

Peter W. Foltz

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Experience

- Research Professor, University of Colorado, Boulder, Institute of Cognitive Science 2015-Present
- Executive Director NSF AI Institute for Student AI Teaming (iSAT) 2021-Present
- Executive board member and researcher for NSF Institute for Student AI Teaming (ISAT)
 - Co-PI of Department of Education grant funded research.
 - Mentor, supervise and advise Cognitive Science, Computer Science and Education graduate students, post-docs and professional staff.
 - Committee work for Institute and presentations and advising for Administration staff, Board of Regents and University President.
- Vice President for Research, Pearson 2004-2021
- Developed and led Pearson's R&D on automated scoring of writing, text complexity, automated math scoring, machine learning for text analytics, and 21st Century skills assessment. Coordinated research projects on automated spoken language assessment. Managed staff, contractors, acquisitions and integration of new assessment technology. Provided technical advising for operational assessment contracts and for implementation of educational applications. Served as spokesperson for technology to Pearson clients, press, and national and international education organizations.
 - Led Pearson's Cognitive Computing group (2015-2021)
 - Co-Directed the Pearson Research Innovation Network Center for Next Generation Learning and Assessment (2011-2013).
 - Led OECD PISA Framework: Developed and wrote proposals and then led international teams of experts to deliver innovative assessment frameworks for the OECD PISA 2015 Collaborative Problem Solving (2012-2015), 2018 Reading Literacy (2014-2017), PISA for Development Reading Literacy (2015-2018).
 - Led Pearson acquisition, integration and research and development of automated math scoring business which is operationally scoring over 10 million assessments annually (2011-2014).
 - Led WriteToLearn™ development team (2008-2010) used by millions of students for training writing and reading skills.
 - Led government-sponsored R&D team. Conceptualized projects, wrote proposals and obtained over \$8M in federal research funding from NSF, DARPA, ONR, ARI, and AFRL, and led teams and subcontractors to deliver on contracts. (2004-2011)
- Co-Founder, Chief Scientist, Knowledge Analysis Technologies 1998-2004
- Co-managed growth of small business from startup through to acquisition by Pearson including funding, budgeting, project, management and strategy.
 - Led research and developed implementations for educational technologies including automated scoring of writing, team assessment based on spoken language, standards alignment and cross-language information retrieval.
 - Led federal research projects including obtaining funding, conceptualizing projects, managing staff, and presenting projects to clients.
- Tenured Associate Professor of Psychology 2000-2007
- Research Associate, Computing Research Lab New Mexico State University
- Assistant Professor of Psychology, New Mexico State University 1995-2000
- Taught undergraduate and graduate courses ranging from psycholinguistics, cognitive modeling, cognitive science, introductory psychology, memory, human computer interaction, and information retrieval.
 - Mentored Doctoral and Master's level students in Psychology and Computer Science.
 - Conducted research, wrote grants, obtained funding and managed \$7M in federally funded research projects as PI or Co-PI from NSF, DARPA, Department of Education, ONR, ARI, AFRL, and ARL

Post-Doctoral Research Fellow, University of Pittsburgh, Learning Research Development Center 1993-1995

- Conducted research on reading comprehension and computational modeling for education.

Member of Technical Staff & Consultant, Bell Communications Research Cognitive Science Group 1989-1993

- Conducted research on Latent Semantic Analysis applied to information retrieval and filtering, Developed system to automatically route research articles to staff based on modeling their preferences. Researched hypertext and human information seeking behavior.

Statistics Lecturer and Programmer, Harvard Institute for International Development 1986-1988

- Trained Harvard and Ministry of Health Personnel in Chad and Djibouti on epidemiological statistics and developed health information database and analysis system for managing national health data which ran for ten years.

Research Assistant, Yale University Department of Psychology 1984

- Conducted research on cognitive processes of prediction for Robert Sternberg.

Education

Ph.D. University of Colorado 1993

Cognitive Psychology, University of Colorado
Minor in Quantitative Psychology, Certificate in Cognitive Science

M.A. University of Colorado 1988

Cognitive Psychology

B.A. (magna cum laude) Lehigh University 1985
Psychology

Research Grants and Contracts

(PI unless otherwise indicated)

2022-2023	<i>Developing trustworthy Artificial Intelligence for language-based assessment of neurodegenerative disorders: Enabling early detection of cognitive decline with inexpensive, scalable technologies.</i> University of Colorado AB-NEXUS grant. \$49,958.
2020-2021	<i>Detection of students at risk from Faculty Course Questionnaires.</i> University of Colorado Office of Data Analytics. \$85,236.
2017-2020	<i>Fostering Reading Comprehension and Knowledge-Building in Middle School Students.</i> Department of Education/IES. With Donna Caccamise and Megan Littrel (Co-PI) \$1,399,857.
2015	<i>Virtual House Doctor.</i> Norwegian Research Council. Sub-contract Norwegian Center for Integrated Care and Telemedicine, \$7000.
2014 to 2016	<i>Diagnostic Support System development for the monitoring of psychosis.</i> Norwegian Research Council. Sub-contract. Norwegian Center for Integrated Care and Telemedicine. \$210,000.
2009 to 2011	<i>Tactical Human Integration of Networked Knowledge,</i> Army Research Institute/CERDEC #W15P7T-09-C-S324, \$944,059.
2009 to 2010	<i>Automated Communications Analysis for Interactive Situation Awareness Assessment (ACASA) Tool,</i> Office of Naval Research, Sub-Contract/SA Tech #SUB1400600DP, \$48,956.
2008 to 2009	<i>Automated Analysis of Implicit Messages in Communications,</i> DARPA #HR0011-09-C-0004, \$348,557.
2008-2009	<i>Team Communication Analysis for Future Combat Systems,</i> Office of Naval Research, Sub-Contract/SA Tech #N00014-05-C-0438-B - REV D, \$144,579.
2008 to 2010	<i>Driving Wisdom: Web-based Training for Young Adults to Improve Operator Judgments that Mitigate Crash Risk in Privately Owned Vehicles,</i> Army Research Institute, Sub-Contract Phase II - Parallel Consulting, #W91BFP8183N617000, \$139,991.

2008 to 2010 *Simulated Cognitive Leadership Challenges for Professional Forums*, Army Research Laboratory, Sub-contract Phase II CPRResearch #W91WAW-08-C-0023, \$264,000

2007 to 2008 *Driving Wisdom: Web-based Training for Young Adults to Improve Operator Judgments that Mitigate Crash Risk in Privately Owned Vehicles*, Army Research Institute, Sub-Contract Phase I Parallel Consulting #W91BFP-7214-N-634000, \$13,650

2007 to 2008 *Team Communication Analysis for Future Combat Systems*, Army Research Lab, ACASA, Sub-Contract/SA Tech,#1587461-A, \$43,650.

2007 *Collaboration and Knowledge Interoperability (CKI)* Office of Naval Research, Sub-Contract/RED Inc, PO #SEA132, \$14,916

2007 to 2010 *Automatically-learned Representation of Complex Tasks Environments to Support Training and Collaboration*, Army Research Institute, #W91WAW-07-C-0013, with Tom Landauer (Co-Pi) \$613,054.

2007 *Simulated Cognitive Leadership Challenges for Professional Forums*, Army Research Institute, Sub-Contract/CPR #W74V8H-06-P-0181, \$31,000.

2006 to 2007 *Automated Analysis of Open-Ended Responses for the Millennium Cohort Study*, U.S. Navy Medical Research #N00244-06-P-3034, \$100,000.

2006 to 2007 *Automated Competence Assessment and Alarms for Teams*, DARPA/ARI #W74V8H-06-C-0036, \$2,454,545.

2006 to 2007 *Automated Reusability Analysis of Digital Learning Resources*, NSF SBIR IB-Sub-Contract/Eduworks #OII-0611253, \$39,999.

2006 to 2008 *Dynamic Supermanuals with Latent Semantic Analysis*, Office of Naval Research,#N61339-06-C-0067, with Tom Landauer (co-PI), \$350,000.

2005 to 2006 *Deployment of a Web-Based Interface Tool*, Army Research Lab Sub-Contract/MA&D #SC-05-101, \$20,000.

2005 to 2008 *Toolset for Content-Based Automated Communication Analysis - Phase II*, Navy, Sub-Contract/SA Tech,N00014-05-C-0438-B, \$355,350.

2005 to 2007 *Mapping Brain Architecture and Processes Supporting Experience Based Cognition*, DARPA/Navy Sub-Contract/Univ of Pittsburgh,#N00014-05-1-0881, with Tom Landauer (Co-PI), \$2,469.

2005 to 2006 *Collaboration Web Tool*, DARPA/ARL, Sub-Contract/MA&D #DAAD19-01-2-0009, \$835,000

2005 to 2006 *Automated Meta-data Content Tagging Software*, Office of Naval Research #N61339-05-C-0064, \$330,251.

2004-2007 *Acquisition of Equipment for a Face-to-Face Interaction Laboratory for Studying Cognitive, Neurocognitive, Social Cognitive, and Emotional Aspects of Human Communication*, National Science Foundation, \$253,491. With Laura Thompson & Anne Hubbell (Co-PI).

2004 *Coalition Collaboration Aid for Decision Support Systems*, Army Research Laboratory Sub-Contract #8032.000.03, \$10,923.

2004 to 2005 *Automated Team assessment*, Air Force Research Laboratory, L3 Comm - Task Order #36, Sub-Contract #F41624-97-D-500, \$320,876

2004 to 2005 *Universal Collaboration Environment*, Army Research Institute Sub-Contract #DAAD19-01-C-0065, \$80,517.

2004 to 2005 *Automated Team Communications Analysis Toolkit*, Office of Naval Research/ DARPA #N00014-04-C-0251, \$339,954

2004 *Toolset for Content-Based Automated Communication Analysis*, Office of Naval Research, SBIR Phase I #N00014-04-M-0177, \$69,996.

2003 to 2006 *Dynamic Supermanuals with Latent Semantic Analysis*, Office of Naval Research,#N61339-03-C-0120,with Tom Landauer (Co-PI), \$756,126

2003-2005 *Automatic Communication Analysis System using Latent Semantic Analysis*. Air Force Office of Scientific Research Grant. \$49,547 for 15 months.

2003-2005 *Using Team Communication to Understand Team Cognition in Distributed vs. Co-located Mission Environments*. Office of Naval Research, With Nancy Cooke (Co-PI). \$437,351. NMSU subcontract: \$119,007.

2003 to 2005 *Rapidly Deployable Multilingual Information Filtering Systems*, CIA, #2003*H463600*000, with Tom Landauer (Co-PI), \$999,994.

2001-2008 *Collaborative Alliance in Advanced Decision Architectures*, Research Grant from Army Research Laboratory, Douglas Gillan, Adrienne Lee, Ken Paap, and Marina Abalakina, (Co-PIs) \$5,625,820.

2001-2004 *Latent Semantic Analysis: Theory, Technology and Practice*, NSF ITR Subcontract from Univ. of Colorado, Tom Landauer, Walter Kintsch, and Adrienne Lee, (Co-PIs). \$150,000 for 3 years.

