BODONG CHEN

Updated on 9/20/2023

IDENTIFYING INFORMATION

Academic Rank

Associate Professor, Learning Sciences and Technologies Division of Teaching, Learning, and Leadership Graduate School of Education University of Pennsylvania

Address: 3700 Walnut St, Philadelphia, PA 19104

Email: cbd@upenn.edu
Website: https://bodong.ch/

Education History

B.S., Beijing Normal University, 2006

- Major: Educational Technology. Minor: Business Administration
- Thesis: Design and Implementation of the Sequencing and Navigation Mechanism in an Embedded SCORM 2004 Engine
- Advisor: Ronghuai Huang **M.Ed.**, Peking University, 2009
- Major: Educational Technology
- Thesis: Pursuing Effective Facilitating Strategies: The Effect of Facilitator's Leadership Behaviors on Online Learning
- Advisor: Qiong Wang

Ph.D., University of Toronto, 2014

- Program Area: Curriculum Studies & Teacher Development
- Collaborative program: Knowledge Media Design
- Dissertation: Promisingness Judgments as Facilitators of Knowledge Building in Elementary Science
- Committee: Marlene Scardamalia (advisor), Carl Bereiter, James D. Slotta, Earl Woodruff (internal-external examiner), Carolyn Rosé (external examiner)

Employment History

- 2022—Present, Associate Professor, Graduate School of Education, University of Pennsylvania
- 2019—2022, Co-Director of the Learning Informatics Lab, University of Minnesota-Twin Cities
- 2019—2022, Associate Professor, University of Minnesota–Twin Cities
- 2019—2022, Bonnie Westby Huebner Chair in Education and Technology, University of Minnesota
- 2015—2019, Assistant Professor, University of Minnesota-Twin Cities
- 2018/03, Visiting Professor, Research Centre for Distance Education, Beijing Normal University
- 2013—2014, Researcher (part-time), University of Toronto
- 2013—2014, Data Analyst (part-time), People for Education, Toronto
- 2012—2013, Research Analyst (part-time), Toronto District School Board (TDSB), Toronto
- 2009—2014, Graduate Assistant/Researcher, Institute for Knowledge Innovation and Technology, Ontario Institute for Studies in Education, University of Toronto
- 2006—2009, Research Assistant, E-learning Future Lab, Peking University, Beijing
- 2007—2009, Research Assistant, Center for Educational Technology, Peking University, Beijing
- 2004—2006, Research Assistant, R&D Center for Knowledge Engineering, Beijing Normal University, Beijing

Membership in Professional Organizations

- 2011—Present, International Society of the Learning Sciences (ISLS)
- 2013—Present, Society for Learning Analytics Research (SoLAR)
- 2011—Present, American Educational Research Association (AERA)
- 2013—Present, Knowledge Building International (KBI)
- 2011—2015, Chinese American Educational Research and Development Association

- 2011—2013, Canadian Society of Studies in Education (CSSE)
- 2010, Association for Advanced Computing in Education (AACE)

HONORS AND AWARDS

External Sources

Fellowships (since 2009)

- 2017, NSF CRII Award, National Science Foundation, Directorate for Computer & Information Science & Engineering
- 2013, Mitacs-Accelerate Fellowship, Mitacs, \$15,000
- 2013–2014, Ontario Graduate Scholarship, Province of Ontario, \$15,000
- 2010, Chinese Government Award for Outstanding Self-financed Students Abroad, Chinese Scholarship Council, \$5,000

Awards from Professional Associations or Journals

- 2021, *Best Student Paper Award* (as PhD advisor) and *Best Overall Paper Award Nominee*, The 29th International Conference on Computers in Education (ICCE 2021).
- 2021, Outstanding Article Award, Journal of Open Learning. (Article title: Unpacking Learning Analytics: An attempt to tilt the iceberg.)
- 2016, Excellence Award—Innovation, Minnesota eLearning Summit. (Project title: "Using Differentiated Feedback to Promote Student Learning in an Introductory Statistics Course," with Dr. Vicky Cai from the Minnesota State University, Mankato.)
- 2015, Dissertation Award, Chinese American Educational Research and Development Association
- 2015, Best Paper Award Nominee, 11th International Conference on Computer Supported Collaborative Learning (CSCL)
- 2013, *Best Student Paper Award Nominee*, 10th International Conference on Computer Supported Collaborative Learning (CSCL)
- 2008, Best Conference Paper Award, Educational Technology International Forum

Consortia (competition-based)

- 2015, *Selected Attendee*, Early Career Workshop, 11th International Conference on Computer Supported Collaborative Learning (CSCL)
- 2015, Selected Attendee, New Faculty Mentoring Program, AERA Division C
- 2014, Selected Attendee, Doctoral Consortium, 4th International Conference on Learning Analytics and Knowledge (LAK)
- 2013, Selected Attendee, The Inaugural Learning Analytics Summer Institute (LASI), Stanford University

Other

• 2015, Distinguished Alumnus, Graduate School of Education, Peking University

GRANTS AND CONTRACTS

External Sources

Investigator status: Co-PI (PI: Ryan Baker)

Institute of Education Sciences (IES), Research Training Programs in the Education Sciences, Methods Training Program

Data Science Methods for Digital Learning Platforms Training Program

07/01/2023 – 06/30/2025 Funded Amount: \$795,312

Investigator status: Co-PI (PI: C. Scharber)

National Science Foundation, Discovery Research PreK-12

Supplement: DataX: Exploring Justice-Oriented Data Science with Secondary School Students

01/01/2023 - 12/31/2023 Funded Amount: \$89,664

Investigator status: PI (Co-PIs: C. Scharber and D. DeLiema) National Science Foundation, Discovery Research PreK-12

DataX: Exploring Justice-Oriented Data Science with Secondary School Students

07/01/2021 - 06/30/2023 Funded Amount: \$449,199 Direct Amount: \$310,712 Indirect Amount: \$138,487

Investigator status: PI (Co-PIs: S. Varma, J. Konstan)

External Agency: The Eric and Wendy Schmidt Fund for Strategic Innovation

Project title and Dates: Learning engineering: Instrumenting a large-scale Student Information System for

research

Dates: 03/2020-12/2023 Total costs: \$799,995

Investigator status: Co-PI

(PI: D. DeLiema; UMN Co-PIs: B. Chen and K. Varma; External Co-PIs: S. Salehi, M. Bernacki, and C.

Anderson) Carina Initiatives

Playful Problem Solving 9/1/2020 – 08/30/2023 Funded Amount: \$990,700 Direct Amount: \$927,994 Indirect Amount: \$62,730

Investigator status: PI (sole)

External Agency: National Science Foundation Program: CISE Research Initiation Initiative (CRII)

Project title and Dates: CRII: Cyberlearning: Connecting Web Annotations and Progressive Online

Discourse in Science Classrooms, 07/01/17-03/31/2020

Award Number: 1657009 Total costs: \$169,041 Investigator status: Co-PI

Name of PI: Stephanie Teasley, University of Michigan

External Agency: National Science Foundation Program: Cyberlearn & Future Learn Tech

Project title and Dates: Doctoral Consortium for the 2016 Learning Analytics and Knowledge Conference,

6/1/2016–5/31/2017 Award Number: <u>1622831</u> Total costs: \$24,930

Investigator status: Co-investigator

Name of PI: Qiong Wang, Peking University, China

External Agency: Digital Learning for Development (DL4D)

Project title and Dates: MOOCs for teacher professional development in underserved regions: Examining

persistent teacher-learners in a Chinese MOOC, 2016

Total costs: C\$64,375.67

University Sources

- 2023, Knowledge Building Innovation Network in Greater China: Education Towards a Sustainable Future, \$133,812.81, Penn Global Research and Engagement Grant Program, University of Pennsylvania
- 2019, International Travel Grant Award, \$1,500, Global Programs and Strategy Alliance, University of Minnesota
- 2019–2020, DataExpedition: Supporting Youth Computational Thinking with Open Geoscience Data, \$23,943, Grant-in-Aid Program, the Office of the Vice President for Research, University of Minnesota
- 2018, Enriching an Online Course with Interactive Web Content and Learning Analytics, \$1,000, Center for Educational Innovation, University of Minnesota
- 2018, Discover open geoscience data to support Data Expedition in high school science, University Libraries Research Sprints, University of Minnesota
- 2016, International Travel Grant Award, \$2,000, Global Programs and Strategy Alliance, University of Minnesota

- 2016, "Stats Carpentry", PI, \$1,500, Partnership for Affordable Content Program, University of Minnesota Libraries
- 2015, Supporting Metadiscourse in Ideational Writing, PI (Co-PI: Cassie Scharber), \$3,123.71, Center for Writing, University of Minnesota
- 2013, OISE Graduate Students Conference Travel Grant, \$330, University of Toronto
- 2012, School of Graduate Studies Research Travel Grant, \$3,000, University of Toronto
- 2012, OISE Graduate Students Conference Travel Grant, \$725, University of Toronto
- 2011, School of Graduate Studies Conference Travel Grant, \$666, University of Toronto
- 2011, OISE Graduate Students Conference Travel Grant, \$705, University of Toronto

List of Grants and Contracts Submitted but not Funded

• 2023, Student-Led Analytics, CHF 150'000, Jacobs Foundation Research Fellowship

PUBLICATIONS

- ^ Invited
- † Student/Advisee
- ¶ Postdoc
- ‡ Classroom teacher

Journal Articles

- 1. **Chen, B.**, & Chen, Z. (2023). Why do students reply? Uncovering the socio-semantic entanglement in web annotation activities. *Education and Information Technologies*. https://doi.org/10.1007/s10639-023-12187-5 (*Impact Factor (2022): 5.5*)
- 2. Zheng, L., Fan, Y., **Chen, B.**, Huang, Z., Gao, L. & Long, M. (2023). An AI-enabled feedback-feedforward approach to promoting online collaborative learning. *Education and Information Technologies*. https://doi.org/10.1007/s10639-023-12292-5 (*Impact Factor* (2022): 5.5)
- 3. Zhu, X.†, Shui, H.†, & **Chen, B.** (2023). Beyond reading together: Facilitating knowledge construction through participation roles and social annotation in college classrooms. *The Internet and Higher Education*, 100919. https://doi.org/10.1016/j.iheduc.2023.100919 (*Impact Factor (2022): 8.6*)
- 4. Zheng, L., Long, M., **Chen, B.**, & Fan, Y. (2023). Promoting knowledge elaboration, socially shared regulation, and group performance in collaborative learning: An automated assessment and feedback approach based on knowledge graphs. *International Journal of Educational Technology in Higher Education, 20*(1), 46. https://doi.org/10.1186/s41239-023-00415-4 (*Impact Factor (2022): 8.6*)
- 5. Kashi, S., Hod, Y., Lee, A. V. Y., Yuan, G., Cohen, E., Bielaczyc, K., **Chen, B.**, & Zhang, J. (2023). Infrastructuring for Knowledge Building: Advancing a framework for sustained innovation. *Qwerty Open and Interdisciplinary Journal of Technology, Culture and Education*, 18(1), 139-156. https://doi.org/10.30557/QW000068
- 6. **Chen, B.**, Shui, H.†, & Håklev, S. (2022). Orchestrating the flow and advancement of knowledge artifacts in an online class. *Instructional Science*, *50*(6), 903–931. https://doi.org/10.1007/s11251-022-09596-3
- 7. **Chen, B.**, & Poquet, O. (2022). Networks in Learning Analytics: Where Theory, Methodology, and Practice Intersect. *Journal of Learning Analytics*, *9*(1), 1–12. https://doi.org/10.18608/jla.2022.7697
- 8. Gan, Y., Hong, H.-Y., **Chen, B.**, & Scardamalia, M. (2021). Knowledge building: Idea-centered drawing and writing to advance community knowledge. *Educational Technology Research and Development*, 69(5), 2423–2449. https://doi.org/10.1007/s11423-021-10022-7
- 9. Chen, B., Fan, Y., Zhang, G., Liu, M., & Wang, Q. (2020). Teachers' networked professional learning with MOOCs. *PLOS ONE, 15*(7), e0235170. https://doi.org/10.1371/journal.pone.0235170 (*Impact Factor 2020: 2.870. Indexing: SCI.*)
- 10. Zhu, X., Chen, B., Avadhanam, R. M., Shui, H., & Zhang, R. Z. (2020). Reading and connecting: Using social annotation in online classes. *Information and Learning Sciences*, 121(5/6), 261–271. https://doi.org/10.1108/ILS-04-2020-0117
- 11. Rosenberg, J.M., Edwards, A., & Chen, B. (2020). Tools and strategies for engaging students in analyzing and interpreting complex data sources. *The Science Teacher*, 87(5), 30-34. https://doi.org/10.2505/4/tst20_087_05_30
- 12. **Chen, B.**, & Huang, T. (2019). It is about timing: Network prestige in asynchronous online discussions. *Journal of Computer Assisted Learning*, 34, 503–515. https://doi.org/10.1111/jcal.12355
- 13. **Chen, B.** (2019). Designing for Networked Collaborative Discourse: An UnLMS Approach. *TechTrends*, 63(2), 194–201. https://doi.org/10.1007/s11528-018-0284-7
- 14. Hong, H.-Y., Lin, P.-Y., **Chen, B.**, & Chen, N. (2019). Integrated STEM learning in an idea-centered knowledge-building environment. *The Asia-Pacific Education Researcher*, 28(1), 63–76. https://doi.org/10.1007/s40299-018-

