

Camillia F. Matuk

curriculum vitae

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Brooklyn, NY 11201

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Education

- 2010 PhD Learning Sciences, certificates in Cognitive Sciences and Animate Arts
 Northwestern University
 Advisor: David H. Uttal
 Committee members: Bruce Sherin, David Rapp, Robert Hariman
- 2004 MSc Biomedical Communications, specialization in 3D Computer Animation
 University of Toronto
 Supervisor: Nicholas Woolridge
- 2002 OCGC 3D Computer Animation
 Sheridan Institute of Technology and Advanced Learning
- 2002 BSc (Hons) Biological Sciences
 The University of Windsor
- 2002 ARCT Piano Performance
 The Royal Conservatory of Music
 Mentors: Tim Brunet, E. Gregory Butler
- 1999 Advanced-levels, Art, Biology, Chemistry, English, French, Mathematics
 King George V School

Employment

- 2014-present **Assistant Professor**
 Educational Communication and Technology
 New York University Steinhardt School of Culture, Education, and Human
 Development (New York, NY, USA)
- 2013-2014 **Lecturer**
 Graduate School of Education
 University of California, Berkeley (Berkeley, CA, USA)

- 2010-2014 **Postdoctoral Scholar**
 Graduate School of Education
 University of California, Berkeley (Berkeley, CA, USA)
 Supervisor: Marcia C. Linn
 Projects:
 Visualizing to Integrate Science Understanding for All Learners (VISUAL)
 Continuous Learning and Automated Scoring in Science (CLASS)
- 2007-2010 **Graduate student assistant**, Reference Department, Main Library, Northwestern
 University (Evanston, IL, USA)
- 2002-present **Medical illustrator**, freelance
- 1996-2010 **Pianist**, freelance
- 2004-2006 **Medical Illustrator**, INVIVO Communications, Inc. (Toronto, ON, Canada)
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Publications

*indicates graduate student author at time of publication

Refereed Journal Articles

- Forthcoming **Matuk, C.** & Linn, M. C. (Accepted). Why and how do middle school students exchange ideas during science inquiry? *International Journal of Computer-Supported Collaborative Learning*.
- 2016 Linn, M. C., Gerard, L., **Matuk, C.**, & McElhaney, K. W. (2016). Science education: From separation to integration. *Review of Research in Education*, 40(1), 529-587.
- Matuk, C.**, McElhaney, K., King Chen, J., Lim-Breitbart, Kirkpatrick, D. & Linn, M. C. (2016). Iteratively refining a science explanation tool through classroom implementation and stakeholder partnerships. *International Journal of Designs for Learning*, 7(2), 93-110.
- Matuk, C.** (2016). The learning affordances of augmented reality for museum exhibits on human health. *Museums & Social Issues*, 11(1), 73-87. DOI:10.1080/15596893.2016.1142815
- Matuk, C.**, Gerard, L., Lim-Breitbart, J. & Linn, M. C. (2016). Gathering requirements for teacher tools: Strategies for empowering teachers through co-design. *Journal of Science Teacher Education*, 27(1), 79-110. DOI: 10.1007/s10972-016-9459-2

