1. **Name:** Matthew W. Berland

2. Formal Education

2001 – 2008 Northwestern University, Evanston, IL
Ph.D., Learning Sciences
Advisor: Prof. Uri Wilensky
Committee: Prof. Ian Horswill, Prof. Bruce Sherin
Dissertation: *VBOT: Motivating Complex Systems and Computational Literacies in Virtual and Physical Robotics Learning Environments*
Certificate: Cognitive Science
Focus: Computer Science

1995 – 1999 Brown University, Providence, RI
A.B. with Honors: Computer Science, Modern Culture/Media
Thesis Advisor, Computer Science: Prof. Eugene Charniak
Senior Project Advisor, Modern Culture/Media: Prof. Robert Scholes

3. Positions Held

3.1. Academic Positions Held

2017 – Present Associate Professor, Univ. of Wisconsin–Madison
Design, Creative, and Informal Education Program
Dept. of Curriculum & Instruction
Affiliate Faculty, Computer Sciences
Affiliate Faculty, iSchool
Affiliate Faculty, Science & Technology Studies
Affiliate Faculty, Educational Psychology
Discovery Fellow, Wisconsin Institute for Discovery

2019 – Present Visiting Scholar, Massachusetts Institute of Technology
Comparative Media Studies
School of Humanities, Arts, and Social Sciences

2013 – 2017 Assistant Professor, Univ. of Wisconsin–Madison
Digital Media Program
Department of Curriculum & Instruction

2009 – 2012 Assistant Professor, Univ. of Texas at San Antonio
Department of Interdisciplinary Learning and Teaching
Director, Instructional Technology Program (2012)

2008 – 2009 Postdoctoral Fellow, Univ. of Texas at Austin
Institute for Computational Engineering & Sciences
Depts. of Computer Science, Software Engineering
Bootstrapped Learning Project (with Prof. Dewayne Perry)

3.2. Professional Employment History

3.2.1. Relevant Work Experience

2007 – 2009 Senior Software Architect, JED Capital, Chicago, IL

2002 – 2008 Graduate Research Assistant, Northwestern University, Learning Sciences Program
Integrated Simulation and Modeling Environments Project (with Prof. Uri Wilensky)

1997 – 1999 Research Assistant, Brown University, Computer Science Department
Statistical Natural Language Processing Project (with Prof. Eugene Charniak)

3.2.2. Pre-Appointment University Teaching Experience

2004 – 2007 Tutor (High School, Undergraduate)
Computer Science, Biology, Inorganic and Organic Chemistry

2003 – 2004 Teaching Assistant
Northwestern University
Constructionist Approach to the Design of Learning Environments, Constructionism

1997 – 1999 Teaching Assistant
Brown University
Introduction to Artificial Intelligence, Introduction to Scientific Computing, Natural Language Processing

3.2.3. Secondary School Teaching Experience

1999 – 2001 High School & Middle School Teacher
Isidore Newman School, New Orleans, LA
Computer Science, Software Engineering, Computer Programming, Graphic Design, Philosophy, Film

Full faculty upper- and middle-school teacher. Duties included designing curricula and teaching 5-6 daily classes per quarter, leading the alternative art magazine project, advising students on a daily basis.

4. Research and Publications

4.1. Journal/Full Peer-reviewed Publications (Submitted)

1. ^Turner, A., ^Hardin, C., & **Berland**, M. (2020, submitted). Hackathons and ‘i’dentities: Museum Visitor Identities in Other Informal Learning Environments. *Visitor Studies.*
2. ^Anhalt-Depies, C., **Berland**, M., Rickenbach, M., & Rissman, A. R. (2020, under revision). Patterns of participation in a crowdsourced citizen science project.

