

# BODONG CHEN

Updated on 9/20/2023

## IDENTIFYING INFORMATION

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### Academic Rank

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

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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

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### 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

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### 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: 1622831

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

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^ Invited

† Student/Advisee

¶ Postdoc

‡ Classroom teacher

#### Journal Articles

1. **Chen, B.**, Zhu, X.<sup>†</sup>, & Castillo, F.<sup>‡</sup> (in press). Integrating Generative AI in Knowledge Building. *Computers & Education: Artificial Intelligence*.
2. **Chen, B.**, & Chen, Z.<sup>¶</sup> (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)
3. 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)
4. Zhu, X.<sup>†</sup>, Shui, H.<sup>†</sup>, & **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)
5. 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)
6. 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>
7. **Chen, B.**, Shui, H.<sup>†</sup>, & 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>
8. **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>
9. 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>
10. **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.)
11. 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>
12. 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](https://doi.org/10.2505/4/tst20_087_05_30)
13. **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>
14. **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>

15. 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/s40299-018-0409-y>
16. **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)
17. 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)
18. **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>
19. 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.)
20. 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.kfxyj.2018.05.001
21. **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)
22. **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)
23. 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>
24. **Chen, B.**^ & Huang, T.† (2017). Unpacking Learning Analytics: An attempt to tilt the iceberg [in Chinese]. *Journal of Open Learning*, 22(4), 1-9. doi:10.19605/j.cnki.kfxyj.2017.04.001
25. **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
26. **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)
27. 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)
28. **Chen, B.**, Scardamalia, M., & Bereiter, C. (2015). Advancing knowledge building discourse through judgments of promising ideas. *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.)
29. **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.
30. 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)
31. Goggins, S., Xing, W., Chen, X., **Chen, B.**, & Wadholm, B. (2015). Learning analytics at “small” scale: Exploring a complexity-grounded model for assessment automation. *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)
32. **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
33. 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.)

34. **Chen, B.**, Resendes, M., Chuy, M., Tarchi, C. & Bereiter, C. (2011). Identifying promising ideas in a knowledge-building discourse [in Italian: Identificare, selezionare e sviluppare le idee promettenti nel Knowledge Building]. *QWERTY - Interdisciplinary Journal of Technology, Culture and Education*, 6(2), 224-241.
35. 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.)
36. **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.
37. 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.**, Håkløv, 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\\_9](https://doi.org/10.1007/978-3-030-65291-3_9)
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\\_3](https://doi.org/10.1007/978-3-031-47014-1_3)
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 Co-construction 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). Students’ intuitive understanding of promisingness and promisingness judgments to facilitate knowledge advancement. 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). Pursuing effective facilitating strategies: The effect of facilitator’s leadership behaviors on online learning. 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). *Digital learning in Ontario schools: The ‘new normal’*. Technical report, People for Education, Toronto, ON, Canada.
4. Rolheiser, C., **Chen, B.**, Håklev, S., Harrison, L., Najafi, H., & Teplov, 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](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](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](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.
  16. **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). It's about time: 4th international workshop on temporal analyses of learning data. 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). Visualizing semantic space of online discourse: The Knowledge Forum case. 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). Uncovering what matters: Analyzing transitional relations among contribution types in knowledge-building discourse. 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). Efficacy of reward allotment on children's motivation and learning. 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). Evaluation by grade 5 and 6 students of the promisingness of ideas in knowledge-building discourse. 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](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/cehd-blog/technology-and-learning-analytics/>

## PRESENTATIONS, POSTERS, AND EXHIBITS

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### 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). *Liquid Margins 15: Social Reading: Theory & Practice*. 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 Rigour in Learning Analytics?*. 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, Beijing 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.
2. 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.‡ (2020, November) *Crisscrossing Information Spaces with the IdeaMagnets Tool*. Paper presented at the 2020 Knowledge Building Summer Institute, Online.
10. **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.,‡ & Alton, J.‡ (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.‡ (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 presented 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., & **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., & 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.
20. **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. (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 conferences*. 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). *Analyzing sequential relations among contribution types in knowledge-building discourse*. 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., & Teplov, 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.<sup>^T^</sup>, Díaz del Castillo, F.<sup>^T^</sup>, & 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). *A knowledge building discourse analysis of proportional reasoning in Grade 1*. 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 *Getting started and sustaining Knowledge Building* 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.,<sup>†</sup> Shui, H.,<sup>†</sup> & Chen, B. (2021, June). *Designing Support for Productive Social Interaction and Knowledge Co-construction in Collaborative Annotation*. Panel presentation at the I Annotate 2021 Conference, 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.
5. Chen, B., Song, H., & Khanlari, A. (2014, December). *What makes knowledge building analytics unique? A reflection on the Summer Institute symposium*. Talk presented at the Advanced Learning Analytics Colloquium/Hackathon/Design Jam, Wageningen, The Netherlands.
6. Chen, B. (2014, December). *Visualize and re-visualize knowledge-building discourse with its semantic makeups*. 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 presented 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 presented 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 presented at the Learning Sciences Graduate Student Conference (LSGSC '21), Champaign, IL, United States.
4. Hussein, B.<sup>†</sup> & **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.,<sup>†</sup> Groos, D.,<sup>‡</sup> Chen, W.,<sup>†</sup> Batu, W.,<sup>†</sup> Costa, S.,<sup>†</sup> Peebles, B.,<sup>‡</sup> Ma, L.<sup>†</sup> (2019, March) *IdeaMagnets: Bridging Knowledge Building in Schools with Public Discourse*. Poster presented at the CEHD Research Day, Minneapolis, MN.
6. Groos, D.,<sup>‡</sup> & 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.,<sup>†</sup> & 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.<sup>†</sup>, Zhang, G.<sup>†</sup>, 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). *Visualizing semantic space of online discourse: The Knowledge Forum case*. 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). *Promisingness judgments as facilitators of knowledge building*. Poster presented at the 10th International Conference on Computer Supported Collaborative Learning (CSCL2013). Madison, WI.
14. Chen, B., Scardamalia, M., & Resendes, M. (2013, April). *Dynamics of promisingness judgments in knowledge-building work of 8-to-10-years-olds*. 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). *Towards a developmental understanding of promisingness judgments*. 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). *A developmental study of promisingness judgments*. Poster presented at the 16th Knowledge Building Summer Institute (KBSI2012), Toronto, Canada.
17. Chen, B., Fu, J., & Scardamalia, M. (2012, August). *Automated assessments for knowledge creation: A review of possibilities*. 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

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### 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
  - Fall 2022
- 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 an edX MOOC 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 STEM Education in the 21st Century, 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

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### 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
- Huanqing 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

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

#### Editorships/Journal Reviewer Experience

##### Editorships / Editorial Board

- *Associate Editor*, *Asia Pacific Journal of Education*, 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 - Sub-conference C7: 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*, DL4D Expert Group on Learning Analytics, 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 - Sub-conference C7: 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 Meeting*, 2021-2022
- Moderator, *CSCL in Times of Crisis Webinars: Learning in and with Community*, 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, CSCL 2017 Pre-Conference Workshop Establishing a Foundation for Collaborative Process Evaluation and Adaptive Support in CSCL, 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.), Putting Temporal Analytics into Practice: The 5th International Workshop on Temporality in Learning Data, 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.), *It's About Time: 4th International Workshop on Temporal Analyses of Learning Data*, 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.), *Data Visualization with R*, 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-convenor*, 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