2001 to 2003 *Dynamic Supermanuals with Latent Semantic Analysis*, Office of Naval Research, SBIR Phase II #N00014-01-C-0332, with Tom Landauer (Co-PI), \$597,350

2000 to 2001, *Dynamic Supermanuals with Latent Semantic Analysis*, Office of Naval Research,SBIR Phase I #N00014-11-M-0099 with Tom Landauer (Co-PI), \$69,896.

2000-2002	<i>The development and evaluation of methods for the analysis of team communication.</i> Research grant from Office of Naval Research, with Nancy Cooke (Co-PI), \$470,430 for 3 years.
1998-2001	<i>Learning through writing using adaptive tutoring systems: Modeling knowledge representations from open-ended questions</i> Research grant from NSF Knowledge and Distributed Intelligence Program (KDI/LIS), with Adrienne Lee (Co-PI), \$501,468 for 3 years.
1997-1999	<i>Cross-Language Retrieval Using Latent Semantic Indexing</i> , Contract based on a proposal to ARPA/TIPSTER. with Thomas Landauer and Michael Littman (Co-PIs), \$560,651 for 1.5 years, NMSU subcontract, \$90,495.
1996	<i>Modeling readers' comprehension through an automatic analysis of their essays.</i> NMSU Dean's Small Grant RC96-0025, \$1,505.
1993	<i>Latent Semantic Indexing for modeling text coherence and text segmentation</i> Research grant from Bell Communication Research. \$29,921 .

Corporate proposal writing and research and development activity

In addition to external grants, I have obtained over \$20M of internal Pearson research funding, managed technology acquisitions and internal research projects and teams which resulted in educational technology now used by over 5 million students per year. I developed and wrote sections of major assessment proposals including the OECD PISA 2015 Collaborative Problem Solving Assessment, the OECD PISA 2018 Reading Literacy framework, the Partnership for Assessment for College and Careers (PARCC) Diagnostic Assessment, as well as numerous successfully funded state assessment contracts.

Patents

- Strong, D., Hellman, S., Larusson, J., Noble, J., Stewart, T., Nickel, A., Oros, L., Lathrop, Q., Tonks, D., Foltz, P. (2021). *Systems and methods for virtual reality-based grouping evaluation.* Patent #11,068,043
- Dronen, N., Foltz, P. W., Garner, H., Loring, M. T., & Kapoor, V. (2021). *Resource allocations in distributed processing systems.* U.S. Patent # 10,938,738.
- Dronen, N., Foltz, P. W., Garner, H., Loring, M. T., & Kapoor, V. (2020). *Resource allocations in distributed processing systems.* U.S. Patent # 10,594,622.
- Dronen, N., Foltz, P. W., Garner, H., Loring, M. T., & Kapoor, V. (2020). *Resource allocations in distributed processing systems.* U.S. Patent # 10,560,397.
- Ramachandran, L., Foltz, P. W. & Cheng, J. (2019). *System and Method for automated pattern based alert generation.* Patent # 10,452,984
- Dronen, N., Foltz, P. W., Garner, H., Loring, M. T., & Kapoor, V. (2018). *Resource allocations in distributed processing systems.* U.S. Patent # 10,153,983
- Dronen, N., Foltz, P. W., Garner, H., Loring, M. T., & Kapoor, V. (2018). *Resource allocations in distributed processing systems.* U.S. Patent # 10,148,589.
- Foltz, P.W., Landauer, T. K., Laham, R. D., Kintsch, W., & Rehder, R. (2002). *A computer-based system for analysis and evaluation of the semantic content of writing.* U.S. Patent # 6,356,864
- Baikadi, A., Hellman, S., Budden, J., Hopkins, S., Habermehl, K., Foltz, P., Becker, L., & Rosenstein, M.. (Pending). *Systems and methods for automated machine learning model training quality control.*
- Becker, L., Murray, W., Foltz, P., Rosenstein, M., Baikadi, A., Hellman, S., Habermehl, K., Budden, J., Hopkins, S., Gorman, A., & others. (Pending). *Systems and methods for interface-based automated custom authored prompt evaluation.*
- Foltz, P., Rosenstein, M., Baikadi, A., Becker, L., Hopkins, S., Budden, J., Oros, L., Habermehl, K., Hellman, S., Murray, W., & others. (Pending). *Systems and methods for automated evaluation model customization.*
- Hellman, S., Becker, L., Downs, S., Baikadi, A., Murray, W., Habermehl, K., Foltz, P., & Rosenstein, M.. (Pending). *Systems and methods for automated machine learning model training for a custom authored prompt.*
- Hellman, S., Murray, W., Habermehl, K., Baikadi, A., Budden, J., Gorman, A., Rosenstein, M., Becker, L., Hopkins, S., Foltz, P., & others. (Pending). *Systems and methods for interface-based machine learning model output customization.*
- Rosenstein, M. Habermehl, K., Hellman, S., Baikadi, A., Foltz, P., Becker, L., Oros, L. M., Budden, J., & Derr, M. (Pending). *Real time development of auto scoring essay models for custom created prompts* U.S. Patent Application 16/544,745, filed January 2, 2020.
- Strong, D., Hellman, S., Larusson, J., Noble, J., Stewart, T., Nickel, A., Oros, L., Lathrop, Q., Tonks, D., Foltz, P., & others. (Pending). *Systems and methods for virtual reality-based interaction evaluation.*

Strong, D., Hellman, S., Larusson, J., Noble, J., Stewart, T., Nickel, A., Oros, L., Lathrop, Q., Tonks, D., Foltz, P., & others. (Pending). *Systems and methods for virtual reality-based assessment*.

Refereed Publications, Chapters, and Edited Books

- Caccamise, D. & Foltz, P. W. (2022). Personalized Instruction to Teach Secondary Students to Deeply Comprehend and Build Knowledge from Science Texts. In *Proceedings of the International Society of the Learning Sciences*, Hiroshima, June.
- Chandler, C., Foltz, P. W., & Elvevåg, B. (2022). Improving the Applicability of AI for Psychiatric Applications through Human-in-the-loop Methodologies. *Schizophrenia Bulletin*.
- Cohen, A.S., Rodriguez, Z., Warren, K.K., Cowan, T., Masucci, M.D., Edvard Granrud, O., Holmlund, T.B., Chandler, C., Foltz, P.W. and Strauss, G.P., (2022). Natural language processing and psychosis: on the need for comprehensive psychometric evaluation. *Schizophrenia Bulletin*.
- Southwell, R., Pugh, S., Perkoff E. M., Clevenger, C., Bush, J., Lieber, R., Ward, W., Foltz, P., D’Mello, S. (2022). Challenges and feasibility of automatic speech recognition for modeling student collaborative discourse in classrooms. In: *Proceedings of the 15th Educational Data Mining*. Springer
- Chandler, C., Holmlund, T. B., Foltz, P. W., Cohen, A. S., & Elvevåg, B. (2021). Extending the usefulness of the verbal memory test: The promise of machine learning. *Psychiatry Research*, 297, 113743.
- Chandler, C., Foltz, P., Cohen, A., Holmlund, T., & Elvevåg, B. (2021, June). Safeguarding against spurious AI-based predictions: The case of automated verbal memory assessment. In *Proceedings of the Seventh Workshop on Computational Linguistics and Clinical Psychology: Improving Access* (pp. 181-191).
- Cohen, A. S., Cox, C., Tucker, R., Mitchell, K., Schwartz, E., Le, T., Foltz, P. W., Holmlund, T. & Elvevåg, B. (2021). Validating biobehavioral technologies for use in clinical psychiatry. *Frontiers in Psychiatry*, 12, 880.
- Le, T. P., Moscardini, E., Cowan, T., Elvevåg, B., Holmlund, T. B., Foltz, P. W., ... & Cohen, A. S. (2021). Predicting Self-Injurious Thoughts in Daily Life Using Ambulatory Assessment of State Cognition. *Journal of Psychiatric Research*.
- Shreevastava, S., & Foltz, P. (2021, June). Detecting Cognitive Distortions from Patient-Therapist Interactions. In *Proceedings of the Seventh Workshop on Computational Linguistics and Clinical Psychology: Improving Access* (pp. 151-158).
- Caccamise, D., Quigley, D., Weatherley, J., & Foltz, P. W. (2020). Building Knowledge from Challenging Text: Issues Associated with Moving Pedagogy from Traditional Classroom Delivery to an AI Enhanced Differentiated Instruction. *Proceedings of the International Conference on Learning Sciences, ICLS 2020*.
- Chandler, C., Cheng, J., Foltz, P.W., Holmlund, T., Cohen, A. S., & Elvevåg, B. E. (2020). Machine learning for ambulatory applications of neuropsychological testing. *Intelligence-Based Medicine*, 1, 100006.
- Chandler, C., Cheng, J., Foltz, P.W., Cohen, A. S., Holmlund, T & Elvevåg, B. E. (2020) Predicting Self-Reported Affect from Speech Acoustics and Language. *Language Resources and Evaluation Conference (LREC) Workshop on Resources and Processing of linguistic, para-linguistic and extra-linguistic Data from people with various forms of cognitive/psychiatric/developmental impairment (RAPID)*.
- Chandler, C, Foltz, P. W., & Elvevåg, B. (2020). Using Machine Learning in Psychiatry: The Need to Establish a Framework that Nurtures Trustworthiness. *Schizophrenia Bulletin*, 46(1), 11-14.
- Cheng, S., Cohen, A. S., Holmlund, T. B., Foltz, P. W., Cheng, J., Bernstein, J. C., Rosenfeld, E. P., & Elvevåg, B. (2020). A Dynamic Method, Analysis, and Model of Short-Term Memory for Serial Order with Clinical Applications. *Psychiatry Research*, 113494.
- Clarke, T., Garrard, P., & Foltz, P. W. (2020). How to do things with (thousands of) words: Computational approaches to discourse analysis in Alzheimer’s disease. *Cortex*.
- Cohen, A.S., Cox, C., Tucker, R., Mitchell, K.R., Schwartz, E.K., Le, T., Foltz, P.W., Holmlund, T.B. & Elvevåg, B. (2020). Validating digital phenotyping technologies for clinical use: the critical importance of “resolution”. *World Psychiatry*, 19(1), 114-115.
- Foltz, P. W. (2020). Practical Considerations for Using AI models in Automated Scoring of Writing. In H. Jiao & R. W. Lissitz (Eds.). *Applications of Artificial Intelligence to Assessment*. Charlotte, NC: Information Age Publisher.

