Benjamin Rydal Shapiro

Assistant Professor of Learning Technologies

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AREAS OF SPECIALIZATION

Learning Sciences, Computer and Data Science Education, Information Visualization, Human-Computer Interaction (HCI), Design Methods

EDUCATION

Ph.D. in Learning Sciences, 2018

Vanderbilt University's Peabody College of Education Committee: Rogers Hall (chair), D. Owens, A. Hostetler, D. Fisher, L. Schauble, D. Rowe Dissertation: *Interaction Geography & the Learning Sciences*

M.Ed. in International Education Policy, 2013

Vanderbilt University's Peabody College of Education Practicum at University of Melbourne's School of Architecture in Melbourne, Australia

B.A. in Architectural Study, 2009

Middlebury College Architecture Program at Danish Institute for Study Abroad in Copenhagen, Denmark

PROFESSIONAL EXPERIENCE

Assistant Professor of Learning Technologies, Georgia State University	2020-present
Associate Director, Snap Inc. Center for Computer and Teacher Education	2022-present
Adjunct Assistant Professor, School of Interactive Computing, Georgia Tech	2020-present
Postdoctoral Fellow, School of Interactive Computing, Georgia Tech	2018-2020
Research Assistant, Space, Learning & Mobility Lab, Vanderbilt University	2013-2018
Research Fellow, Center for the Study of Race & Equity in Education, University of Pennsylvania	2014

Awards and Honors

Journal of the Learning Sciences Reviewer of the Year, 2022

Public Interest Technology University Network (PITUN) Fellow (\$5,000), 2020 Georgia Tech Recognition of Excellence in Teaching Class of 1934 Award (\$1,000), 2019 CSCL Conference Early Career Workshop Travel Grant Award, 2019 SIGCSE Travel Grant Award, 2019 Best Design Paper, Computer-Supported Collaborative Learning (CSCL) Conference, 2017 3rd place ACM CHI student research competition, (CHI '17). ACM, Denver, CO, 2017 1st place digital innovation by graduate student, Vanderbilt Institute for Digital Learning, 2018 1st place Wild Bunch Data Visualization Competition, Vanderbilt University, 2018 Humanities, Arts, Science, and Technology Alliance and Collaboratory Scholar, 2017 Peabody Dean's Fellowship, Vanderbilt University, 2013

SCHOLARSHIP AND PROFESSIONAL DEVELOPMENT

Funding

External Grant Awards

Bill & Melinda Gates Foundation

- Title: *Tools Competition for Research Tools 2022*
- Other personnel: McCarthy, K. (PI)
- Position: Co-Principal Investigator
- Project dates: 2022 2024
- Budget: \$1,250,000

NSF:DRK-12

- Title: Teaching Amidst Uncertainty (Project TAU): Developing Mathematics Teachers' Groupwork Monitoring Practices (#2100784)
- Other personnel: Horn, L. (PI), Garner, B. (Co-PI), Yong, Darryl (Co-PI)
- Position: Co-Principal Investigator
- Project dates: 2021 2025
- Budget: \$2,644,923

Schmidt Futures/Walton Family Foundation

- Title: The Open Data for Assessment Fund
- Other personnel: Crossley, S. (PI), McCarthy, K. (Co-PI)
- Position: Co-Principal Investigator
- Project dates: 2021 2023
- Budget: \$1,000,000

NSF:SCC-IRG Track 2

- Title: *DataWorks: Building Smart Community Capacity* (#1951818)
- Other personnel: DiSalvo, B. (PI), DiSalvo, C. (Co-PI)
- Position: Co-Principal Investigator

- Project dates: October 2020 November 2023
- Budget: \$1,499,861

Mozilla Foundation

- Title: Mozilla Responsible Computer Science Challenge
- Other personnel: Zegura, E. (PI), Borenstein, J. (Co-PI)
- Position: Co-Principal Investigator
- Project dates: October January 2021 December 2021
- Budget: \$50,000