- 2015 Diamond, J., Jee, B., **Matuk, C.**, McQuillan, J., Spiegel, A., & Uttal, D. (2015) Museum monsters and victorious viruses: Improving public understanding of emerging biomedical research. *Curator: The Museum Journal*, 58(3), 299-311. doi: 10.1111/cura.12115
- Gerard, L. **Matuk, C.**, McElhaney, K. Linn, M. C. (2015). Automated, adaptive guidance for K-12 education. *Educational Research Review*, 15, 41-58. doi:10.1016/j.edurev.2015.04.001
- Matuk, C.**, Linn, M. C., & Eylon, B.-S. (2015). Technology to support teachers using evidence from student work to customize technology-enhanced inquiry units. *Instructional Science*, 43(2), 229-257. doi: 10.1007/s11251-014-9338-1
- 2014 Novick, L., Pickering, J., MacDonald, T., Diamond, J., Ainsworth, S., Aquino, A., Catley, K., Dodick, J., Evans, E. M., **Matuk, C.**, Sacco, J. & Scott, M. (2014). Depicting the Tree of Life in museums: Guiding principles from psychological research. *Evolution: Education and Outreach*, 7(25). doi:10.1186/s12052-014-0025-0
- 2013 Spiegel, A. N., McQuillan, J., Halpin, P., **Matuk, C.**, & Diamond, J. (2013). Engaging Teenagers with Science Through Comics. *Research in Science Education*, 43(6), 2309-2326. doi:10.1007/s11165-013-9358-x
- 2010 ***Matuk, C. F.**, & Uttal, D. H. (2010). When form contradicts content: The cognitive and communicative functions of cartoons for teaching evolution. In R.E. Griffin (Ed.), *Selected readings from the Annual Conference of the International Visual Literacy Association* (pp. 161-166). Chicago: International Visual Literacy Association.
- 2007 ***Matuk, C.** (2007). Images of evolution. *The Journal of Biocommunication*, 33(3).
- 2006 ***Matuk, C.** (2006). Seeing the body: The divergence of ancient Chinese and Western medical illustration. *The Journal of Biocommunication*, 32(1).

Co-Edited Special Issues

- 2016 Gerard, L., **Matuk, C.** & Linn, M. C. (Eds.). (2016). Technology as inquiry teaching partner [Special Issue]. *Journal of Science Teacher Education*, 27(1). DOI:10.1007/s10972-016-9457-4

Chapters in Edited Volumes

- 2018 **Matuk, C.** (2018). Agreeing to disagree: Students negotiating visual ambiguity in scientific argumentation. In, K. Daniels (Ed.), *Towards a Framework for Representational Competence in Science Education* (pp. 55-78). Springer.
- Linn, M. C. Gerard, L., McElhaney, K. & **Matuk, C.** (2018). Inquiry learning and opportunities for technology. In Fischer, F. Hmelo-Silver, C. E., Goldman, S. R. & Reimann, P. (Eds.) *International Handbook of the Learning Sciences*, Chapter 20. pp. 221-233. Routledge/Taylor & Francis.
- 2015 **Matuk, C.**, Linn, M. C., Gerard, L. (2015). Supporting the WISE design process: Authoring tools that enable insights into technology-enhanced learning. In, R. Sottolare, A. Graesser, X. Hu & H. Holden (Eds.), *Design Recommendations for Adaptive Intelligent Tutoring Systems: Authoring Tools* (Volume 3). Orlando, FL: U.S. Army Research Laboratory.
- 2014 **Matuk, C.** (2014). Argumentation Environments. In R. Gunstone (Ed.) *The Encyclopedia of Science Education*. Springer Dordrecht, Heidelberg, New York, London. DOI: 10.1007/978-94-007-6165-0_71-3.
- 2011 **Matuk, C.**, & Uttal, D. H. (2011). Narrative spaces in the representation and understanding of evolution. In K. S. Rosengren, S. K. Brem, E. M. Evans, & G. M. Sinatra (Eds.), *Evolution challenges: Integrating research and practice in teaching and learning about evolution*. Oxford: Oxford University Press.

Refereed Conference Proceedings

- 2018 **Matuk, C.**, *Hovey, C., *Hurwich, T., *Sarmiento, J. P. (2018). Cognitive processes and collaborative supports for knowledge integration among youth designing games for science learning. In Linn, M. C. & Eylon, B.-S. (chairs), Osborne, J. & Laurillard, D (discussants), Kidron, A. (organizer), *Knowledge Integration in the Digital Age: Trajectories, Opportunities and Future Directions*. In *Proceedings of the 13th International Conference for the Learning Sciences* (Vol. 2, pp.1259-1266). London: International Society for the Learning Sciences.
- *Hovey, C., **Matuk, C.** & *Hurwich, T. (2018). “If you add too much science it gets boring.” Exploring students’ conceptual change through their game design iterations. In *Proceedings of the 13th International Conference for the Learning Sciences* (Vol. 3, pp. 1575-1576). London: International Society for the Learning Sciences.