- Foltz, P. W., Yan, D., & Rupp, A. C., (2020). The Past, Present, and Future of Automated Scoring for Complex Tasks. In D. Yan, A. C. Rupp, & P. W. Foltz (Eds.). *Handbook of Automated Assessment: Theory into practice*. Taylor & Francis, CRC Press.
- Holmlund, T.B., Chandler, C., Foltz, P.W., Cohen, A. S., Cheng, J., Bernstein, J., Rosenfeld, E., & Elvevåg, B. (2020). Applying speech technologies to assess verbal memory in patients with serious mental illness. *NPJ Digital Medicine*. 3, 33. <https://doi.org/10.1038/s41746-020-0241-7>
- Hellman, S., Murray, W., Rosenstein, M. B., Becker, L., & Foltz, P. W. (2020). Multiple Instance Learning for Content Feedback Localization without Annotation. *Association for Computational Linguistics (ACL) Workshop on Building Educational Applications*.
- Quigley, D., Caccamise, D., Weatherley, J., Foltz, P. (2020). Exploring Video Engagement in an Intelligent Tutoring System. *HCI International 2020*, 519-530.
- Rupp, A. C., Yan, D., & Foltz, P. W. (2020). Automated Scoring in Practice In D. Yan, A. C. Rupp & P. W. Foltz (Eds.). *Handbook of Automated Assessment: Theory into practice*. Taylor & Francis, CRC Press.
- Yan, D., Rupp, A. C. & Foltz, P. W. (Eds.) (2020). *Handbook of Automated Assessment: Theory into practice*. Taylor & Francis, CRC Press.
- Baikadi, A., Becker, L., Budden, J., Foltz, P.W., Gorman, A., Hellman, S., Murray W. & Rosenstein, M. (2019). An apprenticeship model for human and AI collaborative essay grading. In *User Interactions for Building Knowledge Workshop (UIBK 2019) at Intelligent User Interfaces 2019*. Los Angeles, CA. March 2019.
- Behrens, J. T., DiCerbo, K. E., & Foltz, P. W. (2019). Assessment of Complex Performances in Digital Environments. *The ANNALS of the American Academy of Political and Social Science*, 683(1), 217-232. <https://doi.org/10.1177/0002716219846850>
- Chandler, C., Foltz, P.W., Cheng, J., Bernstein, J.C., Rosenfeld, E.P., Cohen, A.S., Holmlund, T.B. & Elvevåg, B. (2019). Overcoming the bottleneck in traditional assessments of verbal memory: Modeling human ratings and classifying clinical group membership. *North American Chapter of the Association for Computational Linguistics: Computational Linguistics and Clinical Psychology*.
- Cohen, A.S., Fedechko, T.L., Schwartz, E.K., Le, T.P., Foltz, P.W., Bernstein, J., Cheng, J., Holmlund, T.B. & Elvevåg, B. (2019). Ambulatory vocal acoustics, temporal dynamics and serious mental illness. *Journal of Abnormal Psychology*, 128, 97-105. doi: 10.1037/abn0000397
- Cohen, A.S., Fedechko, T.L., Schwartz, E.K., Le, T.P., Foltz, P.W., Bernstein, J., Cheng, J., Holmlund, T.B. & Elvevåg, B. (2019). Psychiatric risk assessment from the clinician's perspective: Lessons for the future. *Community Mental Health Journal*. <https://doi.org/10.1007/s10597-019-00411-x>
- Cowan, T., Le, T.P., Elvevåg, B., Foltz, P.W., Tucker, R.P., Holmlund, T.B., Cohen, A.S. (2019). Comparing Static and Dynamic Predictors of Risk for Hostility in Serious Mental Illness: Preliminary Findings. *Schizophrenia Research*, Volume 204, pp. 432-433, ISSN 0920-9964, <https://doi.org/10.1016/j.schres.2018.08.030>
- Hellman, S., Rosenstein, M., Gorman, A., Murray, W., Becker, L., Baikadi, A., Budden, J., & Foltz, P. W. (2019). Scaling Up Writing in the Curriculum: Batch Mode Active Learning for Automated Essay Scoring. In *Proceedings of the sixth ACM conference on Learning @ Scale*. Chicago, IL. June.
- Holmlund, T.B., Cheng, J., Foltz, P.W., Cohen, A.S. & Elvevåg, B. (2019). Updating verbal fluency analysis for the 21st century: Applications for psychiatry. *Psychiatry Research*. doi: 10.1016/j.psychres.2019.02.014
- Holmlund, T.B., Foltz, P.W., Cohen, A.S., Johansen, H.D., Sigurdson, R., Fugelli, P., Bergsager, D., Cheng, J., Bernstein, J., Rosenfeld, E. & Elvevåg, B. (2019). Moving psychological assessment out of the controlled laboratory setting and into the hands of the individual: Practical challenges. *Psychological Assessment*, 31(3), 292-303. doi: 10.1037/pas0000647
- Holmlund, T. B. Foltz, P. W., Cohen, A. S., Cheng, J., Bernstein, J., Rosenfeld, E., & Elvevåg, B., Moving speech technology methods out of the laboratory: Practical challenges and clinical translational opportunities for psychiatry., *Schizophrenia Bulletin*, Volume 45, Issue Supplement_2, April 2019, Page S129, <https://doi.org/10.1093/schbul/sbz022.099>
- Le, T.P., Cowan, T., Schwartz, E.K., Elvevåg, B., Holmlund, T.B., Foltz, P.W., Barkus, E., & Cohen, A.S. (2019). The importance of loneliness in psychotic-like symptoms: Data from three studies. *Psychiatry Research*.

- Quigley, D., Caccamise, D., Foltz, P., Kintsch, E., Weatherley, J., & Kurtz, H. (2019). Determining reading comprehension of domain texts. Supplement to Proceedings of the 9th International Conference on Learning Analytics & Knowledge.
- Cheng, J. Bernstein, J., Rosenfeld, E., Foltz, P. W., Cohen, A., Holmlund, T., & Elvevåg, B. (2018). Modeling Self-Reported and Observed Affect from Speech. *Interspeech 2018, The 19th Annual Conference of the International Speech Communication Association*.
- Foltz, P. W., (2018). Automating the Assessment of Team Collaboration through Communication Analysis. In R. Sottolare, A. Graesser, X. Hu, & A. Sinatra (Eds.), *Design Recommendations for Intelligent Tutoring Systems: Volume 6 - Team Tutoring*. Orlando, FL: U.S. Army Research Laboratory
- Graesser, A. C., Fiore, S. M., Greiff, S., Andrews-Todd, J., Foltz, P. W., & Hesse, F. W. (2018). Advancing the Science of Collaborative Problem Solving. *Psychological Science in the Public Interest*, 19(2), 59-92. <https://doi.org/10.1177/1529100618808244>
- Graesser, A.C., Foltz, P.W., Rosen, Y., Shaffer, D.W., Forsyth, C., and Germany, M. (2018). Challenges of assessing collaborative problem solving. In E. Care, P. Griffin, and M. Wilson (eds.), *Assessment and Teaching of 21st Century Skills: Research and Applications*. Springer.
- Le, T. P., Elvevåg, B., Foltz, P. W., Holmlund, T B., Schwartz, E. K., Cowan, T., & Cohen, A. S (2018). Aggressive urges in schizotypy: Preliminary data from an ambulatory study. *Schizophrenia Research*. DOI: <https://doi.org/10.1016/j.schres.2018.05.04>
- Marvaniya, S., Saha, S., Dhamecha, T., Foltz, P. W., Sindhgatta, R., and Sengupt, B. (2018). Creating Scoring Rubric from Representative Student Answers for Improved Short Answer Grading. *ACM International Conference on Information and Knowledge Management (CIKM)*. Turin, Italy, October.
- Ventura, M., Chang, M., Foltz, P. W., Mukhi, N., Jarbro, J., Salverda, A. P., Behrens, J., Ahn, J., Ma, T., Dhamecha, T. I., Marvaniya, S., Watson, P., D'helon, C., Tejwani, R., & Afzal, S., (2018). Preliminary Evaluations of a Dialogue-Based Digital Tutor. In Penstein Rosé, C., Martínez-Maldonado, R., Hoppe, U., Luckin, R., Mavrikis, M., Porayska-Pomsta, K., McLaren, B., du Boulay, (Eds.) *AIED 2018 Artificial Intelligence in Education*. Springer.
- Wind, S. A., Wolfe, E. W., Engelhard Jr, G., Foltz, P. W., & Rosenstein, M. (2018). The Influence of Rater Effects in Training Sets on the Psychometric Quality of Automated Scoring for Writing Assessments. *International Journal of Testing*. 17(4) 27-49.
- Albert, D., Nussbaumer, A., Kuo, B., Foltz, P. W., & Hu, X. (2017). Competence-based Knowledge Structures and Current Challenges for E-Assessment, In R. Sottolare, A. Graesser, X. Hu, & G. Goodwin (Eds.), *Design Recommendations for Intelligent Tutoring Systems: Volume 5 - Assessment*. Orlando, FL: U.S. Army Research Laboratory.
- El Masri, Y., Ferrara, S., Foltz, P. W., & Baird, J. (2017). Predicting item difficulty of science National Curriculum tests: The case of Key Stage 2 assessments. *The Curriculum Journal*. DOI: 10.1080/09585176.2016.1232201
- Elvevåg, B., Foltz, P. W., Rosenstein, M., Ferrer I Cancho, R. De Deyn, S., Mizraji, E., & Cohen, A. (2017). Thoughts about disordered thinking: Measuring and quantifying the laws of order and disorder. *Schizophrenia Bulletin*.
- Foltz, P. W. & Rosenstein, M. (2017). Data mining large scale formative writing. In G. Siemens, C. Lang & D. Gasevic (Eds), *Handbook of Learning Analytics and Educational Data Mining*. Society for Learning Analytic Research.
- Goldin, I., Narciss, S., Foltz, P. W & Bauer, M. (2017) New directions in formative feedback in interactive learning environments. *International Journal of Artificial Intelligence and Education*.27(3), doi:10.1007/s40593-016-0135-7
- Graesser, A.C., Cai, Z., Hu, X., Foltz, P.W., Greiff, S, Kuo, B-C, Liao, C-H. , and Shaffer, D.W. (2017). Assessment of collaborative problem solving. In R. Sottolare, A. Graesser, X. Hu, & G. Goodwin (Eds.), *Design Recommendations for Intelligent Tutoring Systems: Volume 5 - Assessment*. Orlando, FL: U.S. Army Research Laboratory.
- Graesser, A.C., Forsyth, C.M., & Foltz, P. (2017). Assessing conversation quality, reasoning, and problem solving performance with computer agents. In B. Csapo, J. Funke, and A. Schleicher (Eds.), *On the nature of problem solving: A look behind PISA 2012 problem solving assessment* (pp. 275-297). Heidelberg, Germany: OECD Series.
- Lai, E. R., DiCerbo, K. E., & Foltz, P. (2017). Skills for Today: What We Know about Teaching and Assessing Collaboration. London: Pearson. http://www.p21.org/storage/documents/Skills_For_Today_Series-Pearson/Collaboration_White_Paper_FINAL.pdf
- Nye, B. D., Mitros, P., Schumm, C., Foltz, P. W., Gašević, D., & Katz, I. R., (2017). Why Assess? The Role of Assessment in Learning Science and Society, In R. Sottolare, A. Graesser, X. Hu, & G. Goodwin (Eds.), *Design Recommendations for Intelligent Tutoring Systems: Volume 5 - Assessment*. Orlando, FL: U.S. Army Research Laboratory.