Internal Grant Awards

Kendeda Foundation - Living Building Challenge Grant

- Title: *Re-Shape: A Method to Teach Data Ethics for Data Science Education*
- Other personnel: Amanda Meng (PI)
- Position: Principal Investigator
- Project dates: October May 2019 May 2020
- Budget: \$10,000

Publications

Refereed Journal Articles

Numbering system: J# = Journal article

Italics indicate student author

- [J7] Shapiro, B.R., & Silvis, D. (Accepted). Animated Movements, Animating Methods: An Interaction Geography Approach to Space and Affect in Early Childhood Education. *Journal of Early Childhood Literacy*.
- [J6] Berson, I.R., Berson, M.J., McKinnon, C., Aradhya, D. Alyaeesh, M. Luo, W., & Shapiro, B.R. An exploration of robot programming as a foundation for spatial reasoning and computational thinking in preschoolers' guided play. *Early Childhood Research Quarterly*, 65, 57-67.
- [J5] Shapiro, B.R., Meng, A., Rothschild, A., Gilliam, S., Garrett, C., DiSalvo, C., & DiSalvo, B. (2022). "Bettering Data": The Role of Everyday Language and Visualization in Critical Novice Data Work. *Journal of Education, Technology & Society, 25*(4), 109-125.
- [J4] Shapiro, B.R., & Garner, B. (2021). Classroom Interaction Geography: Visualizing Space & Time in Classroom Interaction. *Journal of Research on Technology in Education*, 54(5), 769-783.
- [J3] Marin, A., Headrick-Taylor, K., Shapiro, B.R., & Hall, R. (2020). Why Learning on the Move: Intersecting Research Pathways for Mobility, Learning and Teaching, Special Issue in *Cognition and Instruction*, 38(3), 265-280.
- [J2] Hall, R., Shapiro, B. R., Hostetler, A., Collins, H., Owens, D., Daw, C., & Fisher, D. (2020). Here and then: Learning by making places with digital spatial story lines. *Cognition & Instruction*, 38(3), 348-373.

[J1] Shapiro, B.R., Hall, R. and Owens, D. (2017). Developing & Using Interaction Geography in a Museum. *International Journal of Computer-Supported Collaborative Learning*, 12(4), 377-399.

Highly Competitive Conference Proceedings

Number system: P# = Conference proceeding

* Journal equivalent proceeding with acceptance rate below 22%

- Garner, B., Metts, E., Shapiro, B. R., Williams, A., & Jasien, L. (2023). Designing Classroom Space as an Extension of Pedagogical Judgment: A Case Study. International Society of Learning Sciences annual meeting. Montréal, Quebec, Canada.
- Gilliam, S., Williams, A., Shapiro, B.R., Garner, B., Metts, E., & Jasien, L. (2023). Incorporating Space and Movement into Teachers' Video-Based Reflective Practice: An Interaction Geography Perspective. American Educational Research Association annual meeting. Chicago, IL.
- * [P24] Zegura, C., Shapiro, B.R., MacDonald, R., Borenstein, J., and Zegura, E. (2023).
 "Moment to Moment": A Situated View of Teaching Ethics from the Perspective of Computing Ethics Teaching Assistants. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23)*, April 23–28, 2023, Hamburg, Germany. ACM, New York, NY, USA, 15 pages. https://doi.org/10.1145/3544548.3581572
- [P23] MacDonald, R., Zegura, C., Shapiro, B.R., Borenstein, J., and Zegura, E. (2023). Developing Community Support for Computing Ethics Teaching Assistants. In *Proceedings of the 54th ACM Technical Symposium on Computer Science Education V. 1* (SIGCSE 2023), March 15–18, 2023, Toronto, ON, Canada. ACM, New York, NY, USA, 7 pages. https://doi.org/10.1145/3545945.3569844
- * [P22] Rothschild, A., Meng, A., DiSalvo, C., Johnson, B., Shapiro, B.R. and DiSalvo, B. (2022). Interrogating Data Work as a Community of Practice. In *Proceedings of the ACM on Human-Computer Interaction*, Vol. 6, CSCW2, Article 307 (November 2022). 29 pages.
- [P21] Mathur, A. & Shapiro, B.R. (2022). Interactive Transcription Techniques for Interaction Analysis. In Proceedings of the 16thInternational Conference of the Learning Sciences (ICLS). International Society of the Learning Sciences, pg. 19-26. Hiroshima, Japan: International Society of the Learning Sciences.
- [P20] Tissenbaum, M., Lindgren, R. et al. (2022). Learning at the Intersection of Physical Spaces and Technology. Symposium. In *Proceedings of the 16thInternational Conference of the Learning Sciences (ICLS)*. International Society of the Learning Sciences(Vol. 4, pg. 1823-1830).. Hiroshima, Japan: International Society of the Learning Sciences.
- [P19] Rothschild, A., Booker, J., Davoll, C. Hill, J., Ivey, V., DiSalvo, C., Shapiro, B.R., and DiSalvo, B. (2022). Towards fair and pro-social employment of digital pieceworkers for sourcing machine learning training data. In *CHI Conference on Human Factors in Computing Systems Extended Abstracts* (CHI EA '22). Association for Computing Machinery, New York, NY, USA, Article 2, 1–9.

