

RAQUEL COELHO

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ACADEMIC POSITIONS

University of Pittsburgh

Assistant Professor of AI & Learning Sciences, School of Computing and Information

2024-

Research Scientist, Learning Research and Development Center (LRDC)

2024-

IPOL, Universidade de Brasilia, Brazil

Visiting Professor

2024-2024

Centre for the Science of Learning & Technology, University of Bergen, Norway

Senior Researcher

2024-

Postdoctoral Fellow

2023-2024

UCL Knowledge Lab, University College London, UK

Postdoctoral Fellow

2022-2023

University of Nottingham, UK

Associate Tutor at the Learning Sciences Research Institute (LSRI)

2021-2023

Transformative Learning Technologies Lab, Teachers College, Columbia University

Research Fellow

2023-2024

Palacký University, Olomouc, Czech Republic

Lecturer

2006-2008

EDUCATION

Stanford University

2023

Ph.D. in Learning Sciences and Technology Design & Education Data Science

Minor in Computational Approaches to Language

Advisor: Roy Pea

Stanford University

2016

M.A. in International Comparative Education

Universidade Federal de Minas Gerais

2006

B.A. in Portuguese Language & Literature

PUBLICATIONS - PUBLISHED/IN PRESS

- **Coelho, R.**, Bjune, A. E., Ellingsen, S., Solheim, B. M., Thormodsæter, R., Wasson, B., & Cotner, S. (2025). A Call for Clarity: Biology Students Advocate for Guidelines for the Use of Generative AI in Higher Education. *Journal of Science Education and Technology*, 1-13.
- **Coelho, R.**, Logan, C., Akgün, S., & Pea, R. (accepted). A Design Space for Articulating and Addressing the Risks of Integrating Generative AI in Education. *ICLS*, Helsinki, Finland.
- Viberg, O., Cukurova, M., Feldman-Maggor, Y., Alexandron, G., Shirai, S., Kanemune, S., ... **Coelho, R.**, & Kizilcec, R. F. (2024). What Explains Teachers' Trust in AI in Education Across Six Countries?. *International Journal of Artificial Intelligence in Education*, 1-29.
- **Coelho, R.**, & Pea, R. (2024). Professors Exploring Large Language Models. In *Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024*, pp. 1331-1334. *International Society of the Learning Sciences*.

- **Coelho, R.**, Levine, S., Abdi, D., Phalen, L., Harris, L., Demszky, D., & Lee, V. R. (2024). Middle School Students' Engagement with Quantitative Data Representations of Fictional Texts. In Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024, pp. 1398-1401. International Society of the Learning Sciences.
- **Coelho, R.**, Bjune, A. E., Ellingsen, S., & Cotner, S. (2024). Students' Perspectives on Artificial Intelligence in Biology Higher Education: Insights for Collaborative Curriculum Design. In Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024, pp. 2131-2132. International Society of the Learning Sciences.
- Lee, V. R., Abdi, D., **Coelho, R.**, Bywater, C., Levine, S., & Demszky, D. (2024). Identifying Pedagogical Opportunities for Text Data Visualizations in English Language Arts through Co-Design. In Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024, pp. 2201-2202. International Society of the Learning Sciences.
- Simon, S., **Coelho, R.**, Marfisi-Schottman, I., & Pea, R. (2024). Generative AI Tools in an Undergraduate Computer Science Program. In Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024, pp. 2133-2134. International Society of the Learning Sciences.
- Blikstein, P., **Coelho, R.**, Corrêa, J., Silva, R., França, L., Cancelier, T., ... & Meireles, E. (2024). Making is not Just About Making: Female Collectivity and Agentic Non-Humans in Clay Pottery and Oven-Making in Brazilian Quilombola Communities. In Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024, pp. 817-824. International Society of the Learning Sciences.
- **Coelho, R.**, Alme, J., Asbjørnsen, H., Bjune, A. E., Cotner, S., Dahle, H., ... & van der Bilt, W. G. M. (2024). "We're in this together": responding to student concerns about large language models in higher education. Bergen, Norway: Centre for the Science of Learning & Technology (SLATE).
- Sillaots, P., **Coelho, R.**, Tammets, K., Cukurova, M., Sillat, L. H., Lakkala, M., ... & Hansen, C. (2023, August). Support Mechanisms and Value Creation in Multi-Stakeholder Networks for Digital Innovation in Education: A Cross-Country Study. In European Conference on Technology Enhanced Learning (pp. 656-661). Cham: Springer Nature Switzerland.
- **Coelho, R.**, McCollum, A. (2023). Teachers' engagement with analysis outputs of large-scale identity productions as a move towards culturally-informed curriculum development. Proceedings of the International Conference of the Learning Sciences 2023.
- Blikstein, P., **Coelho, R.**, Valente, J., & Moura, E. (2023). Making as empowerment and community-building in the Brazilian Amazon. In Hoadley, C. (Chair), Moving towards critical pedagogy for transformative action: Learnings from Research Partnerships. Proceedings of the International Conference of the Learning Sciences 2023.
- Sillaots, P., Požogina, K., **Coelho, R.**, Tammets, K., Lakkala, M., Ilomäki, L., Nakashidze-Makharadze, T., Dagienė, Hansen, C., Wasson, B. (2023). Support Mechanisms for Engagement and Sustainability. iHub4Schools Project "Accelerating Digital Innovation in Schools through Regional Innovation Hubs and a Whole-School Mentoring Model" funded by EU Horizon 2020 GA No 101004676. Deliverable D2.2.
- Møgelvang, A., Bjune, A. E., **Coelho, R.**, Cotner, S., Grellscheid, D. & Ellingsen, S. (2023). Initial (March 2023) uses and perceptions of ChatGPT in a sample of students and instructors at the University of Bergen (UiB), Norway. SLATE Research Report 2023-1, Bergen, Norway: Centre for the Science of Learning & Technology (SLATE). ISBN : 978-82-93789-09-3
- Tammets, K., Aru-Chabilan, H., Požogina, K., **Coelho, R.**, Lakkala, M., Ilomäki, L., Sillaots, P., Dagienė, V., Juškevičienė, A., Mikeladze, M., Nakashidze-Makharadze, T. (2023). Regional Innovation Hubs. iHub4Schools Project "Accelerating Digital Innovation in Schools through Regional Innovation Hubs and a Whole-School Mentoring Model" funded by EU Horizon 2020 GA No 101004676. Deliverable D2.3.
- Tammets, K., **Coelho, R.**, Khulbe, M., Ley, T., Cukurova, M., Lakkala, M., Ilomäki, L., Požogina, K., Dagienė, V., Juškevičienė, A., Nakashidze-Makharadze, T., Mikeladze, M. (2023). Integrated Evaluation Report. iHub4Schools Project "Accelerating Digital Innovation in Schools through Regional Innovation Hubs and a Whole-School Mentoring Model" funded by EU Horizon 2020 GA No 101004676. Deliverable D4.2.
- Pea, R., Biernacki, P., Bigman, M., Boles, K., **Coelho, R.**, Docherty, V., Garcia, J., Lin, V., Nguyen, J., Pimentel, D., Pozos, R., Reynante, B., Roy, E., Southerton, E., Suzara, M., Vishwanath, A. (2022). Four surveillance technologies and challenges for education. In Niemi, H., Pea, R., & Lu, Y. (2022). (Eds.). AI in Learning: Designing the Future. Springer Nature.

