

**PROFESSIONAL EXPERIENCE** **CO-DIRECTOR, CENTER FOR SCIENCE AND THE IMAGINATION**

Arizona State University  
*July 2024 – Present*

**ASSOCIATE RESEARCH PROFESSOR, MARY LOU FULTON TEACHERS COLLEGE**

Arizona State University  
*August 2020 – Present*

**ASSISTANT DIRECTOR, CENTER FOR SCIENCE AND THE IMAGINATION**

Arizona State University  
*July 2014 – July 2024*

**ASSISTANT RESEARCH PROFESSOR, MARY LOU FULTON TEACHERS COLLEGE**

Arizona State University  
*July 2014 – August 2020*

**ENGLISH TEACHER, JAPANESE EXCHANGE AND TEACHING PROGRAM**

Shima High School | Isobe, Japan  
*August 2003 – August 2005*

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**EDUCATION** **POSTDOCTORAL FELLOW, 2011-2014**

Arizona State University  
Chi Learning and Cognition Lab  
Advisor: Michelene T.H. Chi

**PH.D., HUMAN-COMPUTER INTERACTION, AUGUST 2011**

Carnegie Mellon University  
Human-Computer Interaction Institute, School of Computer Science  
Institute of Educational Sciences Fellow  
Committee: Kenneth Koedinger (co-chair), Teruko Mitamura (co-chair), Sharon Carver,  
Albert Corbett, Carolyn Rose  
Thesis: Examining the Generality of Self-Explanation

**M.S., HUMAN-COMPUTER INTERACTION, DECEMBER 2007**

Carnegie Mellon University  
Human-Computer Interaction Institute, School of Computer Science

**B.A. (HIGHEST HONORS), COGNITIVE SCIENCE, SPRING 2003**

University of California, Berkeley  
Cognitive Psychology Concentration  
Minors: Computer Science, Education

RESEARCH **ARIZONA STEM ACCELERATION PROJECT**

FUNDING Arizona Department of Education  
May 2022 – September 2024  
Total Award: \$10,000,000 (PI)

**CONSORTIUM FOR COMMUNITY ENGAGEMENT INNOVATION AND LEARNING ON CONSENT  
BASED SITING IN ARIZONA (CCEIL-AZ)**

US Department of Energy  
September 2023-September 2025  
Total Award: \$1,978,234 (co-PI)

**VETERANS IMAGINATION PROJECT**

Women and Philanthropy  
July 2022 – June 2023  
Total Award: \$49,789 (co-PI)

**MULTI-MODAL LEARNING FOR ENHANCED ENGAGEMENT AND PRESENCE**

National Science Foundation  
June 2022 – May 2025  
Total Award: \$849,998 (co-PI)

**EVOKE**

World Bank  
January 2021-December 2021  
Total Award: \$45,144 (PI)

**NUCLEAR FUTURES ANTHOLOGY PROJECT**

N Square  
January 2021-December 2021  
Total Award: \$64,245 (PI)

**DEVELOPING THEORIES AND PRACTICES FOR APPLIED IMAGINATION**

Spencer Foundation  
October 2020-September 2021  
Total Award: \$46,910 (co-PI)

**FORESIGHT AND FUTURE LEARNING EXPERIENCES**

N Square  
July 2020-July 2021  
Total Award: \$27,750 (PI)

**INCREASING LEARNING AND EFFICACY ABOUT EMERGING TECHNOLOGIES THROUGH  
TRANSMEDIA ENGAGEMENT BY THE PUBLIC IN SCIENCE-IN-SOCIETY**

National Science Foundation  
July 2015 – June 2020  
Total Award: \$2,953,905 (Co-PI)

**THE WEIGHT OF LIGHT: REASONING AND IMAGINING WITH PRESENT AND POSSIBLE ENERGY  
SYSTEMS**

MLFTC and HIDA Seed Grant  
January 2020 – December 2020  
Total Award: \$10,000 (Co-PI)

**EXP: IMPROVING STUDENT HELP-GIVING WITH UBIQUITOUS COLLABORATION SUPPORT TECHNOLOGY**

National Science Foundation  
August 2018 – August 2020  
Total Award: \$147,570 (Sub-award PI)

**THE LIVING FRANKENSTEIN**

Sloan Foundation  
June 2017-November 2020  
Total Award: \$248,648 (Co-PI)

**NARRATIVE PROJECTIONS FOR COMMERCIAL SPACE FUTURES**

National Aeronautics and Space Administration  
July 2015 – June 2016  
Total Award: \$265,327 (Co-PI)

