002). Evaluation of communication technologies as educational tools. Global E-learning and E-training Workshop, Mérida, Yucatán México, April 19-21, 2002.

### Panels and Sessions Convened

Childs, J. and AWSM Teachers. (2021). Session Organizer: K-12 Alliance Huddle @ 2021 vNCWIT Summit on Women and IT, virtual, May 28, 2021.

Barker, L., Ninh, F., & Macabata, R. (2021). CS/M Scholars Panel Discussion, Western Washington University. Panelist. Virtual, May 4, 2021.

Sullivan, A. & Barker, L. (2020). Gender Equity in Online STEM Learning. National Girls Collaborative Project Webinar, September 2, 2020.

Derbenwick Miller, A., Barker, L., Astrachan, O., & Ericson, B. (2019). SIGCSE@50: Broadening Participation. Panel discussant. 50th ACM Technical Symposium on Computer Science Education, Minneapolis, MN, February 27-March 2, 2019.

Stephenson, C., Barker, L., Sahami, M., Villa, E., & Zweben, S. (2018). The challenges of tracking and understanding student retention in the CS major. 2018 Research on Equity and Sustained Participation in Engineering, Computing, and Technology Conference (RESPECT) (pp. i–ii). <https://doi.org/10.1109/RESPECT.2018.8491709>

Barker, L. J., Bobb, K., Farmer, R., & Wilkerson, B. (2017). Strategies for communicating the importance of equity. Equity Panel. Building State Capacity for Leadership in K-12 Computer Science Education. Cambridge, MA, April 3-4, 2017.

Barker, L., Furse, C., Gehringer, E., Halpern, J., Henderson, C., Kortz, K., Sayre, E., Van Wie, B., Webster, S. (2016). Making change happen: Promoting productive use of evidence-based practices. Envisioning the Future of Undergraduate STEM Education: Research and Practice. Washington, DC, April 27-29, 2016.

Barker, L. J., Broussard, R.\*, Buchanan, S.\* , Carter, D. W.\* , Gruning, J.\* , Gursoy, A.\* , Kazim, N.\* , Moon, E.\* , Ocepek, M. C.\* , Simons, R. G.\* (2015). 21st Century Information Workers: What Core Competencies Should MSIS Students Learn? iConference 2015, Newport Beach, CA, March 24-26, 2015.

Barker, L. J. (2009). Session Chair: Learning via engaging students. Frontiers in Education Conference, San Antonio, TX, October 18-20, 2009.

Barker, L. J. Moderator: Adams, E., Kahlon, A., Lawrence, A., & Young, A. (2009). Trends and discoveries of the Computing Educators Oral History Project. ACM Special Interest Group in Computer Science Education Conference, Chattanooga, TN, March, 2009.

Barker, L. J. (2005). Session Chair and Organizer: Fostering international cooperation through cross-cultural learning communities in higher education. 11th International Conference on Human-Computer Interaction, 1st International Conference on Online Communities and Social Computing, July 22-27, 2005. Presenters: Ashcraft, D. Clarion University of Pennsylvania; Clark, A., University of Illinois at Urbana-Champaign; Daniels, M., Uppsala University, Sweden; Früchter, R., Stanford University; Sutinen, E., University of Joensuu, Finland; Lenear, P. E., University of Illinois at Urbana-Champaign.

Buhr, S. & Barker, L. J. (2002). Moderator: Evaluating geoscience education projects. American Geophysical Union, San Francisco, CA. Presenters: Slater, T. F., Steward Observatories, University of Arizona; Zalles, D. R., SRI International; Dusenberry, P. B., Space Science Institute, University of Colorado; Chambers, L. H., NASA Langley Research Center.