- 15. **Chen, B.**, Chang, Y.-H.†, Ouyang, F.†, & Zhou, W.† (2018). Fostering student engagement in online discussion through social learning analytics. *The Internet and Higher Education, 37*, 21–30. https://doi.org/10.1016/j.iheduc.2017.12.002 (*Impact Factor 2017: 5.847*)
- Cai, Q., Chen, B., Wu, H., & Trussell, G. (2018). Using differentiated feedback to improve performance in introductory statistics. *Innovations in Education and Teaching International*. https://doi.org/10.1080/14703297.2018.1508362
 (Author order reflects writing contributions. *Impact Factor 2017: 1.106*)
- 17. **Chen, B.**, Knight, S., & Wise, A. F. (2018). Critical issues in designing and implementing temporal analytics. *Journal of Learning Analytics*, *5*(1), 1-9. http://dx.doi.org/10.18608/jla.2018.53.1
- 18. Fan, Y.,† Zhang, G.,† **Chen, B.**, & Wang, Q. (2018). Why did they come back?: Analyzing motivations for repeated enrollment in MOOCs [in Chinese]. Journal Open Education Research, 24(2), 89-96. (JOER is ranked the 6th among 37 educational science journals in the Chinese Social Sciences Citation Index (CSSCI). Author order reflects writing contributions. Role: project Co-PI, research design, and draft revisions.)
- 19. Li, C., **Chen, B.**, & Gobert, J. (2018). Innovations in scaling and enhancing learning: Review on the Fifth Annual ACM Conference on Learning at Scale [in Chinese]. *Journal of Open Learning*, 23(5), 1-7. doi:10.19605/j.cnki.kfxxyj.2018.05.001
- 20. **Chen, B.** (2017). Fostering scientific understanding and epistemic beliefs through judgments of promisingness. *Educational Technology Research and Development*, 65(2), 255–277. doi:10.1007/s11423-016-9467-0 (*Impact Factor 2017: 1.728*)
- 21. **Chen, B.**, Resendes, M., Chai, C.S., & Hong, H.-Y. (2017). Two tales of time: Uncovering the significance of sequential patterns among contribution types in knowledge-building discourse. *Interactive Learning Environments*, 25(2), 162–175. doi:10.1080/10494820.2016.1276081 (*Impact Factor 2016: 1.674*)
- 22. Knight, S., Wise, A. F., & Chen, B. (2017). Time for change: Why learning analytics needs temporal analysis. *Journal of Learning Analytics*, 4(3), 7–17. https://doi.org/10.18608/jla.2017.43.2
- 23. Chen, B.^ & Huang, T.† (2017). <u>Unpacking Learning Analytics: An attempt to tilt the iceberg [in Chinese]</u>. *Journal of Open Learning*, 22(4), 1-9. doi:10.19605/j.cnki.kfxxyj.2017.04.001
- 24. **Chen, B.**, & Zhang, J. (2016). Analytics for knowledge creation: Towards epistemic agency and design-mode thinking. *Journal of Learning Analytics*, *3*(2), 139–163. doi:10.18608/jla.2016.32.7
- 25. **Chen, B.**, & Hong, H.-Y. (2016). Schools as knowledge-building organizations: Thirty years of design research. *Educational Psychologist*, *51*(2), 266-288. doi:10.1080/00461520.2016.1175306 (*Impact Factor 2015: 5.688*)
- 26. Hong, H.-Y., **Chen, B.**, & Chai, C. S. (2016). Exploring the development of college students' epistemic views during their knowledge building activities. *Computers & Education*, 98, 1–13. doi:10.1016/j.compedu.2016.03.005 (Author order reflects writing contributions. Role: Drafting and revising the manuscript. Impact Factor 2015: 2.881)
- 27. Chen, B., Scardamalia, M., & Bereiter, C. (2015). <u>Advancing knowledge building discourse through judgments of promising ideas</u>. *International Journal of Computer-Supported Collaborative Learning*, 10(4), 345-366. http://dx.doi.org/10.1007/s11412-015-9225-z
 (Impact Factor 2016: 3.469. Recognized in June 2017 by Springer as one of the Highly Cited Articles in Education & Language.)
- 28. Chen, B. (2015). Exploring the digital divide: The use of digital technologies in Ontario public schools. Canadian Journal of Learning and Technology / La revue canadienne de l'apprentissage et de la technologie, 41(3), 1-23.
- 29. Resendes, M., Scardamalia, M., Bereiter, C., **Chen, B.**, & Halewood, C.‡ (2015). Group-level formative feedback and metadiscourse. *International Journal of Computer-Supported Collaborative Learning*, 10(3), 309–336. http://dx.doi.org/10.1007/s11412-015-9219-x (Author order reflects writing contributions. Role: Designing and developing the feedback tool; analyzing data; and drafting the manuscript. *Impact Factor 2016: 3.469*)
- 30. Goggins, S., Xing, W., Chen, X., Chen, B., & Wadholm, B. (2015). <u>Learning analytics at "small" scale: Exploring a complexity-grounded model for assessment automation</u>. *Journal of Universal Computer Science, 21*(1), 66–92. (Author order reflects research contributions. Role: Conceptual discussion and manuscript revision. Impact Factor 2017: 1.066)
- 31. **Chen, B.**^ (2015). From theory use to theory building in learning analytics: A commentary on "Learning analytics to support teachers during synchronous CSCL". *Journal of Learning Analytics*, *2*(2), 163–168. doi:10.18608/jla.2015.22.12
- 32. Zhang, Y., **Chen, B.**, Scardamalia, M., & Bereier, C. (2012). From shallow to deep constructivism: Development of Knowledge Building theory and its application in China [in Chinese]. *E-education Research*, 9, 5-12. (Contribution: 40%; the 1st and 2nd author contributed equally to writing. Role: Conceptual design; drafting the manuscript; and addressing review comments.)

- 33. **Chen, B.**, Resendes, M., Chuy, M., Tarchi, C. & Bereiter, C. (2011). <u>Identifying promising ideas in a knowledge-building discourse</u> [in Italian: Identificare, selezionare e sviluppare le idee promettenti nel Knowledge Building]. *OWERTY Interdisciplinary Journal of Technology, Culture and Education*, 6(2), 224-241.
- 34. Chuy, M., Resendes, M., Tarchi, C., **Chen, B.**, & Scardamalia, M. (2011). Ways of contributing to an explanation-seeking dialogue in science and history [in Italian: Modi di contribuire ad un dialogo per la ricerca di spiegazioni]. *QWERTY Interdisciplinary Journal of Technology, Culture and Education, 6*(2), 242-260. (Author order reflects writing contributions. Role: Analyzing data; and drafting the manuscript.)
- 35. **Chen, B.**, Jia, J., & Wang, A. (2007). An application framework of educational resources repository based on ontology and semantic web technologies [in Chinese]. *China Educational Technology*(251), 105-109.
- 36. Li, Q., Tang, H., **Chen, B.**, Yang, S., & Huang, R. (2006). Development and application of an LMS SCORM 2004 engine [in Chinese]. *Journal of Open Education Research*, 12(6), 85-87. (Author order reflects research and writing contributions. Role: Technology design & development; and drafting the manuscript.)

Book Chapters

- 1. Poquet, O. & Chen, B. (forthcoming). Integrating Theories of Learning and Social Networks in Learning Analytics. In *Theory Informing and Arising from Learning Analytics*. Springer: New York.
- 2. Chen, B. & Teasley, S. (2022). Collaboration Analytics. In *Handbook of Learning Analytics (2nd Edition)*. Society for Learning Analytics Research (SoLAR).
- 3. **Chen, B.**, Håklev, S. & Rosé, C.P. (2021). Massive-scale collaborative learning. In U. Cress, C. Rosé, A. F. Wise, & J. Oshima (Eds.), *International Handbook of Computer-Supported Collaborative Learning* (pp. 163–181). Springer International Publishing. https://doi.org/10.1007/978-3-030-65291-3
- 4. Romero-Hall, E., Correia, A.P., Branch, R.M., Cevik, Y.D., Dickson-Deane, C., **Chen, B.**, Liu, J.C., Tang, H., Vasconcelos, L., Pallitt, N., & Thankachan, B. (2020). Futurama: Learning, Design and Technology Research Methods. In *Research Methods in Learning Design and Technology*. Routledge.
- 5. **Chen, B.**, & Lin, F. (2020). Representational affordances for collaborative learning in technology-enhanced environments. In P. Kendeou, P.V. Meter, A List, & D. Lombardi (Eds.), *Handbook of Learning from Multiple Representations and Perspectives*. Routledge.
- 6. Gutiérrez Braojos, C., Montejo-Gámez, J., Ma, L., & Chen, B. (2019). Exploring collective responsibility within a knowledge building community: Analysis of online peer feedback. In L. Daniela (Ed.), *Didactics of Smart Pedagogy: Smart Pedagogy for Technology Enhanced Learning*. Springer.
- 7. Chen, B., Chen, C.-M., Hong, H.-Y., & Chai, C. S. (2018). Learning analytics: Approaches and cases from Asia. In K. J. Kennedy & J. C.-K. Lee (Eds.), *Routledge International Handbook of Schools and Schooling in Asia* (pp. 419–432). New York, NY: Routledge.
- 8. **Chen, B.**, & Fan, Y. (2018). Learning analytics: Perspectives from Mainland China. In C. P. Lim & V. L. Tinio (Eds.), *Learning analytics for the Global South (pp. 36–43)*. Quezon City, Philippines: Foundation for Information Technology Education and Development.

Full Papers in Refereed Conference Proceedings

- 1. Liu, X., Hussein, B., Barany, A., Baker, R. S., & Chen, B. (2023). Decoding Player Behavior: Analyzing Reasons for Player Quitting Using Log Data from Puzzle Game Baba Is You. In G. Arastoopour Irgens & S. Knight (Eds.), *Advances in Quantitative Ethnography* (pp. 34–48). Springer Nature: Switzerland. https://doi.org/10.1007/978-3-031-47014-1
- 2. Chen, B. (chair), Scardamalia, M., Bereiter, C., Zhang, J., Park, H., Teo, C. L., Yuan, G., Lee, A. V. Y., Hod, Y., Kashi, S., Cohen, E., Oshima, J., Oshima, R., Kawakubo, A. J. T., Chan, C. K. K., Feng, X., Zhao, J., Zhu, X., & Bielaczyc, K. (2023, June). Infrastructuring in Knowledge Building Initiatives. In *Proceedings of the 2023 CSCL Conference*. ISLS: Montreal, Canada.
- 3. Zhu, X.†, & Chen, B. (2023, June). Understanding Idea Creation in Collaborative Discourse through Networks: The Joint Attention–Interaction–Creation (AIC) Framework. In *Proceedings of the 2023 CSCL Conference*. ISLS: Montreal, Canada.
- 4. Chen, B. (2022). Connectivity for knowledge building: A framework of socio-semantic network motif analysis. In A. Weinberger, W. Chen, D. Hernández-Leo, & B. Chen (Eds.), *Proceedings of the 15th International Conference on Computer—Supported Collaborative Learning—CSCL 2022* (pp. 19–26). International Society of the Learning Sciences.
- 5. Zhang, J., Xiang, M., Guo, G., Huang, J., & Chen, B. (2021). Network analysis of themes and concepts in learning analytics. In *Proceedings of the 20th International Forum on Educational Technology (IFET2021)*.: Jinhua, Zhejiang, China.