4.2. Journal/Full Peer-reviewed Publications (Published, Accepted)

3. Holbert, N., DiSalvo, B., & **Berland**, M. (in press, 2020). The Rollout of Computer Science Education to Every Student in New York City: A Socio-contextual Social Network Analysis. *Teachers College Record*.
4. ^Jorion, N., ^Roberts, J., Bowers, A., ^Tissenbaum, M., Lyons, L., ^Kumar, V., & **Berland**., M. (2020, accepted). Uncovering Patterns in Constructionist Collaborative Learning Activities via Cluster Analysis of Museum Exhibit Log Files. *Frontline Learning Research*.
5. ^Brooks, A., ^Turner, A., & **Berland**, M. (2020). Vocabulary Models of Informal Language Production in Reddit. In *Proceedings of International Conference of the Learning Sciences (ICLS 2020)*.
6. ^Pellicone, A., Lyons, L., ^Kumar, V., ^Zhang, E., & **Berland**, M. (2019). Rainbow Agents: A Collaborative Game for Computational Literacy. *CHI:PLAY 2019*. Barcelona, Spain: ACM.
7. ^Pellicone, A., Holbert, N., DiSalvo, E., ^Kumar, V., & **Berland**, M. (2019). Who Played the Game Correctly? Data Signatures of Interaction in Playful Assessment. *Proceedings of the 2019 Connected Learning Summit*.
8. Berland, L. L., Berland, N. W., & **Berland**, M. (2018). ABR Psychometric Testing: Analysis of Validity and Effects. *Journal of the American College of Radiology*, *15*(6), 905-910.
9. ^Anderson, C. G., ^Dalsen, J., ^Kumar, V., **Berland**, M., & Steinkuehler, C. (2018). Failing up: How failure in a game environment promotes learning through discourse. *Thinking Skills and Creativity*, March, 1–10. doi:10.1016/j.tsc.2018.03.002
10. Sherin, B., Kersting, N., & **Berland**, M. (2018). Learning Analytics in Support of Qualitative Analysis. *Proceedings of ICLS 2018.*
11. ^LeGault, L. & **Berland**, M. (2018). Students' Perceptions of Pair Programming in CS1. *Proceedings of SIGCSE 2018*.
12. **Berland**, M. (2017). Constructivist Analytics: Using Data to Enable Deeper Museum Experiences for More Visitors—Lessons from the Learning Sciences. *Visitor Studies*, *20*(1), 3–9. https://doi.org/10.1080/10645578.2017.1297116
13. ^Kumar, V., ^Tissenbaum, M., ^Wielgus, L., & **Berland**, M. (2017). Connected Spaces: Helping Makers Know Their Neighbors. In *Proceedings of the 2017 Conference on Interaction Design and Children* (pp. 629–635). Stanford, California, USA: ACM.
14. ^Tissenbaum, M., **Berland**, M., & Lyons, L. (2017). DCLM framework: understanding collaboration in open-ended tabletop learning environments. *International Journal of Computer-Supported Collaborative Learning*. doi:10.1007/s11412-017-9249-7
15. ^Kumar, V., ^Tissenbaum, M., & **Berland**, M. (2017). What are visitors up to?: helping museum facilitators know what visitors are doing. In *Proceedings of the Seventh International Learning Analytics & Knowledge Conference* (LAK '17). doi:10.1145/3027385.3029456
16. **Berland**, M. & Duncan, S. (2016). Computational thinking in the wild: Uncovering complex collaborative thinking through gameplay. *Educational Technology, 56*(3)*, 29-35*.
17. ^Tissenbaum, M., **Berland**, M., & ^Kumar, V. (2016). Modeling Visitor Behavior in a Game-Based Engineering Museum Exhibit with Hidden Markov Models. *Proceedings of the 9th International Conference on Educational Data Mining*, 517-522.

(^ denotes a student/staff author at time of original full draft)

18. **Berland**, M., ^Davis, D., & ^Smith, C. P. (2015). AMOEBA: Designing for collaboration in computer science classrooms through live learning analytics. *International Journal of Computer-Supported Collaborative Learning*, *10*(4), 425-447. doi:10.1007/s11412-015-9217-z
19. **Berland**, M., & Wilensky, U. (2015). Comparing Virtual and Physical Robotics Environments for Supporting Complex Systems and Computational Thinking. *Journal of Science Education and Technology*, *24*(5), 628-647. doi:10.1007/s10956-015-9552-x
20. Lyons, L., ^Tissenbaum, M., **Berland**, M., ^Eydt, R., ^Wielgus, L., & ^Mechtley, A. (2015). Designing Visible Engineering: Supporting Tinkering Performances in Museums. *Proceedings of the 14th International Conference on Interaction Design and Children*, 49-58. doi: 10.1145/2771839.2771845
21. **Berland**, M., Baker, R., & Blikstein, P. (2014). Educational Data Mining and Learning Analytics: Applications to Constructionist Research. *Technology, Knowledge and Learning*, *19*(1), 205-220. doi: 10.1007/s10758-014-9223-7
22. ^Davis, D., Yuen, T., **Berland**, M. (2014). Multiple Case Study of Nerd Identity in a CS1 Class. *Proceedings of the 45th ACM Technical Symposium on Computer Science Education*, 325-330. doi:10.1145/2538862.2538960
23. **Berland**, M., Martin, T., ^Benton, T., ^Petrick Smith, C., & ^Davis, D. (2013). Using Learning Analytics to Understand the Learning Pathways of Novice Programmers. *Journal of the Learning Sciences*, *22*(4), 564–599. doi:10.1080/10508406.2013.836655
24. ^Davis, D., & **Berland**, M. (2013). Supporting English learners with participatory augmented reality simulations. *On the Horizon*, *21*(4), 294–303. doi:http://dx.doi.org/10.1108/OTH-01-2012-0001
25. Martin, T., **Berland**, M., ^Benton, T. & Smith, C.P. (2013). Learning Programming with IPRO: The Effects of a Mobile, Social Programming Environment. *Journal of Interactive Learning Research, 24*(3), 301-328.
26. Bowers, A. J., & **Berland**, M. (2013). Does recreational computer use affect high school achievement? *Educational Technology Research and Development*, *61*(1), 51-69. doi:10.1007/s11423-012-9274-1
27. **Berland**, M., & Lee, V. R. (2011). Collaborative strategic board games as a site for distributed computational thinking. *International Journal of Game-Based Learning, 1*(2), 65-81.
28. **Berland**, M., ^Benton, T., ^Petrick, C., and Martin, T. (2011). Programming on the Move: Design Lessons from IPRO. *CHI '11 Extended Abstracts on Human Factors in Computing Systems*, 2149-2154. doi: 10.1145/1979742.1979932
29. **Berland**, M., Martin, T., & ^Benton, T. (2010). Programming Standing Up: Embodied Computing with Constructionist Robotics. *Proceedings of Constructionism 2010*, 1-12.
30. ^Abrahamson, D., ^**Berland**, M., ^Shapiro, B., ^Unterman, J., & Wilensky, U. (2006). Leveraging epistemological diversity through computer-based argumentation in the domain of probability. *For the Learning of Mathematics, 26*(3), 39-45.
31. **^Berland**, M. & Charniak, E. (1999). Finding parts in very large corpora. *Proceedings of the 37th Annual Meeting of the Association for Computational Linguistics*, 57-64. doi: 10.3115/1034678.1034697