- 2017 **Matuk, C., *Zhang, J. & Linn, M. C. (2017).** How middle school students construct and critique graphs to explain cancer treatment. In *Proceedings of the 12th International Conference on Computer Supported Collaborative Learning* (Vol. 1, pp. 375-382). Philadelphia: International Society for the Learning Sciences.
- 2016 **Matuk, C., *Levy-Cohen, R. & Pawar, S. (2016).** Questions as prototypes: Facilitating children's discovery and elaboration during game design. In *Proceedings of FabLearn 2016: 6th Annual Conference on Creativity and Making in Education*. (pp. 111-114). ACM Digital Library. doi: 10.1145/3003397.3003417
- Tissenbaum, M. & **Matuk, C. (2016).** Real-Time Visualization of Student Activities to Support Classroom Orchestration [Organized symposium]. In, ICLS'16: Proceedings of the 12th International Conference of the Learning Sciences (Vol. 2, pp. 1120-1127). Singapore: International Society for the Learning Sciences.
- Matuk, C., *Cocco, F., Linn, M. C. (2016).** A teacher-centered approach to designing a real-time display of classroom activity. In Dillenbourg, P. (discussant), M. Tissenbaum & **C. Matuk** & (co-organizers). *Real-Time Visualization of Student Activities to Support Classroom Orchestration* (Vol. 2, pp. 1120-1127). In, ICLS'16: Proceedings of the 12th International Conference of the Learning Sciences (Vol. 2, pp. 1120-1127). Singapore: International Conference for the Learning Sciences.
- *Uk, I., **Matuk, C., & Linn, M. C. (2016).** Students using graphs to understand the process of cancer treatment. In *Proceedings of the International Conference of the Learning Sciences*, (Vol. 2, pp. 721-728). Singapore: International Society of the Learning Sciences.
- 2015 **Matuk, C. & Linn, M. C. (2015).** Examining the real and perceived impacts of a public idea repository on literacy and science inquiry. In *CSCL'15: Proceedings of the 11th International Conference for Computer Supported Collaborative Learning*, (Vol. 1, pp. 150-157). Gothenburg, Sweden: International Society of the Learning Sciences. [Award for Best Design Paper]
- 2014 **Matuk, C. & Linn, M. C. (2014).** Exploring a digital tool for exchanging ideas during science inquiry. In *ICLS'14: Proceedings of the 11th International Conference for the Learning Sciences*, (Vol. 2, pp. 895-902). Boulder: International Society of the Learning Sciences.
- 2013 **Matuk, C., McElhaney, K., Miller, D., *King Chen, J., Lim-Breitbart, J., Terashima, H., Kwan, G., & Linn, M.C. (2013).** Reflectively prototyping a tool for exchanging ideas. In *CSCL'13: Proceedings of the 10th International Conference on Computer Supported Collaborative Learning*, (Vol 2., pp. 101-104). Madison, WI, 2013. International Society of the Learning Sciences.