- 6. Zhu, X., Shui, H., & Chen, B. (2021). Designing Support for Productive Social Interaction and Knowledge Coconstruction in Collaborative Annotation. In Rodrigo, M. M. T. et al. (Eds.). *Proceedings of the 29th International Conference on Computers in Education*. Asia-Pacific Society for Computers in Education.
 - (Best Student Paper Award & Best Research Paper Honourable Mention)
- 7. **Chen, B.**, & Zhu, H. (2019). Towards Value-Sensitive Learning Analytics Design. In *Proceedings of the 9th International Conference on Learning Analytics & Knowledge* (pp. 343–352). ACM. https://doi.org/10.1145/3303772.3303798
- 8. Lund, K., Chen, B., Gaudwin, S. (2018). The potential of interdisciplinarity in MOOC research: How do researchers in education and computer science compare? In *Proceedings of the 2018 Learning @ Scale Conference*. London, UK: ACM Press. https://doi.org/10.1145/3231644.3231661 (Overall Acceptance Rate: 22%)
- 9. Ma, L.†, Matsuzawa, Y., Chen, B., & Scardamalia, M. (2016). Community knowledge, collective Responsibility: The emergence of rotating leadership in three knowledge building communities. In C. K. Looi, J. L. Polman, U. Cress, & P. Reimann. (Eds.), *Transforming Learning, Empowering Learners: The International Conference of the Learning Sciences (ICLS) 2016, Volume 1* (pp. 615-622). Singapore: The International Society of the Learning Sciences.
- 10. Chen, B., Ma, L.†, Matsuzawa, Y., & Scardamalia, M. (2015). The development of productive vocabulary in knowledge building: A longitudinal study. In O. Lindwall, P. Hakkinen, T. Koschman, P. Tchounikine, & S. Ludvigsen. (Eds.), Exploring the Material Conditions of Learning: The Computer Supported Collaborative Learning (CSCL) Conference 2015, Volume 1 (pp. 443-450). Gothenburg, Sweden: The International Society of the Learning Sciences.
 - (Note: Best Paper Award Nominee. Paper Acceptance Rate: 36%)
- 11. **Chen, B.**, Chen, X., & Xing, W. (2015). "Twitter archeology" of Learning Analytics and Knowledge conferences. In *Proceedings of the Fifth International Conference on Learning Analytics and Knowledge LAK '15* (pp. 340–349). New York, NY, USA: ACM. doi:10.1145/2723576.2723584 (Full Paper Acceptance Rate: 27%)
- 12. Resendes, M., Chen, B., Acosta, A., & Scardamalia, M. (2013). The effect of formative feedback on vocabulary use and distribution of vocabulary knowledge in a grade two Knowledge Building class. In N. Rummel, M. Kapur, M. Nathan, & S. Puntambekar (Eds.), To See the World and a Grain of Sand: Learning across Levels of Space, Time, and Scale: CSCL 2013 Conference Proceedings Volume 1 Full Papers & Symposia (pp. 391-398). International Society of the Learning Sciences. (Note: Best Student Paper Award Nominee)
- 13. **Chen, B.**, Scardamalia, M, Resendes, M., Chuy, M., & Bereiter, C. (2012). <u>Students' intuitive understanding of promisingness and promisingness judgments to facilitate knowledge advancement</u>. In J. van Aalst, K. Thompson, M. J. Jacobson & P. Reimann (Eds.), *The future of learning: Proceedings of the 10th international conference of the learning sciences (ICLS 2012) Volume 1, Full Papers (pp. 111-118).* Sydney, Australia: ISLS.
- 14. **Chen, B.** & Wang, Q. (2010). <u>Pursuing effective facilitating strategies: The effect of facilitator's leadership behaviors on online learning</u>. *In Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2010 (pp. 2192-2199)*. Chesapeake, VA: AACE.

Evaluation, Project, and Technical Reports

- 1. Wang, Q., **Chen, B.**, Fan, Y., & Zhang, G. (2018). *MOOCs as an alternative for teacher professional development: Examining learner persistence in one Chinese MOOC*. Final project report. Manila, The Philippines: Digital Learning for Development (DL4D).
- 2. Chen, B., Gallagher-Mackay, K., Kidder, A., & Proulx, K. (2014). *Public education: Our best investment (Annual report on Ontario's publicly funded schools 2014)*. Technical report, People for Education, Toronto, ON, Canada.
- 3. **Chen, B.**, Gallagher-Mackay, K., & Kidder, A. (2014). <u>Digital learning in Ontario schools: The 'new normal'</u>. Technical report, People for Education, Toronto, ON, Canada.
- 4. Rolheiser, C., **Chen, B.**, Håklev, S., Harrison, L., Najafi, H., & Teplovs, C. (2014). *Hatch, match, and dispatch:* Examining the relationship between student intent, expectations, behaviours and outcomes in six Coursera MOOCs at the University of Toronto. MOOC Research Initiative. Retrieved from http://www.moocresearch.com/reports

Software Development

- 1. Chen, B., Encalada, B., Batu, W., & Chen, W. (2019-2023). DataX [computer software]. Minneapolis, MN.
- 2. Chen, W., Batu, W., & Chen, B. (2019). IdeaMagnets for Knowledge Forum 6 [computer software]. Minneapolis, MN.
- 3. Chen, W., & Chen, B. (2019). Personal Learning Compass [computer software]. Minneapolis, MN.
- 4. Liu, X., & Chen, B. (2015). WordWhispers for Knowledge Forum 6 [computer software]. Minneapolis, MN.

- 5. Chen, B. (2015). CanvasNet [Social learning analytics for Canvas]. Minneapolis, MN.
- 6. Chen, B. (2015). LexFreq [R-based computer software for computing Lexical Frequency Profiles]. Minneapolis, MN
- 7. Chen, B. (2015). LagSeq [R-based computer software for Lag-sequential Analysis]. Minneapolis, MN.
- 8. **Chen, B.** (2011). Promising Ideas Tool of Knowledge Forum [computer software]. Toronto, ON: Institute for Knowledge Innovation and Technology.
- 9. **Chen, B.** (2011). Metadiscourse Tool of Knowledge Forum [computer software]. Toronto, ON: Institute for Knowledge Innovation and Technology.

Other Papers in Refereed Conference Proceedings

- 1. Su, M., Olson, L. A., Jarratt, D. C., Varma, S., Konstan, J. A., Keller, R. J. L., & Chen, B. (2022). Re-envisioning a K-12 Early Warning System with School Climate Factors. In *Proceedings of the Ninth ACM Conference on Learning @ Scale*, 405–408. https://doi.org/10.1145/3491140.3528670
- 2. DeLiema, D., Goeke, M., Hussein, B., Valerie, J., Anderson, C., Varma, K., **Chen, B.**, Salehi, S., & Bernacki, M. (2022). Playful learning following deviations: A mixture of tinkering, causal explanations, and revision rationales. In Chinn, C., Tan, E., Chan, C., & Kali, Y. (Eds.), *Proceedings of the 16th International Conference of the Learning Sciences ICLS 2022* (pp. 1421-1424). International Society of the Learning Sciences.
- 3. **Chen, B.** Zhu, X., & Shui, H. (2022). Socio-Semantic Network Motifs Framework for Discourse Analysis. In *Proceedings of the 12th International Conference on Learning Analytics & Knowledge*. ACM. https://doi.org/10.1145/3506860.3506893
- 4. **Chen, B.**, Hussein, B., & Poquet, O. (2021). Modelling network dynamics in social annotation. In O. Poquet, B. Chen, M. Saqr, & T. Hecking (Eds.), *Proceedings of the NetSciLA2021 workshop "Using Network Science in Learning Analytics: Building Bridges towards a Common Agenda" (NetSciLA2021) (No. 2868; pp. 9–15). http://ceur-ws.org/Vol-2868/#article 3*
- 5. Poquet, O., **Chen, B.**, Saqr, M., & Hecking, T. (2021). Using network science in learning analytics: Building bridges towards a common agenda. In O. Poquet, B. Chen, M. Saqr, & T. Hecking (Eds.), *Proceedings of the NetSciLA2021 workshop "Using Network Science in Learning Analytics: Building Bridges towards a Common Agenda" (NetSciLA2021*) (No. 2868; pp. 1–2). http://ceur-ws.org/Vol-2868/#article_1
- 6. Poquet, O., Saqr, M., & Chen, B. (2021). Recommendations for network research in learning analytics: To open a conversation. In O. Poquet, B. Chen, M. Saqr, & T. Hecking (Eds.), *Proceedings of the NetSciLA2021 workshop "Using Network Science in Learning Analytics: Building Bridges towards a Common Agenda" (NetSciLA2021)* (No. 2868; pp. 34–41). http://ceur-ws.org/Vol-2868/#article_7
- 7. Chen, B. & Poquet, O. (2020). Socio-Temporal Dynamics in Peer Interaction Events. In *Proceedings of the 10th International Conference on Learning Analytics & Knowledge*. ACM. https://doi.org/10.1145/3375462.3375535
- 8. Peri, S.S.S., **Chen, B.**, Dougall, A.L., & Siemens, G. (2020). Towards Understanding the Lifespan and Spread of Ideas: Epidemiological Modeling of Participation on Twitter. In *Proceedings of the 10th International Conference on Learning Analytics & Knowledge*. ACM. https://doi.org/10.1145/3375462.3375515
- 9. Poquet, O., Hecking, T., & Chen, B. (2020). The Modeling of Digital Learning Networks. In *Companion Proceedings 10th International Conference on Learning Analytics & Knowledge (LAK20)*.
- 10. Huang, T.†, & Chen, B. (2018). Uncovering the rich club phenomenon in an online class. In *Proceedings of the 2018 ICLS Conference*. London, UK: ISLS.
- 11. de Jong, F., van den Ende, J., van Heijst, H., Matsuzawa, Y., Kirschner, P., Zhang, J., Chen, M., Chen, F., Rosé, C., Godinez, E. V., Ratté, S., Chen, B., ... Wise, A. (2017). Making a Difference: Analytics for Quality Knowledge-Building Conversations. In B. K. Smith, M. Borge, E. Mercier, & K. Y. Lim (Eds.), Making a Difference: Prioritizing Equity and Access in CSCL, 12th International Conference on Computer Supported Collaborative Learning (CSCL) 2017 (Vol. 2, pp. 711–718). Philadelphia, PA: International Society of the Learning Sciences. https://doi.org/10.22318/cscl2017.114
- 12. Scardamalia, M., Bereiter, C., Laferrière, T., Bielaczyc, K., Chai, S., Chan, C. K. K., **Chen, B.**, ... Zhang, J. (2017). Toward a multi-level knowledge building innovation network. In B. K. Smith, M. Borge, E. Mercier, & K. Y. Lim (Eds.), *Making a Difference: Prioritizing Equity and Access in CSCL, 12th International Conference on Computer Supported Collaborative Learning (CSCL) 2017 (Vol. 2, pp. 703–710). Philadelphia, PA: International Society of the Learning Sciences. https://doi.org/10.22318/cscl2017.113*
- 13. **Chen, B.**, Fan, Y.†, Zhang, G.†, & Wang, Q. (2017). Examining motivations and self-regulated learning strategies of returning MOOCs learners. In *Proceedings of the Seventh International Learning Analytics & Knowledge Conference* (pp. 542–543). New York, NY: ACM. https://doi.org/10.1145/3027385.3029448
- 14. Hong, H., **Chen, B.**, Tsai, C.-C., Lin, C.P., & Wu, Y.-T. (2016). Fostering more informed epistemic views among students through knowledge building. In C. K. Looi, J. L. Polman, U. Cress, & P. Reimann. (Eds.), *Transforming Learning, Empowering Learners: The International Conference of the Learning Sciences (ICLS) 2016, Volume 2* (pp. 787-790). Singapore: The International Society of the Learning Sciences.