(^ denotes a student/staff author at time of original full draft)

4.3. Short Peer-reviewed Publications

32. **Berland**, M., McKinney de Royston, M., & Hooper, P. (2020). Reframing Playful Participation in Museums: Identity, Collaboration, Inclusion, & Joy. *Proceedings of the International Conference of the Learning Sciences*.
33. Ramirez, D., Hayakawa, M., McCarthy, B., Cheung, M., Feng, M., and **Berland**, M. (2019). Three Approaches to Exploring Twin Cities PBS Educational Game Telemetry. *Proceedings of the 2019 Connected Learning Summit.*
34. ^Mechtley, A. & **Berland**, M. (2018). Frictional Patterns in the Design of Games for Learning. *Proceedings of ICLS 2018*.
35. ^Gabai, J. & **Berland**, M. (2018). Computational Discourse in a Role-Playing Game Podcast. *Proceedings of ICLS 2018*.
36. ^Turker, A. & **Berland**, M. (2017). Mining Stack Overflow to Formulate a Question Asking Template: Asking Questions that are Most Likely to Be Answered. *Proceedings of ICER 2017*. ACM.
37. Sherin, B., Kersting, N. B., & **Berland**, M. (2017). Mutually-supporting computational and traditional analysis for learning analytics. *Proceedings of ICCSS 2017*. DFG.
38. ^Turker, A., ^Dalsen, J., **Berland**, M., & Steinkuehler, C. (2017). Challenges to Multimodal Data Set Collection in Games-based Learning Environments. *Proceedings of MMLA 2017*.
39. ^Anderson, C., ^Dalsen, J., ^Kumar, V., **Berland**, M., & Steinkuehler, C. (2017). Failing Up - The Role of Difficulty and Failure in an Educational Video Game. *Proceedings of DML 2017*.
40. ^Sung, I., & **Berland**, M. (2017). Forest Friends Demo: A Game-Exhibit to Promote Computer Science Concepts in Informal Spaces. In *Proceedings of the 2017 Conference on Interaction Design and Children* (pp. 701–704). Stanford, California, USA: ACM.
41. ^Tissenbaum, M., **Berland**, M., & Lyons, L. (2016). Designing a real-time intelligent support for museum interpreters. In *Proceedings of 12th International Conference for the Learning Sciences*, 1120-1127. Singapore.
42. ^Anderson, C.G., ^Binzak, J.V., ^Dalsen, J., ^Saucerman, J., ^Jordan-Douglass, A., ^Kumar, V., ^Turker, A., **Berland**, M., Squire, K., Steinkuehler, C. (2016). Situating Deep Multimodal Data on Game-Based STEM Learning. In *Proceedings of 12th International Conference for the Learning Sciences*, 974-977. Singapore.
43. ^Stenerson, M. E., ^Salmon, A., **Berland**, M., & Squire, K. (2014). ADAGE: an open API for data collection in educational games. *Proceedings of the First ACM SIGCHI Annual Symposium on Computer-Human Interaction in Play*, 437–438. doi:10.1145/2658537.2661325
44. ^Ramirez, D., ^Seyler, S., Squire, K., & **Berland**, M. (2014). I'm a Loser, Baby : Gamer Identity & Failure. In *DiGRA 2014: <Verb that ends in "ing"> the <noun> of Game <plural noun>*. Snowbird, Utah.
45. ^Dietmeier, J., ^Russell, J., ^Wielgus, L., **Berland**, M. (2014). Exploring Physics Through A Musical Simulation. *Proceedings of Constructionism 2014*.
46. Danielak, B. A., ^Mechtley, A., **Berland**, M., Lyons, L., ^Eydt, R. (2014). MakeScape Lite: A Prototype Learning Environment for Making and Design. *Proceedings of the 2014 Conference on Interaction Design and Children*, 229-232. doi:10.1145/2593968.2610459