**EAGER: TOWARDS KNOWLEDGE CREATION AND COMMUNITY BUILDING WITHIN A POSTDIGITAL TEXTBOOK**

National Science Foundation  
August 2014 – July 2016  
Total Award: \$315,034 (Co-PI)

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**COLLABORATIVE  
IMAGINATION  
WORKSHOPS**

*As part of my research and outreach work, I facilitate interactive workshops that guide interdisciplinary teams through an imaginative process. Often these result in white papers, research publications, and books.*

**SMITHSONIAN FUTURES EXHIBIT**

*Collaborated with eight Smithsonian Units to explore possible futures. Stories and art inspired from the workshop will be on display at the Smithsonian's FUTURES exhibit, opening November 2021. Spring 2021*

**SOLAR FUTURES WORKSHOP | CITIES OF LIGHT**

*NSF Engineering Research Center for Quantum Engineering and Sustainable Solar Technologies  
National Renewable Energy Lab, Golden, Colorado  
February 2020  
<https://csi.asu.edu/books/cities-of-light>*

**FUTURE OF CHILDHOOD SALON**

*Joan Ganz Cooney Center at Sesame Workshop  
November 2018  
<http://joanganzcooneycenter.org/publication/immersive-media-and-child-development/>*

**SOLAR FUTURES WORKSHOP | WEIGHT OF LIGHT**

*NSF Engineering Research Center for Quantum Engineering and Sustainable Solar Technologies  
May 2018  
<https://csi.asu.edu/books/weight/>*

**STRATOSPHERE NARRATIVE HACKATHON**

*World View Enterprises  
May 2017  
<https://csi.asu.edu/books/overview/>*

**INVENTING THE FUTURE: FUTURE OF EDUCATION**

*Arizona State University*

November 2016

<https://asunow.asu.edu/20161115-creativity-minority-report-futurists-regroup-asu-2-days-events>

**VANCOUVER BOOK SPRINT**

*Society for Scholarly Publishing*

June 2016

<https://csi.asu.edu/category/projects/sprint-beyond-the-book/>

**EVOKE NARRATIVE HACKATHON**

*World Bank*

October 2014

<https://csi.asu.edu/books/evoke-human-trafficking/>

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**SERVICE TEACHING AND LEARNING WITH IMAGINATION, SUMMER 2021**

Professional development workshop for K-12 teachers in Arizona focused on theories of imagination and strategies for inspiring imagination through project-learning curricula.

**EMERGE, CO-DIRECTOR. 2015, 2017, 2018, 2019, 2020**

Emerge is an art and science festival that invites artists, designers, scientists, engineers and audiences to imagine optimistic, thoughtful futures.

**USING SCIENCE FICTION TO TEACH STEM, JUNE 2019**

Session presented at the Mary Lou Fulton Teachers College STEM Summer Camp showcasing innovative ways for Arizona educators to bridge science and engineering with the humanities.

**TEC IS FOR GIRLS, MAY 2019**

Presented and facilitated an interactive activity to middle school students with the goal of increasing the number of women from underrepresented groups in science, technology, engineering, and mathematics.

**FUTURES BY CHANCE, FUTURES BY CHOICE, SPRING 2019**

Developed and facilitated an interactive timeline activity where teams create technically grounded visions of the near future. The activity encourages thoughtful reflection on how the decisions we make today determine our possible futures.

*Presented to ASU's Global Institute of Sustainability (GIOS) Board Meeting February 2019 and Wells Fargo Sustainability Board Meeting April 2019.*

**HERMANAS CONFERENCE, FEBRUARY 2019**

Developed and facilitated an interactive activity to high school students with the goal of increasing the number of women from underrepresented groups in science, technology, engineering, and mathematics.

**ADVANCED LEADERSHIP INITIATIVE, SPRING 2018**

Developed a series of workshops titled *Adaptive Algorithms, Artificial Intelligence, and Real Imagination* to encourage the Advanced Leadership Initiative cohort to reflect on impacts of artificial intelligence in higher education.

### **STRENGTHENING INSTITUTIONAL LINKAGES, JANUARY 2017**

Created a 35-hour curriculum on innovation in instructional design and the learning sciences as part of the MasterCard foundation program for visiting professors from Ghana. Topics covered include technology in the classroom, facilitating cultural change, and classroom strategies for diverse learners.

### **OFFICE OF STUDENT SERVICES, MARY LOU FULTON TEACHERS COLLEGE, MAY 2015**

Developed an interactive imagination session for the MLFTC Office of Student Services annual retreat. Participants reflected on qualities of leadership and collaboration through a design fiction exercise.