- 2012 **Matuk, C.**, McElhaney, K., *King Chen, J., Miller, D., Lim-Breitbart, J., & Linn, M. C. (2012). The Idea Manager: A tool to scaffold students documenting, sorting, and distinguishing ideas in science inquiry. In *ICLS'12: Proceedings of the 10th International Conference for the Learning Sciences*, Sydney: International Society of the Learning Sciences.
- McElhaney, K., *Miller, D., **Matuk, C.**, & Linn, M. C. (2012). Using the Idea Manager to promote coherent understanding of inquiry investigations. In *ICLS'12: Proceedings of the 10th International Conference for the Learning Sciences*, (Vol. 1, pp. 323-330). Sydney: International Society of the Learning Sciences.
- 2011 **Matuk, C.**, & *King Chen, J. (2011). The WISE Idea Manager: A tool to scaffold the collaborative construction of evidence-based explanations from dynamic scientific visualizations. In J. J. Shen & H.-Y. Chang (Eds.), *Symposium 3, Learning Interactions - Collaboration as Scaffolding: Learning Together with Dynamic, Interactive Scientific Visualizations and Computer Models, Proceedings of the 9th International Conference on Computer Supported Collaborative Learning CSCL2011: Connecting Computer Supported Collaborative Learning to Policy and Practice*, (Vol. 3, pp. 1019-1036). Hong Kong: The University of Hong Kong.
- Matuk, C.**, *Sato, E., & Linn, M. C. (2011). Agreeing to disagree: Challenges with ambiguity in visual evidence. *Proceedings of the 9th International Conference on Computer Supported Collaborative Learning CSCL2011: Connecting Computer Supported Collaborative Learning to Policy and Practice*, (Vol. 2, pp. 994-995). Hong Kong: The University of Hong Kong.
- 2010 ***Matuk, C.**, & Uttal, D. (2010). Inventing a representation of relatedness. In *Proceedings of the 9th International Conference of the Learning Sciences: Learning in the Disciplines*, (Vol. 2, pp. 222-223). Chicago: International Society of the Learning Sciences.
- ***Matuk, C.**, & Uttal, D. (2010). *Inventing a representation of relatedness*, In K. Rosengren (Discussant), *Symposium: Learning to understand the Tree of Life*. In *Proceedings of the 9th International Conference of the Learning Sciences: Learning in the Disciplines*, (Vol. 2). Chicago, IL.
- 2008 Forbus, K., Lovett, A., Lockwood, K., Wetzell, J., ***Matuk, C.**, Jee, B., & Usher, J. (2008). CogSketch *Proceedings of the 23rd National Conference on Artificial Intelligence* (3)(pp. 1878-1879). Chicago: AAAI Press.
- ***Matuk, C.** (2008). Animated cladograms: Interpreting evolution from diagrams. In G. Stapleton, J. Howse & J. Lee (Eds.), *Proceedings of the 5th International Conference on Diagrammatic Representation and Inference* (pp. 395-397). Herrsching, Germany: Springer-Verlag.

- ***Matuk, C.** (2008). Animating trees of life: How animation influences the perception of evolution. In C. Hölscher (Ed.), *Spatial Cognition 2008: Poster Presentations* (pp. 25-28). Freiburg: Universität Bremen/Universität Freiburg.
- ***Matuk, C.** (2008). Animated cladograms: The perception and conception of evolution. *Proceedings of the EARLI Special Interest Group Text and Graphics Bi-Annual Conference: Exploiting the Opportunities – Learning with Textual, Graphical and Multimodal Representations* (pp. 100-103). Rotterdam: EARLI.
- ***Matuk, C., & Uttal, D. H.** (2008). Entertaining evolution: Understanding science from animations. *Proceedings of the 8th International Conference for the Learning Sciences* (3)(pp. 93-94). Utrecht, the Netherlands: International Society of the Learning Sciences.

Research Reports

- 2010-2013 Visualizing to Integrate Science Understanding for All Learners (VISUAL). (2010, 2011, 2012, 2013). Annual Report submitted to the National Science Foundation, Award no. 0918743, Co-PIs: Linn, M. & Tinker, R. [Report contributor, Project co-director]
- Continuous Learning and Automated Scoring in Science (CLASS). (2012, 2013). Annual Report submitted to the National Science Foundation, Award no. 1119670, Co-PIs: Linn, M. & Tinker, R. Co-PIs: Linn, M. & Liu, O. \$2,546,777. [Report contributor, Project co-director]

