




Derek Koehl

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Education

- **Ph.D. Applied Experimental Psychology**, The University of Alabama in Huntsville
Dissertation: *Human perceptions of social intelligence in large language models*
- **M.A. Psychology**, The University of Alabama in Huntsville
Thesis: *Analyzing trust in automation using large language models*
- **M.A. History**, The University of Alabama in Huntsville
Thesis: *Christians, pagans, and stories in the British Isles: The intersection of narratives and ideologies*
- **M.Ed. Educational Technology**, The University of Texas in Brownsville
- **B.A. English Language and Composition**, University of North Texas

Employment History

- 2026 – ■ **Clinical Assistant Professor**, The University of Alabama in Huntsville
Psychology Statistics; Artificial Intelligence in Human and Social Contexts;
Interdisciplinary Research Methods; Interdisciplinary Capstone Research
- 2025 – 2026 ■ **Lecturer**, The University of Alabama in Huntsville
Psychology Statistics; Artificial Intelligence in Human and Social Contexts;
Interdisciplinary Research Methods; Interdisciplinary Capstone Research;
Imperial Rome; Craft of History
- 2018 – 2025 ■ **Research Associate**, The University of Alabama in Huntsville
Earth System Science Center | NASA Marshall Space Flight Center
Interagency Implementation and Advanced Concepts Team
Machine learning and artificial intelligence research and development
- 2017 – 2025 ■ **Adjunct Lecturer**, The University of Alabama in Huntsville
Artificial Intelligence in Human and Social Contexts;
Interdisciplinary Research Methods; Interdisciplinary Capstone Research;
Intensive Language and Culture Program
- 2011 – 2017 ■ **Executive Director**, VerbalEzye
Launched a 501(c)3 charitable non-profit whose mission is to foster, promote and support
the development of young people as creative writers and professionals. Developed and
expanded a creative writing curriculum for youth educators.
- 2009 – 2017 ■ **Secondary ESOL Educator**, Clayton County Public Schools
- 2003 – 2009 ■ **Practice Director, Microsoft Solutions**, Fujitsu Consulting
Responsible for business development, strategy and IP development, business and staff
management, oversight of client delivery and training, and sales support.

Research Publications

Journal Articles

Koehl, D. and Vangsness, L. (2023). Measuring latent trust patterns in large language models in the context of human-AI teaming. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, vol. 67 no. 1, pp. 504–511.

Conference Papers

Koehl, D., Mangold, W., Brooks, I., *et al.* (2026). AI chatbot personality and perceptions of social intelligence. *Southeastern Psychological Association Conference*.

Koehl, D. and Vangsness, L. (2024). Toward a Linguistic Fingerprint™ of trust. *ASPIRE 2024: The Human Factors and Ergonomics Society International Annual Meeting*.

Kaulfus, A., Maskey, M., Hall, A., *et al.* (2022). NASA's Commercial SmallSat Data Acquisition Program data stewardship and data management system. *102nd American Meteorological Society Annual Meeting*.

Kaulfus, A. S., Maskey, M., Hall, A., *et al.* (2022). Improving commercial data discoverability and access for NASA's Commercial Smallsat Data Acquisition (CSDA) Program. *AGU Fall Meeting 2022*.

Acharya, A., Davis, C., **Koehl, D.**, *et al.* (2021). Verb sense disambiguation for densifying knowledge graphs in Earth science. *American Geophysical Union 2021*.

Davis, C., **Koehl, D.**, Adhikari, S., Ramasubramanian, M., Gurung, I., and Ramachandran, R. (2021). Information extraction on an Earth science knowledge graph built with semantic parsing. *Proceedings of the American Geophysical Union Fall Meeting 2021*.

Ramachandran, R., Ramasubramanian, M., Iksha Gurung, *et al.* (2021). Augmenting data systems with prediction based embeddings. *2021 IEEE International Geoscience and Remote Sensing Symposium IGARSS*.

Davis, C., Ramasubramanian, M., **Koehl, D.**, *et al.* (2020). ES2Vec: Earth science metadata suggestions and analogical reasoning. *AGU Fall Meeting 2020*.