- 15. Cai, Q., Wu, H., & Chen, B. (2016). Using differentiated feedback messages to promote student learning in an introductory statistics course. In C. K. Looi, J. L. Polman, U. Cress, & P. Reimann. (Eds.), *Transforming Learning, Empowering Learners: The International Conference of the Learning Sciences (ICLS) 2016, Volume 2* (pp. 795-798). Singapore: The International Society of the Learning Sciences.
- Chen, B., Wise, A. F., Knight, S., & Cheng, B. H. (2016). Putting temporal analytics into practice. In *Proceedings of the Sixth International Conference on Learning Analytics & Knowledge LAK '16* (pp. 488–489). New York, New York, USA: ACM Press. doi:10.1145/2883851.2883865
- 17. **Chen, B.** (2015). Devising technological and pedagogical supports for metadiscourse in knowledge building. In O. Lindwall, P. Hakkinen, T. Koschman, P. Tchounikine, & S. Ludvigsen. (Eds.), *Exploring the Material Conditions of Learning: The Computer Supported Collaborative Learning (CSCL) Conference 2015, Volume 2* (pp. 908-909). Gothenburg, Sweden: The International Society of the Learning Sciences. (Note: Research summary for Early Career Workshop)
- 18. Knight, S., Wise, A. F., **Chen, B.**, & Cheng, B. H. (2015). <u>It's about time: 4th international workshop on temporal analyses of learning data</u>. In *Proceedings of the Fifth International Conference on Learning Analytics and Knowledge LAK '15* (pp. 388–389). New York, NY, USA: ACM Press. doi:10.1145/2723576.2723638 (*Note: Workshop paper*)
- 19. **Chen, B.** (2014). <u>Visualizing semantic space of online discourse: The Knowledge Forum case</u>. In *Proceedings of the Fourth International Conference on Learning Analytics and Knowledge LAK '14 (pp. 271–272)*. New York, New York, USA: ACM Press. doi:10.1145/2567574.2567595 (*Paper Acceptance Rate: 30%*)
- 20. **Chen, B.**, & Resendes, M. (2014). <u>Uncovering what matters: Analyzing transitional relations among contribution types in knowledge-building discourse</u>. In *Proceedings of the Fourth International Conference on Learning Analytics And Knowledge LAK '14 (pp. 226–230)*. New York, New York, USA: ACM Press. doi:10.1145/2567574.2567606 (*Paper Acceptance Rate: 30%*)
- 21. Xu, Z., Woodruff, E., & Chen, B. (2013). <u>Efficacy of reward allotment on children's motivation and learning</u>. In *Proceedings of the European Conference on Games Based Learning (pp. 748–755)*. Porto, Portugal: Academic Publishing.
- 22. Chen, B., Scardamalia, M., Acosta, A., Resendes, M., & Kici, D. (2013). Promisingness judgments as facilitators of knowledge building. In N. Rummel, M. Kapur, M. Nathan, & S. Puntambekar (Eds.), To See the World and a Grain of Sand: Learning across Levels of Space, Time, and Scale: CSCL 2013 Conference Proceedings Volume 2 Short papers, Panels, Posters, Demos & Community Events (pp. 231-232). International Society of the Learning Sciences.
- 23. **Chen, B.**, Chuy, M., Resendes, M., Scardamalia, M., & Bereiter, C. (2011). <u>Evaluation by grade 5 and 6 students of the promisingness of ideas in knowledge-building discourse</u>. In H. Spada, G. Stahl, N. Miyake & N. Law (Eds.), *Connecting Computer-Supported Collaborative Learning to Policy and Practice: CSCL2011 Conference Proceedings. Volume II Short Papers & Posters (pp. 571-575)*. Hong Kong: International Society of the Learning Sciences.
- 24. Resendes, M., Chuy, M., Chen, B., & Scardamalia, M. (2011). Ways of contributing to a knowledge building dialogue in history. In H. Spada, G. Stahl, N. Miyake & N. Law (Eds.), Connecting Computer-Supported Collaborative Learning to Policy and Practice: CSCL2011 Conference Proceedings. Volume II Short Papers & Posters (pp. 998-999). Hong Kong: International Society of the Learning Sciences.

Media Appearances and Interviews

- 1. Chen, B., & Tan, S. (2020, September). A Principle-based Approach to Teaching and Learning. *SingTeach*. Retrieved from https://singteach.nie.edu.sg/issue74-a-principle-based-approach-to-teaching-and-learning/
- 2. Burger, Kevyn. (Reporter), & Chen, B. (Interviewee). (2020, May). Twin Cities homeowners turn to YouTube videos to learn repair skills. *CEHD Connect*. Retrieved from https://www.startribune.com/using-youtube-videos-to-repair-maintain-and-upgrade-your-home/569352942/
- 3. Frisch, Suzy. (Reporter), & Chen, B. (Interviewee). (2020, April). Understanding learning through data: A fresh way of developing new educational tools. *CEHD Connect*. Retrieved from https://connect.cehd.umn.edu/understanding-learning-through-data/
- 4. Frisch, Suzy. (Reporter), & Chen, B. (Interviewee). (2019, December). Acting on data: Professor Bodong Chen aims to help educators use analytics to improve teaching and learning. *CEHD Connect*. Retrieved from https://connect.cehd.umn.edu/acting-on-data/
- 5. Chao, Max. (Reporter), & Chen, B. (Interviewee). (2018, April 19). University of Minnesota professors use their free time to write free textbooks. *Minnesota Daily*. Retrieved from https://z.umn.edu/opentext
- 6. Harfield, T. (Interviewer), & Chen, B. (Interviewee). (2016, July 28). Social Network Analysis & Personal Responsibility. *2016 Minnesota eLearning Summit*. Retrieved from https://www.youtube.com/watch?

- v=3Y12cS2ehg0&feature=youtu.be
- 7. Sinha, S. (Interviewer), & Chen, B. (Interviewee). (2016, June 5). The Inception of Revolutionary Learning: Blending Machine Learning & Learning Analytics from the University of Minnesota. *Yellowdig Biweekly, First Edition*. Yellowdig. Retrieved from https://cdn2.hubspot.net/hubfs/2058153/FirstFinal DailyDig.pdf
- 8. Helgeson, M. (Interviewer), & Chen, B. (Interviewee). (2016, January 12). How Technology and Learning Analytics Are Transforming Education, *CEHD Vision 2020 Blog*. Retrieved from http://cehdvision2020.umn.edu/cehdblog/technology-and-learning-analytics/

PRESENTATIONS, POSTERS, AND EXHIBITS

Keynotes and Invited Speeches

- 1. Chen, B. (2019, December). *Creating conditions for knowledge building for the public good*. Theme-based Invited Speech at the 27th International Conference on Computers in Education (ICCE 2019), Kenting, Taiwan.
- 2. Chen, B. (2019, November). *Promoting epistemic cognition in knowledge building: Discourse, tools, and analytics*. Invited Speech at the 3rd International Conference for Personal Epistemology and Learning in Digital Age, Taipei, Taiwan.
- 3. Chen, B. (2016, October). *Mapping the Terrain of MOOC Research*. Keynote speech at the MOOC Doctoral Forum, Beijing, China.

Invited Talks

- 1. Chen, B. (2023, March). *How will new developments in AI influence education?* Webinar series on Artificial Intelligence, ChatGPT, and Education. Penn GSE Center for Professional Learning.
- 2. Chen, B. (2022, December). *Panel: AI and Analytics for collaborative learning and knowledge building*, Empowering Learners in AI 2022, Online.
- 3. **Chen, B.** (Guest Moderator), Garcia, C. (Panelist), Lindquist, M. (Panelist), & Zhu, X. (Panelist) (2020, December). <u>Liquid Margins 15: Social Reading: Theory & Practice</u>. Liquid Margins webinar series organized by Hypothes.is, Online
- 4. Milligan, S., Winne, P., Gašević, D., Jovanović, J., Lund, K., & Chen, B. (2020, November). What Do We Mean by <u>Rigour in Learning Analytics?</u>. Panel presentation organized by the Society for Learning Analytics Research (SoLAR), Online.
- 5. Chen, B. (2020, October). *Learning, Design, and Analytics in the Knowledge Society: A Research Agenda*. An invited talk at the Graduate School of Education, Peking University, Online.
- 6. Chen, B. (2020, July). *Learning analytics: Frontiers, trends, and challenges*. Invited talk at the Symposium of Artificial Intelligence for Educational Innovation, East China Normal University, Online.
- 7. Chen, B. (2020, July). *Sharpened tools for sharp minds: Knowledge management in academic research*. Invited talk at the Fridays Zoom Seminar, Bejing Normal University, Online.
- 8. Poquet, O., & Chen, B. (2020, April). *Analyzing Learning and Teaching through the Lens of Networks*. Invited webinar organized by the Society for Learning Analytics Research (SoLAR).
- 9. Chen, B. (2019, November). *Designing technology and analytics for knowledge building classrooms*. Invited talk at the Center for Cognitive Sciences Symposium on Learning at the University of Minnesota, Minneapolis, MN.
- 10. Chen, B. (2018, November). *Truly Social or Just Timely: Modeling Peer Interactions in a Social Media Environment*. Invited Brownbag Lecture at the UC Irvine School of Education, Irvine, CA.
- 11. Chen, B. (2018, March). *The Development of Productive Vocabulary and Rotating Leadership in Knowledge Building*. Invited Presentation at the Graduate School of Education, Peking University, Beijing, China.
- 12. Chen, B. (2018, March). *Teachers' Perpetual Learning in and with MOOCs*. Invited Presentation at the Research Centre of Distance Education, Beijing Normal University, Beijing, China.
- 13. Chen, B. (2018, March). Fostering Online Discussion Through Social Learning Analytics. Invited Presentation at the School of Educational Technology, Beijing Normal University, Beijing, China.
- 14. Chen, B. (2017, October). *MOOCs for Teacher Professional Development in China*. Invited Presentation at "Leveraging Digital Learnings for 2020", 2017 mEducation Alliance Symposium, Washington D.C.
- 15. Chen, B. (2017, October). *Learning Analytics for the Global South: A Chinese Perspective*. Invited Presentation at "Include Us All! Directions for Adoption of Learning Analytics in the Global South", 2017 mEducation Alliance Symposium, Washington D.C.
- 16. Chen, B. (2017, April). *Dynamic Network Analysis of Knowledge-Building Discourse*. Invited Presentation of the AIM Analytics Lecture Series, University of Michigan, Ann Arbor.
- 17. Chen, B. (2016, October). *Learning analytics in higher education: Promising practices and lessons learned.* Invited presentation at the 30th Annual Conference of the Asian Association of Open University, Manila, Philippines.

- 18. Chen, B., & Wang, Q. (2016, October). *Learning analytics: An introduction*. Invited pre-conference seminar at the 30th Annual Conference of the Asian Association of Open University, Manila, Philippines.
- 19. Chen, B. (2013, May). *Knowledge Building: Theory, pedagogy, technology, and its recent development*. Invited Presentation, E-learning Forum Online Seminar (http://www.elearningforum.net/).
- 20. Chen, B. (2013, February). *Promisingness judgments in knowledge building classrooms*. Invited Presentation, Gimnasio La Montaña, Bogotá, Colombia.
- 21. Chen, B. (2012, August). *Introduction to knowledge building principles*. Invited Presentation, Baiyunyuan Elementary School, Nanjing, China.

Contributed Papers Presented at Professional Meetings, Conferences, etc.