### **REVIEWER**

*Journals.* Educational Psychologist, Transactions on Learning Technologies, Australasian Journal of Educational Technology, AI Magazine Special Issue on Intelligent Learning Technologies, International Journal of Artificial Intelligence in Education, International Journal of Learning and Technology, and Memory and Cognition

*Conferences.* ACM CHI Conference on Human Factors in Computing Systems, American Education Research Association, Annual Meeting of the Cognitive Science Society, Florida Artificial Intelligence Research Society, International Conference on Artificial Intelligence in Education, International Conference on Intelligent Tutoring Systems, and the International Conference of the Learning Sciences.

*Grants.* National Science Foundation, 2014, 2020, 2021.

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PUBLICATIONS \* Indicates first author is a student. † Indicates first author is a postdoctoral scholar.

### **PEER-REVIEWED JOURNAL PAPERS**

[J.18] Finn, E., Capurro, C. T., Bennett, M. G., & **Wylie, R.** (2023). Applied Imagination. *Frontiers in Psychology, 14*.

[J.17] Hudson, A. D., Finn, E., & **Wylie, R.** (2023). What can science fiction tell us about the future of artificial intelligence policy?. *AI & Society, 1-15*.

[J.16] Nagy, P., Mawasi, A., Finn, E., & **Wylie, R.** (2023). The Chimera, the Robot Artist, and the Cardboard Hand: Exploring Socioscientific Issues through Frankenstein-Themed Hands-On Activities among Middle Schoolers. *Science & Education*.

[J.15] Ostman, R., Nagy, P., Mawasi, A., Finn, E., & **Wylie, R.** (2023). Exploring Responsible Research and Innovation in Museums through Hands-on Activities. *Curator: The Museum Journal, 66(1), 29-57*.

[J.14] Clark, A. T., Ahmed, I., Metzger, S., Walker, E., & **Wylie, R.** (2022). Moving From Co-Design to Co-Research: Engaging Youth Participation in Guided Qualitative Inquiry. *International Journal of Qualitative Methods, 21, 16094069221084793*.

[J.13] Nagy, P., Mawasi, A., Eustice, K., Cook-Davis, A., Finn, E., & **Wylie, R.** (2022). Increasing learners' self-efficacy beliefs and curiosity through a Frankenstein-themed transmedia storytelling experience. *British Journal of Educational Technology, 53(6), 1626-1644*.

[J.12] Finn, E., & **Wylie, R.** (2021). Collaborative imagination: A methodological approach. *Futures, 132, 102788*.

- [J.11] Mawasi, A. \*, Nagy, P., Finn, E., & **Wylie, R.** (2021). Narrative-Based Learning Activities for Science Ethics Education: an Affordance Perspective. *Journal of Science Education and Technology*, 1-11.
- [J.10] Clark, S., & **Wylie, R.** (2021). Surviving a Cultural Genocide: Perspectives of Indigenous Elders on the Transfer of Traditional Values. *Journal of Ethnic and Cultural Studies*, 8(2), 316-346.
- [J.9] Gould, D. Knowlton, K., & **Wylie, R.** (2021). My Robot Can Fly: An Integrated STEM Lesson for Preschoolers to Learn About Structure, Function, Biomimicry, and Science-in-Society. *Science and Children*, 58(5).
- [J.8] Mawasi, A. \*, Nagy, P., Finn, E., & **Wylie, R.** (2021). Using Frankenstein-Themed Science Activities for Science Ethics Education: An exploratory study. *Journal of Moral Education*, 1-17.
- [J.7] Nagy, P. †, **Wylie, R.**, Eschrich, J., & Finn, E. (2019). Facing the Pariah of Science: The Frankenstein Myth as a Social and Ethical Reference for Scientists. *Science and Engineering Ethics* (26), 737–759.
- [J.6] Talbot, R. M., **Wylie, R.**, Dutilly, E., and Nielsen, R. (2018). The Relationship between Format and Cognitive Depth of Science Teacher-Generated Questions. *Research in the Schools*, 25(1), 35–46.
- [J.5] Nagy, P. †, **Wylie, R.**, Eschrich, J., and Finn, E. (2018). The enduring influence of a dangerous narrative: How scientists can mitigate the Frankenstein myth. *Journal of Bioethical Inquiry*, 15(2), 279-292.
- [J.4] Chi, M.T.H., Adams, J.A., Bogusch, E.B., Bruchok, C., Kang, S., Lancaster, M., Levy R., Li, N., McElDoon, K., Stump, G.S., **Wylie, R.**, Xu, D., and Yaghmourian, D.L. (2018). Translating the ICAP Theory of Cognitive Engagement into Practice. *Cognitive Science*, 42, 1777-1832.
- [J.3] Nagy, P. †, **Wylie, R.**, Eschrich, J., and Finn, E. (2017). Why Frankenstein is a stigma among scientists. *Science and Engineering Ethics*, 1-17.
- [J.2] Roll, I., and **Wylie, R.** (2016). Evolution and revolution in artificial intelligence in education. *International Journal of Artificial Intelligence in Education*, 26(2), 582-599.
- [J.1] Chi, M.T.H. and **Wylie, R.** (2014). The ICAP framework: Linking cognitive engagement to active learning outcomes. *Educational Psychologist*, 49(4), 219-243.