Non-Refereed Publications

- 2016 **Matuk, C.** (2016, Aug 23). Game design as a microcosm [Guest blog post]. Retrieved from <http://www.instituteofplay.org/2016/08/game-design-as-a-microcosm>
- 2013 **Matuk, C.** (2013, Feb 1). The pleasure of not knowing. [Review of the book *The Where, The Why, and The How: 75 Artists Illustrate Wondrous Mysteries of Science*, by J. Volvovski, J. Rothman, & M. Lamothe]. *Science*, 339, 523-524. Retrieved from <http://www.sciencemag.org/content/339/6119/523.full>
- 2012 **Matuk, C.** (2012, Oct 19). A history of evolution in 230 trees. [Review of the book *Trees of life: A visual history of evolution*, by T. W. Pietsch]. *Science*, 338, 329. Retrieved from <http://www.sciencemag.org/content/338/6105/329.full.pdf>
- 2011 **Matuk, C.** (2011, Jan 15). On becoming the next new smartphone: The life and times of educational innovations [Web log post]. Retrieved from

<http://cadrek12.org/resources/blogs/becoming-next-new-smartphone-life-and-times-educational-innovations-0>

- 2006 ***Matuk, C.** (2006). Viewpoint: Mr. Oldenburg extends his invitation: A history of the scholarly journal. *The Journal of Biocommunication*, 32(2).
- ***Matuk, C.** (2006). Viewpoint: Master of all trades, doctor of none. *The Journal of Biocommunication*, 31(3).

Graduate Theses

- 2010 ***Matuk, C.** (2010). *Narratives in mind and media: A cognitive semiotic account of novices interpreting visual science media*. PhD Dissertation, Evanston, IL: Northwestern University.
- 2004 ***Matuk, C.** (2004). *The plastic brain: Understanding cortical reorganization during motor skills acquisition*. MSc 3D Computer Animation, Toronto, ON: University of Toronto.

Creative Writing

- Matuk, C.** (2005). Undress me. [poem]. *TRANSverse: Creative Writing*, 4(30).
- Matuk, C.** (2003). The middle of orange. [poem]. *PRISM International*, 41(3), 40-43.
- Matuk, C.** (2002). Grocery pie. [poem]. *Confusion, Summer 2002*.

Media and Technologies

Online curricula

- 2012 **Matuk, C.** (2012). *Genetics: Simple Inheritance*. Redesign of a middle school life sciences unit in the Web-based Inquiry Science Environment.
- Matuk, C.** (2012). *Designing a detergent to clean marine pollution*. Redesign of a high school chemistry unit in the Web-based Inquiry Science Environment.
- 2011 **Matuk, C.** (2011). *What makes a good cancer medicine?: Observing mitosis and cell processes*. Redesign of a middle school life sciences unit in the Web-based Inquiry Science Environment.
- 2008 ***Matuk, C.** (2008). *How to build a cladogram*. Interactive Flash activities and animations.

Software

- 2011 **Matuk, C.** (2011). Image Annotator.
- Web-based learning tool created in Flash.
- 2009 Red Brain Inc. (Producer). (2009). The world of viruses interactive comic viewer. *The world of viruses project*.
- Interactive games, graphic stories, and activities for the iPad.

Visual Design

Matuk, C. & Breitbart, J. [Logo design]. *Web-based Inquiry Science Environment (WISE)*. (2012).

Matuk, C. [Logo design]. *Continuous Learning and Automated in Scoring in Science (CLASS)*. (2012).

Canadian Breast Cancer Foundation. (2007, 2008). Ethnocultural women and breast health project. [PowerPoint presentation, brochure, magnet, and document designs].

Anastakis, D. J., Chen, R., Davis, K. D., and Mikulis, D. (2005). Cortical plasticity following upper extremity injury and reconstruction. *Update on Hand Surgery*, 32(4), 617-634. (<http://www.sciencedirect.com/science/article/B75HW-4H0YH0M-K/2/558b76b0f7d08129304411c3cb275978>) [2 illustrations].