International and National (refereed)

- 1. **Chen, B.**, Bartucz, J., Scharber, C., Rao, V., & DeLiema, D. (2023, April). *Towards a Framework for Justice-Oriented Data Science Education in K-12 Schools*. Paper presented at the 2023 AERA Annual Meeting [Paper Session], Chicago, IL, United States.
- Su, M., & Chen, B. (2023, April). School-Wide Approaches to Social Emotional Learning on Immigrant Students' Development in the U.S. and Finland. Paper presented at the 2023 AERA Annual Meeting [Roundtable Session], Chicago, IL, United States.
- 3. Su, M., Olson, L. A., Jarratt, D. C., Varma, S., Konstan, J. A., Keller, R., & Chen, B. (2023, April). *Integrating School Climate Factors in a K-12 Early Warning System: An Exploratory Study*. Paper presented at the 2023 AERA Annual Meeting [Roundtable Session], Chicago, IL, United States.
- 4. Chen, Z., Chen, B., Konstan, J., & Varma, S. (2023, April). *Quantifying Culturally Relevant Curriculum and Examining its Relationships with Students' and Teachers' Race/ethnicity and Gender*. Paper presented at the 2023 AERA Annual Meeting [Roundtable Session], Chicago, IL, United States.
- 5. Chen, B. (2022, October). *Toward a framework of infrastructuring for sustainable educational innovations*. Paper presented at the 2022 AECT International Convention, Las Vegas, Nevada.
- 6. Chen, Z., Chen, B. (2022). *Integrating Lexical Networks and Word Embeddings to Quantify Idea Diversity in Knowledge Building Discourse*. Paper presentation at the 8th International Conference on Computational Social Science, Chicago, IL, United States.
- 7. Chen, Z., Chen, B., Konstan, J., & Varma, S. (2022, September). The Elephant in the Room: Potential Selection Biases in Educational Digital Big Data. Paper presented at the 2022 Annual Meeting of the Society for Research on Educational Effectiveness (SREE), Arlington, Virginia. https://sree.confex.com/sree/2022/meetingapp.cgi/Paper/4170
- 8. Stewart, K., Aimone, E., Zhu, X.†, Shui, H.†, & Chen, B. (2021, May). Impact of a Social Annotation Platform on Knowledge Construction and Higher-Order Thinking Skills in an Online Global Health Ethics Graduate Course at Duke in Spring 2021. Pandemic Pedagogy Research Symposium, Online.
- 9. **Chen, B.**, Chang, Y.-H.,† & Groos, D.^T^ (2020, November) *Crisscrossing Information Spaces with the IdeaMagnets Tool*. Paper presented at the 2020 Knowledge Building Summer Institute, Online.
- Chen, B. (2020, Apr 17 21). Truly Social or Simply Coincident: Mining Peer Interaction in Asynchronous Online Discussions [Paper Session]. AERA Annual Meeting, San Francisco, CA http://tinyurl.com/snwqf5d (Conference Canceled)
- 11. **Chen, B.**, Barbaro, V., Ma, L. & Peebles, B. (2020, Apr 17 21). *Data Expedition in a Knowledge-Building Community* [Structured Poster Session]. AERA Annual Meeting, San Francisco, CA http://tinyurl.com/yxobqlmd (Conference Canceled)
- 12. Teo, C. L., **Chen, B.**, Ma, L., Wong, L. H., & Koh, E. (2019, December). *Questions, Design, Indicators for CSCL*. Panel presentation at the 27th International Conference on Computers in Education (ICCE 2019), Kenting, Taiwan.
- 13. Miao, J., Wang, Q., & Chen, B. (2019, April). Facilitating Collaborative Learning in a Teacher Professional Development MOOC. Paper presented in the "Innovating MOOC Pedagogies" Structured Poster Session at the AERA Annual Meeting, Toronto, Canada.
- 14. Chang, Y.-H.,† **Chen, B.**, Ouyang, F.,† Groos, D.,^T^ & Alton, J.^T^ (2019, April). *Teachers as Co-designers of a Knowledge Building Environment*. Paper presented at the 2019 Knowledge Building Summer Institute, Toronto, Canada.
- 15. **Chen, B.**, Chang, Y.-H.,† Chen, W.,† Batu, W.,† Ouyang, F.,† & Groos, D.^T^ (2019, April). *IdeaMagnets: Towards Knowledge Building on the Open Web*. Paper presented at the 2019 Knowledge Building Summer Institute, Toronto, Canada.
- 16. **Chen, B.**, & Zhu, H. (2019, March). *Towards Value-Sensitive Learning Analytics Design*. Paper presentd at the 9th International Conference on Learning Analytics & Knowledge, Tempe, AZ.
- 17. Dean, J., Kalir, R., Chen, B., Ma, J., & Wagstaff, S. (2018, October). *Annotation as infrastructure for next generation digital learning environments*. Presented at the 2018 EDUCAUSE Annual Conference, Denver,

- Colorado.
- 18. Groos, D., ^T^ & Chen, B. (2018, August). *Designing and reflecting with analytics: A work in progress*. Presented at the 2018 Knowledge Building Summer Institute: Knowledge Building: A Place for Everyone in a Knowledge Society, Toronto, Ontario, Canada.
- 19. **Chen, B.**, Ouyang, F.,† Shoberg, J.,^U^ & Reen, D.† (2018, June). *Web annotation in classrooms as boundary play*. Presented at the I Annotate 2018: At the Tipping Point: Annotation on the Web, San Francisco.
- Chen, B., & Matsuzawa, Y. (2017, June). Deriving knowledge-building analytics through activity theory and dynamic network analysis. In CSCL 2017 Symposium: Making a Difference: Analytics for Quality Knowledge-Building Conversations, Philadelphia, PA.
- 21. **Chen, B.**, Chang, Y.-H.†, Ouyang, F.†, & Zhou, W.^U^ (2017, April). *Fostering Online Discussions Through Social Learning Analytics*. Paper presented at the 2017 AERA Annual Meeting, Saint Antonio, TX.
- 22. Fan, Y.†, Chen, B., Wang, Q., & Zhang, G.† (2016, October). MOOC as an alternative for teacher professional development: Examining persistent teacher-learners in one Chinese MOOC. Paper presented at Learning with MOOCs III: Being and learning in a digital age, University of Pennsylvania, Philadelphia, PA.
- 23. Ma, L.†, Matsuzawa, Y., Chen, B., & Scardamalia, M. (2016, June). *Community knowledge, collective Responsibility: The emergence of rotating leadership in three knowledge building communities.* Paper presented at the 12th International Conference of the Learning Sciences, Singapore.
- 24. Hong, H., Chen, B., Tsai, C.-C., Lin, C.P., & Wu, Y.-T. (2016, June). Fostering more informed epistemic views among students through knowledge building. Paper presented at the 12th International Conference of the Learning Sciences, Singapore.
- 25. Cai, Q., Wu, H., & Chen, B. (2016, June). *Using differentiated feedback messages to promote student learning in an introductory statistics course*. Paper presented at the 12th International Conference of the Learning Sciences, Singapore.
- 26. **Chen, B.**, & Liu, X.† (2016, June). *WordWhispers: A tool for bootstrapping vocabulary development in knowledge-building communities.* Paper presented at the 2016 Knowledge Building Summer Institute, Singapore.
- 27. Chen, B. (2015, September). *Towards multimodal indicators of idea improvement in knowledge building*. Paper presented at the 2015 Knowledge Building Summer Institute, Trieste, Italy.
- 28. Chen, B., Ma, L., Matsuzawa, Y., & Scardamalia, M. (2015, June). *The development of productive vocabulary in knowledge building: A longitudinal study*. Paper presented at the 11th International Conference on Computer-Supported Collaborative Learning (CSCL2015), Gothenburg, Sweden.
- 29. Chen, B., Chen, X., & Xing, W. (2015, March). "Twitter archeology" of learning analytics and knowledge <u>conferences</u>. Paper presented at the Fifth International Conference on Learning Analytics And Knowledge, Poughkeepsie, NY.
- 30. Xu, Z., Woodruff, E., & Chen, B. (2014, June). *Children's motivation in digital game-play: The effects of task-reward structure and the role of self-efficacy*. Paper presented at the International Conference on Motivation 2014 (jointly organized by EARLI SIG 8 and the University of Helsinki), Helsinki, Finland.
- 31. Chen, B., Gallagher-Mackay, K., Kidder, A., & Proulx, K. (2014, May). *Exploring the digital divide: The use of digital tools in Ontario public schools*. Paper presented at the Canadian Society for the Study of Education Conference (CSSE2014), St. Catharines, ON, Canada.
- 32. Gallagher-Mackay, K., Chen, B., Kidder, A., & Proulx, K. (2014, May). *Issues of equity in special education identification and services in Ontario schools*. Paper presented at the Canadian Society for the Study of Education Conference (CSSE2014), St. Catharines, ON, Canada.
- 33. Proulx, K., Chen, B., Gallagher-Mackay, K., & Kidder, A. (2014, May). *Social stratification and the role of subject choices in Ontario secondary schools*. Paper presented at the Canadian Society for the Study of Education Conference (CSSE2014), St. Catharines, ON, Canada.
- 34. Chen, B. (2014, March). *Learning analytics for group knowledge building*. Paper presented at the Doctoral Consortium of the 4th International Conference on Learning Analytics and Knowledge (LAK14). Indianapolis, Indiana, USA.
- 35. Chen, B., & Resendes, M. (2014, March). <u>Analyzing sequential relations among contribution types in knowledge-building discourse</u>. Paper presented at the 4th International Conference on Learning Analytics and Knowledge (LAK14). Indianapolis, Indiana, USA.
- 36. Chen, B., Håklev, S., Heikoop, W., Harrison, L., Najafi, H., Rolheiser, C., & Teplovs, C. (2013, December). *Hatch, Match and Dispatch: Examining the relationship between student intent, expectations, behaviours and outcomes in six Coursera MOOCs at the University of Toronto*. Paper presented at MOOC Research Initiative Conference, Arlington, TX, USA. (*Note: Authors are in alphabetical order.*)
- 37. Xu, Z., Woodruff, E., & Chen, B. (2013, October). *Efficacy of Reward Allotment on Children's Motivation and Learning*. Paper presented at the 7th European Conference on Games Based Learning (ECGBL 2013). Porto, Portugal.
- 38. Chen, B., González, J.^T^, Díaz del Castillo, F.^T^, & Slotta, J. (2013, August). *Promisingness judgments as facilitators of epistemic growth and conceptual change*. Paper presented at the Knowledge Building Summer

- Institute 2013 (KBSI2013). Puebla, Mexico.
- 39. Hutton, K.S., Chen, B., & Moss, J. (2013, August). <u>A knowledge building discourse analysis of proportional reasoning in Grade 1</u>. Paper presented at the Knowledge Building Summer Institute 2013 (KBSI2013). Puebla, Mexico.
- 40. Resendes, M., Chen, B., Acosta, A., & Scardamalia, M. (2013, June). *The effect of formative feedback on vocabulary use and distribution of vocabulary knowledge in a grade two knowledge building class*. Paper presented at the 10th International Conference on Computer Supported Collaborative Learning (CSCL2013). Madison, WI.
- 41. Chen, B., Scardamalia, M, & Resendes, M. (2012, August). *Promisingness judgments by Grade 3 and 4*. Paper presented at the 16th Knowledge Building Summer Institute (KBSI2012), Toronto, Canada.
- 42. Resendes, M., Chen, B., Chuy, M., & Scardamalia, M. (2012, August). *The effect of meta-discourse on ways of contributing to an explanation-seeking dialogue in Grade 2*. Paper presented at the 16th Knowledge Building Summer Institute (KBSI2012), Toronto, Canada.
- 43. Chen, B., Scardamalia, M, Resendes, M., Chuy, M., & Bereiter, C. (2012, July). *Students' intuitive understanding of promisingness and promisingness judgments to facilitate knowledge advancement*. Paper presented at the International Conference of the Learning Sciences (ICLS2012), Sydney, Australia.
- 44. Chen, B., & Resendes, M. (2012, May). *Inviting students to reflect: Meta-discourse tool in Knowledge Forum*. Paper presented at The Canadian Society for the Study of Education Annual Conference (CSSE2012), Waterloo, Canada.
- 45. Zhang, J., Zhao, N., Chen, B., & Childs, R. (2012, May). *The relationship of home computer use with students' cognitive skills and literacy*. Paper presented at The Canadian Society for the Study of Education Annual Conference (CSSE2012), Waterloo, Canada.
- 46. Chen, B., Chuy, M., Resendes, M., Scardamalia, M., & Bereiter, C. (2011, July). *Evaluation by Grade 5 and 6 students of the promisingness of ideas in knowledge-building discourse*. Paper presented at the 9th International Conference on Computer-Supported Collaborative Learning (CSCL2011), Hong Kong, China.
- 47. Resendes, R., Chuy, M., Chen, B., Bereiter, C., & Scardamalia, M. (2011, July). *Causal explanation: A way to achieve greater cognitive benefits from knowledge media*. Enhancing the Social and Cognitive Benefits of Digital Tools and Media Symposium conducted at the 9th International Conference on Computer-Supported Collaborative Learning (CSCL2011), Hong Kong, China.
- 48. Chuy, M., Chen, B., Resendes, R., van Aalst, J., Chan, C. K. K., Scardamalia, M., & Bereiter, C. (2011, July). Generic improvements in communication technology to enhance socio-cognitive gains. Enhancing the Social and Cognitive Benefits of Digital Tools and Media - Symposium conducted at the 9th International Conference on Computer-Supported Collaborative Learning (CSCL2011), Hong Kong, China.
- 49. Chen, B., Resendes, R., Chuy, M., Bielaczyc, K., Hong, H.-Y., Scardamalia, M., & Bereiter, C. (2011, July). *Advancing the design of knowledge-building software*. Paper presented at the Enhancing the Social and Cognitive Benefits of Digital Tools and Media Symposium at the 9th International Conference on Computer-Supported Collaborative Learning (CSCL2011), Hong Kong, China.
- 50. Chuy, M., Tarchi, C., Resendes, R., & Chen, B. (2011, July). *Knowledge Building in Senior Kindergarten and Grade 1*. Getting started and sustaining Knowledge Building. Paper presented at the <u>Getting started and sustaining Knowledge Building</u> Symposium at the 9th International Conference on Computer-Supported Collaborative Learning (CSCL2011), Hong Kong, China.
- 51. Chen, B. (2011, April). *Is the backchannel enabled? Using twitter in academic conferences.* Paper presented at the 2011 Annual Meeting of the American Educational Research Association (AERA), New Orleans, Louisiana.
- 52. Chen, B. (2011, April). *International cooperative projects for ICT application in basic education in China: A multiple-case evaluation study*. Paper presented at the 19th Annual International Conference of Chinese American Educational Research and Development Association (CAERDA), New Orleans, Louisiana.
- 53. Chen, B., & Wang, Q. (2010, June). *Pursuing effective facilitating strategies: The effect of facilitator's leadership behaviors on online learning.* Paper presented at ED-MEDIA 2010 World Conference on Educational Multimedia, Hypermedia & Telecommunications, Toronto, Canada.
- 54. Chen, B., & Wang, Q. (2008, October). *Building online communities of practice for teachers' informal learning*, Paper presented at the 2008 Educational Technology International Forum, Jinan, China.