- Rus, V., Olney, A. M., Foltz, P. W., & Hu, X. (2017). Automated Assessment of Learner-Generated Natural Language Responses, In R. Sottolare, A. Graesser, X. Hu, & G. Goodwin (Eds.), *Design Recommendations for Intelligent Tutoring Systems: Volume 5 - Assessment*. Orlando, FL: U.S. Army Research Laboratory.
- El Masri, Y., Ferrara, S., Foltz, P. W., & Baird, J. (2016). Predicting item difficulty: Methodological challenges and a way forward. *International Testing Commission conference (ITC)*, Vancouver, July.
- Foltz, P. W., Rosenstein, M. (2016). Visualizing teacher assignment behavior in a statewide implementation of a formative writing system. In Gallery of top submissions for the 2016 cover graphic/data visualization competition. *Education Measurement: Issues and Practice* 35(2), 31. <http://dx.doi.org/10.1111/emip.1211>
- Foltz, P. W., Rosenstein, M. & Elvevåg, B. (2016). Detecting clinically significant events through automated language analysis: Quo imus?. *NPJ Schizophrenia*. 2, doi:10.1038/npschz.2015.54
- Ramachandran, L. & Foltz, P. W. (2016). Text generative oversampling to improve short-answer scoring with Deep Neural Networks. *IJCAI Workshop on Semantic Machine Learning (SML 2016)*. New York, NY, July.
- OECD PISA Reading Literacy Framework Expert Group (2016). Draft Framework for PISA 2018 Reading Literacy Assessment. <https://www.oecd.org/pisa/data/PISA-2018-draft-frameworks.pdf>
- Dronen, N., Foltz, P. W. & Habermehl, K. (2015). Effective sampling for large-scale automated writing evaluation. *Proceedings of the ACM conference on Learning at Scale*. Vancouver, CA.
- Foltz, P. W. (2015). Advances in automated scoring of writing for performance assessments. In Y. Rosen, S. Ferrara & M. Mosharref (Eds.), *Handbook of Research on Tools for Real-World Skill Development*. Springer.
- Foltz, P. W. & Rosenstein, M. (2015). Analysis of a large-scale formative writing assessment system. *Proceedings of the ACM conference on Learning at Scale*. Vancouver, CA.
- Ramachandran, L., Cheng, J. & Foltz, P. W. (2015). Identifying Patterns For Short Answer Scoring Using Graph-based Lexico-Semantic Text Matching. *North America Association for Computational Linguistics, NAACL, Workshop on Building Educational Applications, 2015*.
- Ramachandran, & Foltz, P. W. (2015). Generating Reference Texts for Short Answer Scoring Using Graph-based Summarization. *North America Association for Computational Linguistics, NAACL, Workshop on Building Educational Applications, 2015*.
- Rosenstein, M., Foltz, P. W. & Elvevåg, B. (2015). Language as a biomarker in those at high-risk for psychosis. *Schizophrenia Research*.
- Rosenstein, M., Foltz, P. W. & Elvevåg, B. (2015). Practical issues in developing semantic frameworks for the analysis of verbal fluency data: A Norwegian data case study. *NAACL Workshop on Computational Linguistics and Clinical Psychology – From Linguistic Signal to Clinical Reality*.
- Shermis, M. D., Burstein, J., Elliot, N., Miel, S. & Foltz, P. W. (2015). Instructional Applications for Automated Writing Evaluation. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of Writing Research (2nd Edition)*. Guilford Press.
- Wolfe, E., Williams, L., & Foltz, P. W. (2015). Distributional Agreement Indices for Evaluating the Performance of Automated Scoring. *Proceedings of Association for Educational Assessment Europe (AEA-E) 2015*. Scotland.
- Biemiller, A., Rosenstein, M., Sparks, R., Landauer, T. K., & Foltz, P. W. (2014). Models of Vocabulary Acquisition: Direct Tests and Text-Derived Simulations of Vocabulary Growth, *Scientific Studies of Reading*, 18(2), 130-154, DOI: 10.1080/10888438.2013.821992
- Foltz, P. W. (2014). Improving student writing through automated formative assessment: Practices and results. In *Proceedings of the International Association for Educational Assessment Conference*. <http://www.iaea.info/conferences.aspx>.
- Foltz, P. W., Rosenstein, M., Dronen, N., and Dooley, S. (2014). Automated feedback in a large-scale implementation of a formative writing system: Implications for improving student writing. *American Educational Research Association (AERA) Annual Meeting*. April.
- Hidalgo, P., Foltz, P. W., & VanMoere, A. (2014). Assessing Language performance with the Tablet English Language Learner Assessment (TELL). *Proceedings of the International Association for Educational Assessment Conference*. <http://www.iaea.info/conferences.aspx>
- Rosen, Y. & Foltz, P. W. (2014). Assessing Collaborative Problem Solving Through Automated Technologies. *Journal of Research and Practice in Technology Enhanced Learning*. 9(3): 389-410.

- Rosenstein, M., Diaz-Asper, C., Foltz, P. W., & Elvevåg, B. (2014). A computational language approach to modeling prose recall in schizophrenia. *Cortex*, *55*, 148-166. <http://dx.doi.org/10.1016/j.cortex.2014.01.021>
- Foltz, P. W. & Rosenstein, M. (2013). Tracking student learning in a state-wide implementation of automated writing scoring. *Proceedings of the Neural Information Processing Systems (NIPS) Workshop on Data Driven Education*. <http://lytics.stanford.edu/datadriveneducation/>
- Foltz, P. W., Streeter, L. A., Lochbaum, K. E., & Landauer, T. K. (2013). Implementation and applications of the Intelligent Essay Assessor. *Handbook of Automated Essay Evaluation*, M. Shermis & J. Burstein, (Eds.). Pp. 68-88. Routledge, NY, NY.
- Holshausen, K., Harvey, P. D., Elvevåg B., Foltz, P. W., Bowie, C. R. (2013) Latent semantic variables are associated with formal thought disorder and adaptive behavior in older inpatients with schizophrenia, *Cortex*, , ISSN 0010-9452, 10.1016/j.cortex.2013.02.006.
- Nicodemus, K. K., Elvevåg B., Foltz, P. W., Rosenstein M., Diaz-Asper, C., & Weinberger D. R., (2013) Category fluency, latent semantic analysis and schizophrenia: a candidate gene approach. *Cortex*. ISSN 0010-9452, <http://dx.doi.org/10.1016/j.cortex.2013.12.004>
- OECD PISA Collaborative Problem Solving Expert Working Group (2013). PISA 2015 Collaborative Problem Solving Framework. <http://www.oecd.org/pisa/pisaproducts/Draft%20PISA%202015%20Collaborative%20Problem%20Solving%20Framework%20.pdf>
- Cuevas, H. M., Bolstad, C. A., Oberbreckling, R., LaVoie, N., Mitchell, D. K., Fielder, J., & Foltz, P. W. (2012). Benefits and challenges of multidisciplinary project teams: “Lessons learned” for researchers and practitioners. *International Test and Evaluation Association (ITEA) Journal*. *33* (1), 58-65.
- Foltz, P. W. Oberbreckling, R. J., Laham, R. D. (2012), Analyzing Job and Occupational Content Using Latent Semantic Analysis. M. A. Wilson, W. Bennett, Jr., S. G. Gibson, G. M Alliger (Eds.). *The Handbook of Work Analysis Methods, Systems, Applications and Science of Work Measurement in Organizations*. Routledge. 691-709.
- Leleu T.D., Jacobson I.G., LeardMann C.L., Smith B., Foltz, P. W., Amoroso P.J., Derr M., Ryan M.A.K., Smith T.C., and the Millennium Cohort Study Team. (2011) Application of latent semantic analysis for open-ended responses in a large epidemiologic study. *BMC Medical Research Methodology*, 11:136. doi:10.1186/1471-2288-11-136
- Bolstad, C. A., Cuevas, H. M., Connors, E. S., González, C., Foltz, P. W., Lau, N. K. C., & Warwick, W. J. (2010). Advances in modeling situation awareness, decision making, and performance in complex operational environments. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 54, No. 13, pp. 1047-1051). SAGE Publications.
- Elvevåg, B., Foltz, P. W., Rosenstein, M., & DeLisi, L. E. (2010). An automated method to analyze language use in patients with schizophrenia and their first degree relatives. *Journal of Neurolinguistics*. doi: 10.1016/j.jneuroling.2009.05.002.
- Bolstad, C. A. & Foltz, P. W. (2009) Realtime communication, situation awareness and cognitive performance assessment system. *Proceedings of the International Test and Evaluation Association Technology Review*. Palo Alto, CA.
- Foltz, P. W., Lee, A. Y., Bond, G., & Martin, M. J. (2009). Models, Methods, and Tools for the adaptability of teams. In P. McDermott and L. Allender (Eds.). *Advanced Decision Architectures for the Warfighter*. Army Research Lab, Aberdeen, MD.
- Foltz, P. W., Sparks, R., Rosenstein, M., Carley, K. M., Martin, K. M., Warwick, W., Matessa, M., LaVoie N. and Lauper, U (2009). Developing an Integrated Toolset for the Tactical Human Integration of Networked Knowledge ATO, In *proceedings of the 4th Annual West Point Network Science Workshop*, West Point, NY, October
- Gutierrez, S. L., Kantrowitz, T. M. McLellan, R., Grelle, D., & Foltz, P. W. (2009). Innovations in “classic” predictors of performance: Cognitive ability, personality and essay. *Proceedings of the Society for Industrial and Organizational Psychology*. New Orleans, LA., April.
- Panaccione, C. & Foltz, P. W. (2009). Implicit communication detection using topics model on asynchronous communication data. In *Proceedings of the Neural Information Processing Systems (NIPS) workshop on Topic Models: Text and Beyond*. <http://nips2009.topicmodels.net>
- Cianciolo, A. T., LaVoie, N., Lauper, U., & Foltz, P. W. (2008). Emerging concepts in interagency coordination training. *Proceedings of the Interservice/Industry Training Simulation, and Education conference ITTSEC*, Orlando, FL
- Foltz, P.W., Bolstad, C.A., Cuevas, H.M., Franzke, M., Rosenstein, M., & Costello, A.M. (2008). Measuring situation awareness through automated communication analysis. In M. Letsky, N. Warner, S.M. Fiore, & C. Smith (Eds.), *Macro cognition in teams*. Aldershot, England: Ashgate.