47. ^Ochsner, A., Johnson-Stempson, R., Steinkuehler, C., & **Berland**, M. (2014). Mission Critical: Building Community to Engage Young Women in Computer Science. *Proceedings of the 45th ACM Technical Symposium on Computer Science Education*, 719-719. doi:10.1145/2538862.2544288
48. **Berland**, M., ^Davis, D., & Yuen, T. (2013). Monsterismus: Recursively Relevant Computer Science Game Design. *Proceedings of Games, Learning, & Society 9.0.*
49. **Berland**, M., Petrick Smith, C., and ^Davis, D. (2013). Visualizing Live Collaboration in the Classroom with AMOEBA. *Proceedings of the Tenth International Conference on Computer-Supported Collaborative Learning*.
50. Anton, G., Harris, S., Ochsner, A., Salmon, A., Rothschild, M., **Berland**, M., & Squire, K. (2013). Patterns of play: Understanding computational thinking through game design. *Proceedings of Games, Learning, & Society 9.0.*
51. **Berland**, M. (2012). Becoming an Expert Boardgamer: A Quantitative Exploration. *Proceedings of Games, Learning, & Society 8.0.*
52. **Berland**, M., Martin, T., ^Benton, T., & ^Petrick, C. (2012). IPRO: A mobile, social programming game for iOS. *Proceedings of Games, Learning, & Society 8.0.*
53. ^Davis, D., & **Berland**, M. (2012). Leveraging English Learners' Identities in Game Design. *Proceedings of Games, Learning, & Society 8.0.*
54. Duncan, S., & **Berland**, M. (2012). Triangulating Learning in Board Games: Computational Thinking at Multiple Scales of Analysis. *Proceedings of Games, Learning, & Society 8.*
55. **Berland**, M., Duncan, S., ^Boecking, M., & ^Price-Tiger, E. (2012). Supporting computational thinking by modding strategic board games. *The Future of Learning: Proceedings of the 10th International Conference of the Learning Sciences*
56. **Berland**, M., Martin, T., ^Benton, T., & ^Petrick, C. (2012). AMOEBA: Mining how students learn to program together. *Proceedings of the International Conference of the Learning Sciences (ICLS-12).*
57. ^Petrick, C., **Berland**, M., & Martin, T. (2011). Allocentrism and computational thinking. In G. Stahl, H. Spada, & N. Miyake (Eds.), *Proceedings of the Ninth International Conference on Computer-Supported Collaborative Learning*, Hong Kong, China.
58. **Berland**, M., Lee, V., & ^DuMont, M. (2010). Small Groups, Big Mistakes: The Emergence of Faulty Rules During a Collaborative Board Game. *Proceedings of the 9th International Conference of the Learning Sciences - Volume 2*, 397-398.
59. **Berland**, M. & Rand, W. (2009). Participatory simulation as a tool for agent-based simulation. *Proceedings of the International Conference on Agents and Artificial Intelligence,* 553-557.

4.4. Books

60. Holbert, N., **Berland**, M., & Kafai, Y. (2020). *Designing Constructionist Futures*. MIT Press.

4.5. Peer-reviewed Book Chapters

61. **Berland**, M. (2016). Making, tinkering, and computational literacy. In K. Peppler, E. Halverson, And Y. B. Kafai (Eds.), *Makeology: Makers as Learners, Volume 2* (196-205). NYC: Routledge**.**

(^ denotes a student/staff author at time of original full draft)

62. ^Smith, C. P., **Berland**, M., & Martin, T. (2015). Playing Robot: How Alternating Perspectives Develops Computational Thinking. In Lee, V. (Ed.), *Learning Technologies and the Body.* Routledge.

4.6. Book Chapters and Whitepapers

63. **Berland**, M., Halverson, E., Polman, J., & Wilkerson, M. (2017). Expressive Construction: Enabling Learners to Represent Powerful Ideas. In J. Roschelle, W. Martin, J. Ahn, P. Schank (Eds.), *Cyberlearning Community Report: The State of Cyberlearning and the Future of Learning with Technology*. CIRCL Press.
64. **Berland**, M. (2017). Constructionist Learning. *The SAGE Encyclopedia of Out-of-School Learning*. SAGE Press.
65. **Berland**, M. (2015). Creating creative data scientists. In *Data-Intensive Research in Education: Current Work and Next Steps*. Computing Research Association.
66. Halverson, R., **Berland**, M., & ^Owen, V. (2015). Games-Based Assessment. *The SAGE Encyclopedia of Educational Technology*. SAGE Press.
67. **Berland**, M. (2011). Understanding Strategic Board Games as Computational Thinking Training Machines. In Davidson, D. (Ed.), *Tabletop Game Design.* Pittsburgh, PA: ETC Press.

4.7. In Progress

68. ^Anhalt-Depies, C., **Berland**, M., Rickenbach, M., & Rissman, A. R. (under revision). Patterns of participation in a crowdsourced citizen science project. [Draft complete, resubmitting soon]
69. ^Mechtley, A. & **Berland**, M. (under revision). Creating Microboundaries for Productive Friction in Games for Learning. [Draft complete, resubmitting soon]
70. **Berland**, M. & Garcia, A. (in progress). *Learning Futures.* To be submitted to MIT Press. [Book project, chapters written]
71. ^Kumar, V., **Berland**, M., & DiSalvo, E. (in progress). Designing formative assessment teacher dashboards. *To be submitted to ETR&D.* [Analysis complete, writing in progress]
72. ^Kumar, V. & **Berland**, M. (in progress). Supporting multiple pathways to "success" in a museum game. *To be submitted to CHI*. [Data collection complete, analysis ongoing, writing in progress]

5. List of Presentations

5.1. Selected Invited Presentations

73. **Berland**, M. (2020, Cancelled/COVID-19). Keynote Panel: Designing Constructionist Futures. *Constructionism 2020*. Dublin, Ireland.
74. **Berland**, M. (2020, March). Making, Learning, Playing, & Understanding Creative Code Together. *MIT Lifelong Kindergarten Group / MIT Scratch Guest Lecture.* Cambridge, MA.
75. **Berland,** M. (2020, February). Complex play & creative agency. *MIT CMS/W Speaker Series*. Cambridge, MA.