Regional (refereed)

1. Chen, B., Chang, Y.-H., Ouyang, F., & Zhou, W. (2016, July). *Fostering engagement and reflection through social learning analytics: A design-based research study*. Paper presented at 2016 Minnesota eLearning Summit, Minneapolis, MN.

Non-refereed presentations

- 1. Chen, B. (2021, October). *Modeling Network Dynamics in Social Web Annotation*. Sub-forum on Complex Network Analysis and Modeling in Education Research at the 7th Forum on Empirical Education Research, Online.
- 2. Zhu, X.,† Shui, H.,† & Chen, B. (2021, June). *Designing Support for Productive Social Interaction and Knowledge Co-construction in Collaborative Annotation*. Panel presentation at the <u>I Annotate 2021 Conference</u>, Online.
- 3. Hmelo-Silver, C., Borge, M., **Chen, B.**, Mercier, E., & Wise, A.F. (2017, April). *Computer Supported Collaborative Learning: Theories, Methods, and Important Considerations*. Cyberlearning 2017 Expertise Exchange Session, Arlington, VA.
- 4. Chen, B. (2016, November). *Promises and potholes: Using Canvas in an undergraduate writing-intensive course.* Talk presented at the Canvas Pilot Presentation Series, University of Minnesota, Minneapolis, MN.
- Chen, B., Song, H., & Khanlari, A. (2014, December). <u>What makes knowledge building analytics unique? A reflection on the Summer Institute symposium</u>. Talk presented at the Advanced Learning Analytics Colloquium/Hackathon/Design Jam, Wageningen, The Netherlands.
- Chen, B. (2014, December). <u>Visualize and re-visualize knowledge-building discourse with its semantic makeups</u>. Talk presented at the Advanced Learning Analytics Colloquium/Hackathon/Design Jam, Wageningen, The Netherlands.
- 7. Resendes, M., Chen, B., Acosta, A., McAuley, A., & Zhang, Y. (2013, August). *Plenary: Next-generation Knowledge Forum and Building Cultural Capacity for Innovation*. Panel presentation at Knowledge Building Summer Institute 2013, Puebla, Mexico.
- 8. Acosta, A., Chen, B., Resendes, M., Gachuhi, R. & Perreault, C. (2012, August). *Workshop/Interactive Session: Knowledge Forum rebuild*. Workshop presented at the 16th Knowledge Building Summer Institute (KBSI2012), Toronto, Canada.
- 9. Scardamalia, M., & Bereiter, C., & Chen, B. (2011, July). *Next-generation knowledge building environments*. Workshop at Knowledge Building Summer Institute 2011, Guangzhou, China.

Posters or Exhibitions

- 1. B Hussein, H Johnson, B Chen, P. Schrater. (2022). iLearn: Supporting Goal-Driven Learning on the Web. Poster presentated at the Learning Informatics Research Symposium. Minneapolis, MN.
- 2. B Hussein, H Johnson, B Chen, P. Schrater. (2022). Exploring Student Challenges with Learning on the Web: Design Implications for iLearn. Poster presentated at the UMN CEHD Research Day. Minneapolis, MN.
- 3. J Valerie, M Goeke, B Hussein, K Varma, B Chen, D. DeLiema. (2021). Solving CHANGELESS by Changing the Problems: Problem Formation in a Video-Game Environment. Poster presentated at the Learning Sciences Graduate Student Conference (LSGSC '21), Champaign, IL, United States.
- 4. Hussein, B.† & Chen, B. (2020, November). *Intelligent Support for Knowledge Building Across Web Spaces*. Poster presented at the 2020 Knowledge Building Summer Institute, Online.
- 5. **Chen, B.**, Chang, Y.-H.,† Groos, D.,^T^ Chen, W.,† Batu, W.,† Costa, S.,† Peebles, B.,^T^ Ma, L.† (2019, March) *IdeaMagnets: Bridging Knowledge Building in Schools with Public Discourse*. Poster presented at the CEHD Research Day, Minneapolis, MN.
- 6. Groos, D., ^T^ & Chen, B. (2018, August). *Knowledge Improvement Cycle and Map: Scaffolding the Grasp of the KB Principle, Improvable Ideas, Through Visualizations*. Poster presented at the 2018 Knowledge Building Summer Institute, Toronto, Ontario, Canada.
- 7. Lin, P.Y., Chang, Y.-H.,† & Chen, B. (2018, August). *Exploring Novice Teachers' Reflections and Design Practices on Knowledge-Building in Junior High School Classrooms*. Poster presented at the 2018 Knowledge Building Summer Institute, Toronto, Ontario, Canada.
- 8. Gutiérrez-Braojos, C., Ma, L., Montejo-Gámez, J. & Chen, B. (2018, August). *Knowledge Building: Indices of Impacting Builders to Assess the Collective Cognitive Responsibility*. Poster presented at the 2018 Knowledge Building Summer Institute, Toronto, Ontario, Canada.
- 9. Chen, B., Fan, Y.†, Zhang, G.†, Wang, Q. (2017, March). *Examining motivations and self-regulated learning strategies of returning MOOCs learners*. Poster presented the 2017 Learning Analytics and Knowledge Conference, Vancouver, Canada.
- 10. Chen, B., Håklev, S., Harrison, L., Najafi, H., & Rolheiser, C. N. (2015, April). *How Do MOOC learners' intentions* relate to their behaviors and overall outcomes? Poster presented at the 2015 Annual Meeting of the American Educational Research Association (AERA), Chicago, IL.
- 11. Chen, B., & Resendes, M. (2014, April). *Uncovering hidden patterns: Temporal analysis of productive and improvable knowledge-building discourse*. Poster presented at the 2014 Annual Meeting of the American Educational Research Association (AERA), Philadelphia, PA.
- 12. Chen, B. (2014, March). <u>Visualizing semantic space of online discourse: The Knowledge Forum case</u>. Poster presented at the 4th International Conference on Learning Analytics and Knowledge (LAK14). Indianapolis, Indiana, USA.

- 13. Chen, B., Scardamalia, M., Acosta, A., Resendes, M., & Kici, D. (2013, June). <u>Promisingness judgments as facilitators of knowledge building</u>. Poster presented at the 10th International Conference on Computer Supported Collaborative Learning (CSCL2013). Madison, WI.
- 14. Chen, B., Scardamalia, M., & Resendes, M. (2013, April). <u>Dynamics of promisingness judgments in knowledge-building work of 8-to-10-years-olds</u>. Poster presented at the 2013 Annual Meeting of the American Educational Research Association (AERA), San Francisco, CA.
- 15. Chen, B., Scardamalia, M., & Bereiter, C. (2013, April). <u>Towards a developmental understanding of promisingness</u> <u>judgments</u>. Poster presented at the 2013 Annual Meeting of the American Educational Research Association (AERA), San Francisco, CA.
- 16. Chen, B., Scardamalia, M, & Bereiter, C. (2012, August). <u>A developmental study of promisingness judgments</u>. Poster presented at the 16th Knowledge Building Summer Institute (KBSI2012), Toronto, Canada.
- 17. Chen, B., Fu, J., & Scardamalia, M. (2012, August). <u>Automated assessments for knowledge creation: A review of possibilities</u>. Poster presented at the 16th Knowledge Building Summer Institute (KBSI2012), Toronto, Canada.
- 18. Resendes, M., Chen, B., Chuy, M., & Scardamalia, M. (2012, August). *The effect of contributor roles in knowledge building discourse: Can expanding individual contribution repertoires lead to group knowledge advancement?*. Poster presented at the 16th Knowledge Building Summer Institute (KBSI2012), Toronto, Canada.
- 19. Kariuki, N., Resendes, M., & Chen, B. (2012, August). *Young students' abilities to improve ideas*. Poster presented at the 16th Knowledge Building Summer Institute (KBSI2012), Toronto, Canada.
- 20. Chuy, M., Resendes, M., Chen, B., Tarchi, C. & Scardamalia, M. (2011, August). *Ways of contributing to a knowledge-building dialogue in elementary classrooms*. Poster presented at the 14th Biennial EARLI Conference for Research on Learning and Instruction, Exeter, United Kingdom.
- 21. Resendes, M., Chuy, M., Chen, B., & Scardamalia, M. (2011, July). Ways of contributing to a knowledge building dialogue in history. Poster presented at the 9th International Conference on Computer-Supported Collaborative Learning (CSCL2011), Hong Kong, China.
- 22. Chen, B., Lee, K., Chuy, M., Resendes, M., & Scardamalia, M. (2011, May). *Integrating knowledge-building discourse into Open Learning Initiative*. Poster presented at the Canadian Society for the Study of Education Conference (CSSE2011), Fredericton, New Brunswick, Canada.
- 23. Resendes, M., Chuy, M., Chen, B., & Scardamalia, M. (2010, November). *Integrating individual learning and group knowledge building in OER*. Poster presented at the Mozilla Drumbeat Festival, Barcelona, Spain.
- 24. Chen, B., Chuy, M., Resendes, M. & Scardamalia, M. (2010, August). "Big Ideas Tool" as a new feature of Knowledge Forum. Poster presented at the 2010 Knowledge Building Summer Institute, Toronto, Canada.

TEACHING AND CURRICULUM DEVELOPMENT

Courses Taught

- EDUC 6144 Learning Sciences: Past Present and Future, Penn GSE
 - Spring 2023
- EDUC 9999 Research Apprenticeship, Penn GSE
 - Spring 2023
- EDUC 6116 Foundations of Teaching and Learning, Penn GSE
- CI 8134 Foundations of Research in Curriculum and Instruction I, UMN
- CI 8135 Foundations of Research in Curriculum and Instruction II, UMN
- CI 8371 Applied Social Network Analysis in Education, UMN
- CI 5371 Learning Analytics: Theory and Practice, UMN
- CI 5330 Special Topics: Learning Analytics in the Knowledge Age, UMN
- CI 5330 Special Topics: Social Network Analysis in Education, UMN
- CI 5301 Foundations of Computer Applications for Business and Education, UMN
- CI 4311W Technology & Ethics in Society, UMN
- CI 2311W Introduction to Technology & Ethics in Society, UMN

Curriculum Development

- 2021, Graduate Certificate in Learning Analytics (as faculty lead), UMN
- 2021, Graduate Certificate in Learning Sciences (as faculty contributor), UMN
- 2018, New course development, CI 8371: Applied Social Network Analysis in Education, 3-credit
- 2018, New course development, CI 5371: Learning Analytics: Theory and Practice, 3-credit
- 2016, New course development, Special Topics: Social Network Analysis in Education, 3-credit
- 2015, New course development, Special Topics: Learning Analytics in the Knowledge Age, 3-credit

Curriculum Materials

- Chen, B. (2018). *Learning Analytics: Theory and Practice. A Course Website*. Retrieved from https://colig.github.io/laumn/.
- Chen, B. (2016). Social Network Analysis in Education. A Course Website. Retrieved from https://bookdown.org/chen/snaEd/.
 - (Note: It has attracted 15K page views 2K visitors by May 2018. It has been adopted in <u>an edX MOOC</u> as an additional resource.)