- Foltz, P. W., Lavoie, N., Oberbreckling, R. & Rosenstein, M. (2008). Automated performance assessment of teams in virtual environments. In D. Schmorow, J. Cohn & D. Nicholson, (Eds.), *The PSI handbook of virtual environments for training and education: Developments for the military and beyond*. Westport, CT: Praeger Security International.
- Foltz, P. W. & Martin, M. J. (2008). Automated Communication Analysis of Teams. In E. Salas, G. F. Goodwin, & S. Burke (Eds.) *Team Effectiveness in Complex Organizations and Systems: Cross-disciplinary perspectives and approaches*. New York: Routledge.
- Foltz, P. W., Rosenstein, M., LaVoie, N., Oberbreckling, R., Chatham, R., & Psocka, J. (2008). DARCAAT: DARPA Competence Assessment and Alarms for Teams. *Proceedings of the Interservice/Industry Training Simulation, and Education conference /ITSEC*, Orlando, FL
- LaVoie, N., Foltz, P. W., Rosenstein, M., Oberbreckling, R., Chatham, R., & Psocka, J. (2008). Automated support for AARs: Exploiting communication to assess team performance. *Proceedings of the Interservice/Industry Training Simulation, and Education conference /ITSEC*, Orlando, FL
- LaVoie, N., Foltz, P. W., Rosenstein, M., Oberbreckling, R., Chatham, R., & Psocka, J. (2008). Automating convoy training assessment to improve soldier performance. In *Proceedings of the Army Sciences Conference*, Orlando, FL, November.
- LaVoie, N., Lauper, U., Lee, Y.-C., Lee, Cianciolo, A., Foltz, P.,W., Legree, P. & Psocka, J. (2008). Driving wisdom: Improving risk management of common driving hazards. *Proceedings of the Interservice/Industry Training Simulation, and Education conference /ITSEC*, Orlando, FL
- Bolstad, C.A., Foltz, P. W., Franzke, M., Cuevas, H.M., Rosenstein, M., & Costello, A.M. (2007). Predicting situation awareness from team communications. *Proceedings of the 51st Annual Meeting of the Human Factors and Ergonomics Society*. Santa Monica, CA: HFES.
- Elvevåg, B., Foltz, P. W., Weinberger, D. R. & Goldberg, T. E. (2007) Quantifying incoherence in speech: An automated methodology and novel application to schizophrenia. *Schizophrenia Research*. doi:10.1016/j.schres.2007.03.001.
- Foltz, P. W. Discourse Coherence and LSA. (2007) In T. K Landauer, W. Kintsch, D. McNamara & S. Dennis. (Eds.) *LSA: A Road to Meaning*. Lawrence Erlbaum Publishing.
- Foltz, P. W. & Landauer, T. K (2007) Helping people find and learn from documents: Exploiting synergies in human and computer search. In T. K Landauer, W. Kintsch, D. McNamara & S. Dennis. (Eds.) *LSA: A Road to Meaning*. Lawrence Erlbaum Publishing
- Foltz, P. W., LaVoie, N., Oberbreckling, R. & Rosenstein, M. (2007). Tools for automated analysis of networked verbal communication. *Network Science Report*, Volume 1, pp. 19-24, United States Military Academy Network Science Center.
- Pierce, L. G., Sutton, J. L., Foltz, P., Lavoie, N., Scott-Nash, S., & Lauper, U (2006) Technologies for augmented collaboration. In *Proceedings of the CCRTS Command and Control Research and Technology Symposium*. Cambridge, UK.
- Foltz, P. W., Martin, M. J., Abdelali, A., Rosenstein, M., & Oberbreckling, R. J. (2006). Automated Team Discourse Modeling: Test of Performance and Generalization. In *Proceedings of the 28th Annual Cognitive Science Conference*.
- Nuehring S.A, & Foltz P.W (2006). Improving website usability with latent semantic analysis *Proceedings of the Human Factors and Ergonomics Society*. 1844-1848.
- Elliott, L. J. & Foltz, P. W. (2005). Eliciting user analogies to improve documentation *Proceedings of the Human Factors and Ergonomics Society*. 1821-1825.
- Foltz, P. W. (2005). Tools for Enhancing Team Performance through Automated Modeling of the Content of Team Discourse. In D. Schmorow (Ed.) *Foundations of Augmented Cognition*. New York, NY: Routledge, (pp. 1239-1248).
- Foltz, P. W. (2005) Automated Content Processing of Spoken and written discourse: Text Coherence, Essays, and Team Analyses. *Document design*, 13(1), 5-13.
- Janeke, H. C., Coetzee, C. H., & Foltz, P. W. (2005). New frontiers in automated assessment: using latent semantic analysis to assess conceptual content in essays. *South African Journal of Higher Education*. 19(6), 1074-1088
- Martin, M. J. & Foltz, P. W. (2004) Automated team discourse annotation and performance prediction using LSA. In *proceedings of the Human Language Technology conference / North American chapter of the Association for Computational Linguistics annual meeting HLT/NAACL 2004*.

- Foltz, P. W., & Lee, A. Y. (2004). Adaptive Learning Systems. In H. Van Oostendorp, Breure & A. Dillon (Eds.). *Creation, Use and Deployment of Digital Information*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Elvevåg, B., Foltz, P. W., Weinberger, D. R., Goldberg, T.E. (2004). A novel approach to measuring coherence and incoherence in speech. *Schizophrenia Research*, 67(1), 88.
- Foltz, P. W. (2003) Quantitative cognitive models of Text and Discourse Processing. In A. Graesser, M. Gernsbacher, and S. Goldman, (Eds.), *The Handbook of Discourse Processes*. Mahwah, NJ: Lawrence Erlbaum Publishing. Pp 487-524.
- Foltz, P. W. (2003). Content Processing with Latent Semantic Analysis: Essays, Teams and Clinical Interviews. In L. Lagerwerf, W. Spooren, L. Degand (Eds.). *MAD: 5th International Workshop on Multidisciplinary Approaches to Discourse*, Münster, Germany: Nodus Publikationen.
- Foltz, P. W., Laham, R. D. & Derr, M. (2003). Automated Speech Recognition for Modeling Team Performance. In *Proceedings of the 47th Annual Human Factors and Ergonomic Society Meeting*. Santa Monica, CA. Human Factors and Ergonomic Society.
- Foltz, P. W., Martin, M. J., Cooke, N. J., Kiekel, P. A., & Gorman, J. (2003). Automated Team Communication Analysis with Latent Semantic Analysis. In *Proceedings of the Collaborative Technologies Alliance: Advanced Decision Architectures*, (pp 33-40).
- Gorman, J. C., Foltz, P. W. Kiekel, P. A., Martin, M. A., & Cooke, N.J. (2003) Evaluation of Latent Semantic Analysis-based measures of communications content. In *Proceedings of the 47th Annual Human Factors and Ergonomic Society Meeting*.
- Gillan, D.J., Foltz, P. W., & Renfro-Fernandez, C. L. (2003). Analyzing Assessment: Case studies at the Individual and Department level. *Proceedings of New Mexico conference on Assessment*.
- Landauer, T. K., Laham, R. D., & Foltz, P. W. (2003) Automated Scoring and Annotation of Essays with the Intelligent Essay Assessor. In M. Shermis & J. Burstein, (Eds.). *Automated Essay Scoring: A cross-disciplinary perspective*. Mahwah, NJ: Lawrence Erlbaum Publishers.
- Landauer, T. K., Laham, R. D., & Foltz, P. W. (2003) Automated Essay Assessment. *Assessment in Education*, 10,3, 295-308.
- Foltz, P. W. & Landauer, T. K. (2002). Applications of LSA to writing analysis. In T. Olive and M. Levy (Eds.). *Contemporary Tools and Techniques for Studying Writing*. Amsterdam University Press. pp 131-144.
- Foltz, P. W. & Landauer, T. K (2002). The SuperManual Interactive Electronic Technical Manual. *Proceedings of the Interservice/Industry Training, Simulation and Education Conference*.
- Kiekel, P. A., Cooke, N. J., Foltz, P. W., Gorman, J. & Martin, M. M (2002). Some promising results of communication-based automatic measures of team cognition. *Proceedings of the Human Factors and Ergonomics Society*.
- Landauer, T. K. & Foltz, P. W. (2002). The SuperManual Project. *Proceedings of the Human Factors and Ergonomics Society*. 46, 5, pp. 632-635.
- Landauer, T. K., Laham, R. D., & Foltz, P. W. (2002). Automated Scoring and Annotation of Essays with the Intelligent Essay Assessor. In M. Shermis and J. Burstein. *Automated Essay Assessment*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Elvevåg, B, Foltz, P, Fisher, JE, Schwartz, A, Bokas, CE, Weinberger, DR, Goldberg, TE (2001), Latent Semantic Analysis and the semantic coherence of disordered speech in schizophrenia, *Schizophrenia Research*, 49(1-2), 105-106.
- Foltz, P. W. (2001). Semantic Processing, Statistical Semantics. In W. Kintsch, (Ed.) *The International Encyclopedia of the Social and Behavioral Sciences*.
- Kiekel, P. A., Cooke, N. J., Foltz, P. W., & Shope, S. M. (2001). Automating measurement of team cognition through analysis of communication data. In M. J. Smith, G. Salvendy, D. Harris, and R. J. Koubek (Eds.), *Usability Evaluation and Interface Design*, pp. 1382-1386, Mahwah, NJ: Lawrence Erlbaum Associates.
- Landauer, T. K., Laham, D., & Foltz, P. W. (2001). Automated essay scoring. *IEEE Intelligent Systems*. September/October.
- Foltz, P. W., Gilliam, S., & Kendall, S. (2000). Supporting content-based feedback in online writing evaluation with LSA. *Interactive Learning Environments*, 8(2), 111-129.
- Strait, M. J., Haynes, J. A., & Foltz, P. W. (2000). Applications of Latent Semantic Analysis to Lessons Learned Systems in Aha, D.W., & Weber, R. (Eds.) *Intelligent Lessons Learned Systems: Papers from the 2000 Workshop*. Menlo Park, CA: AAAI Press.

- Foltz, P. W., Laham, D., & Landauer, T. K. (1999). The Intelligent Essay Assessor: Applications to Educational Technology. *Interactive Multimedia Education Journal of Computer Enhanced Learning*, 1,(2).
- Foltz, P. W., Laham, D., & Landauer, T. K. (1999). Automated Essay Scoring: Applications to Educational Technology. In B. Collis and R. Oliver (Eds.), *Proceedings of EDMedia '99*, Charlottesville, VA: Association of Computing in Education, (pp. 939-944).
- Foltz, P. W., & Wells, A. D. (1999). Automatically deriving reader's knowledge structures from texts. *Behavior Research Methods, Instruments and Computers*, 25(2), 208-214.
- Davis, M. W., & Foltz, P. W. (1998) Learning via compact data representations. In M. A. Gernsbacher and S. J. Derry (Eds.) *Proceedings of the Twentieth Annual Conference of the Cognitive Science Society*. pp. 285-290, Mahwah NJ: Lawrence Erlbaum Publishing..
- Foltz, P. W. (1998). Computational approaches to semantic knowledge representations. *Discourse Processes*, 25(2&3), 127-130.
- Foltz, P. W., Kintsch, W., & Landauer, T. K. (1998). The measurement of textual coherence with Latent Semantic Analysis. *Discourse Processes*, 25(2&3), 285-307.
- Landauer, T. K, Foltz, P. W., & Laham, D. (1998). An introduction to Latent Semantic Analysis. *Discourse Processes*, 25(2&3), 259-284.
- Landauer, T. K., Laham, D., & Foltz, P. W. (1998) . Learning Human-like Knowledge by Singular Value Decomposition: A Progress Report. In M. I. Jordan, M. J. Kearns, S. A. Solla, (Eds.), *Advances in Neural Information Processing Systems 10*, 45-51, Cambridge, MA: MIT Press.
- McDonald, J. E., Ogden, W. & Foltz, P. W. (1998). Interactive information retrieval using term relationship networks. In D. K. Harmon and E., M. Voorhees (Eds.) *Proceedings of the Text Retrieval Conference TREC 6*, Department of Commerce, National Institute of Standards and Technology
- Wolfe, M., B. Schreiner, M. E., Rehder, B., Laham, D., Foltz, P. W., Kintsch, W., & Landauer, T. K (1998). Learning from text: Matching readers and texts by Latent Semantic Analysis. *Discourse Processes*, 25(2&3), 309-336.
- Foltz, P. W. & Wells, A. D. (1997) Modeling Students' Knowledge Representation with Latent Semantic Analysis, In M. G. Shafto and P. Langley (Eds.) *Proceedings of the Nineteenth Annual Conference of the Cognitive Science Society*. Mahwah NJ, Lawrence Erlbaum Publishing.
- Foltz, P. W. (1996) Latent Semantic Analysis for text-based research. *Behavior Research Methods, Instruments and Computers*. 28(2), 197-202.
- Foltz, P. W., Britt, M. A., & Perfetti, C. A. (1996) Reasoning from multiple texts: An automatic analysis of readers' situation models. In G.W. Cottrell (Ed.) *Proceedings of the 18th Annual Cognitive Science Conference*.(pp. 110-115), Hillsdale, NJ: Lawrence Erlbaum Associates.
- Foltz, P. W. (1996). Comprehension, coherence, and strategies in hypertext and linear text. In J. Levonen, J. F. Rouet, A. Dillon, & R. Spiro (Eds.), *Hypertext and Cognition*. (pp. 109-136). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Perfetti, C. A., Marron, M. A. & Foltz, P. W. (1996). Sources of comprehension failure: Theoretical perspectives and case studies. In C. Cornoldi & J. Oakhill (Eds.), *Reading comprehension difficulties: Processes and interventions*. Lawrence Erlbaum, NJ.
- Voss, J. F., Wiley, J., Ciarrochi, J., Foltz, P. W., & Silfes, L. (1996) Race and the representation of discourse: Fictitious scenarios and the O.J. Simpson case. *Discourse Processes*.22(2), 103-144.
- Foltz, P. W. (1995). The next ACT: Further refinements of a general theory of cognition [Review of *Rules of the Mind*]. *Applied Cognitive Psychology*, 9(5), 456-458.
- Lee, A. Y., Foltz, P. W., & Polson, P. G. (1994). Memory for Task-Action Mappings: Mnemonics, regularity, and consistency. *International Journal of Human-Computer Studies*, 40(5), 771-791.
- Foltz, P. W. (1992). The HCIBIB mail-based retrieval system. *Human Factors and Ergonomics Society, Computer Systems Technical Group Bulletin*,19(1).
- Foltz, P. W. & Dumais, S. T. (1992). Personalized information delivery: An analysis of information filtering methods. *Communications of the ACM*, 33(12), 51-60.