#### **PRACTITIONER-FOCUSED PUBLICATIONS**

- [P.1] Gould, D. & Wylie, R. (accepted). Bringing the ethical debate to life: A 3 dimensional lesson about gene editing To appear in *Science Scope*.

#### **BOOK CHAPTERS**

- [B.5] **Wylie, R.**, Mawasi, A., Eschrich, E., Nagy, P., Beard, B., and Finn, E. (2024). Frankenmedia: Using narrative and play in informal transmedia learning environments. *Imagining Transmedia*, 309-324.
- [B.4] Finn, E., Beard, B., Eschrich, J., & **Wylie, R.** (2024). Introduction to Imagining Transmedia. *Imagining Transmedia*, 1-14.

[B.3] **Wylie, R.**, and Finn, E. (2019). Foreword. In Sobel, K., *Immersive Media and Child Development: Synthesis of a Cross-Sectoral Meeting on Virtual, Augmented, and Mixed Reality and Young Children* (p. 4). New York: Joan Ganz Cooney Center at Sesame Workshop.

[B.2] Walker, E., **Wylie, R.**, Danielescu, A., Rodriguez, J., and Finn, E. (2017). Balancing Student Needs and Learning Theory in a Social Interactive Postdigital Textbook. *End-User Considerations in Educational Technology Design*, 141-159.

[B.1] **Wylie, R.** and Chi, M.T.H. (2014). Self-explanation in multimedia learning. In R. Mayer (Ed.) *The Cambridge Handbook of Multimedia Learning, 2nd Edition*. Cambridge University Press, pp. 413-432.

#### REFEREED CONFERENCE PAPERS

[C.21] Ahmed, I., **Wylie, R.**, Metzger, S., Whitehurst, A., Choi, Y. J., Vhora, R., ... & Walker, E. (2023). Exploring the Use of Badges as Cross-Platform Collaborative Support. IEEE International Conference on Advanced Learning Technologies (ICALT), July 2023.

[C.20] **Wylie, R.**, van Geffen, B. \*, & Rajeev, N. \* (2023). Bringing Futures Thinking to K12 Education. American Education Research Association, April 2023, Chicago.

[C.19] Mawasi A. \*, **Wylie R.**, Ganaiem W. & Ganaiem M. (2021). Identifying Research-Practice Tensions and Belief Shifts through Co-Design Processes. In E. de Vries, J. Ahn, & Y. Hod (Eds.), 15th International Conference of the Learning Sciences – ICLS 2021 (pp. 545-548). International Society of the Learning Sciences, 2021.

[C.18] Ahmed, I. \*, Clark, A., Metzger, S., **Wylie, R.**, Bergner, Y., and Walker E. (2021). Interactive Personas: Towards the dynamic assessment of student motivation within ITS. Accepted at the *International Conference on Artificial Intelligence in Education*.

[C.17] Nagy, P., Mawasi, A., and **Wylie, R.** (2020). Narrative-based Hands-on Activities for Science and Science Ethics Education: The Frankenstein200 Experience. In Kalir, J.H. and Filipiak, D. (Eds.). (2020). *Proceedings of the 2020 Connected Learning Summit*. Pittsburgh, PA: ETC Press.

[C.16] Mawasi, A. \*, **Wylie, R.**, and Gee, E. (2020). Learners' Perceptions of Participating in STEM Hands-on Activities in an Out-of-School Community-Based Organization Program. In Kalir, J.H. and Filipiak, D. (Eds.). (2020). *Proceedings of the 2020 Connected Learning Summit*. Pittsburgh, PA: ETC Press.

[C.15] Mawasi A. \*, Ahmed, I., Walker E., Wang, S., Marasli, Z., Whitehurst, A., **Wylie R.** (2020). Using Design-Based Research to Improve Help Giving in Middle School Math Classroom. In Gresalfi, M. and Horn, I. S. (Eds.). (2020). *The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 2* (pp. 1189-1196). Nashville, Tennessee: International Society of the Learning Sciences.