- **Coelho, R.**, Blikstein, P., Macedo, L., Campos, F. Fernandez, C., Hochgreb, T. (2022). New pathways to bidirectionally broaden the international community of learning scientists. In Tsovaltzi, D., Uttamchandani, S., Vossoughi, S. (Co-Chairs), Regional and socio-epistemic heterogeneity in the learning sciences: Supporting transnational dialogues on equity and justice. Proceedings of the International Conference of the Learning Sciences 2022.
- Levine, S., Trepper, K., Chung, R. H., & **Coelho, R.** (2021). How feeling supports students' interpretive discussions about literature. *Journal of Literacy Research*, 53(4), 491-515.
- **Coelho, R.**, & McCollum, A. (2021). What Can Automated Analysis of Large-Scale Textual Data Teach Us about the Cultural Resources that Students Bring to Learning? Proceedings of the 15th International Conference of the Learning Sciences-ICLS 2021. International Society of the Learning Sciences.
- **Coelho, R.** (2020). Teaching writing in Brazilian public high schools. *Reading and Writing*, 1-53.

PUBLICATIONS UNDER REVIEW OR IN PREPARATION

- **Coelho, R.**, Pea, R., Schunn, C., Cheng, J., Liu, J. (under review). Advancing Quantum Information Science Education: The Case for Learning Sciences Collaboration. Quantum Science and Engineering Education Conference.
- **Coelho, R.**, McCollum, A. (under review). Illuminating Socially Distributed Identity Resources in Student Writing through Artificial Intelligence to Support the Design of Culturally-Informed Learning Experiences. DP
- **Coelho, R.**, Pea, R., Cotner, S. H., Dahle, H. K. (under review) Towards Defining Boundaries of Productive Anthropomorphism in Human-AI Learning Interactions. ETRD
- Khulbe, M., Tammets, K., Ley, T, **Coelho, R.**, Kurvits, J., Cukurova, M., (under review). Dynamic of Trust in Mathematics Adoption of Learning Analytics Tools: A Longitudinal Intervention Study. TKL
- **Coelho, R.**, Børte, Kelley, C., Makita, E., Cheng, J., K, Hampton, M., Liu, J. (in prep). Quantum Information Science in K–12: A Critical Review of the Research and Learning Sciences Recommendations
- **Coelho, R.**, Nomura, N., Levine, S., Lee, V.R. (in prep). Exploring Word Clouds: Taking a Deeper Look at How They Interact with Middle School Students' Data and Literary Meaning-Making Processes.
- Blikstein, P., França, L., **Coelho, R.**, Corrêa, J., Silva, R., Cancelier, T., Valente, J.A., & Meireles, E. (in prep). Making in Traditional Groups in Brazil: how quilombola and indigenous perspectives enrich the maker education.
- **Coelho, R.**, et al. (in prep). Board Game-Making as a Pathway to Quantum Information Science Education for Youth.
- **Coelho, R.**, et al. (in prep). Exploring Foundational Knowledge in NLP Education: Insights for K–12 from Higher Education Syllabi.