## WORKSHOPS AND WORKING GROUPS ATTENDED

Bradley, S., Parker, M. C., Altin, R., Barker, L., Hooshangi, S., Kamal, S., Kunkeler, T., Lennon, R. G., McNeill, F., Minguillón, J., Parkinson, J., Peltsverger, S., and Sibia, N. (2023). A Methodology for Investigating Women's Module Choices in Computer Science. In *Proceedings of the 2023 Conference on Innovation and Technology in Computer Science Education V. 2 (ITiCSE 2023)*. Association for Computing Machinery, New York, NY, USA, 569–570. <https://doi.org/10.1145/3587103.3594209>

Jupyter Community Workshop (Invited), George Washington University, Washington, DC November 28-30, 2018.

Burd, B., Barker, L., Divitini, M., Guerra, J. G., Perez, F. A. F., Russell, I., ... Pollock, I. (2018). Working Group: The Internet of Things in CS Education: Updating Curricula and Exploring Pedagogy. In Proceedings of the 23rd Annual ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE 2018). Association for Computing Machinery, New York, NY, USA, 366–367. <https://doi.org/10.1145/3197091.3205846>

Burd, B., Elahi, A., Russell, I., Barker, L., Pérez, A. F., Siever, B., Guerra, J. G. (2017). Working Group: The Internet of Things in CS Education: Current Challenges and Future Potential. In Proceedings of the 2017 ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE '17). Association for Computing Machinery, New York, NY, USA, 392. <https://doi.org/10.1145/3059009.3081331>

Boucher Owens, B., Almstrum, V. L., & Barker, L. J. (2005). Building a sense of history: Narratives and pathways of successful computing educators. ACM Conference on Innovation and Technology in Computer Science Education, Lisbon, Portugal, June, 2005.

## EXTRAMURAL GRANTS AND GIFTS AWARDED

National Science Foundation: "BPC-DP: CS Subfield Diversity: Developing the Research Basis to Inform Intervention Strategies," Broadening Participation in Computing: 2023-2025. Co-Principal Investigator (with Lucinda Sanders, PI, University of Colorado), \$299,181.

National Science Foundation: "BPC-AE: Scaling and Sustaining Gender Diversity in Postsecondary Computing using NCWIT's Systemic Change Approach," Broadening Participation in Computing: 2022-2025. Co-Principal Investigator (with Lucinda Sanders, PI, and Terry Hogan, University of Colorado), \$3,600,000.

LECIA J. BARKER: CURRICULUM VITAE

National Science Foundation: IUSE: "Designing to Overcome the Asymmetry Problem in Computer and Information Science Service Learning," 2019-2023. Co-Principal Investigator (with Amy Voda, PI, University of Colorado), \$296,283.

National Science Foundation Special Projects (CNS): "National Center for Women and Information Technology (NCWIT): Moving Toward Sustainability for Women in Computing," 2018-2022. Co-Principal Investigator (with Lucinda Sanders, PI, and Terry Hogan, University of Colorado), \$7,500,000.

Google: "Extension Services for Graduate Programs," 2018-2019, \$247,000.

National Science Foundation Special Projects (CNS): "Toward the Establishment of a Reciprocal Knowledge Exchange Community for Extending BPC Capacity and Impact," 2017-2019. Co-Principal Investigator (with Lucinda Sanders, University of Colorado), \$299,000.

Pivotal Ventures Foundation: "NCWIT Extension Services for Undergraduate Programs," 2017-2020, \$4,200,000.

National Science Foundation (CISE), "Scaling an Effective Program for Recruiting and Retaining Women in Undergraduate Computing: NCWIT ES-UP at Scale," 2016-2019. Co-Principal Investigator (with Lucinda Sanders, University of Colorado; Leisa Thompson, University of Virginia; Elizabeth Litzler, University of Washington), \$999,995.

National Science Foundation (CISE), "Special Projects (CNS): National Center for Women and Information Technology (NCWIT) - Building the Computing Workforce of the 21st Century," 2012-2017, Co-Principal Investigator (with Lucinda Sanders, University of Colorado; Joanne Cohoon, University of Virginia; Suzanne Brainard, University of Washington), \$10,886,282.