[C.14] Mawasi A. \*, Nagy, P., **Wylie R.** (2020). Systematic Literature Review on Narrative-Based Learning in Educational Technology Learning Environments (2007-2017). In Gresalfi, M. and Horn, I. S. (Eds.). (2020). *The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 3* (pp. 1213-1220). Nashville, Tennessee: International Society of the Learning Sciences.

[C.13] Mawasi A. \*, Aguilera, E., **Wylie R.**, & Gee, E. (2020). Neutrality, "New" Digital Divide, and Openness Paradox: Equity in Learning Environments Mediated by Educational Technology. In Gresalfi, M. and Horn, I. S. (Eds.). (2020). *The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 3* (pp. 1617-1620). Nashville, Tennessee: International Society of the Learning Sciences.

- [C.12] Ahmed, I. \*, Masasi, A., Wang, S., **Wylie, R.**, Bergner, Y., Whitehurst, A., and Walker, E. (2019). Investigating Help-Giving Behavior in a Cross-Platform Learning Environment. In *International Conference on Artificial Intelligence in Education*. Chicago, USA. June 25-29, 2019.
- [C.11] Ahmed, I. \*, Girotto, V., Mawasi, A., Whitehurst, A., **Wylie, R.**, and Walker, E. (2019). Co-Design for Learner Help-Giving Across Physical and Digital Contexts. In *International Conference on Computer Supported Collaborative Learning*. Lyon, France. June 17-21, 2019.
- [C.10] Wang, S. \*, Walker, E., and **Wylie, R.** (2017). What Matters in Concept Mapping? Maps Learners Create or How They Create Them. In *International Conference on Artificial Intelligence in Education*. Wuhan, China. June 28-July 1, 2017. **Nominated for Best Paper.**
- [C.9] Dalal, M. \*, **Wylie, R.**, and Walker, E. (2016). Using a Systematic Review for Cross-Theory Comparisons. In *International Conference of the Learning Sciences*. Singapore. June 20-24, 2016.
- [C.8] Walker, E., Chakravarthi, R., Rodriguez, J., and **Wylie, R.** (2015). Promoting interaction by integrating a question and answer forum with a digital textbook. In *International Conference on Computer Supported Collaborative Learning*. Gothenburg, Sweden, June 7-11, 2015.
- [C.7] Wang, S. \*, Walker, E., Chaudhry, R., and **Wylie, R.** (2015). Personalized expert skeleton scaffolding in concept map construction. *Artificial Intelligence in Education*. Madrid, Spain. June 22-26, 2015.
- [C.6] Paiva, F. \*, Glenn, J., Mazidi, K., Talbot, R., **Wylie, R.**, Chi, M.T.H., Dutilly, E., Holding, B., Lin, M., Trickett, S., and Nielsen, R.D. (2014). Comprehension SEEDING: Comprehension through self-explanation, enhanced discussion, and inquiry generation. Twelfth International Conference on Intelligent Tutoring Systems. Honolulu, USA. June 4-9, 2014.
- [C.5] Roscoe, R.D., Gutierrez, P.J., **Wylie, R.**, and Chi, M.T.H. (2014). Evaluating lesson design and implementation within the ICAP framework. *International Conference of the Learning Sciences*. Boulder, USA. June 23-27, 2014.
- [C.4] **Wylie, R.**, Koedinger, K., and Mitamura, T. (2010). Extending the self-explanation effect to second language grammar learning. *International Conference of the Learning Sciences*. Chicago, USA. June 29-July 2, 2010.
- [C.3] **Wylie, R.**, Koedinger, K., and Mitamura, T. (2010). Analogies, explanation, and practice: Examining how task types affect second language grammar learning. Tenth International Conference on Intelligent Tutoring Systems. Pittsburgh, USA. June 14-18, 2010.
- [C.2] **Wylie, R.**, Koedinger, K., and Mitamura, T. (2009). Is self-explanation always better? The effects of adding self-explanation prompts to an English grammar tutor. *Cognitive Science*. Amsterdam, The Netherlands. July 29-August 1, 2009.
- [C.1] **Wylie, R.**, and Shih, B. (2009). Active vs passive training for educational software. *Cognitive Science*. Amsterdam, The Netherlands. July 29-August 1, 2009.

#### **WORKSHOP PAPERS, POSTERS, AND CONFERENCE PRESENTATIONS**

- [W.22] Mawasi, A. & **Wylie, R.** (2023). Thinking about Values and Ethics of Transdisciplinary Science Activities: A Case of Palestinian Arab Young Learners. Annual Meeting of the International Society of the Learning Sciences, June 10-15, 2023. Montreal, Canada.