(^ denotes a student/staff author at time of original full draft)

76. **Berland,** M. (2020, January). Creative Agency & Computational Content. *University of Oslo Featured Speaker Series*. Oslo, Norway.
77. **Berland,** M. (2019, November). Creative assessment & equity. *Harvard GSE Lecture.* Cambridge, MA.
78. **Berland**, M. (2019, November). How Do We Know What Students Know About Computer Science? *Brown University Computer Science Featured Speaker Series*. Providence, RI.
79. **Berland**, M. (2019, May). Creative agency. *Filament Games "Luminaries" Series.* Madison, WI.
80. **Berland**, M. (2019, March). Invited Panel: Designing Educational Video Games to Be Objects- to-Think-With. *Journal of the Learning Sciences Webinar Series*.
81. **Berland**, M. (2016, September). A future of making: More useful making for more people. *Maker Faire Educator Forum.* Milwaukee.
82. **Berland**, M. (2016, July). Keynote: How data analytics can help us understand and enable deeper museum experiences. *Visitor Studies 2016.* Boston, MA.
83. **Berland**, M. (2016, January). Computational literacy, complex play, & learning analytics. *EdLab Brown Bag [Invited Talk Series]*. Teachers College Columbia University. NYC.
84. **Berland**, M. (2015, December). Computer science education, computational literacy, & computational thinking. *UW Computer Sciences Invited Talk*. University of Wisconsin–Madison, Department of Computer Sciences.
85. **Berland**, M. (2015, October). Constructionism. *DELTA Program.* University of Wisconsin–Madison, Department of Computer Sciences.
86. **Berland**, M. (2015, June). Creating creative data scientists. *Data-Intensive Research in Education*. National Science Foundation / Computing Research Association.
87. **Berland**, M. (2015, May). Keynote: Computational Literacy, Complex Play, & Learning Analytics. *Playful Learning Conference*. Ohio University.
88. **Berland**, M. (2014, December). Computational literacy & complex play in informal contexts. *Center for Research on Learning and Technology Brown Bag [Invited Talks Series]*. Bloomington, IN.
89. **Berland**, M. (2014, November). Computational thinking. *School of Education Doctoral Research Program*. University of Wisconsin–Madison.
90. **Berland**, M. (2011, May). Fostering Computational Literacy through Complex Play. *Tufts University Center for Engineering Education and Outreach Brown Bag [Invited Talks Series]*. Tufts University: Medford, MA.
91. Blikstein, P., **Berland**, M., Brennan, K., Buechley, L., Millner, A., Sipitakiat, A., Urrea, C., & Wilkerson, M. (2010). *Young constructionists under construction*. Invited panelist, Constructionism, Paris, France.

5.2. Selected Conference Presentations

92. **Berland**, M. (2019). Learning through Games and Play: Cultural Perspectives. *AERA 2019*.

(^ denotes a student/staff author at time of original full draft)