Google.org, "NCWIT Extension Services for Undergraduate Programs," 2014-2015. Co-Principal Investigator (with Lucinda Sanders, University of Colorado; Elizabeth Litzler, University of Washington), \$1,500,000.

Institute of Museum and Library Services (Laura Bush 21st Century Librarian Program), "Preparing Tomorrow's Faculty to Study the Work of 21st Century Librarians," 2012-2016. Senior Personnel (with Diane Bailey [PI] and William Aspray, University of Texas at Austin), \$498,000.

National Science Foundation (EHR), "Expanding the Pool: Local Cooperatives for Recruiting and Retaining Women in Disciplines with Least Women," 2012-2017. Co-Principal Investigator (with Lucinda Sanders, University of Colorado; Joanne Cohoon, University of Virginia; Susan Metz, Stevens Institute of Technology; Elizabeth Litzler, University of Washington), \$2,515,697.

National Science Foundation (EHR), "Research on Faculty Change: Adoption of Practices that Support Gender Diversity in Undergraduate Computing," 2011-2017. Principal Investigator, \$440,497.

National Science Foundation (CISE), "BPC-AE: Collaborative Research: Strengthening and Expanding the Empowering Leadership Alliance," 2010-2014. Co-Principal Investigator (with Clint Dawson, University of Texas; Richard Tapia, Rice University; Ruzena Bajcsy, University of California Berkeley; Lori Scarlatos, SUNY at Stonybrook; Juan Gilbert, Clemson University; Shelby Funk, University of Georgia), \$1,542,510.

National Science Foundation (CISE), "Special Projects (CNS): National Center for Women & Information Technology Extension," 2008-2012. Co-Principal Investigator (with Lucinda Sanders, University of Colorado), \$7,519,489.

LECIA J. BARKER: CURRICULUM VITAE

National Science Foundation (CISE), "Practices Aggregation, Infrastructure, and Retrieval Service for Broadening Participation in Computing (PAIRS)," 2007–2012. Principal Investigator (with Alice Agogino, University of California, Berkeley; Tracy Camp, Colorado School of Mines; Lucinda Sanders, University of Colorado), total award: \$539,517.

University of Chicago (NSF Subaward), "Pathways to Broadening Participation in TeraGrid," 2007-2009. Principal Investigator (with Scott Lathrop), \$50,027.

National Science Foundation (CISE), "BPC-A: Empowering Leadership: Computing Scholars of Tomorrow," 2007-2010. Co-Principal Investigator (with Richard Tapia, Rice University; Ruzena Bajcsy, University of California Berkeley; Roscoe Giles, Boston University; Cynthia Lanius; Phoebe Lenear, University of Illinois), \$2,024,000.

National Science Foundation (CISE), "BPC-A: Alliance between Historically Black Universities and Research Universities for Collaborative Education and Research in Computing Disciplines," 2006-2011. Co-Principal Investigator (with Clayton Lewis, University of Colorado; Gerry Dozier, North Carolina A&T University; George Harrison, Norfolk State University; Maureen Biggers, Indiana University; Dennis Kafura, Virginia Tech; Mahmoud Manzoul, Jackson State University), \$2,373,627.

Computing Research Association (Subaward from NSF CNS), "Evaluation of Collaborative Research Experiences for Undergraduates and Distributed Mentor Program," 2006-2007. Principal Investigator, \$163,518.

National Science Foundation (EHR), "Mobilizing Implementation of Effective Practices to Increase Participation of Women in Computing," 2005-2012. Co-Principal Investigator (with Lucinda Sanders, University of Colorado; Joanne Cohoon, University of Virginia), \$2,855,758.

Auburn University (Subaward from NSF CNS), "Scholars of the Future: An Implementation Model for Increasing Diversity in Information Technology," 2006-2008. Principal Investigator \$50,000.