- Foltz, P. W. (1991). Human Memory Retrieval and Computer Information Retrieval: What can the two fields learn from each other? *Proceedings of the Thirteenth Annual Conference of the Cognitive Science Society*, (pp. 703-707).
- Foltz, P. W. & Dumais, S. T. (1991). An analysis of information filtering methods for Bellcore technical memos. *Proceedings of the Bellcore Conference on User Centered Design*, November.
- Lee, A. Y., Foltz, P. W., & Polson, P. G. (1991). Consistency versus mnemonics in text editor command sets. *SIGCHI Bulletin*, 23(4), 41.
- Foltz, P. W. (1991). A text comprehension model of hypertext: A theory based approach to design and evaluation. In S. Robertson, G. Olson & J. Olson (Eds.) *Proceedings of the Conference on Human Factors in Computing Systems, CHI '91*, 489-490.
- Foltz, P. W. (1990) Using Latent Semantic Indexing for Information Filtering. In R. B. Allen (Ed.) *Proceedings of the Conference on Office Information Systems*, Cambridge, MA, 40-47.
- Foltz, P. W., Davies, S. E., Polson, P. G., & Kieras, D. (1988). Transfer across menu systems. *Proceedings of Conference on Human Factors in Computing Systems, CHI '88*, Washington, DC. 107-112.
- Foltz, P. W., Davies, S. E., Polson, P. G., & Kieras, D. (1988). Transfer between similar menu systems. *SIGCHI Bulletin*, January, 63-65.

Selected Presentations and Invited talks

- Foltz, P. W. (2020). Panel on Technology and Psychiatry. PsychSummit: Psychiatry in an evolving world. Joint meeting of the New York and Colorado Psychiatric Society. August.
- Foltz, P. W. (2020). Considerations and advances in applying AI-based methods to assessing writing. Invited talk at the Berkeley Evaluation and Assessment Research (BEAR) Center. University of California Berkeley, March.
- Foltz, P. W. (2020). AI Advances in Assessment and Learning. Invited Panel Session at LearnLaunch 2020. Boston, MA, January.
- Foltz, P. W. (2019). AI in Education. Invited Panel Session at the Educational Writers Association, Ann Arbor Michigan, October.
- Foltz, P. W. (2019). Artificial Intelligence in Education: Present and Future: Presentation to the University of Colorado Board of Regents. Parker, CO, November.
- Foltz, P. W. (2018). Artificial Intelligence - can it truly create a better learning experience? Invited talk given at the Festival of Higher Education, Buckingham, UK. June.
- Foltz, P. W. (2017). Automated feedback in large-scale formative writing: Lessons learned and best practices. Keynote address presented at the Learning Analytics and Knowledge LAK2017 Writing Analytics Literacy, Bridging Research to Practice Workshop. Vancouver, BC, March.
- Foltz, P. W. (2017). Practical considerations for implementing Artificial Intelligence for Automated Scoring of Writing. Invited Talk at the 17th Annual Maryland Assessment Research Conference. Gaithersburg, MD, November.
- Foltz, P. W. (2017). Text as Data: Supporting Personalized Learning. Invited talk given at the IBM India Research Center, Bangalore, India.
- Foltz, P. W. (2015) Technologies for Literacy. Keynote address presented to the North Carolina State Superintendents Annual Winter Conference. Greensboro, NC, December.
- Foltz, P. W. (2015). Automated evaluation of student writing: Improving assessment and student learning. Keynote at the UNED International Symposium on educational evaluation. Madrid, Spain.
- Foltz, P. W., Garner, H., & Dronen, N. (2014). Technologies for Constructed Response Scoring. Talk presented at the *California Educational Research Association Conference*, San Diego, CA, December.
- Foltz, P. W. (2014). Personalized Assessment: Technologies for instant feedback for formative and summative assessment. Invited workshop presentation for *Colorado School Administrator Forum on Personalized Learning-- Building Education 3.0*. Denver, CO. September.
- Foltz, P. W. & DeJong, J. (2014). Workshop on teaching and assessing 21st Century skills and PISA. Invited four day workshop delivered to the *Malaysian Ministry of Education*, Kuala Lumpur, Malaysia, August.

- Foltz, P. W. (2014) Supporting Learner Outcomes Using Formative Assessment. Invited workshop given to the *English Language Teaching Center*, Malaysia. August.
- Foltz, P. W. (2014). Improving Text Complexity Measurement with the Reading Maturity Metric. Talk presented at the *National Conference on Student Assessment*. New Orleans, LA, June.
- Foltz, P. W. (2014). Improving student writing through automated formative assessment: Practices and results. Talk presented at the *International Association for Educational Assessment*. Singapore, May.
- Foltz, P. W., Rosenstein, M., Dronen, N., & Dooley, S. (2014). Automated feedback in a large-scale implementation of a formative writing system: Implications for improving student writing. Talk presented at the *American Educational Research Association (AERA) annual meeting*. Philadelphia, PA. March.
- Foltz, P. W. & Rosenstein, M. B. (2013). Tracking student learning in a state-wide implementation of automated writing scoring. Poster presented at the *Neural Information Processing Systems (NIPS) workshop of Data Driven Education*. December, 2013.
- Foltz, P. W. (2013). Innovations in 21st Century Skills Assessment. Invited talk for the *Beijing Academy for Educational Research*, October, Beijing, China.
- Foltz, P. W. (2013). Technologies for Automated Scoring of Writing, Speaking and Math. Invited talk at *Waseda University Department of Education*, Japan.
- Foltz, P. W. (2013). Computational approaches to analyzing student performance: Methods and applications.. Invited workshop presented at *Stanford Learning Analytics Summer Institute*, Palo Alto, CA, July.
- Foltz, P. W., Rosenstein, M., & Lochbaum, K. E. (2013). Improving performance of automated scoring through detection of outliers and understanding model instabilities. Paper presented at *the National Council on Measurement in Education Conference (NCME)*, San Francisco, CA, April.
- Foltz, P. W. (2013) *Automated Scoring for Formative Assessment: It Works*. Pearson webinar on formative assessment.
- Foltz, P. W., (2012) Considerations for implementation of automated scoring. Talk presented at the *Association for Test Publishers Conference*. Palm Springs, CA, March.
- Foltz, P. W. (2012). Beyond Essay Scoring: Test Development Through Natural Language Processing. Discussant for session presented at the *National Council for Measurement in Education Conference*., Vancouver, BC.
- Foltz, P. W. (2012) The Intelligent Essay Assessor. Contrasting State-of-the-Art in Automated Scoring of Essays., Paper presented at the National Council for Measurement in Education Conference., Vancouver, BC.
- Foltz, P. W., (2012) Technology for amplified educators. Invited talk at the Council of Chief State School Officers Deputies meeting. Washington, DC. May.
- Foltz, P. W., & Landauer, T. K. (2012). Improving Text Complexity Measurement Through the Word Maturity Metric. Paper presented at the *Conference of the Scientific Studies for Reading*, Montreal, July.
- Foltz, P. W., & Landauer, T. K. & Way, D. (2012). The *Reading Maturity Metric*. Talk presented at the National Council for Measurement in Education Conference, Vancouver, BC.
- Foltz, P. W., Lochbaum, K. E., Rosenstein, M. B., & Davis, L. (2012) Increasing Reliability Throughout the Automated Scoring Development Process. Paper presented at the *National Council for Measurement in Education Conference*., Vancouver, BC. April.
- Davis, L. E., Foltz, P. W., Lochbaum, K. E., Rosenstein, M. B., & Murphy, D. (2012) Automated Essay Scoring for High Stakes assessment. Talk presented at the *Association for Test Publishers Conference*. Palm Springs, CA, March.
- Rosen, Y. & Foltz, P. W., (2012) *Student + Computer Agent = Collaborative Problem Solving in OECD's PISA 2015*. Paper presented at EDMedia 2012.
- Foltz, P. W. (2011) Assessment of Training and Experience: Technology for Assessment. *International Personnel Assessment Conference (IPAC)*. Washington, D.C., July.
- Foltz, P. W. (2011). Tools and technologies for educational applications. Talk presented at the *Symposium honoring Charles Perfetti*. Poitiers, France, July.