Corkum, L., (2010). *Freshwater fishes of Lake Erie*. Windsor, ON: Essex County Field Naturalists' Club. [4 illustrations].

Ngo, K. (2006). Colorimetric evaluation of facial skin and free flap donor sites in various ethnic populations. *Canadian Journal of Otolaryngology*. [2 illustrations].

Greenwald, A. (2005). *The ASCM II clinical skills handbook*. Toronto, ON: The University of Toronto. [6 illustrations].

Molckovsky, A., & Pirzada, K. F. (Eds.). (2004). *Toronto Notes 2004*, (20th ed.). Toronto, ON: Toronto Notes Medical Publishing, Inc. [4 illustrations].

Stamler, L., & Yiu, L. (2004). *Community health nursing: A Canadian perspective* Toronto, ON: Pearson Education Canada. [5 illustrations] (pp.156, 161, 166, 167, and 169).

Mrosovsky, N. (2003). *Predicting extinction: fundamental flaws in IUCN's Red List system exemplified by the case of sea turtles*. Toronto, ON: The University of Toronto Press. [cover design].

Ngo, K. (2003). Canadian society of otolaryngology 57th Annual Meeting, May 25-28, 2003. [2 illustrations].

Colapinto, M. (2003). *The ASCM I clinical skills handbook*. Toronto, ON: The University of Toronto Press. [4 illustrations].

Lala, P., & Waddell, A. (Eds.), (2003). *MCCQE 2003 review notes*. (19th ed.). Toronto, ON: Toronto Notes Publishing. Also available as a CD-ROM. [2 illustrations].

Ojha, D. (2002-2006). Illustrations and animations of flow dynamics in vascular disease for various journal publications.

Awards & Recognition

* indicates graduate student status and ** indicates undergraduate student status at time of award.

- 2017 **Mid-Career Workshop Participant** (2017, June 18). Computer-Supported Collaborative Learning conference (CSCL2017), Philadelphia, PA.
- 2015 **Best Design Paper Award**, for **Matuk, C. & Linn, M. C.** (2015). Examining the real and perceived impacts of a public idea repository on literacy and science inquiry. In CSCL'15: Proceedings of the 11th International Conference for Computer Supported Collaborative Learning, Gothenburg, Sweden: International Society of the Learning Sciences.
- 2013 **Early Career Workshop Participant** (2013, June 15-16). *Technologies to scaffold science inquiry teaching and learning*. Computer-supported Collaborative Learning conference (CSCL2013), Madison, WI.
- AERA Design & Technology SIG Outstanding Research Presentation Award**, for **Matuk, C. & Linn, M. C.** (2013, April 27 - May 1). *Technology Integration to Scaffold and Assess Students' Use of Visual Evidence In Science Inquiry*. Paper presented at the American Educational Research Association Meeting (AERA2013): Education and Poverty: Theory, Research, Policy and Praxis, San Francisco, CA.
- 2011 **Early Career Workshop Participant** (2011, July 2-3). International Conference on Computer Supported Collaborative Learning (CSCL2011), Hong Kong, China.
- 2010-2011 **CADRE Fellowship**, Discovery Research K-12 program, University of California, Berkeley, CA, USA.
- 2008-2010 ***Social Sciences and Humanities Research Council (SSHRC) Doctoral Fellowship Award**, Northwestern University, Evanston, IL.
- 2008-2009 ***Darwin Fellowship**, One Book One Northwestern (OBONU) program, Northwestern University, Evanston, IL.
- 2003 ***University of Toronto Fellowship**, University of Toronto, ON.
- 2002-2003 ***Ontario Graduate Scholarship (OGS)**, Council of Ontario Universities, University of Toronto, ON.
- 1999-2002 ****University of Windsor Entrance Scholarship**, University of Windsor, ON.