National Science Foundation (CISE), "National Center for Women and Information Technology," 2004-2011. Senior Personnel (with Robert Schnabel, Indiana University; Lucinda Sanders and Deborah Keyek-Franssen, University of Colorado; Telle Whitney, Anita Borg Institute; Debra Richardson, University of California Irvine; Alice Agogino, University of California Berkeley; Janice Cuny, Computing Research Association; John White, ACM; Ruthe Farmer, Girl Scouts of the USA; Joanne Cohoon, University of Virginia; Mary Jean Harrold, Georgia Institute of Technology), \$4,127,031.

University Corporation of Atmospheric Research (NSF subcontract), "Digital Water Education Library Teacher Research," 2004-2005. Principal Investigator, \$67,483.

University Corporation of Atmospheric Research (NSF subcontract), "Global Learning and Observations to Benefit the Environment Train-the-Trainer Workshop Evaluation," 2004-2005. Principal Investigator, \$17,511.

National Science Foundation (GEO), "Establishing an Evaluation Service Center for the Digital Library for Earth System Education," 2003-2005. Co-Principal Investigator (with Susan Buhr, University of Colorado and Thomas Reeves, University of Georgia), \$724,768.

National Science Foundation (CNS), "Mainstreaming Cybersecurity Research and Practice into Undergraduate Education," 2003-2008. Co-Principal Investigator (with Shivakant Mishra, University of Colorado), \$539,999.

## LECIA J. BARKER: CURRICULUM VITAE

National Science Foundation (CISE), "Research on Recruiting Middle School Minority and Majority Girls into a High School IT Magnet," 2002-2007. Principal Investigator (with Kathy Garvin-Doxas, University of Colorado), \$424,750.

National Institutes of Health, Health and Human Services, and National Institute of Child Health and Human Development (Inter-Agency Educational Research Initiative), "Helping Disadvantaged Students Succeed by Improving Foundational Language and Reading Skills," 2002-2004. Co-Principal Investigator (with Ronald Cole, University of Colorado) \$1,005,023.

Carnegie Corporation of New York, "Enhancing Liberal Arts Education in a Technological Age through Collaboration of Diverse Universities" (Demonstration and Renewal grants), 2002-2004. Senior Personnel (with Robert Schnabel, University of Colorado; Elfred Pinkard, Dillard University), \$1,000,000.

Avaya Corporation, "CU/Avaya Speech Collaboration," 2002-2004. Co-PI (with Ronald Cole, Bryan Pellom, Michele Jackson, University of Colorado), \$6,000\* (total award: \$200,000)

National Science Foundation (GEO), "Establishing a Digital Library for Earth System Education Evaluation (DLESE) Toolkit and Community," (2001-2006). Co-PI (with Susan Buhr, University of Colorado), \$175,372.

National Science Foundation (CNS), "ITR: Research, Curriculum, and Partnerships for Broadening the Information Technology Pipeline," 2000-2004. Senior Personnel (with Robert Schnabel), \$454,655.

National Science Foundation (CISE), "Attracting and Retaining Women in Information Technology Programs: A Comparative Study of Three Programmatic Approaches," 2000-2003. Co-Principal Investigator (with Robert Schnabel, Diane Sieber, Elaine Seymour, and Clayton Lewis, University of Colorado), \$715,321.

University Corporation for Atmospheric Research (Subaward from NSF GEO), "Web Weather for Kids," 2000-2001. Principal Investigator, \$6,416.

National Science Foundation (CNS), "An Interactive Curriculum in Human Language Technology for Undergraduate and Graduate Education and Research," 1999-2001. Co-Principal Investigator (with Ronald Cole, University of Colorado Center for Spoken Language Research), \$400,000.

National Library of Medicine (Biomedical Applications of the Next Generation Internet), "Network 3D Visible Human Anatomy," 1999-2002. Co-PI (with Vic Spitzer, University of Colorado Denver), \$371,367.

U.S. Department of Education (Preparing Tomorrow's Teachers to Use Technology), "Technology as Everyday Teaching Practice," 1999-2000. Senior Personnel (with Marc Swadener, University of Colorado), \$90,700.