- * [P18] Johnson, B., Shapiro, B.R., DiSalvo, B., Rothschild, A., DiSalvo, C. (2021). Exploring Approaches to Data Literacy through a Critical Race Theory Perspective. In *Proceedings* of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). May 08–13, 2021, Yokohama, Japan. ACM, New York, NY, USA, 25 pages. [Honorable Mention Award]
- * [P17] Margulieux, L. E., Denny, P., Cunningham, K., Deutsch, M., & Shapiro, B.R. (2021). When wrong is right: The instructional power of multiple conceptions. In *Proceedings of* the Seventeenth Annual Conference on International Computing Education Research. New York, NY: ACM. DOI: 10.1145/3446871.3469750
- [P16] Shapiro, B.R., Lovegall, E., Meng, A., Borenstein, J., & Zegura, E. (2021). Using Role-Play to Scale the Integration of Ethics across the Computer Science Curriculum. In The 52nd ACM Technical Symposium on Computer Science Education (SIGCSE'21), March 13-20, 2021, Virtual Event, USA. ACM, New York, NY, USA, 7 pages. https://doi.org/10.1145/1234567890
- * [P15] Shapiro, B.R., Meng, A., O'Donnell, C., Lou, C., Zhao, E., Dankwa., B., Hostetler, A. (2020). Re-Shape: A Method to Teach Data Ethics for Data Science Education. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems* (CHI '20). ACM, Honolulu, HI, USA, Paper 124.
- [P14] Shapiro, B.R., Garner, B., Chae, H.S., Natriello, G. (2020). Classroom Interaction Geography: A Case Study. In *Proceedings of the 14thInternational Conference of the Learning Sciences (ICLS)*. International Society of the Learning Sciences, (Vol. 4, pg. 1823-1830). Nashville, Tennessee: International Society of the Learning Sciences.
- [P13] Jung, Y. J., Dudek, J., Yan, S., Borge, M., Kim, S. H., Liao, J., Shapiro, B.R., & Zimmerman, H. T. (2020). Visualizing Qualitative Data: Creative Approaches for Analyzing and Demonstrating Lively Data from Diverse Learning Settings. In *Proceedings of the 14th International Conference of the Learning Sciences (ICLS) 2020*, Volume 1 (pp. 438-445). Nashville, Tennessee: International Society of the Learning Sciences.
- [P12] D'Angelo, C., DeLiema, D., Marin, A., Shapiro, B.R., and Worsley, M. (2020). Multimodal Learning Analytics and Interaction Analysis: Connections, Tensions and New Directions. In *Proceedings of the 14thInternational Conference of the Learning Sciences (ICLS)*. International Society of the Learning Sciences, (Vol. 5, pg. 2661-2664). International Society of the Learning Sciences.
- [P11] Shapiro, B.R. (2019). Integrative Visualization: Exploring Data Collected in Collaborative Learning Contexts. In Proceedings of the 13th International Conference for Computer Supported Collaborative Learning, (Vol. 1, pg. 184-191). International Society of the Learning Sciences.
- [P10] Steier, R., Shapiro, B.R., Christidou, D., Pierroux, P., Davidsen, J., and Hall, R. (2019). Tools and Methods for '4E Analysis': New lenses for analyzing interaction in CSCL. Symposium. In *Proceedings of the 13th International Conference for Computer Supported Collaborative Learning*, (Vol. 2, pg. 759-766). International Society of the Learning Sciences.