Presentations

Invited Talks

* indicates graduate student status at time of presentation

- 2017 Matuk, C. (2017, Aug 6-11). Investigating student learning through inquiry-based graphing activities. Invited talk in *Helping Students Build Proficiency in Using Scientific Visualizations for Decision-Making*, at the *2017 Visualization in Science & Education Gordon Research Conference*. Bates College, Lewiston, ME.
- 2017 Matuk, C. (2017, Aug 3). How to design your own games for science learning. Invited workshop at the *Games in Education Symposium*. New York, NY. gamesineducation.org/sites/nyc
- 2016 Matuk, C. (2016, Nov 11). Designing with teachers, for teachers: Strategies and insights into technology-based tools for science inquiry. *Learning Sciences Research Institute (LSRI) Speaker Series*. University of Illinois, Chicago, IL.
- 2015 Matuk, C. (2015, Jul 8). How teachers customize technology-enhanced science inquiry. *Google for Education Brown Bag Series*. Google, New York, NY.
- 2013 Matuk, C. (2013, Apr 16). Designing a tool to support the collaborative exchange of ideas during science inquiry. Invited speaker at a research event organized by the Education Research Leadership Chair at the Faculty of Education, University of Windsor, ON.
- 2009 *Matuk, C. (2009, Dec 14). Interpretation, invention, and interaction: Learning to reason with the Tree of Life. Invited presentation at the Graduate School of Education, University of California, Berkeley, Berkeley, CA.
- *Matuk, C. (2009, Nov 12). Interpretation, invention, and interaction: Ideas to scaffold learning about the Tree of Life. Invited presentation at the Graphic Visualization meeting, Director: Chia Shen, Harvard University, Cambridge, MA.

Campus Talks

- 2015 Matuk, C. (2015, Jul 8). How teachers customize technology-enhanced science inquiry. *Google for Education Brown Bag Series*. Google, New York, NY.
- 2014 Matuk, C. (2014, Sep 29). Investigating tools for learning, collaboration, and design. *ECT Colloquium Speaker Series*. Sponsored by the Programs in Educational Communication and Technology at MAGNET, Brooklyn, NY.

- 2013 Matuk, C. (2013, Dec 17). Designing curriculum-integrated technologies that scaffold and assess science inquiry. Invited talk at the *Berkeley Institute of Design Lab (BiDLab)*, University of California, Berkeley, CA.

Conference Papers

- 2017 **Matuk, C.**, Zhang, J. & Linn, M. C. (2017, June 18-22). *How middle school students construct and critique graphs to explain cancer treatment*. Paper presented at the 12th International Conference on Computer Supported Collaborative Learning. Philadelphia, PA.
- 2016 **Matuk, C.**, *Levy-Cohen, R. & Pawar, S. (2016). Questions as prototypes: Facilitating children's discovery and elaboration during game design. In *Proceedings of FabLearn 2016: 6th Annual Conference on Creativity and Making in Education*. (pp. 111-114). ACM Digital Library. doi: 10.1145/3003397.3003417
- *Uk, I., **Matuk, C.**, & Linn, M. C. (2016). Students using graphs to understand the process of cancer treatment. In *Proceedings of the International Conference of the Learning Sciences*, (Vol. 2, pp. 721-728). Singapore: International Society of the Learning Sciences.
- 2015 Yiu, L. & **Matuk, C.** (2015, June 22-24). *Designing Community Health Nursing Interventions with an Online Digital Annotation Tool: An Innovative Educational Application*. The 10th National Community Health Nurses of Canada (CHNC) Conference, Winnipeg, MB.
- Matuk, C.**, Gerard, L., Lim-Breitbart, J. & Linn, M. C. (2015, April 16-20). *Gathering Design Requirements During Participatory Design: Strategies for Teachers Designing Teacher Tools*. Paper presented at the American Educational Research Association Meeting, Chicago, IL.
- Matuk, C.** (2015, January 23). *Designing Tools to Support Learning, Instruction and Research in Technology-Enhanced Science Inquiry*. Paper presented at the 8th Annual Subway Summit on Cognition and Educational Research. City University of New York Graduate Center. New York, NY.
- 2014 **Matuk, C.** & Linn, M. C. (2014, June 23-27). *Exploring a digital tool for exchanging ideas during science inquiry*. Paper presented at the 11th International Conference for the Learning Sciences (ICLS2014), Boulder, CO.
- Matuk, C.** & McElhaney, K. (2014, April 3-7). *Investigating a Digital Annotation Tool for Distinguishing Visual Evidence in Science Inquiry*. Paper presented at the American Educational Research Association Meeting, Philadelphia, PA.
- 2013 **Matuk, C.**, McElhaney, K., Miller, D., King Chen, J., Lim-Breitbart, J., Terashima, H., Kwan, G., & Linn, M.C. (2013, June 15-19). *Reflectively prototyping a tool for*