- Foltz, P. W. (2011). Automated Discourse Analysis in Live and Virtual Environments. Talk presented at the *Annual meeting of the Society for Text and Discourse*. Poitiers, France, July.
- Foltz, P. W. (2011). Technologies for automated scoring. Invited talk presented for the *Illinois State Board of Education (ISBE) Technical Advisory Committee (TAC)*. Chicago, IL, May.
- Foltz, P. W. (2010). Automated Scoring of Constructed Responses. Invited talk presented to the *Interagency Assessment Council*. Washington, DC. December.
- Foltz, P. W. (2010). Innovations for Automated Learning and Assessments of 21st Century Skills. Talk presented at *Consortium for School Networking (COSN)* annual meeting. Washington, DC. February.
- Foltz, P. W. (2010) Innovations for Learning and Assessment of Higher Level Cognitive Skills. Talk presented at the annual *Pearson Research Summit*. Denver, CO, May
- Thurlow, M. Hermann, A., & Foltz, P. W., (2010). Preparing MSA Science Items for Artificial Intelligence (AI) Scoring. Talk presented at the *Maryland Assessment Group Conference*. Ocean City, November.
- Foltz, P. W., Lee, A. Y., Bond, G., & Martin, M. J. (2009). Models, Methods, and Tools for the adaptability of teams. Talk presented at the *Army Research Lab Advanced Decision Architectures Annual Research meeting*. Boulder, CO, February.
- Panaccione, C. & Foltz, P. W. (2009). Implicit communication detection using topics models on asynchronous communication data. Talk presented at the *NIPS workshop on Topic Models: Text and Beyond*.
- Foltz, P. W., Rosenstein, M., LaVoie, N., Oberbreckling, R., Chatham, R., & Psotka, J. (2008). DARCAAT: DARPA Competence Assessment and Alarms for Teams. Talk presented at the *Interservice/Industry Training Simulation, and Education conference IITSEC*, Orlando, FL November
- LaVoie, N., Foltz, P. W., Rosenstein, M., Oberbreckling, R., Chatham, R., & Psotka, J. (2008). Automated support for AARs: Exploiting communication to assess team performance. Talk presented at the *Interservice/Industry Training Simulation, and Education conference IITSEC*, Orlando, FL, November.
- LaVoie, N., Foltz, P. W., Rosenstein, M., Oberbreckling, R., Chatham, R., & Psotka, J. (2008). Automating convoy training assessment to improve soldier performance. Poster presented at the *Army Science Conference*, Orlando, FL, November.
- Bolstad, C.A., Foltz, P. W., Franzke, M., Cuevas, H.M., Rosenstein, M., & Costello, A.M. (2007). Predicting situation awareness from team communications. Talk presented at *The 51st Annual Meeting of the Human Factors and Ergonomics Society*. Santa Monica, CA: October.
- Foltz, P. W., LaVoie, N., Oberbreckling, R., & Rosenstein, M. (2007). Tools for automated analysis of networked verbal communication. Talk presented at the *United States Military Academy Network Science Center Conference*. October.
- Foltz, P. W., Martin, M. J., Abdelali, A., Rosenstein, M. B., & Oberbreckling, R. J. (2006). Automated Team Discourse Modeling: Test of Performance and Generalization. Talk presented at the *28th Annual Cognitive Science Conference*. July.
- Bolstad C. & Foltz, P. W. (2006). Automated communication analysis for interactive situation awareness assessment. Talk presented at the *Navy Collaboration and Knowledge Management Conference*. Orlando, FL. January.
- Pierce, L. G., Sutton, J. L., Foltz, P., Lavoie, N., Scott-Nash, S., & Lauper, U (2006) Technologies for augmented collaboration. Talk presented at the *CCRTS Command and Control Research and Technology Symposium*. Cambridge, UK. July.
- Cook, N. J. & Foltz, P. W. (2005). Communication in Team Cognition. Talk presented at the *Navy Collaboration and Knowledge Management Conference*. San Diego, CA. January.
- Foltz, P. W. (2005). Tools for Enhancing Team Performance through Automated Modeling of the Content of Team Discourse. Talk presented at the *Augmented Cognition Annual Conference*. Las Vegas, NV, July
- Foltz, P. W. (2004). Automated modeling of team communication. Talk presented at the *DARPA DARWARS conference*. Boston, September.
- Foltz, Landauer, Oliver, & Kintsch (2004). Research on and with Novel Technologies for Comprehension. Talk presented at the U.S. Department of Education *Interagency Educational Research Initiative* project review meeting.

- Foltz, P. W. & Martin, M. A. (2004) Automated team discourse annotation and performance prediction using LSA. Poster presented at the *Human Language Technology conference / North American chapter of the Association for Computational Linguistics annual meeting HLT/NAACL 2004*. May, 2004, Boston, MA.
- Elvevåg, B, Foltz, P. W., Weinberger, D. R., & Golberg, T. E. (2003). Coherence in Language in Schizophrenia: A Novel Approach. Poster presented at the Psychonomics Society Meeting. Vancouver, Canada, November.
- Foltz, P. W. (2003). Content Processing with Latent Semantic Analysis: Essays, Teams and Clinical Interviews. Invited keynote Address at: *MAD: 5th International Workshop on Multidisciplinary Approaches to Discourse*. Netherlands, March.
- Foltz, P. W. & Martin, M. A. (2003) Automatic Measurement of Team Cognition. Talk presented at the Psychonomics Society meeting. Vancouver, Canada, November.
- Foltz, P. W., Martin, M. J., Cooke, N. J., Kiekel, P. A., & Gorman, J. (2003). Automated Team Communication Analysis with Latent Semantic Analysis. Talk presented at the Army *Collaborative Technologies Alliance: Advanced Decision Architectures*. College Park, MD, May.
- Foltz, P. W., Laham, R. D., & Derr, M. (2003). Automated Speech Recognition for Modeling Team Performance. Talk presented at the *47th Annual Human Factors and Ergonomic Society Meeting*. Denver, CO, October.
- Gorman, J. C., Foltz, P. W. Kiekel, P. A., Martin, M. A., & Cooke, N. J. (2003) Evaluation of Latent Semantic Analysis-based measures of communications content. Talk presented at the *47th Annual Human Factors and Ergonomic Society Meeting*. Denver, CO, October.
- Laham, R. D., Landauer, T. K., & Foltz, P. W. (2003). Emulating human essay scoring with machine learning methods, Workshop on *Cognitive Systems: Human Cognitive Models in System Design* Santa Fe, NM, June, 2003
- Foltz, P. W. & Landauer, T. K (2002). The SuperManual Interactive Electronic Technical Manual. Presented at the *Interservice/Industry Training, Simulation and Education Conference*. Orlando, FL, December.
- Kiekel, P. A., Cooke, N. J., Foltz, P. W., Gorman, J., & Martin, M. M (2002). Some promising results of communication-based automatic measures of team cognition. Presented at the *Human Factors and Ergonomics Society* Baltimore, MD, October.
- Foltz, P. W. (2001). Introduction to Latent Semantic Analysis. Talk presented at Society for Text and Discourse. Santa Barbara, CA, July.
- Elvevåg, B, Foltz, P. W. Weinberger D.R., & Goldberg, T.E. (2001) Analysis of clinical interviews of patients with schizophrenia. Talk presented at Society for Text and Discourse. Santa Barbara, CA, July.
- Foltz, P. W., Cooke, N. J., Kiekel, P., & Shope, S. (2001). Automating measurement of team cognition through analysis of communication data. Talk presented at Society for Text and Discourse. Santa Barbara, CA, July.
- Kiekel, P. A., Cooke, N. J., Foltz, P. W., & Shope, S. M. (2001). Automating measurement of team cognition through analysis of communication data. Paper presented at Human Computer Interaction International, August 8, New Orleans, LA.
- Lee, A. Y. Foltz, P. W. Biron, H. A. & Gilliam, S. (2001). The effects of writing on learning in automated tutoring systems. Poster presented at the Psychonomics Society Meeting. Orlando, FL, November.
- Foltz, P. W. (2000). Applications of Latent Semantic Analysis to Lessons Learned Systems. Invited talk presented at the AAAI conference workshop on Lessons Learned Systems. Austin, TX.
- Laham, D., & Foltz, P. W. (2000). Automatic Scoring and Annotation of Essays with the Intelligent Essay Assessor. Talk presented at the *American Educational Research Association*, New Orleans, LA.
- Foltz, P. W. (2000). Automatic Essay Scoring with Latent Semantic Analysis. Invited talk presented at the Stanford Research Institute.
- Foltz, P. W. (2000). Automatic Essay Scoring with Latent Semantic Analysis. Invited talk presented at the University of Pittsburgh.
- Foltz, P. W. (1999). Latent Semantic Analysis for Survey Research. Talk presented at *Society for Computers in Psychology*, Los Angeles, CA. Nov.
- Foltz, P. W., Laham, D., & Landauer, P. W. (1999). Automated essay scoring: Applications to Educational Technology. Talk presented at *EDMedia '99*, Seattle, WA. June.
- Foltz, P. W. (1999). Modeling readers' representations with Latent Semantic Analysis. Talk presented at the Annual conference of the American Psychological Society, APS. May, Los Angeles.

- Teplov, C., Laham, D., Bereiter, C., Scardamalia, M., Foltz P. W., & Landauer, T. K. (1999). Automated text analysis to assess cognitive outcomes of collaborative learning. *CILT '99 Center for Innovative Learning Technologies Conference*. San Jose, CA.
- Foltz, P. W. (1999). Automatic Essay Scoring with Latent Semantic Analysis. Invited talk presented at the University of Memphis, Psychology Department Colloquium. May.
- Davis, M. W., & Foltz, P. W. (1998) Learning via compact data representations. Poster presented at the Twentieth Annual meeting of the Cognitive Science Society. Madison, WI, August.
- Foltz, P. W. (1998) Human and Computer grading of essay exams. Talk presented at the Society for Text and Discourse, Madison, WI, August.
- Foltz, P. W. (1998) Human and Computer grading of essay exams. Talk presented at the NMSU Scholarly Technology Symposium. Las Cruces, NM, November.
- Foltz, P. W. (1998). Analyzing components of essays with LSA: Identifying the source and quality of knowledge. Talk presented at the American Educational Research Association. San Diego, CA. April
- Foltz, P. W. (1998). Analyzing components of essays: Identifying the source and quality of knowledge. Talk presented at the McDonnell Foundation Cognitive Studies for Educational Practice. Boulder, CO, September.
- Foltz, P. W. (1998). Theories and Applications of High Dimensional Semantic Models. Talk presented at the Society for Computers in Psychology, Dallas, TX, November.
- Foltz, P. W. (1998). Measuring and modeling knowledge structures and content knowledge with Latent Semantic Analysis. Talk presented at the Society for Computers in Psychology, Dallas, TX, November.
- Foltz, P. W. & Caukwell, S. (1998) Assessing the quality of essay exams: Implications for Human and Computer grading. Poster presented at Western/Rocky Mountain Psychological Association Annual Meeting. Albuquerque, NM. April.
- Wells, A. D. & Foltz, P. W. (1998). The Role of Working Memory Capacity in Integrating Outline Material. Poster presented at the Society for Text and Discourse, Madison, WI, August.
- Wells, A. D. & Foltz, P. W. (1998). The Role of Working Memory Capacity in Integrating Outline Material. Poster presented at Western/Rocky Mountain Psychological Association Annual Meeting. Albuquerque, NM. April.
- Wells, A. D. & Foltz, P. W. (1998). The Role of Working Memory Capacity in Integrating Outline Material. Poster presented at the Psychonomics Society. Dallas, TX, November.
- Foltz, P. W. (1997) Modeling text comprehension with LSA. Talk presented at the Psychonomics Society Conference, Philadelphia, PA, November.
- Foltz, P. W. (1997). Can LSA represent readers' knowledge structures? Poster presented at the Psychonomics Society Conference, Philadelphia, PA, November.
- Foltz and Wells (1997) Modeling Students' Knowledge Representation with Latent Semantic Analysis, In M. G. Shafto and P. Langley (Eds.), Poster presented at the Nineteenth Annual Conference of the Cognitive Science Society.
- Foltz, P. W., Britt, M. A., & Perfetti, C. A. (1996) Reasoning from multiple texts: An automatic analysis of readers' situation models. Talk presented at the 18th annual conference of the Cognitive Science Society. San Diego, CA. July.
- Foltz, P. W. (1996) Modeling readers' conceptual structures with Latent Semantic Analysis. Talk presented at the Society for Text and Discourse. San Diego, CA. July.
- Foltz, P.W. (1996) Modeling readers' conceptual structures with Latent Semantic Analysis. Talk presented at the 6th Annual Winter Text Conference, Jackson Hole, WY, January.
- Foltz, P. W. (1995) Latent Semantic Analysis for text-based research. Talk presented at the Society for Computers in Psychology, Los Angeles, CA.
- Foltz, P. W. (1995) Improving Human-Proceedings Interaction: Indexing the CHI Index. Poster presented at Conference on Human Factors, CHI '95, Denver, CO.