- [P9] Chapman, K. and Shapiro, B.R. (2019). Lines We Trace: Comparing Data Displays to Support Youth Sailing. In *Proceedings of the 13th International Conference for Computer Supported Collaborative Learning*, (Vol. 2, pg. 1009-1012). Lyon, France: International Society of the Learning Sciences.
- * [P8] Shapiro, B.R. and Hall, R. (2018). Personal Curation in a Museum. In Proceedings of the ACM on Human-Computer Interaction, Vol. 2, CSCW, Article 158 (November 2018). ACM, New York, NY.
- * [P7] Solomon, A., Guzdial, M., DiSalvo, B., and Shapiro, B.R. (2018). Applying a Gesture Taxonomy to Introductory Computing Concepts. In *Proceedings of the 2018 ACM Conference on International Computing Education Research* (ICER '18). ACM, New York, NY, USA, 250-257.
- [P6] Shapiro, B.R., and Hall, R. (2017). Making Engagement Visible: The Use of Mondrian Transcripts in a Museum. In *Proceedings of the 12th International Conference for Computer Supported Collaborative Learning*, (Vol. 1, pp. 33-40). Philadelphia, PA: International Society of the Learning Sciences.
 [Award for Best Design Paper]
- [P5] Shapiro, B.R. and Pearman II, Francis A. (2017). Using the Interaction Geography Slicer to Visualize New York City Stop & Frisk. In *Proceedings of the IEEE VIS 2017 Arts Program*, VISAP'17. Phoenix, AZ.
- [P4] Shapiro, B.R. (2017). Using Space Time Visualization in Learning Environment Design. In Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '17). ACM, Denver, CO, USA. 178-183.
 [Award for 3rd place in ACM CHI Student Research Competition]
- [P3] Shapiro, B.R., and Hall, R. (2017). Interaction Geography in a Museum. In Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '17). ACM, Denver, CO, USA. 2076-2083.
- [P2] Shapiro, B.R. (2017). Exploring the use of Interaction Geography in Post-Occupancy Evaluation. In *Proceedings of the 2nd annual Transitions Symposium*. The University of Melbourne's Innovative Learning Environments and Teacher Change Project, 2016-2019. Melbourne School of Design, University of Melbourne.
- [P1] Shapiro, B.R., and Hall, R. (2015). Engagement within Interest Driven Learning Environments. In *Proceedings of the 1st annual Terrains Symposium*, Mapping learning environment evaluation across the design and education landscape: Towards the evidence-based design of educational facilities (pp. 80-86). Melbourne School of Design, University of Melbourne.

Book Chapters Published in Edited Books

- C# = Book chapter
- [C3] Hall, R., Shapiro, B.R., and the SLaM Lab (2021). Back in the day: A Walking Tour of Historic Jefferson Street. To appear in Thurber, A (Eds.), *The People's Guide to Nashville*.

- [C2] Shapiro B.R. (2021) What About Interaction Geography to Evaluate Physical Learning Spaces?. In: Imms W., Kvan T. (eds) *Teacher Transition into Innovative Learning Environments. Springer, Singapore*. https://doi.org/10.1007/978-981-15-7497-9 14
- [C1] Harris, A.H., Shapiro, B.R., & Garwood, J.D. (2015). Space: Elementary and Secondary Classrooms. In Scarlett, W.G. (Ed.) Classroom Management: An A-Z Guide. Thousand Oaks, CA: Sage Publications.