- [W.21] van Geffen, B. \*, Zuiker, S., & **Wylie, R.** (2023). Pragmatic Imagination: A Tool for Seeding Participatory Design. Annual Meeting of the International Society of the Learning Sciences, June 10-15, 2023. Montreal, Canada.
- [W.20] Mawasi A., **Wylie R.**, Nagy P. (2021). Exploring Self-Efficacy Shifts within an Informal STEM Program. In E. de Vries, J. Ahn, & Y. Hod (Eds.), 15th International Conference of the Learning Sciences – ICLS 2021 (pp.923-924). International Society of the Learning Sciences, 2021.
- [W.19] Mawasi A., **Wylie R.**, Mishra P. (2021) Expanding Science Learning within Community-Based Hands-on Transdisciplinary STEAM Experiences. In E. de Vries, J. Ahn, & Y. Hod (Eds.), 15th International Conference of the Learning Sciences – ICLS 2021 (pp. 925-926). International Society of the Learning Sciences, 2021.
- [W.18] Nagy P., Mawasi A., **Wylie R.** (2020). Fostering science identity through transmedia storytelling: a mixed methods approach. In Gresalfi, M. and Horn, I. S. (Eds.). (2020). The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 1 (pp. 873-874). Nashville, Tennessee: International Society of the Learning Sciences.
- [W.17] **Wylie, R.** and Finn, E. (2018). Frankenstein Laboratory for Innovation and Fantastical Exploration. Interactive demonstration at the International Conference on Artificial Intelligence in Education. London, England.
- [W.16] Ostman, R. and **Wylie, R.** (2018). Frankenstein 200: Transmedia Learning in Creativity and Responsible Innovation. Interactive demonstration at the Museums and the Web 2018 conference. Vancouver, Canada.
- [W. 15] Wylie, R. and Gershenfeld, A. (2017). Designing the Future. Presented at Ed Foo, an unconference organized by Google, Macmillan Learning, O'Reilly Media, Scientific American, and Sesame Workshop. Menlo Park, USA.
- [W.14] Nagy, P†., **Wylie, R.**, Eschrich, J., and Finn, E. (2017) What can scientists learn from Victor Frankenstein? Presented at the *Annual Meeting of the Society for Social Studies of Science*. Boston, USA.
- [W.13] Finn E., **Wylie, R.**, and Nagy, P. (2016). Frankenstein and transmedia storytelling: Building engagement and efficacy in science, technology, and society. *Fourth Annual Conference on Governance of Emerging Technologies: Law, Policy, and Ethics*. Tempe, USA.
- [W.12] Wang, S. \*, Walker, E., and **Wylie, R.** (2016). Analyzing Frequent Sequential Patterns of Learning Behavior in Concept Mapping. Presented at the *EDM 2016 Workshop on Educational Data Analysis Using LearnSphere*. Raleigh, USA.
- [W.11] **Wylie, R.** and Hawkins, R. (2015). An artist, author, and expert walk into a bar: Using Multidisciplinary Teams to develop narrative-based games. Workshop on Digital Games for Education at the *mEducation Alligance Symposium*. Washington DC, USA.
- [W.10] **Wylie, R.**, Xu, D., Kang, S. and Chi, M.T.H. (2013). ICAP in action: Translating a theory of cognitive engagement to increased classroom learning. *European Association for Learning and Instruction*. Munich, Germany.
- [W.9] **Wylie, R.**, Chi, M.T.H., Talbot, R., and Nielsen, R. (2013) Comprehension SEEDING: Using technology to enhance self-explanation, classroom discussion, and question generation. In R. Wylie & E. Walker (chairs), *Beyond problem solving: Applying lessons from intelligent tutoring*

to new contexts, domains, and platforms. Symposium conducted at the annual meeting of the *American Education Research Association*. San Francisco, USA.

[W.8] Hallinen, N., Walker, E., **Wylie, R.**, Ogan, A., and Jones, C. (2009). I was playing when I learned: A narrative game for French aspectual distinctions. *Workshop Proceedings on Intelligent Educational Games at the 14<sup>th</sup> International Conference on Artificial Intelligence in Education*. Brighton, England.

[W.7] **Wylie, R.**, Koedinger, K., and Mitamura, T. (2009) Self-explaining language: Effects of adding self-explanation prompts to an ESL grammar tutor. *European Association for Research on Learning and Instruction (EARLI)*. Amsterdam, The Netherlands.

[W.6] **Wylie, R.** (2008) The Assistance Dilemma and the English Article System: Developing Intelligent Tutoring Systems for English as a Second Language. *Google Scholars Retreat*. Mountain View, USA.