Unassigned Teaching

- Yoon, S. & Chen, B. (2023, October). *Learning Sciences and Technologies*. Guest lecture at the GSE Doctoral Proseminar, Penn GSE.
- Chen, B. (2023, September). *Integrating AI to augment student thinking and collaboration*. Workshop at the Introduction to Teaching with Artificial Intelligence (AI) Program, Penn GSE Center for Professional Learning.
- Kellogg, S. B., Chen, B., Poquet, O., & McClure, J. M. (2023, August). *An Introduction to Social Network Analysis and Education Research: Core Concepts and Applications with R.* AERA 2023 Virtual Research Learning Series. https://www.aera.net/Professional-Opportunities-Funding/2023-AERA-Virtual-Research-Learning-Series
- Chen, B. (2023, July). *Chat GPT and the Future of Education*. Guest lecture at the Chief Learning Officer Program, Penn GSE.
- Chen, B. (2022, October). *Knowledge Building in Schools: An Infrastructuring Approach*. Guest lecture at the Center for School Study Councils (CSSC), Penn GSE.
- Chen, B. (2021, November). *Knowledge Building*. Guest lecture in Foundations of the Learning Sciences, Department of Educational Psychology, University of Minnesota, Minneapolis, MN.
- Chen, B. (2021, November). *Responsible artificial intelligence*. Guest lecture in WRIT 8520 Humane Futures: Augmentation Technologies & Technical Communication, Department of Writing Studies, University of Minnesota, Minneapolis, MN.
- Chen, B. (2021, September). Correlational research. Guest lecture in CI 8134 Foundations of Research in Curriculum and Instruction I, Department of Curriculum and Instruction, University of Minnesota, Minneapolis, MN.
- Chen, B. (2021, September). *Information ethics in learning analytics*. Guest lecture in Digital Ethics, Department of Philosophy, Macalester College, Saint Paul, MN.
- Chen, B. (2020, November). Regression and content analysis. Guest lecture in CI 8134 Foundations of Research in Curriculum and Instruction I, Department of Curriculum and Instruction, University of Minnesota, Minneapolis, MN
- Chen, B. (2018, October). Correlational research. Guest lecture in CI 8134 Foundations of Research in Curriculum and Instruction I, Department of Curriculum and Instruction, University of Minnesota, Minneapolis, MN.
- Chen, B. (2019, November). *Data Literacy*. Guest lecture in the <u>STEM Education in the 21st Century</u>, an Online Professional Development Course offered by the New York Academy of Sciences. New York, NY.
- Chen, B. (2018, November). *Technology Integration in K-12 Schools in North America*. Guest lecture at the Mingda Institute for Leadership Training, University of Minnesota, Minneapolis, MN.
- Chen, B. (2018, June). *Tutorial on Social Media Mining in Learning Contexts*. 2018 Learning Analytics Summer Institute (LASI), New York, NY.
- Chen, B. (2018, March). *Knowledge Building and 21st century competencies*. Guest lecture in "Instructional Design for 21st Century Competencies in the ICT Context" a teacher professional development MOOC led by Drs. C.S. Chai and Z.M. Yan, Chinese University MOOC.
- Chen, B. (2017, February). *Knowledge Building*. Guest lecture in Applied Learning Sciences, Department of Teaching and Learning, University of Miami.
- Chen, B. (2015, February). *Learning Analytics in the Knowledge Age*. Guest lecture in CI 8350–Learning Technologies Collaborative, Curriculum and Instruction, University of Minnesota.
- Chen, B. (2012, September). *Promisingness judgments in knowledge building*. Guest lecture in CTL1799H Special Topics: 21 Century Competencies, Multiliteracies, and Assessment, Department of Curriculum, Teaching and Learning, OISE/University of Toronto.
- Chen, B. (2012, March). *Knowledge Building*. Guest lecture in Introduction to Knowledge Building, Department of Educational Technology, Nanjing Normal University.

Professional Development in Teaching

- Participant, Early-Career Teaching Program, Center for Educational Innovation, University of Minnesota, 2016–2017
- Participant, Intercultural Pedagogy Workshop for Supporting International Students, University of Minnesota, 2016
- Participant, Treks Program, College of Education and Human Development, University of Minnesota, June 2016

ADVISING AND MENTORING

Postdoctoral Researchers

- 2021–2023, Mengchen Su (UMN)
- 2021–2023, Zixi Chen (UMN)

Graduate Student Activities

Doctoral Students (Ph.D.) Advised (Current)

- 2019–, Xinran Zhu (Penn GSE LST & UMN)
- 2019–, Basel Hussein (UMN Learning Technologies)
- 2018-, Hong Shui (UMN Learning Technologies)
- 2018–, Robert Kreml (UMN Learning Technologies)

Doctoral Students (Ph.D.) Advised (Completed)

- 2019–2022, Patrick O'Leary (UMN Learning Technologies)
- 2019–2021, Valerie Barbaro (UMN Learning Technologies)
- 2015–2018, Fan Ouyang (co-advised; UMN Learning Technologies)
- 2016–2018, Alfonso Jose Sintjago (co-advised; UMN Comparative and International Development Education)

Doctoral Committees Served On (Current and Completed) [^7]

- 2023–, Thomas Richman (Penn GSE LST)
- 2023, Lele Sha (Monash University, Australia)
- 2023, Elaine Farrow (University of Edinburgh, UK)
- 2022–, Min Lee (National Institute of Education, Singapore)
- 2021–, Shiri Kashi (University of Haifa, Educational Technologies Program)
- 2022, Nicolaas VanMeerten (UMN EPSY)
- 2021–2023, Lixin Zhang, *OLPD*, University of Minnesota
- Patrick O'Leary, Learning Technologies
- Yu-Hui Chang, Learning Technologies
- Christiane Reily, Learning Technologies
- Jennifer Englund, Learning Technologies
- David Groos, STEM Education
- FangFang Zhao, STEM Education
- Foster Graif, STEM Education
- Kourtney Kromminga, School Psychology, Department of Educational Psychology
- Kris Isaacson, Learning Technologies
- Lana Peterson, Learning Technologies
- Jing-Huey Lin, Learning Technologies
- Ye Xiong, Informatics, New Jersey Institute of Technology
- Derek Schwartz, Learning Technologies, 11/26/18
- Fan Ouyang, *Learning Technologies*, 5/15/18
- Alfonso Jose Sintjago, Comparative and International Development Education, 5/17/18
- Shiyan Jiang, Applied Learning Sciences, University of Miami, 06/15/18
- Wendy Knapp, Learning Technologies, 10/24/17
- Jeni Henrickson, Learning Technologies, 05/17/16

Master's Students Advised

- 2022–2023, Xiao, Yizhou (Penn GSE)
- 2022–2023, Nguyen, Yen (Penn GSE)
- 2022–2023, Li, Dengyin (Penn GSE)
- 2022–2023, Jiang, Xiping (Penn GSE)
- 2022–2023, Dong, Judy (Penn GSE)
- 2017, Fei Fang (UMN Learning Technologies)

Undergraduate Student Activities

University of Pennsylvania

• 2023–, Wenxi Chen, Penn Arts & Sciences

University of Minnesota

- 2020–2022, Hayden Johnson, Cognitive Science & Computer Science
- 2016, Wanying Zhou, Psychology

University of Toronto

- 2014, Younsu Woo, Statistics
- 2014, Leighton Du, Statistics
- 2013, Anton Bondar, Computer Science
- 2013, Abdullah Tabassum, Computer Science
- 2012, Franz Carlo Achacoso, Computer Science
- 2010, Saman Alvi, Computer Science

Visiting Scholars Hosted

- Mustafa Serkan Gunbatar, Associate Professor from Van Yuzuncu Yil University (Turkey), 01/2022–12/2022
- Huanging Wu, Associate Professor at QuFu Normal University (China), 03/2019–09/2019
- Yizhou Fan, Ph.D. candidate from Peking University, 09/2017–12/2017
- Tianhui Huang, Ph.D. student from Fudan University, 11/2016–12/2017

Other Mentoring Activities

- Mentor, OISE Mentorship Program, February 28, 2017
- Faculty Mentor, Doctoral Consortium, The 7th Learning Analytics and Knowledge Conference, Vancouver, Canada, March 2017
- Mentor, "Adopt a New Member" Program, International Society of the Learning Sciences, 2016
- Faculty Mentor, Doctoral Consortium, The 6th Learning Analytics and Knowledge Conference, Edinburgh, Scotland, April 2016

SERVICE AND PUBLIC OUTREACH

Service to The Discipline/Profession/Interdisciplinary Area(s)

Editorships/Journal Reviewer Experience

Editorships / Editorial Board

- Associate Editor, <u>Asia Pacific Journal of Education</u>, 2020–2023
- Editorial Board Member, Journal of Digital Learning Technologies [數位學習科技期刊], 2024-2026
- Editorial Board Member, Learning: Research and Practice, 2020-
- Editorial Board Member, Qwerty-Open and Interdisciplinary Journal of Technology, Culture and Education, 2019-
- Editorial Board Member, Journal of Learning Analytics, 2018-
- Editorial Board Member, The Internet and Higher Education, 2018–
- Editorial Board Member, Information and Learning Science, 2018–
- Co-editor, Special Section on Networks in Learning Analytics, Journal of Learning Analytics, 2021–2022
- Co-editor, Special Section on Temporal Analyses of Learning Data, Journal of Learning Analytics, 2016–2017

Journal ad-hoc reviewer

- Journal of the Learning Sciences, 2014–
- Journal of Learning Analytics, 2015-
- Computer & Education, 2015–
- Educational Technology Research & Development, 2017–
- The Internet and Higher Education, 2017–
- Instructional Science, 2017-
- Information and Learning Science, 2018-

- IEEE's Transactions on Learning Technologies, 2016–
- Learning and Instruction, 2017–
- Computers in Human Behavior, 2017–
- International Journal of Computer-Supported Collaborative Learning, 2012
- Big Data & Society, 2015
- Scientometrics, 2017
- Research and Practice in Technology Enhanced Learning, 2015–
- Learning: Research and Practice, 2016
- Journal of Computer Assisted Learning, 2018–
- Journal of Open Learning (Chinese), 2018–
- Open Education Research (Chinese), 2018–