## EVALUATION STUDIES

Empowering Leadership Alliance: Computing Scholars of Tomorrow, with Rice University, Boston University, and University of California, Berkeley (2007-2012)

Computing Alliance for Hispanic-Serving Institutions, with University of Texas-El Paso, University of Puerto Rico-Mayagüez, New Mexico State University, and University of Houston-Downtown (2007-2008)

Scholars of the Future, with Auburn University and Virginia Polytechnic University (2006-2007)

## LECIA J. BARKER: CURRICULUM VITAE

Collaborative Research Experiences for Undergraduates and Distributed Mentoring Project, with Computing Research Association (2006-2007)

Rice-Houston Alliance for Graduate Education in the Professoriate, with Rice University and University of Houston (2005-2011)

Alliance between Historically Black Universities and Research Universities for Collaborative Education and Research in Computing Disciplines, with North Carolina A&T University, Virginia Polytechnic University, Jackson State University, and Georgia Institute of Technology (2005-2011)

Grace Hopper Celebration of Women in Computing Conference, with Anita Borg Institute (2004, 2006)

GLOBE Trainer Certification Workshop, with University Corporation of Atmospheric Research (2004)

Digital Library for Earth System Education, with University Corporation of Atmospheric Research (and many other collaborators) (2003-2005)

Enhancing Liberal Arts Education in a Technological Age through Collaboration of Diverse Universities, with University of Colorado and Dillard University (2002-2005)

Cybersecurity Undergraduate Program and Research Experience for Undergraduates, with University of Colorado Department of Computer Science (2002)

Visiting Scientist Programs for Minority Institutions and Small Colleges, with University of Houston-Downtown (2002)

Richard Tapia Celebration of Diversity in Computing, with Coalition to Diversify Computing (2001, 2003, 2007, 2009)

Web Weather for Kids, with University Corporation for Atmospheric Research (2000-2002)

Portable, Multi-Disciplinary Curriculum for Human Language Technologies, with University of Colorado Center for Spoken Language Research (1999-2001)

Creating Conversational Agents for Language Training, with Tucker-Maxon Oral Deaf School and Center for Spoken Language Understanding (1999-2001)

Preparing Tomorrow's Teachers to Use Technology, with University of Colorado School of Education (1999-2003)

Foreign Languages at a Distance: The Next Step in Interactive Learning, with University of Colorado Anderson Language Technology Center (1998-2000)

## AWARDS

University of Colorado President's Diversity Award, 2017

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award, 2015, IEEE Computer Society, ASEE Educational Research and Methods Division

Society for Information Technology and Teacher Education Conference, 2010, Outstanding poster award

## SERVICE

### Service to Profession

#### Advisory Boards, Committees, Review Panels

2019-2023 Experiences that Shape Undergraduate Computing: An Equity-Focused Longitudinal Study at Center for Inclusive Computing (CIC) Institutions, Momentum Research Group, UCLA School of Education & Information Studies

2019-2022 Advisory Board Chair: Researching Pre-College Factors that Lead to Persistence in Computer Science, Science Education Department, Harvard-Smithsonian Center for Astrophysics

2020-2022 Catalyze Tech Academic and Industry Think Tank, and Key Partners, led by Snap, Inc.

2004-2022 Founding outside member, Human Subjects Committee, University Corporation for Atmospheric Research

2021 Computing Innovation Fellows 2021 Reviewer  
NSF Proposal Review

2016-2018 ACM Education Committee on Retention of Women and Underrepresented Minorities in Postsecondary Computer Science and Data Subcommittee

2016-2017 Bootcamp Research Advisory Board, ETR Associates

2015-2017 Education Advisory Council, CSNYC

2014-2016 Advisory Board, Harvard University Science Education Department, Harvard-Smithsonian Center for Astrophysics. "Factors Influencing College Success in Information Technology" research

2013-2014 Steering Committee, PACE Workshop on Computing Education Research

2013-2016 Advisory Panel, The College Board. Advanced Placement Computer Science Principles Test Development