- Foltz, P. W., Britt, M. A., & Perfetti, C. A. (1995). Measuring the influence of multiple texts in learning history. Talk presented at the Conference for the American Educational Research Association, April.
- Foltz, P. W., Britt, M. A., & Perfetti, C. A. (1995). Measuring Text Influence on Learning History. Talk Presented at the 5th Annual Winter Text Conference, February.
- Foltz, P. W., Britt, M. A., & Perfetti, C. A. (1994). Where did you learn that? Matching student essays to the texts they have read. Talk presented at the Fourth Annual Conference of the Society for Text and Discourse. July.
- Foltz, P. W., Kintsch, W., & Landauer, T. K. (1993). Modeling textual coherence with Latent Semantic Indexing. Poster presented at The Annual Meeting of the Psychonomics Society. November.
- Foltz, P. W., Kintsch, W. & Landauer, T. K. (1993). An analysis of textual coherence using Latent Semantic Indexing. Talk presented at the Third Annual Conference of the Society for Text and Discourse. June.
- Foltz, P. W. & Kintsch, W. (1992). What can text comprehension theory tell us about hypertext? Talk presented at the Second Annual Conference of the Society for Text and Discourse. June.
- Foltz, P. W. (1992). IRMail: A minimal interface for a retrieval system. Poster presented at CHI '92. Monterey, CA.
- Foltz, P. W. & Dumais, S. T. (1992). Personalized information delivery: An analysis of filtering methods. Poster presented at Conference on Human Factors, CHI '92. Monterey, CA.
- Foltz, P. W. & Dumais, S. T. (1991). Information filtering methods for Bellcore technical memos. Talk presented at the Bellcore workshop on Information Filtering.
- Foltz, P. W. (1991). Modeling human memory retrieval and computer information retrieval: What can the two fields learn from each other. Poster presented at Thirteenth Annual Conference on Cognitive Science, Chicago.
- Foltz, P. W. (1991). A Text Comprehension Model of Hypertext: A Theory Based Approach to Design and Evaluation. Poster presented at Conference on Human Factors, CHI '91. New Orleans.
- Lee, A. Y. Foltz, P. W., & Polson, P. (1991). Consistency versus inconsistency in text editor command sets. Poster presented at Conference on Human Factors, CHI '91. New Orleans.
- Foltz, P. W. (1990). Using Latent Semantic Indexing for Information Filtering. Conference on Office Information Systems. Cambridge, MA, April
- Foltz, P. W. (1989). Human and Computer information retrieval. Lehigh University Cognitive Science Colloquium. March 1989
- Foltz, P. W., Davies, S. Polson, P., & Kieras, D. (1988). Transfer across menu systems. Conference on Human Factors, CHI 88. Washington, DC.
- Foltz, P. W., Davies, S. Polson, P., & Kieras, D. (1987). Transfer across similar menu systems. Poster presented at Conference on Human Factors, CHI '87. Toronto, Canada.

Recent Technical Reports

- Lai, E. R., DiCerbo, K. E., & Foltz, P. (2017). Skills for Today: What We Know about Teaching and Assessing Collaboration. London: Pearson. http://www.p21.org/storage/documents/Skills_For_Today_Series-Pearson/Collaboration_White_Paper_FINAL.pdf
- Foltz, P. W., Rosenstein, M., & Lochbaum, K. E. (2013). Improving performance of automated scoring through detection of outliers and understanding model instabilities. National Council on Measurement in Education (NCME) Conference, San Francisco. April. Pearson Research Report at <http://researchnetwork.pearson.com>
- Lochbaum, K. E., Rosenstein, M., Foltz, P. W., & Derr, M. A. (2013). Detection of gaming in automated scoring of essays with the IEA. Pearson Research Report at <http://researchnetwork.pearson.com>
- Foltz, P., Rosenstein, M., Lochbaum, K., & Davis, L. (2012). Improving reliability throughout the automated scoring development process.. Pearson Research Report at: <http://www.pearsonkt.com>.

- Foltz, P. W., Lochbaum, K. E., & Rosenstein, M. (2011), Analysis of student ELA writing performance for a large scale implementation of formative assessment. Pearson Research Report at: <http://www.pearsonkt.com>
- Streeter, L., Bernstein, J., Foltz, P., & DeLand, D. (2011). Pearson's Automated Scoring of Writing, Speaking, and Mathematics . Pearson Research Report at: <http://www.pearsonkt.com/research>
- Williamson, D. M., Bennett, R., Lazer, S., Bernstein, J., Foltz, P. W., Landauer, T. K., Rubin, D., Way, D., & Sweeney, K. (2010, June). *Automated Scoring for the Assessment of Common Core Standards.*
<http://research.collegeboard.org/publications/automated-scoring-assessment-common-core-standards>

Editorial Work

- Co-Editor. Book: *Handbook of Automated Assessment of Complex Tasks*. Springer. (2020 release)
- Co-Editor, *International Journal of Artificial Intelligence in Education (IJAIED)*, special issue on formative feedback in interactive learning environments. (2014-2015)
- Guest editor for special edition of *Discourse Processes* on Computational approaches to semantic knowledge representations., 1998.
- Editorial Board: *International Journal of Artificial Intelligence in Education (IJAIED)*

Ad Hoc Reviewer

- ACM Conference on Information Retrieval, SIGIR
- ACM Conference on Human Factors in computing system, CHI
- ACM Transactions on Office Information Systems
- Behavior Research Methods, Instruments, and Computers
- Cambridge University Press
- Cognition and Instruction
- Conference of the Cognitive Science Society
- Cortex
- Discourse Processes
- Human Computer Interaction
- IEEE Expert
- IEEE Hawaii International Conference on System Sciences
- International Journal of Human-Computer Systems
- Journal of Experimental Psychology: Applied
- Journal of Management Information Systems
- Journal of the American Society for Information Science
- Morgan Kaufmann Publishers
- Nature Communications
- Nature Human Behaviour
- Nature Partner Journal Schizophrenia
- Neuropsychopharmacology
- North American Association for Computational Linguistics
- Schizophrenia Review

Professional Memberships & Honors

- Fellow of the Society for Text and Discourse
- Society for Computers in Psychology
- Association of Computing Machinery
- American Psychological Society
- National Council on Measurement in Education
- Pearson Certified Master Inventor
- Top ten Data Visualization of Educational Data *Education Measurement: Issues and Practice, 2016*

Board Memberships and Advisory Panels

Advisory board member for the Computational Linguistics, Analytics, Search and Informatics MS program (CLASIC), University of Colorado. (2018-Present)

Advisory board member for the Pearson Test of English Academic (PTE-A) (2019-present)

Advisory board member for Finetune Learning (2019-present)

Executive board member for the NSF Institute for Student-AI Teaming (2020-2021)

Advisory panel for National Institute of Statistical Sciences to support the National Center for Education Statistics use of process data in the National Assessment of Educational Progress (NAEP) Assessment. 2020-2021

Expert panel member for NSF grant: Development of Human Language Technologies to Improve the Teaching of Collaborative Argumentation in High School English Classrooms. Diane Litman PI. University of Pittsburgh (2018-2021)

Advisory Panel for The Learning Agency Hewlett Foundation challenge on improving feedback on writing (2019-2020)

Advisory panel ISAT/DARPA TEAMMS program 2019

Advisory Panel for Army UMARL GIFTS (Generalized Intelligent Framework For Tutors). 2016-2017

Advisory panel for University of Colorado Technology Transfer Office, Colorado Advanced Industry Accelerators Program, 2014-2015

Advisory Panel for the revision of the 2013 Standards for Educational and Psychological Testing (Joint APA, AERA, NCME).

Advisory panels for the National Center for Improvement of Educational Assessment topic meetings. 2011-2012, 2018.

Advisory board for Carnegie Mellon/University of Pittsburgh, Learning Research and Development Center (LRDC) Center for Interdisciplinary Research on Constructive Learning Environments, CIRCLE.

Steering Committee for Society for Computers in Psychology

Advisory Board for The Learning Federation development of a roadmap for Learning Science and Technology.

Faculty Committee work

Departmental level

Cognitive psychology hiring committees (member and head)

Engineering psychology hiring committees (member and head)

Promotion and Tenure committees (member and lead)

College Level

Outcomes assessment committee (Psychology department representative)

Linguistics Committee (Psychology department representative)

Arts and Science Information Technology Committee (Psychology department representative)

Graduate Student Thesis advising

Ph.D. Chair/Co-chair (4) Committee Member (14)

Master's Chair (5) Committee Member (16)

Press, news articles and interviews about my research

TV

- MSNBC Nightly news with Brian Williams, news story with interview on Educational Technology
- Newsy news story on Psychiatric Assessment
- KUSA 9 News Denver
- KMGH 7 News Denver
- KNBC TV Los Angeles
- KOB NBC 5:00 news, Albuquerque

Radio/Podcasts

- NPR Morning Edition
- Colorado Public Radio, Colorado Matters, Live interview with Ryan Warner
- The EdTech Podcast “What is AI and what does it have to do with my students”
- EdUP EDTech Podcast “AI and the Future of Education”
- AP News Radio
- Radio 5 (UK) Live interview
- BBC World Service Taped interview
- BBC Scotland Live Interview
- KCPW NPR (Salt Lake City/Park City) 20 minute live discussion on the Don Gomes public affairs hour
- Quirks and Quarks (Canadian Radio Science program) 15 minute interview with host of the program

Newspaper

- New York Times 4/22/2012
- Washington Post. Front page article 10/14/98, Editorial 4/26/1998
- USA Today . Front page of the D section 4/16/98
- AP and Washington Post news wire distributed and published in many (>100) other newspapers
- Boulder Daily Camera
- Los Angeles Times
- Denver Post
- Le Monde 11/7/1998
- London Times
- Daily Telegraph, London
- International Herald Tribune
- Las Cruces Sun News

Magazines/feeds

- Time Magazine
- Medscape
- Chronicle of Higher Education
- Forbes Magazine
- Wired News
- APA Monitor
- Business Week
- Lingua Franca
- Education Week
- New Scientist Magazine
- Teacher Magazine