Presentations

Invited Talks

- Shapiro, B.R., Gilliam, S., Metts, L., Garner, B., Yong, D., & Horn, L. (2022). Visually Exploring Teachers Use of Space in the Classroom. Presentation for Mathematics for America, Los Angeles.
- Shapiro, B.R. (2022). Expanding Interaction Geography in Museum Studies. Presentation for the Learning Informatics Lab and Science Museum of Minnesota at the University of Minnesota. <u>https://www.youtube.com/watch?v=LEpfK1wX6zg</u>
- Ouellet, M. and Shapiro, B.R. (2021). Bridging Network Science and Space-Time Visualization to Study Crime and Support Police-Community Relations. Digital Landscape Initiative Research Symposium at Georgia State University.
- Shapiro, B.R. (2020). Current State of the Art in Location-Based Data Technologies in Museums& Visitor Studies. Virtual presentation for Visitor Studies Association.
- Shapiro, B.R. (2020). Developing Innovative & Responsible Computer Science Education at Georgia Tech. Keynote presentation for Atlanta Science Festival STEAM at Tech Day sponsored by CEISMC, Georgia Tech.
- Shapiro, B.R. (2020). Integrating Data Science into K-12 Curricula. Presentation for Atlanta Science Festival STEAM at Tech Day sponsored by CEISMC, Georgia Tech.
- Shapiro, B.R. (2019). Leveraging Personal Data to Cultivate Care in Computing Education. Presentation for Data Science in the Classroom Symposium sponsored by the Data Science Institute at Teachers College, Columbia University.
- Shapiro, B.R. (2019). Data Visualization for Learning Spaces. Presentation at The EdLab, Teachers College Columbia University.
- Shapiro, B.R. (2019). Information Visualization: Ethical & Contextual Dimensions. Invited talk for Civic Data Science Program at Georgia Tech.
- Shapiro, B.R. (2019). Ethical Dimensions of Information Visualization. Invited talk for Dr. Ron Arkin's CS 4001 course at Georgia Tech.
- Shapiro, B.R. (2018). Interaction Geography & the Learning Sciences. Presentation at The EdLab, Teachers College Columbia University.
- Shapiro, B.R. (2018). Personal Curation in a Museum. Presentation at Symposium for Cultural Heritage at Scale: Crowd-Sourcing with a Human Face. Vanderbilt University.

- Hall, R., Shapiro, B. R. & SLaM Lab (2018). Here and then: Learning by making places with digital spatial story lines. Invited talk in Learning Sciences, University of Washington, Seattle.
- Hall, R. Y Shapiro, B.R. (2017). Learning on the move and interaction geography in and out of museums. Invited talk in the Learning in Informal Settings seminar series, University of Colorado, Boulder.
- Shapiro, B.R. (2015). Mondrian Transcripts of Engagement. Presentation at the Public Scholars Symposium. The Curb Center, Vanderbilt University. Nashville, TN.
- Shapiro, B.R. (2014). Bridging Spaces for Learning. Presentation at TEDx Furman University. Greenville, South Carolina. Link: <u>www.youtube.com/watch?v=hF9oWbR4HPo&t=78s</u>

Workshops and Panels

- Shapiro, B.R. (2021). Panel Presentation on Interdisciplinary Collaboration When Teaching Computer Ethics. The Mozilla Foundation's Teaching Responsible Computing Summit.
- Borenstein J., Shapiro, B.R., Bittle, J., & Zegura, E. Integrating Ethics and Responsible Computing into Courses. (2021). Workshop at Georgia Institute of Technology sponsored by ETHICx, the Mozilla Foundation and the Center for Computing and Society.