93. ^Jorion, N., Roberts, J., Bowers, A., Tissenbaum, M., Lyons, L., Kumar, V., **Berland**, M. (2018). Uncovering Patterns in Constructionist Collaborative Learning Activities via Cluster Analysis of Museum Exhibit Log Files. *AERA 2018*.
94. **Berland**, M. (2018). Innovations in Methods and Frameworks for Learning. *AERA 2018*.
95. **Berland**, M. (2018). Constructionism in Context. *CLS 2018*.
96. ^Reilly, J., ^Kumar, V., ^Metcalf, S., & **Berland**, M. (2018). Learning Analytics in A Teacher Dashboard to Facilitate Inquiry-Based Instruction. *CLS 2018*.
97. ^Hardin, C.D. & **Berland**, M. (2016). Learning to Program Using Online Forums: A Comparison of Links Posted on Reddit and Stack Overflow. *Proceedings of the 47th ACM Technical Symposium on Computing Science Education*, 723-723. doi:10.1145/2839509.2851051
98. ^Binzak, J., ^Anderson, C., ^Kumar, V., ^Jordan-Douglass, A., and **Berland**, M. (2016). Comparing Gameplay Across Formal and Informal Contexts. *FDG/DiGRA 2016*. Abertay, Scotland.
99. ^Tissenbaum, M. & **Berland**, M. (2016). Divergent inquiry for exploratory learning: A multimodal perspective. *European Association for Research on Learning and Instruction* (SIG 20). Ghent, Belgium.
100. ^Tissenbaum, M., **Berland**, M., Lyons, L., ^Eydt, R., ^Wielgus, L., & ^Mechtley, A. (2016). CCLM Framework: Understanding Collaboration in Constructionist Tabletop Learning. *The annual meeting of the American Educational Research Association*.
101. **Berland**, M. (2015). Using in-game data to enhance learning. *South by Southwest*. Austin, TX.
102. ^Dornfeld, C. & **Berland**, M. (2015). Museum Cafés: Assessment in Unexpected Spaces. *Visitor Studies Association*.
103. ^Wielgus, L. & **Berland**, M. (2015). The Impacts of Co-Tinkering at an Engineering Design Exhibit. *Visitor Studies Association*.
104. **Berland**, M. & Krumm, A. (2015). Emerging Perspectives on Understanding Learning Behaviors in Digital Environments (Chair, Organizer). *The annual meeting of the American Educational Research Association*.
105. **Berland**, M. & Snyder, B. (2015). Discovering How Language Patterns Evolve in Online Discourse. *The annual meeting of the American Educational Research Association*.
106. Duncan, S., Chen, M., **Berland**, M., ^Mechtley, A., and Macklin, C. (2014). Meaningful Cardboard: Towards a Tabletop Games and Learning. *Meaningful Play 2014*.
107. ^Anton, G. & **Berland**, M. (2014). Studio K: A Game Development Environment Designed for Gains in Computational Thinking. *Proceedings of the 45th ACM Technical Symposium on Computer Science Education*, 723-723. doi:10.1145/2538862.2544312
108. ^Velasquez, X., Martin, T., ^Velasquez, N., Petrick Smith, C., **Berland**, M., ^Benton, T., & ^Janisiewicz, P. (2014). Engaging Young Women in Computer Science Through a Novel Programming Experience. *The meeting of the American Educational Research Association.*
109. ^Anton, G., ^Harris, S., ^Ochsner, A., & **Berland**, M. (2014). Student Interest, Game Design, and Computational Thinking in Studio K Classrooms. *The meeting of the American Educational Research Association.*
110. Berland, L. & **Berland**, M. (2013). Disentangling Perceptions of Authenticity in Disciplinary Practices. *The meeting of the American Educational Research Association.* San Francisco, CA.

111. Duncan, S., & **Berland**, M. (2012). Uncovering Play Through Collaboration and Computation In Tabletop Gaming. *Meaningful Play 2012*.
112. Duncan, S., ^Boecking, M., & **Berland**, M. (2012). Help Seeking and Computation in a Collaborative Board Game Task. *The meeting of the American Educational Research Association.* Vancouver, BC.
113. ^Benton, T., Martin, T., **Berland**, M., & ^Petrick, C. (2012) IPRO: A social and mobile gaming path to programming learning. *The meeting of the American Educational Research Association*. Vancouver, BC.
114. **Berland**, M., Martin, T., ^Benton, T., & ^Petrick, C. (2012). Visualizing how novice programmers share code. *The meeting of the American Educational Research Association*. Vancouver, BC.
115. ^Petrick, C., Martin, T., **Berland**, M., & ^Benton, T. (2012) i, Robot: An embodied action adventure story of collaboration, playing robot, and perspective taking. *The meeting of the American Educational Research Association*. Vancouver, BC.
116. Bowers, A. & **Berland**, M. (2011). Does Student Use of Computers for Fun Affect High School Achievement? Examining an Independent Effects Model from a Nationally Representative Sample. *The meeting of the American Educational Research Association.* New Orleans, LA.
117. **Berland**, M. & Duncan, S. (2011). Tinkering Toward Computational Thinking With Collaborative Board Games. *The meeting of the American Educational Research Association.* New Orleans, LA.
118. **Berland**, M. & Martin, T. (2011). Clusters and Patterns of Novice Programmers. *The meeting of the American Educational Research Association.* New Orleans, LA.
119. **Berland**, M. & Lee, V. (2010). Complex play and computational thinking in a collaborative board game. *Games, Learning, & Society Conference 6.0*, Madison, WI.
120. **Berland**, M. & Wilensky, U. (2010). Comparing Virtual and Physical Robotics Environments for Teaching Complex Systems and Computational Fluencies. *The meeting of the American Educational Research Association.* Denver, CO.
121. **Berland**, M. & Lee, V. (2010). Using Designer Board Games to Understand Distributed Computational Thinking. *The meeting of the American Educational Research Association.* Denver, CO.
122. Lee, V. & **Berland**, M. (2009). Distributed Rule Reconstruction in a Face-to-Face Designer Game. *Games, Learning, & Society Conference 5.0*, Madison, WI.
123. **^Berland**, M. (2006). Constructionist collaborative engineering: PVBOT. *The annual meeting of the American Educational Research Association (AERA-06),* San Francisco, CA.
124. **^Berland**, M. & Wilensky, U. (2005). Complex play systems: Results from a classroom implementation of VBOT. *The annual meeting of the American Educational Research Association (AERA-05),* Montreal.
125. **^Berland**, M. & Wilensky, U. (2004). VBOT: Collaborative constructionist learning using a virtual robotics environment. *The annual meeting of the American Educational Research Association (AERA-04),* San Diego, CA.