2013-2016 Advisory Committee, Harvey Mudd College, "Computer Science Pedagogical Content Knowledge" project

2012-2016 Advisory Board, Georgia Institute of Technology, University of Massachusetts Amherst, "Expanding Computing Education Pathways" project

2010-2015 Chair, Partnership for Advancing Computing Education, A cross-society initiative to support communication and collaboration between academic and professional societies invested in computing education. (Members: ACM, IEEE Computer Society, Association for Information Systems, NCWIT)

2008-2016 Associate Editor, ACM Transactions on Computing Education Editorial Board

2011 Judge, Colombian Award for Educational Informatics, Riohacha, Colombia

2010-2013 Advisory Board, ETR Associates and University of California, Santa Cruz, "Students' Pathways into Computer and Information Sciences Majors: A Study of Community College Men and Women" research

## LECIA J. BARKER: CURRICULUM VITAE

2010-2011 Advisory Board, Leah Buechley, MIT, "A Cultural Shift in Computer Science: Introducing Computation through E-Textiles" research

2010-2011 Cyberlearning and Workforce Development Task Force, National Science Foundation Advisory Committee on Cyberinfrastructure

2010 Board of Directors, Commission on Professionals in Science and Technology (now defunct)

2008-2009 Indicators/Metrics Development Team, National Science Foundation Broadening Participation in Computing Evaluation

2015, 2011, 2003, 2001 Review Panelist, National Science Foundation

### Conference Committees

ACM SIGCSE Innovation and Technology in Computer Science Education Proceedings Chair, 2021-2022 (co-chair), 2023-2024 (chair)

ACM SIGCSE Technical Symposium, Associate Program Chair, 2021

Joint Conference for Digital Libraries, Program Committee, Austin, TX, 2009; Denver, CO, 2005

11<sup>th</sup> and 12<sup>th</sup> International Conferences on Human-Computer Interaction/1<sup>st</sup> and 2<sup>nd</sup> International Conference on Online Communities & Social Computing, Program Committee, 2005 and 2007

Teaching with Technology Conference, Planning Committee, University of Colorado, Boulder, CO 2001 and 2002

EDUCAUSE National Learning Infrastructure Initiative Assessment, Focus Session Development Committee, 2001-2002

### Manuscript Referee

*Journal of Language and Social Psychology* (1 article) MIT Press (3 books)

*Social Sciences* (1 article) *Women's Studies in Communication* (3 articles)

*ACM SIGCHI* (1 article) *Computer Science Education* (4 articles)

*ACM SIGCSE* (15 articles) *Information Systems Journal* (1 article)

*ACM Transactions on Computing Education* (25 articles) *Journal of Learning Sciences* (1 article)

*Review of Educational Research* (4 literature reviews) *Frontiers* (1 article)

*Research on Language and Social Interaction* (1 article)

### University Service

University of Colorado at Large and CMCI

2021-2023 CMCI Personnel Committee

2023-2024 Chair, CMCI Faculty Council

2016-2022 CMCI Associate Chairs Committee

2021 CMCI 1040 Planning Committee

2019 CMCI Faculty Council

2018-2019, 2021 CMCI Diversity Advisory Board / Committee

2018-2019 CMCI Deans Budget Committee

LECIA J. BARKER: CURRICULUM VITAE

2017	Academic Technology Advisory Committee
2017-2018	Foundations of Excellence Faculty Committee
2016-2017	CMCI Undergraduate Curriculum Committee
2016-2017	Learning Management System Advisory Committee
2005-2008	Boulder Faculty Assembly Diversity Committee
2002-2003	Mentor, Research Experiences for Undergraduates
2000-2001	Educational Technology Strategic Planning Committee
1999	Professional Development Committee, CU Women's Network
1991	Graduate Peer, Student Minority Access to Research and Training Program