Refereed Conference Presentations

- Gilliam, S. & Shapiro, B.R. (2022). Studying Equity Oriented Classroom Contexts through an Interaction Geography Lens. Poster presented at the Annual Conference of the American Educational Research Association (AERA), San Diego, CA, April 2022.
- Zegura, E., Borenstein, J., Shapiro., B.R., Meng, A., Logevall, E. (2020). Embedding Ethics in Computer Science Classes Through Role Play. Paper presented at the Annual Conference of the Association for Practical and Professional Ethics (APPE), New York, NY, April 2018.
- Shapiro, B. R., & Hostetler, A. L. (2018). Reshape: A mobility centered learning environment for social studies teachers. Paper presented at the Annual Conference of the American Educational Research Association (AERA), New York, NY, April 2018.
- Hostetler, A. L., & Shapiro, B. (2017). All the right moves: Social studies pre-service teachers spatial thinking and mobility in the city. Research paper session for the annual meeting of the College and University Faculty Assembly (CUFA) of the National Council for Social Studies (NCSS), San Francisco, CA, November 2017.
- Hall, R., Shapiro, B.R. and the Space, Learning & Mobility Lab (2017). Bridging Learning in Urban Extended Spaces. Presentation at NSF workshop, "Building Capacity for New Genre of Learning on the Move (LoM)" at Vanderbilt University.
- Shapiro, B.R. (2017). Interaction Geography & Learning. Symposium paper at the Annual Meetings of the Jean Piaget Society, San Francisco, CA.
- Shapiro, B.R., and Hall, R. (2017) Developing & Using Mondrian Transcripts in a Museum. Symposium paper at the Annual Meetings of the Jean Piaget Society, San Francisco, CA.
- Shapiro, B.R., and Hall, R. (2016, November). Mondrian Transcripts. Presentation at Spencer Foundation workshop, "Learning how to look and listen: Building capacity for video-

based transcription and analysis in social and educational research" at Arizona State University (F. Erickson and A. Artiles).

- Shapiro, B.R., and Hall, R. (2016, April). Engagement and Personal Curation in Interest Driven Learning Environments. Symposium paper at the Annual Meetings of the American Educational Research Association, Washington, D.C.
- Shapiro, B.R., and Hall, R. (2016, April). The Micro-Geography of Engagement, Personal Curation and Learning on the Move. Symposium paper at the Annual Meetings of the American Educational Research Association, Washington, D.C.
- Shapiro, B.R., and Hall, R. (2016) How Young Children Manage Their Families as Interpretive Resources in Cultural Heritage Museums. Symposium paper at the Annual Meetings of the Jean Piaget Society, Chicago, IL.
- Shapiro, B.R. (2015). Mapping Engagement in Museum Environments. Symposium presentation, Visualizing Digital Humanities: Spatial Analysis and Representations at the annual HASTAC Conference. Michigan State University, East Lansing, MI.
- Shapiro, B.R. (2015). Engagement and Personal Curation in a Museum. Poster Presentation at Social Policy and Research in Cognition and Mathematics Education (SPaRCME). University of California, Berkeley, Berkeley, CA.
- Shapiro, B.R., and Hall, R. Assembling American Roots Music: Visitors' Micro-Curation and Engagement in Museum Gallery Spaces Presentation at Association of American Geographers Conference (AAG). Chicago, IL.
- Shapiro, B.R. (2013). The Socio-Spatial Resources Required for Online Courses. Poster presentation at the annual Coursera Partners Conference. University of Pennsylvania, Philadelphia, Pennsylvania.

TEACHING AND ADVISING

Teaching

Courses Created

Sociocultural & Design Based Foundations of Learning Sciences, LT 8130, Georgia State University

<u>Courses Taught</u> Instructional Technology in School-Based Settings, LT 7360, Georgia State University

Computer Science Concepts for Teachers, LT 7503, Georgia State University

Computer Skills for an Information Age, LT 2010, Georgia State University

Educational Technology, CS 4660/6460, Georgia Institute of Technology

Computing, Society & Professionalism, CS 4001, Georgia Institute of Technology

Information Visualization, CS4460, Georgia Institute of Technology

Massive Open Online Courses (MOOCs)

Leading Innovation in Arts and Culture (Teaching Assistant), Vanderbilt University: <u>www.coursera.org/learn/arts-culture-innovation</u>

Leading Strategic Innovation in Organizations (Teaching Assistant), Vanderbilt University: www.youtube.com/watch?v=M3hTB0S1Gts

Advising

Doctoral Students Major advisor Edwin Zhao Sierra Gilliam

Committee member

Amber Solomon, Dissertation passed March 2021. Embodiment in Computer Science Learning: How Space, Metaphor, Gesture, and Sketching Support Student Learning. Bryan Cox, Dissertation passed Spring, 2023. Kristin Hemingway Erin Anderson Tia Martin