6. Research Support

6.1. Awards

(^ denotes a student/staff author at time of original full draft)

1. Applying Game Design Principles for Supporting Computational Literacy Experiences in Museum Exhibits. M. **Berland**, PI. M. Cannady, L. Lyons, CoPIs. $1M. (2017-2020)
2. Formative Assessments for Computer Science in NYC. Nathan Holbert, Jeremy Roschelle, PIs. E. DiSalvo, M. **Berland**, L. DeLyser, D. Rutstein, CoPIs. $2.7M. (2017-2020)
3. RAPID: CS-NYCE: An Ecological Approach to Understanding the Rollout of Student-Centered Computer Science Education in New York City.
   M. **Berland,** N. Holbert, and E. DiSalvo, PIs. M. Tissenbaum, Co-PI.
   National Science Foundation (09/2016 – 02/2019). $193K
4. Data Consortium Fellows: A Mentorship Program to Expand the Cyberlearning Data Analytics Community.
   M. **Berland**, PI.
   National Science Foundation (01/2016 – 12/2018). $99K
5. EcoLensTool: Automated guidance on students' performance in an immersive authentic simulation to support engagement, learning and metacognition in ecosystems science.
   M. **Berland**, PI.
   Wisconsin Alumni Research Foundation (2016-2017). $58K.
6. Learning Games Playdata Consortium (PDC).
   M. **Berland**, PI. K. Squire, R. Halverson, & D. Krakauer, Co-PIs.
   National Science Foundation (09/2013 - 09/2015). $497K
7. Makescape: A Constructionist Museum Installation to Advance Engineering Literacy.
   M. **Berland** & L. Lyons, PIs
   National Science Foundation (06/2013 - 08/2016). $591K
8. Situating Big Data: Assessing Game-Based STEM Learning in Context
   C. Steinkuehler, PI. M. **Berland**, Co-PI.
   National Science Foundation (09/01/14 - 08/31/16). $777,955
9. Programming Standing Up.
   M. **Berland** & H. T. Martin, PIs
   National Science Foundation. (09/2010 - 08/2014). $473K
10. Interdisciplinary Learning & Teaching Research Award, 2012, $3,500
11. UTSA Faculty Research Award, 2009-2010, $4K
12. UTSA Academy for Teacher Excellence (ATE) Fellow, 2009-2010

6.2. Affiliate Appointments and Fellowships

1. Discovery Fellow, Wisconsin Institute for Discovery
2. Affiliate Faculty, Computer Science
3. Affiliate Faculty, School of Library & Information Studies
4. Affiliate Faculty, Holtz Center for Science & Technology Studies
5. Affiliate Faculty, Educational Psychology

7. Teaching Activities

7.1. Classes Completed as a Tenure-Line Faculty Member

Univ.	Year	Semester	Class	Class Name
UW	2019	Spring	CURRIC 821	Constructionism & Making

(^ denotes a student/staff author at time of original full draft)

UW	2019	Spring	CURRIC 457	Game Design II
UW	2018	Fall	CURRIC 803	Computational Research Methods in Education
UW	2017	Fall	CURRIC 900	Adv. Sem. in Digital Media
UW	2017	Spring	CURRIC 975	Design of Digital Media for Education
UW	2017	Spring	CURRIC 975	Design of Digital Media for Education
UW	2016	Fall	CURRIC 821	Constructionism
UW	2016	Spring	CURRIC 975	Computational Research Methods in Education
UW	2015	Fall	CURRIC 975	Computational Literacy in Education
UW	2015	Spring	CURRIC 975	Interactive Museum Exhibit Design
UW	2014	Fall	CURRIC 975	Research in Computing Education
UW	2014	Spring	CURRIC 975	Constructionism
UW	2013	Fall	CURRIC 675	Design of Interactive Learning Environments
UW	2013	Spring	CURRIC 975	Learning Analytics & Educational Data Mining
UTSA	2012	Fall	IST 6603	Computer Programming & the Design of Learning Environments
UTSA	2012	Fall	IST 5003	Foundations of Instructional Technology
UTSA	2012	Spring	IST 7003	Proseminar in Instructional Technology
UTSA	2011	Fall	IST 5003	Foundations of Instructional Technology
UTSA	2011	Fall	IST 6373	Games & Learning
UTSA	2011	Spring	IST 5703	Technology & Learning Cultures
UTSA	2010	Fall	IDS 2083	Technology for Learning & Teaching
UTSA	2010	Fall	IST 5003	Foundations of Instructional Technology
UTSA	2010	Spring	IST 6973	Constructionism

(^ denotes a student/staff author at time of original full draft)

UTSA	2009	Fall	IDS 2083	Technology for Learning & Teaching
UTSA	2009	Fall	IST 5003	Foundations of Instructional Technology