Department of Information Science, University of Colorado

2016-2022	Associate Chair of Undergraduate Studies
2022	Member, Undergraduate Committee
2020-2022	Member, Executive Committee
2018-2022	Faculty Liaison, INFO Buffs (undergraduate club)
2016-2022	Chair, Department of Information Science Undergraduate Curriculum Committee
2021	Member, search committee for faculty position
2020-present	Mentor, Instructors
2019-2021	PUEC chair for two assistant professors, PUEC member for five assistant professors, reappointment; PUEC member for three assistant professors, tenure
2020-2021	Merit Review Committee
2018-2020	Member, Executive and Bylaws Revision Committee

University-wide Service, University of Texas at Austin

2015-2016	Council for Racial and Ethnic Equity and Diversity (CREED), Chair of the Institutionalization Subcommittee
2014-2015	Faculty Diversity Council Working Group, Faculty Recruitment, Retention, and Mentoring Design Team
2013-2014	University Gender Equity Council
2013-2014	Council on the Status of Women Faculty
2011-2012	Course Transformation Program, Assessment and Research Group and Faculty Adoption Research Group

School of Information Science, University of Texas at Austin

2015-2016	Curriculum Committee
2014-2015	Research Environment Committee
2013-2014	Awards and Admissions Committee
2012-2013	Research Environment Committee
2012-2013	Chair, IT Committee
2010-2012	IT Committee
2011-2012	Professional Development Committee
2008-2011	Curriculum Committee

## LECIA J. BARKER: CURRICULUM VITAE

2008-2009 Development and Outreach Committee  
2008-2009 IT Services Needs Assessment Group

## TEACHING

### Research Supervision

#### Postdoctoral Supervisor

Christopher Lynnly Hovey 2018-2022

#### PhD Students Primary Advisor

Noah Cowit, Information Science Estimated 2025

Megan Englert, information Science Estimated 2028

Brittany Kos, ATLAS Graduated 2019

Christopher Lynnly Hovey, Sociology, Northeastern University Graduated 2017

Tanya Rabourn, School of Information, University of Texas at Austin 2010-2016

Nida Kazim, School of Information, University of Texas at Austin 2013-2016

Jennifer Noble, School of Information, University of Texas at Austin 2012-2015

Mattias Wiggberg, Computer Science Education, Uppsala University, Sweden, Co-Supervised with Mats Daniels Graduated 2010

#### PhD Student Committees (University of Colorado Boulder)

Alexis DeConing Media Studies (Preliminary exam; Comprehensive exam; Dissertation)

Graduated 2022

Brianna Dym Information Science (Preliminary exam; Comprehensive exam; Dissertation)

Graduated 2022

Madelyn Zander Information Science 2019-2021

Rick Parker Institute of Cognitive Science (Dissertation) Graduated 2019

Anthony Pinter Information Science (Preliminary exam) Graduated 2019

Eunyoung Moon School of Information, University of Texas at Austin (Dissertation) Graduated 2014

Leah Buechley Computer Science (Comprehensive exam; Dissertation) Graduated 2007

Jeffrey Hovermill College of Education (Comprehensive exam; Dissertation) Graduated 2003

#### PhD Student Committees (Other Universities)

Elizabeth Patitsas Computer Science, University of Toronto (Dissertation) Graduated 2018

Melissa Ocepek School of Information, University of Texas at Austin (Preliminary exam) Graduated 2015

Jeanine Finn, School of Information, University of Texas at Austin (Proposal; Dissertation) Graduated 2016

Jane Gruning, School of Information, University of Texas at Austin, 2016 (Proposal; Dissertation) Graduated 2016

Christopher McConnell, Radio, TV, Film, University of Texas at Austin (Dissertation) Graduated 2014