<u>Master's Students</u> Arpit Mathur, Advisor (2019-2020) Cody O'Donnell, Advisor on thesis project that received 1st place award from Georgia Tech HCI Program (2019-2020) Charlotte Lou, Advisor, (2019)

<u>Undergraduate Students</u> Gabe DuBose (2022) Christine W. Hsieh, Advisor (2020) Bianca A. Dankwa, Advisor (2019-2020)

SERVICE

National and Professional Community

International Conference of the Learning Sciences Senior PC Member	2021-present
CityVis Workshop 2022 Program Planning Committee and PC Member	2022
Associate Chair ACM CHI, Learning, Education and Families sub-committee	2020
Associate Chair ACM Conference on Computer-Supported Cooperative Work & Social Computing	2019
Reviewer	
NSF Review Panel (January 2023)	
NSF Review Panel (March 2021)	

American Education Research Association Division C American Education Research Association SIG-Learning Sciences Computer-Supported Cooperative Work (CSCW) Computer-Human Interaction (CHI) Educational Researcher (AERA) Fairness, Accountability, and Transparency (ACM FAccT) International Conference of the Learning Sciences International Journal of Child-Computer Interaction Interaction Design and Children **IMWUT** Journal of Early Childhood Literacy Journal of Learning, Culture and Social Interaction Journal of Learning Sciences Journal of Cognition & Instruction Journal of Learning Analytics Journal of Statistics & Data Science Education Transactions on Computing Education (TOCE)

State and Local Community

Department, College, and University	
Lab Atlanta School Advisor and Mentor	2018-2020
Georgia Department of Education Data Science Standards Reviewer	2020
CSForAll Workshop at Georgia Tech	2022
Processing Foundation Fellows and Teaching Fellows Advisor	2023

LS Department Faculty Affairs Committee	2021-present
LS Department Diversity, Equity & Inclusion Committee	2020-present
Co-founder, Vanderbilt's Design for America Studio	2013-2017
Member, Vanderbilt's Quality Enhancement Plan Subcommittee, Design as an Immersive Vanderbilt Experience (DIVE)	2017
Conference organizer, Learning on the Move Workshop, Nashville, TN (2017)	2017
Designing Spaces for Learning Conference in collaboration with the University of Melbourne's School of Architecture & Design, Nashville, TN	2014

Professional Memberships

International Society of the Learning Sciences (ISLS) American Education Research Association (AERA) Association for Computing Machinery (ACM) Institute of Electrical and Electronics Engineers (IEEE)

Jean Piaget Society

The Processing Foundation

SOFTWARE & OPEN-SOURCE PROJECTS

- Interaction Geography Slicer (IGS): <u>https://www.benrydal.com/software/igs</u>
- Mondrian Transcription: <u>https://www.benrydal.com/software/mondrian-transcription</u>
- Multi-Perspective Video Editor for Interaction Analysis (in progress)
- Mapping Self in Society (MaSelfS): <u>https://www.maselfs.org</u>
- Learning How to Look & Listen: <u>http://learninghowtolookandlisten.com</u>

SELECTED PRESS

- Shapiro Publishes Work on Developing Personally and Culturally Relevant Data Science Education <u>Link</u>
- Supporting Mathematics Teachers as They Monitor Students' Small Group Work. Link
- Working Towards Fair Data for All: DataWorks. <u>Link</u>
- Teaching with Multiple Conceptions. <u>Link</u>
- Collaborative University Startup Helping Underserved Communities Gain Data Science Skills, 2021. Link
- Personal Geography Tools for Teachers, 2021. Link
- Collaborative Startup Helping People in Disadvantaged Communities Learn Entry-level Data Science Skills, 2020. Link
- Learning from Student Movement Across Atlanta, Atlanta Regional Commission, November 2019. <u>Link</u>
- Students Recognized for Eye Catching Data Visualizations, Vanderbilt News, 2017. Link
- Bridging Spaces for Learning. TEDx Furman University, 2014. Link