Koehl, D., Davis, C., Nair, U., and Ramachandran, R. (2020). Analogy-based assessment of domain-specific word embeddings. *Proceedings of the IEEE SoutheastCon2020*.

Koehl, D., Nair, U., Ramachandran, R., Davis, C., and Maskey, M. (2020). Exploring Earth science applications using word embeddings. *European Geosciences Union (EGU) 2020*.

Zhang, M., Zhang, J., Ramachandran, R., Lee, T. J., and **Koehl, D.** (2019). NASA enterprise knowledge network. *American Geophysical Union, Fall Meeting 2019*.

Presentations and White Papers

Koehl, D. (2026). *Linguistic fingerprint of trust*. Presentation. AI After Hours, Huntsville, AL.

Koehl, D. (2025). *Using large language models to differentiate instructional materials for English-language learners*. Presentation. The Mountain Interstate Forum on Languages and Cultures, Huntsville AL.

Koehl, D. and Vangsness, L. (2024). *Toward a Linguistic Fingerprint™ of trust*. Presentation. Department of Defense Human Factors Engineering Technical Advisory Group. Marshall Space Flight Center, Huntsville, AL.

Koehl, D. and Vangsness, L. (2023). *Measuring latent trust patterns in large language models in the context of human-AI teaming*. Presentation. RAM XV Training Summit. Huntsville Society of Reliability Engineers. Huntsville, AL.

Koehl, D., Word, A., Duan, X., *et al.* (2019). *Informing knowledge graphs: Beyond the triple*. Poster. Science, Technology, and Engineering Expo. NASA Marshall Space Flight Center, Huntsville, AL.

Word, A. and **Koehl, D.** (2018). *A good fit: Finding the best tools for the job(s)*. Presentation. UAH System Scholars Institute. Birmingham, AL.

Koehl, D. (2017). *Designing language in educational settings*. White paper. The University of Alabama in Huntsville.

Simpson, J., Word, A., **Koehl, D.**, and Tsimika-Chronis, E. (2017). *There's more to math than numbers: Teacher talk, word problems & ELLs*. Presentation. Annual Meeting of the Alabama Council of Teachers of Math. Birmingham, AL.

Word, A., Tsimika-Chronis, E., and **Koehl, D.** (2017). *DIAL in the message: Differentiating instructional/academic language*. Presentation. Annual Meeting of the Southeast TESOL Regional Conference. Birmingham, AL.

Koehl, D. (2006). *Increasing human resources efficiencies through optimized workflow management*. White paper. Fujitsu Consulting.

Books and Chapters

Simpson, M. S., Cockerill, G., Word, A., and **Koehl, D.** (2020). Faculty and student perceptions of university course evaluations. In Russ-Eft, D. and Sleezer, C. (Eds.), *Case Studies in Needs Assessment*.

Koehl, D., Piggott, K., Salomon, P., Kenyon, W., and Ruffin, A. (Eds.) (2017). *Shattering the silence*.

Koehl, D., Beach, K., Piggott, K., and Baker, L. (Eds.) (2016). *Treading unique paths*.

Koehl, D. and Beach, K. (Eds.) (2015). *Pushing past limits*.

Koehl, D., Beach, K., Piggott, K., Feldman, R., and Stevenson, K. (Eds.) (2015). *Reflecting our greatness*.

Koehl, D., Feldman, R., Stevenson, K., and Srivastava, S. (Eds.) (2014). *Reaching beyond the skies*.

Koehl, D. and Stephens, T. (Eds.) (2014). *Exploring hidden paths*.

Koehl, D., Green, R., and Stephens, T. (Eds.) (2013). *Springing from halls of marble*.

Koehl, D. and Stephens, T. (Eds.) (2013). *Racing toward dawn*.