Grant reviewer experiences

- 2023, Site Visit Team, National AI Institute program, National Science Foundation
- 2022, Panelist, National Science Foundation
- Reviewer, Israel Science Foundation, 2021/06
- *Reviewer*, Call for Contributions to "CSCL in a Time of Crisis", International Society of the Learning Sciences, 2020/11
- Panelist, National Science Foundation, 2020/04
- Panelist, National Science Foundation, 2020/03
- *Grant Reviewer*, Interdisciplinary Studies of Writing, Center for Writing, University of Minnesota, 2016/04 Conference reviewer experience
- Reviewer, The ISLS Annual Meeting, 2021
- Reviewer, Learning Analytics and Knowledge Conference, 2021
- Meta Reviewer, International Conference on the Learning Sciences (ICLS), 2020
- Knowledge Building Summer Institute, Official annual conference of the Knowledge Building International, 2020/09
- Reviewer, 2019 AERA Annual Meeting, 2018/08
- Senior Reviewer, Learning Analytics and Knowledge Conference, 2018
- GCCCE 2017 <u>Sub-conference C7</u>: Learning Analysis, Assessment, and Artificial Intelligence in Education, 2017/01
- *Learning @ Scale 2017*, 2016/12
- The 12th International Conference on Computer Supported Collaborative Learning (CSCL 2017), 2016/12
- Learning with MOOCs III, 2016/06
- The CAERDA Annual International Conference, 2016/01
- American Educational Research Association (AERA) Annual Meeting, Division C, 2015/08, 2013/08
- American Educational Research Association (AERA) Annual Meeting, SIG-Learning Sciences, 2015/08
- *Knowledge Building Summer Institute*, Official annual conference of the Knowledge Building International, 2015/08, 2013/08, 2012/07, 2010/08
- IEEE International Conference on Advanced Learning Technologies (ICALT), 2021, 2014, 2013
- Association for Computing Machinery's (ACM) CHI Conference, the world's premiere conference on Human Factors in Computing Systems, 2015/11, 2014/11
- Learning Analytics and Knowledge Conference, 2014/03
- International Conference on Learning Sciences, Official biannual conference of the International Society of the Learning Sciences (ISLS), 2013/11
- Annual International Conference of Chinese American Educational Research and Development Association, 2011/04 Book or book chapter reviewer experience
- Member of the Editorial Advisory Board, *Cases on Teaching with Online Discussions* edited by Drs. Clare Brett and Lesley Wilton, IGI Global, 2019–2020
- Member of the Editorial Advisory Board, China Learning Project Report edited by Drs. J. Shang, R. Miao, A. Wang, R. Hu, Learning Sciences Lab, Peking University, 2019
- Include them all!: Directions for Adoption of Learning Analytics in the Global South, White Paper commissioned by the DL4D Network, January 2016
- International Handbook on Learning Analytics and Educational Data Mining, Edited by George Siemens and Charles Long, March 2016
- Educational Innovations for Sustained Knowledge Building: Pedagogical and Technological Innovations, edited volume proposed by Jianwei Zhang & Shengquan Yu, Springer, October 2015
- Educational Stages and Interactive Learning: From Kindergarten to Workplace Training, edited volume by Dr. Jiyou Jia, April 2011

Committee or board memberships

- 2022, Program Co-Chair, The 15th International Conference on Computer Supported Collaborative Learning (CSCL)
- 2020-2022, *Member-at-large (elected)*, Executive Committee of the Society for Learning Analytics Research (SoLAR)
- 2018-2022, Member (elected), CSCL Committee of the International Society of the Learning Sciences (ISLS)
- Co-Chair, Membership Committee of the International Society of the Learning Sciences (ISLS), 2017–2020
- Member, ICCE Best Student Paper Award Selection Committee, 2019
- Co-Chair, Social Media Communications Committee, CSCL 2019, 2018–2019
- Member, Program Committee, ICCE 2018 sub-conference on Computer-supported Collaborative Learning and Learning Sciences, 2017–2018
- Co-Chair, GCCCE 2018 Doctoral Student Forum (DSF), 2018
- Member, Outreach Advisory Board, Journal of the Learning Sciences, 2017
- Member, Program Committee, Learning with MOOCs 2017, July 2017
- Member, Program Committee, Doctoral Student Forum on MOOC Research at Peking University, July 2017
- *Member*, Program Committee, *LAK '17 Workshop Integrated Learning Analytics of MOOC Post-Course Development*, January 2017
- Member, <u>DL4D Expert Group on Learning Analytics</u>, Digital Learning for Development, The Philippines, 2016
- Co-Chair, Doctoral Consortium, 7th Learning Analytics and Knowledge Conference, Vancouver, Canada, 2017
- *Member*, Program Committee, GCCCE 2017 <u>Sub-conference C7</u>: Learning Analysis, Assessment, and Artificial Intelligence in Education, 2017
- Member, Program Committee, 2017 Learning @ Scale, 2017
- Member, Program Committee, Learning with MOOCs III, University of Pennsylvania, 2016
- Member, Program Committee, the Fourth Annual ACM Conference on Learning at Scale (L@S), MIT, Boston, MA, 2017
- *Co-Chair*, Publicity and Social Media Committee, 6th Learning Analytics and Knowledge Conference, Edinburgh, Scotland, 2016
- Co-Chair, Doctoral Consortium, 6th Learning Analytics and Knowledge Conference, Edinburgh, Scotland, 2016
- Member, International Society of the Learning Sciences (ISLS) Membership Committee, 2015–2020
- Member, Program Committee, 15th IEEE International Conference on Advanced Learning Technologies (ICALT), 2015

Organization of conferences, workshops, panels, symposia

- 2023, Chair, International Design Jam / Hackathon for Knowledge Building, Online
- 2021/10, Chair, Sub-forum on Complex Network Analysis and Modeling in Education Research at the 7th Forum on Empirical Education Research
- Program Chair, CSCL Conference of the 2022 ISLS Annual Meetning, 2021-2022
- Moderator, *CSCL in Times of Crisis Webinars*: <u>Learning in and with Community</u>, International Society of the Learning Sciences, 01/17/21
- Session Chair, 2020 Knowledge Building Summer Institute, Online, 2020/11
- Session Chair, Session on *Predictive and Privacy*, the 2019 Learning Analytics and Knowledge Conference, Tempe, AZ, 03/07/2019
- Moderator, Panel on *Learning Sciences: Design and analysis strategies that promote inclusion and increase access*, the 2019 Learning Analytics and Knowledge Conference, Tempe, AZ, 03/06/2019
- Co-chair, Interactive Symposium on "Knowledge Building Analytics: From Analysis to Actionable Insights" at the 2018 Knowledge Building Summer Institute, Toronto, Ontario, Canada.
- Co-chair, <u>CSCL 2017 Pre-Conference Workshop Establishing a Foundation for Collaborative Process Evaluation and Adaptive Support in CSCL</u>, CSCL 2017, Philadelphia, PA, USA, June 19, 2017
- Co-organizer, CSCL 2017 New Members Session, CSCL 2017, Philadelphia, PA, USA, June 19, 2017
- Discussant, 12th International Conference on Computer Supported Collaborative Learning (CSCL 2017), Philadelphia, PA, USA, June 21, 2017
- Session Chair, 2017 Knowledge Building Summer Institute, Philadelphia, PA, June 2017
- Session Chair, 12th International Conference of the Learning Sciences, Singapore, June 2016
- Session Chair, 2016 Knowledge Building Summer Institute, June 2016
- Workshop Chair (with Wise, A. F., Knight, S., & Cheng, B. H.), <u>Putting Temporal Analytics into Practice: The 5th International Workshop on Temporality in Learning Data</u>, The Sixth International Conference on Learning Analytics And Knowledge (LAK '16), Edinburgh, Scotland, April 2016

- Workshop Co-Chair (with Knight, S., Wise, A. F., & Cheng, B. H.), <u>It's About Time: 4th International Workshop on Temporal Analyses of Learning Data</u>, The Fifth International Conference on Learning Analytics And Knowledge (LAK '15), Poughkeepsie, NY, March 2015
- Workshop Co-Chair (with Resendes, M., Kici, D., Ma, L., & Scardamalia, M.), "Light up the Curriculum": Designs for Concurrent, Transformative and Embedded Assessments for Knowledge Creation, Knowledge Building Summer Institute 2014, Quebec City, Quebec, Canada, August 2014
- Workshop Chair (with Teplovs, C., Zhang, J., Matsuzawa, Y., Hong, H-Y., Perreault, C., Philip, D., Scardamalia, M., & Bereiter, C.), *Knowledge building analytics: Where we were, where we are, and where we are headed*, Knowledge Building Summer Institute 2014, Quebec City, Quebec, Canada, August 2014
- Workshop Chair (with Conley, C.), <u>Data Visualization with R</u>, Knowledge mobilization workshop as part of the Knowledge Network for Applied Education Research (KNAER) Data Visualization Project, Toronto, Canada, April 2013
- Workshop Co-Chair (with Acosta, A., Resendes, M., Gachuhi, R., & Perreault, C.), *Knowledge Forum Rebuild*, Knowledge Building Summer Institute 2012, Toronto, Canada, August 2012
- Session Chair, People for Education Conference, Toronto, November 2013
- Session Chair, 16th Knowledge Building Summer Institute, August 2012

Advisory boards of federal grants

• 2015–2020, *Advisory Board Member*, "Superhero School: Harnessing the Power of Science, Literacy, and Media", Twin Cities Public Television, \$36,765,832, funded by the Ready to Learn program of the U.S. Department of Education

Service To The University/College/Department

Collegiate Service and Intercollegiate Service

- *Member*, Data Science Task Force, University of Minnesota, 2021–2022
- Chair, Curriculum sub-group
- Faculty co-chair, Faculty Development for Online Teaching (FDOT), University of Minnesota, 2020–2021
- Member, EdPsy Psyc Foundations Tenure-Track Position Search Committee, 2018–2019
- *Ad-hoc Participant*, Cognitive Sciences Review Committee, Office of the Executive Vice President and Provost, University of Minnesota, 2018/05
- Co-Lead, UMN Learning Analytics Faculty Group, 2018–2020
- Co-Facilitator, UMN Learning Analytics CoP, March 2017–August 2018
- *Presenter*, WordWhispers in An Online Collaborative Discourse Environment, Center for Writing, University of Minnesota, November 11, 2016
- Presenter, Canvas: Bells & Whistles + Improvables, Canvas Experiences Presentation Series, University of Minnesota Academic Technology Support Services, November 8, 2016
- Faculty Adviser, Teacher Education Research Collaborative, College of Education & Human Development, University of Minnesota, 2015
- *Participant*, "Speed Dating" with the Dean's Advisory Board, College of Education & Human Development, University of Minnesota, October 8, 2015
- *Co-convener*, Learning Sciences Reading Group, College of Education and Human Development, University of Minnesota, September 2015–December 2017
- Consultant, "Investigating Student Learning in an Integrated Curriculum" project, University of Minnesota– Rochester, 2015–2017

Division/Department Service

- 2022–ongoing, Member, AAPI Affinity Group, Penn GSE TLL Division
- Moderator, C&I Pro-Seminar on "Presenting at Online Conferences", 2020/12/04
- Member, C&I Chair's Advisory Council, Curriculum & Instruction, 2018–2019
- Member, C&I Graduate Studies Committee, Curriculum & Instruction, 2016–2021
- Chair, C&I Technology Committee, Curriculum & Instruction, August 2016–May 2017
- Discussant, C&I Graduate Student Research Day, Curriculum & Instruction, April 1, 2016
- Member, C&I Technology Committee, Curriculum & Instruction, 2015–2017
- *Panelist*, "New Directions in STEM & LT Faculty Research: A Panel Presentation", Curriculum & Instruction, November 11, 2015

• Discussant, C&I Graduate Student Research Day, Curriculum & Instruction, March 27, 2015

Program Area Service

- Coordinator, UMN Learning Technologies Program Area, 2021-2022
- Coordinator, UMN Learning Technologies Program Area, 2019-2020
- Coordinator, CI 5301 Course, UMN Learning Technologies Program, February 2016-2019
- Member, P&A Search Committee, UMN Learning Technologies Program, November 2015
- *Member*, UMN Learning Technologies Program Area Committee, 2015–2022
- Member, P&A Search Committee, UMN Learning Technologies Program, August 2015
- Organizer, Learning Analytics Speaker Event (Guest speakers: Drs. George Karypis and Jeff D. Grann), UMN Learning Technologies Program, March 2015

Community Service Activities

- Member, Minnesota Learning Commons (MnLC) Innovations Special Interest Group, 2017
- Advisor, Mendeley Advisor Program, 2016–2017
- Panelist, "Entrepreneurship, Ed Tech, Health & Wellness, Counseling Psychology", Education Connection 2013, OISE/University of Toronto, November 2013

Other Service Activities

- Invited Attendee, AERA-NSF Data Sharing and Research Transparency Workshop, Washington D.C., July 2017
- Invited Attendee, Workshop on Building Interdisciplinary Capacity for Understanding and Supporting Computer Supported Collaborative Learning, funded by the NSF EAGER grant
 - Indiana University in Bloomington, IN, February 2016
 - Carnegie Mellon University in Pittsburgh, PA, October 2016
- *Invited Attendee*, *Workshop on Educational Discourse Research*, funded by the NSF Cyberlearning program (Award #: 1439520)
 - University of Michigan, Ann Arbor, MI, May 2015
 - University of Texas at Arlington, Arlington, TX, October 2015