TALKS

- **Coelho, R.**, Pea, R., Dahle, H., Cotner, S. Conversational Dynamics with LLM-powered Chatbots: Unknown Unknowns, Suspended Conclusions, and Benefits. AERA Annual Meeting, Denver, CO.(April, 2025).
- **Coelho, R.** Understanding and Refashioning generative AI systems for learning, Intelligent Systems Program, Pittsburgh, PA (January, 2025).
- **Coelho, R.** ProlepSys Lab. PAWS Lab, Pittsburgh, PA (October, 2024).
- **Coelho, R.** Conversational Dynamics with LLM-powered Chatbots. PittNLP, Pittsburgh, PA (September, 2024).
- **Coelho, R.** Artificial Intelligence and Political Science – Critical Reflections. Institute of Political Science. Universidade de Brasília, Brazil (July, 2024).
- **Coelho, R.** Emerging Computational Language Technologies in Higher Education: Insights from Biology and Computer Science. Laboratoire d'Informatique. Le Mans Université, France (January, 2024)
- **Coelho, R.** Exploring Generative AI in Higher Education Teaching and Learning. SLATE Seminar, Bergen, Norway (August, 2023).
- **Coelho, R.**, Demszyk, D., Levine, S., Lee, V., Adbi, D., Bywater, C. (2023). Using Natural Language Processing to Support K - 12 Students' Textual Interpretation. AERA Annual Meeting, Philadelphia, PA. (April, 2024).

- **Coelho, R.**, Silva, R., Blikstein, P., França, L., Cancellier, T., Correa, J. (2023). Expanding Narratives of Making: A Study of Quilombola Pottery-Makers in the Brazilian Amazon. AERA Annual Meeting, Philadelphia, PA. (April, 2024).
- Biernacki, P., **Coelho, R.** . The Effects of Teacher Clinical Practice on Students' Reading Achievement in Brazil, Mexico and Chile: Evidence from TERCE 2013. Presented at the Annual Meeting of the Comparative and International Education Society, San Francisco, CA. (April, 2019)
- **Coelho, R.** High School Writing Instruction: A Study of Portuguese Language Teachers in Two Brazilian States. Presented at the Annual Meeting of the Comparative and International Education Society, Atlanta, GA. (March, 2017)

GRADUATE TEACHING EXPERIENCE

Human Centered Systems <i>Instructor</i>	<i>Spring 2024-2025</i> <i>University of Pittsburgh</i>
Social Contexts of Learning <i>Module co-convenor</i>	<i>Spring 2021-2022</i> <i>University of Nottingham</i>
The Future of Digital Education <i>Teaching Assistant</i>	<i>Spring 2021-2022</i> <i>University of Nottingham</i>
Applied Research Methods in ICE: Data Collection and Analysis <i>Instructor</i>	<i>Spring 2020-2021</i> <i>Stanford University</i>
Applied Research Methods in ICE: The Pilot Study and MA Paper Proposal <i>Teaching Assistant</i>	<i>Fall 2020-2021</i> <i>Stanford University</i>
Introduction to Data Analysis and Interpretation <i>Teaching Assistant</i>	<i>Spring 2020-2021</i> <i>Stanford University</i>
Applied Research Methods in International and Comparative <i>Teaching Assistant</i>	<i>Fall 2020-2021</i> <i>Stanford University</i>
Economics of Education in the Global Economy <i>Teaching Assistant</i>	<i>Fall 2019- 2020</i> <i>Stanford University</i>
Brazilian Literature, Portuguese Language, Brazilian Film, History of Brazil <i>Lecturer</i>	<i>2006- 2008</i> <i>Palacky University, CZ</i>

AWARDS

LRDC Internal Award, University of Pittsburgh
 Pitt Cyber Accelerator Grant, University of Pittsburgh
 Stanford Graduate School of Education Dissertation Grant
 Dean's Collaborative Learning Fund, Stanford
 Community Networking Support Fund, Stanford
 Amir Lopatin Fellowship, Stanford
 TELOS GSE Doctoral Student Award, Stanford
 Doctoral Lemann Fellowship, Stanford
 International Comparative Education Research Grant, Stanford
 FSI Global Policy Fellows Small Conference Grant, Stanford
 Center for Latin American Studies Conference Travel Grant, Stanford
 MA Lemann Fellowship, Stanford

PROFESSIONAL SERVICE MEMBERSHIP

Review
 Journal of Computing in Higher Education
 International Conference on Artificial Intelligence in Education
 International Society of the Learning Sciences
 International Conference on Learning Analytics & Knowledge

ACM Transactions on Interactive Intelligent Systems
Fablearn Latin America

Professional Membership

American Educational Research Association, Division C
International Society of the Learning Sciences
Society of Text and Discourse

Community Leadership

Learning Science Brazil Affiliate of the International Society of the Learning Sciences, Co-Founder