Research and Teaching Interests



- 📖 **Human Factors Psychology**
- 📖 **Cognition and Artificial Intelligence**
- 📖 **Artificial Intelligence in Human and Social Contexts**
- 📖 **Experimental Psychology**
- 📖 **Statistics**
- 📖 **Interdisciplinary Research**

Service






College

- 2026 –  **Ancient and Medieval Studies Coordinator**, Interdisciplinary Studies Program, College of Arts, Humanities, and Social Sciences, The University of Alabama in Huntsville
- 2026  **Psi Chi Psychology Honors Society Faculty Advisor**, Psychology Department, College of Arts, Humanities, and Social Sciences, The University of Alabama in Huntsville
- 2026  **Psychology Club Faculty Advisor**, Psychology Department, College of Arts, Humanities, and Social Sciences, The University of Alabama in Huntsville
- 2025 – 2026  **Artificial Intelligence in Human and Social Contexts**, Invited Lectures, Scholars Day, College of Arts, Humanities, and Social Sciences, The University of Alabama in Huntsville
- 2024 – 2025  **The Realities of Artificial Intelligence**, Invited Lectures, Introduction to Sociology, College of Arts, Humanities, and Social Sciences, The University of Alabama in Huntsville
- 2023 – 2025  **The Realities of Artificial Intelligence**, Invited Lectures, Charger Success, College of Arts, Humanities, and Social Sciences, The University of Alabama in Huntsville
- 2023  **Pedagogy in the Age of ChatGPT**, Faculty workshop, College of Arts, Humanities, and Social Sciences, The University of Alabama in Huntsville

University

- 2026 –  **Graduate Council**, Graduate School, The University of Alabama in Huntsville
- 2026  **Scholarship Committee**, Alumni Association, Office of Financial Aid, The University of Alabama in Huntsville

Discipline

- 2026  **Proposal Reviewer**, Annual Conference, Southeastern Psychological Association
- 2026  **Judge**, Behavioral and Social Sciences, North Alabama Regional Science and Engineering Fair
- 2024 – 2026  **Board Member**, Tennessee Valley Chapter of the Human Factors and Ergonomics Society
- 2023 – 2026  **Proposal Reviewer**, ASPIRE Conference, Human Factors and Ergonomics Society
- 2024  **Session Chair**, ASPIRE Conference, Human Factors and Ergonomics Society

Product Development

📌 Linguistic Fingerprint (patents pending)

Technology that isolates the Linguistic Fingerprint™ of latent constructs such as trust in artificial intelligence large language model sentence embeddings, allowing for real time detection and monitoring of those latent constructs in natural language statement in experimental and real-world scenarios.

📌 DIAL Training Materials and Online Training Modules

Training components designed and developed for use in in-person training sessions with K-12 educators and administrators. Instructional components designed and developed for online training programs.

📌 Writers Workshop Curriculum

Creative writing curriculum for use with young people in grades 6 – 12.

📌 SOLUTIONS

An educational technology product that utilizes gameplay, creative writing and storytelling to enable learners to effect targeted behavior change objectives.

Miscellaneous Experience

Awards and Achievements

- 2026 📌 **Outstanding Master's Thesis in the Social Sciences**, Conference of Southern Graduate Schools
- 📌 **Outstanding Graduate Achievement – PhD**, Department of Psychology, The University of Alabama in Huntsville
- 2025 📌 **Three Minute Thesis: 2nd place**, The University of Alabama in Huntsville
- 2024 📌 **Charger Innovation Fund: \$24,928**, The University of Alabama in Huntsville.
- 📌 **Graduate Poster Session: 1st place**, The University of Alabama in Huntsville.
- 2023 📌 **William Wessels Scholarship Award**, RAM XV Training Summit.
- 2015 📌 **Young Writers Training Initiative: \$10,000**, United Parcel Service.
- 2014 📌 **Certifying Youth in Information Technology: \$10,000**, Best Buy.

Professional Memberships

- 📌 Institute of Electrical and Electronics Engineers (IEEE)
- 📌 Psychonomic Society
- 📌 Human Factors and Ergonomics Society
- 📌 Association for the Advancement of Affective Computing
- 📌 Southeastern Psychological Association
- 📌 Psi Chi, The International Honor Society in Psychology
- 📌 Phi Alpha Theta, The National History Honor Society