[W.5] **Wylie, R.**, Koedinger, K., and Mitamura, T. (2008) Putting a/the stake in the ground: Making a priori predictions of student learning. Young Researchers track paper at the *International Conference on Intelligent Tutoring Systems*. Montreal, Canada.

[W.4] **Wylie, R.** (2007) Are we asking the right questions? Understanding which tasks lead to the robust learning of English grammar. Accepted as a Young Researchers Track paper at the *13th International Conference on Artificial Intelligence in Education*. Marina del Rey, USA.

[W.3] Walker, E., Ogan, A., and **Wylie, R.** (2006). A Tense Situation: Applying Cognitive Tutor Methodology to Ill-Defined Domains. Presentation at *EUROCALL 2006*. Granada, Spain.

[W.2] Ogan, A., **Wylie, R.**, and Walker, E (2006). Defining the ill-defined: Modeling student behavior in making aspectual distinctions. Accepted as a Student Track Paper at the 8th International Conference on *Intelligent Tutoring Systems*. Jhongli, Taiwan.

[W.1] Ogan, A., **Wylie, R.**, and Walker, E. (2006). The challenges in adapting traditional techniques for modeling student behaviors in ill-defined domains. Workshop paper at the *8th International Conference on Intelligent Tutoring Systems*. Jhongli, Taiwan.

#### THESES

[T.2] **Wylie R.** (2011) Examining the generality of self-explanation. PhD Thesis, Carnegie Mellon University. Committee: Ken Koedinger (co-chair), Teruko Mitamura (co-chair), Sharon Carver, Albert Corbett, Carolyn Rosé.

[T.1] **Wylie, R.** (2003) The effects of computers on cognitive assessment. Undergraduate Honors Thesis, University of California, Berkeley. Advisors: Mark D'Esposito, Jennifer Mankoff (Awarded Highest Honors).

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#### PROJECT ANTHOLOGIES

##### **CITIES OF LIGHT: A COLLECTION OF SOLAR FUTURES**

Editors: Joey Eschrich and Clark A. Miller  
Project Director: Ruth Wylie

##### **WEIGHT OF LIGHT: A COLLECTION OF SOLAR FUTURES**

Editors: Joey Eschrich and Clark A. Miller  
Project Directors: Ruth Wylie and Ed Finn

**OVERVIEW: STORIES IN THE STRATOSPHERE**

Editors: Michael G. Bennett, Ed Finn, and Joey Eschrich

Project Directors: Ed Finn and Ruth Wylie

**VISIONS, VENTURES, ESCAPE VELOCITIES: A COLLECTION OF SPACE FUTURES**

Editors: Ed Finn and Joey Eschrich

Project Directors: Ed Finn, Ruth Wylie, Jim Bell, and Clark A. Miller

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INVITED TALKS **FUTURES BY CHANCE | FUTURES BY CHOICE, INVITED FACILITATOR**

*Futures Cantina (Sponsored by Stanford d.School) at SXSW*

Austin, Texas USA | March 2023

**FUTUROLOGY CONFERENCE, INVITED SPEAKER**

*Science Fiction Prototyping*

University of Tsukuba, Japan | December 2020

**D.SCHOOL INVITED SPEAKER**

*Applied Imagination*

Stanford University | December 2019

**INTERGENERATIONAL FUTURES WORKSHOP, INVITED SPEAKER**

*Creating Better Futures through Better Dreams*

Kyoto, Japan | November 2019

**SOCIAL FICTION CONFERENCE, KEYNOTE SPEAKER**

*How storytelling can change the world ... or at least improve education*

University of California, Santa Cruz | February 2018

**EMERITUS COLLEGE TWELTH ANNUAL SYMPOSIUM, KEYNOTE SPEAKER**

*Using Science Fiction to Improve Education*

Arizona State University | November 2017

**PROGRAM FOR INTERDISCIPLINARY EDUCATION RESEARCH, INVITED SPEAKER**

*How to Create the Future*

Carnegie Mellon University | October 2017

**CUBAN NUEROSCIENCE CENTER, INVITED SPEAKER**

*Using Imagination as a Tool in the Development of Scientific Innovation*

Havana, Cuba | March 2016

**FORESIGHT AND TRENDS, INVITED SPEAKER**

*Using the Power of Collaboration to Inspire Innovation*

Los Angeles, CA | October 2015

**ASU + GSV, PANELIST**

*The Science and Science Fiction of Learning*

Phoenix, AZ | March 2015

**MENTORING POSTDOCTORAL FELLOWS**

Peter Nagy. Spring 2016-Summer 2020.  
Hannah Rogers. Fall 2015-Spring 2016.  
Megan Halpern. Fall 2014-Spring 2015.