8. Advising & Mentoring: Doctoral Students

8.1. Doctoral Students (Completed)

1. Peter Woods, UW (C&I), completed doctorate 2020, committee member
2. Adam Mechtley, UW (C&I), completed doctorate 2020, advisor
3. Joseph Reilly, Harvard Univ., completed doctorate 2020, committee member
4. Aybuke Turker, UW (C&I), completed doctorate 2019, advisor
5. Christine Anhalt-Depies, UW (Wildlife Ecology), completed doctorate 2019, committee member
6. Caroline Hardin, UW (C&I), completed doctorate 2019, advisor
7. Laura LeGault, UW (Computer Sciences), completed doctorate 2019, advisor
8. Antonio Byrd, UW (English), completed doctorate 2019, committee member
9. Adalbert Gerald Soosai Raj, UW (Computer Sciences), completed doctorate 2019, committee member
10. Sally Wu, UW (Ed Psych), completed doctorate 2019, committee member
11. Jennifer Dalsen, UW (C&I), completed 2018, committee member
12. Catherine Dornfeld, UW (Ed Psych), completed 2018, committee member
13. Lindsay Reiten, UW (C&I), completed doctorate 2017, committee member
14. Donald Davis, UTSA, completed doctorate 2017, committee member
15. Dennis Ramirez, UW (C&I), completed doctorate 2016, co-advisor
16. Thomas Benton, UT Austin, completed doctorate 2015, committee member
17. Amanda Ochsner, UW, completed doctorate 2015, committee member
18. V. Elizabeth Owen, UW, completed doctorate 2014, co-advisor
19. Breanne Litts, UW, completed doctorate 2014, committee member
20. Nida Khambari, UW, completed doctorate 2014, committee member

8.2. Doctoral Students (Current)

21. Yilang Zhao, UW (C&I), current, advisor
22. Shai Goldfarb, UW (C&I), current, advisor
23. Vishesh Kumar, UW (C&I), current, advisor
24. Isaac Sung, UW (Computer Sciences), current, advisor
25. Alexander Brooks, UW (Computer Sciences), current, advisor
26. Pallavi Chhabra, UW (C&I), current, committee member
27. Jazmyn Russell, UW (C&I), on leave
28. Stephen Beers, UW (C&I), on leave

8.3. Advising & Mentoring: Masters Students

1. Joshua Gabai, UW, completed 2019, advisor
2. Andrew Turner, UW, completed 2018, advisor
3. Lauren Wielgus, UW, completed 2015, advisor
4. Jeremy Dietmeier, UW, completed 2015, committee member

(^ denotes a student/staff author at time of original full draft)

5. Extensive mentoring responsibilities at UTSA (~50 Masters students)

8.4. Mentoring: Post-doctoral Fellows

1. Anthony Pellicone, UW, 2018-2019
2. Michael Tissenbaum, UW, 2014-2016
3. Brian Danielak, UW, 2013-2014

9. Service

9.1. Leadership

Dates	Organization/Committee	Role	Level
2020-2021	Connected Learning Summit	Research Co-chair	International
2016, 2017	FabLearn Conference	Conference Co-chair	International
2013-Present	Learning Games Play Data Consortium	Founding Director	National
2014-2015	FabLearn Conference	Section Co-chair	National
2013-2015	Games+Learning+Society Conference	Co-chair	National
2012-2013	AERA Division C 3e: Computer Science & Engineering Education	Co-chair	National
2009-2012	Instructional Technology Program, UTSA	Co-director	Department

9.2. UW-Madison Service

Dates	Organization/Committee	Role	Level
2017-Present	Game Design Certificate Program	Founding Director	UW/Dept.
2020-Present	University Library Committee	Member-Elect	UW
2013-2015, 2017-Present	UW–Madison Faculty Senate	Senator	UW
2017-Present	Honorary Degrees Committee	Member	UW
2017-Present	Student Awards Committee	Member	Dept.
2015-2017	C&I Personnel Committee	Member	Dept.
2015-2017	Learning Management Systems and Digital Tools Committee	Member	UW

9.3. Reviewing

Dates	Organization/Journal/Conference	Role	Level
2014-2015	ACM International Computing Education Research Conference	Program committee	International

(^ denotes a student/staff author at time of original full draft)

2011-Present	ACM Conf. on Interaction Design and Children	Program committee	International
2010-Present	Constructionism Conference	Program committee	International
2013-Present	Computers & Education (Journal)	Reviewer	International
2013-Present	Journal of the Learning Sciences (Journal)	Reviewer	International
2013-Present	Journal of Experimental Education (Journal)	Reviewer	International
2013-Present	Teacher's College Press	Reviewer	International
2012-Present	Science Education (Journal)	Reviewer	International
2012-Present	Educational Psychologist (Journal)	Reviewer	International
2010, 2011, 2012, 2013	National Science Foundation (CISE, EHR, ENG)	Proposal Reviewer	National
2003-Present	American Educational Research Association	Reviewer	National
2003-Present	International Society for the Learning Sciences	Reviewer	International
2006-Present	Games, Learning, Society Conference	Reviewer	National

9.4. Professional Organizations

Dates	Organization/Journal/Conference	Role	Level
2003-Present	American Educational Research Association	Member	National
2003-Present	International Society for the Learning Sciences	Member	International
2010-Present	Association for Computing Machinery	Member	International