#### Master's Students Primary Advisor

Jayla Harding, Information Science Estimated 2025

## LECIA J. BARKER: CURRICULUM VITAE

Alyx Carifa, Information Science Estimated 2025

Clark Mousaw, Information Science Graduated 2022

Jamie Swim, School of Information, University of Texas at Austin Graduated 2011

### Master's Committees

Rucha Despande, Computer Science, University of Houston Graduated 2013

Anshul Verma, Computer Science, University of Houston Graduated 2010

Tayfun Tuna, Computer Science, University of Houston Graduated 2010

### Graduate Independent Studies

Hande Batan, Information Science (PhD) 2022

Alexis DeConing, Media Studies (PhD) 2018

Aysa Gursoy, School of Information, University of Texas at Austin (PhD) 2014

Laura Bechtel, School of Information, University of Texas at Austin (MSIS) 2010

Angela Wacker, School of Information, University of Texas at Austin (MSIS) 2010

Jun Qian, School of Information, University of Texas at Austin (MSIS) 2010

### Undergraduate Honors

Baelee Winkle, Summa Cum Laude (Chair) Graduated 2022

Chenke (Alex) Bai, Cum Laude (Committee member) Graduated 2022

Clark Mousaw, Summa Cum Laude (Chair) Graduated 2021

Hannah Weber, Summa Cum Laude (Chair) Graduated 2020

Marissa Kelley, Cum Laude (Committee member) Graduated 2020

Sofia Rubio Topete, Cum Laude (Committee member) Graduated 2020

Kexin Zhai, Cum Laude, (Committee member) Graduated 2020

Jacob Paul, Summa Cum Laude (Chair) Graduated 2019

### Undergraduate Researchers

Mayce Miller 2021-2023

Josephine Mahoney 2023

Jaden Castle 2023

Alyssa Byrne 2022

Julia Sharkowicz 2023

Shubham Sharma 2022

Lalita Suwattee 2023

Mia Kilkenny 2021-2022

Luis Ortega de Araujo 2023

Mayce Miller 2021-2022

Carmen Palmblad 2023

Colleen Thompson 2021-2022

Robert Harrell 2022-2023

Vaughan Nagy 2019-2021

Sidney Lentz 2022-2023

### Undergraduate Independent Studies

Bailey Gimpel 2023

Taylor Lawrence 2018

Harold Chang 2020

### **Formal Courses Taught**

#### University of Colorado

INFO 1301 Statistics for Information Science (Fall 2021, Spring 2022, Fall 2022)

INFO 2001/4001 Portfolios and Professional Development (Fall 2016, 2017, 2018, 2019, 2022)

Honors Course (Overload; Met weekly Fall 2018, Fall & Spring 2019-2022)

LECIA J. BARKER: CURRICULUM VITAE

INFO 4603/5603 Survey Research Design (Spring 2017, Spring 2021, Fall 2023) *resulted in 7 publications*

INFO 1010/1020 Concepts and Creativity: Information Module (Spring 2017, Fall 2019, Fall 2020)

INFO 2131 Information Ecosystems (Fall 2018, 2019)

INFO 4700 Senior Capstone (Spring 2018)

INFO 6500 Doctoral Seminar (Fall 2017, Spring 2018)

INFO 3502/5502 Investigations in Information Science: Online Communities (Fall 2017)

INFO 6201 Interdisciplinary Ways of Knowing (Fall 2016, 2017)

University of Texas at Austin

INF 380C Information in Social and Cultural Contexts (Spring 2016)

INF 391F Survey Research Design (Spring 2014) *resulted in 4 publications*

INF 397C Understanding Research (Spring 2009, 2010, 2012, 2013; Fall 2015; Summer 2012, 2016)

INF 391D The Research Enterprise (Fall 2013, 2014)

INF 383E Interpreting Implicit Information on the Web (Fall 2011)

INF 387C Managing Information Organizations (Fall 2010, Spring 2011)

INF 387E Evaluating Information Programs (Fall 2009)

Guest Lectures

Framing Classroom Climate INFO 7000 (Fall 2022, Fall 2023)

What is Information Science? CMCI 2030 (Fall 2022)

Interrupting Bias Information Science TA Orientation (Fall 2016, 2017, 2019, 2023)

Power and Effect Size INFO 3402 (Spring 2018)

Survey Research INFO 1111 (Fall 2016, 2017, 2018)