**TEACHERS-IN-RESIDENCE**

Deena Gould, Fall 2019-Fall 2020.  
Tyler Eglen, Fall 2019-Fall 2020.

**PhD COMMITTEE CHAIR | LEARNING, LITERACIES, AND TECHNOLOGY, ASU**

Rezwana Islam. 2022-present.  
Areej Mawasi. 2017-2021.

**EdD COMMITTEE CHAIR | LEADERSHIP AND INNOVATION, ASU**

David Alexander. 2021-present.  
Michael Peel. 2021-2023.  
Cody Singer. 2021-2023.  
Taylor Tarbutton. 2021-2023.  
Kylie Franse. 2021-2023.  
Pamela Rose. 2021-2023.  
Shawn Clark. 2018-2020.  
Margaret Dery-Chaffin. 2018-2020.  
Alex Davis. 2018-2020.  
Jeremy Moore. 2018-2020.  
KC Pospisil. 2018-2020.  
Samaneh Sadri. 2018-2020.  
Jennifer Treptow. 2018-2020.

**DOCTORAL COMMITTEE MEMBER**

Bregje van Geffen. Mary Lou Fulton Teachers College. Learning, Literacies, and Technology.  
Maricel Lawrence. Mary Lou Fulton Teachers College. Leadership and Innovation.  
Yue Liu. Engineering Education Systems and Design. Ira A. Fulton School of Engineering.  
Dania Wright. School for the Future of Innovation in Society.  
Steven Weiner. School for the Future of Innovation in Society. Graduated Spring 2023.  
Gong Byong-gyu. Mary Lou Fulton Teachers College, Education Policy and Evaluation. Graduated 2021.  
Kaethe Selkirk. School for the Future of Innovation in Society. Graduated Summer 2019.

**OTHER STUDENTS SUPPORTED THROUGH GRANT FUNDING**

Rachna Mathur. Mary Lou Fulton Teachers College. Fall 2022-present.  
Bregje Van Geffen. Mary Lou Fulton Teachers College. Summer 2022.  
Neelakshi Rajeev Tewari. Mary Lou Fulton Teachers College. Summer 2021.  
Carolina Torrejon Capurro. Mary Lou Fulton Teachers College. Summer 2021.  
Rifa Vhora. Computer Systems Engineering Undergraduate. Fall 2020-present.  
Marilyn Mora. Mary Lou Fulton Teachers College Undergraduate. Fall 2020-Summer 2021.  
Stefania Metzger. Mary Lou Fulton Teachers College. Spring 2020-present.  
Adam Clark. Mary Lou Fulton Teachers College. Fall 2019-Summer 2020.  
Andrew Hudson. School for the Future of Innovation in Society. Summer 2019.  
Shang Wang. School of Computing, Informatics, and Decision Systems Engineering. Fall 2018-Spring 2019.

Victor Giroto. School of Computing, Informatics, and Decision Systems Engineering. Fall 2018.  
Mateo Pimentel. School for the Future of Innovation in Society. Fall 2017-Spring 2018.  
Josh Gigantino. Arts, Media + Engineering. Spring 2016.  
Jim Cunningham. Mary Lou Fulton Teachers College. Fall 2016.  
Medha Dalal. Mary Lou Fulton Teachers College. January 2015-July 2016.

**MASTERS COMMITTEE MEMBER**

Yue Liu. Human Systems Engineering.  
Sabrina Cervantes Villa. Human Systems Engineering.  
Ted Lagreid. Interdisciplinary Studies.

**UNDERGRADUATE RESEARCH ADVISOR**

Devan Hakkal. Honors Thesis. Fall 2023-Present.  
Nshwah Ahmad. Honors Thesis. Fall 2015-Spring 2016.  
Grace Kim. Honors Thesis. Fall 2015-Spring 2016.  
Anette Marino. Independent Study. Fall 2014.

**HIGH SCHOOL STUDENT INTERNS**

Preeya Achari. Spring 2016.  
Valarie Varanese. Spring 2016.

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TEACHING **EDP 540/LSE 540: THEORETICAL VIEWS OF LEARNING**  
Instructor. Spring 2015, Fall 2015, Fall 2016, Fall 2017. Arizona State University.

**AME 494/584: SCIENCE FICTION STUDIO**  
Co-Instructor. Spring 2016. Arizona State University.

**INTRODUCTION TO HUMAN-COMPUTER INTERACTION METHODS**  
Teaching Assistant. Fall 2008. Carnegie Mellon University.

**INTELLIGENT TUTORING SYSTEMS**  
Teaching Assistant. Fall 2007. Carnegie Mellon University.