exchanging ideas. Paper presented at the 10th International Conference on Computer Supported Collaborative Learning (CSCL2013), Madison, WI.

Matuk, C. & Linn, M. C. (2013, April 27 - May 1). *Technology integration to scaffold and assess students' use of visual evidence in science inquiry*. Paper presented at the American Educational Research Association Meeting (AERA2013): Education and Poverty: Theory, Research, Policy and Praxis, San Francisco, CA. [AERA Design & Technology SIG Outstanding Research Presentation Award 2013].

2012 McElhaney, K., Miller, D., **Matuk, C.**, & Linn, M. C. (2012, July 2-6). *Using the Idea Manager to promote coherent understanding of inquiry investigations*. Paper presented at The 10th International Conference for the Learning Sciences, Sydney, Australia, 2012. International Society of the Learning Sciences.

2011 **Matuk, C. F.**, *Sato, E., & Linn, M. C. (2011, July 4-8). *Agreeing to disagree: Challenges with ambiguity in visual evidence*. Paper presented at the 9th International Conference on Computer Supported Collaborative Learning CSCL2011: Connecting computer supported collaborative learning to policy and practice, Hong Kong.

Matuk, C. (2011, June 2-4). *Persuading with visual evidence in scientific argumentation: Two middle school students' dispute over global temperature change*. Paper presented at the 41st Annual Meeting of the Jean Piaget Society, Berkeley, CA.

Matuk, C., McElhaney, K., & Breitbart, J. (2011, March 8-9). *Animating ideas with the Flipbook Animator*. Paper presented at the Cyberlearning Tools for STEM Education Conference, Berkeley, CA.

2010 ***Matuk, C.**, & Uttal, D. (2010, June 29-July 2). *Inventing a representation of relatedness, In K. Rosengren (Discussant), Symposium: Learning to understand the Tree of Life*. Paper presented at the 9th International Conference of the Learning Sciences: Learning in the Disciplines, Chicago, IL.

2009 ***Matuk, C.**, & Uttal, D. H. (2009, October 16-17). *Re-telling the tree: How viewers spatialize folk theories of evolution. In K. S. Rosengren (Discussant), Symposium: Creationism is not the (only) issue: Developmental constraints on an understanding of evolution*. Paper presented at the Biennial Meeting of the Cognitive Development Society, San Antonio, TX.

***Matuk, C.** & Uttal, D. H. (2009, October 6-9). *When form contradicts content: The cognitive and communicative functions of cartoons for teaching evolution*. Paper presented at the International Visual Literacy Association. Chicago, IL.

***Matuk, C.**, Diamond, J., & Uttal, D. H. (2009, October 6-9). *Heroes, villains and viruses: How graphic narratives teach science*. Paper presented at the International Visual Literacy Association (IVLA2009). Chicago, IL.

- ***Matuk, C.**, & Uttal, D. H. (2009, August 16-18). *Interpretation, invention, and interaction: How students (mis)understand cladograms*. Paper presented at the Understanding the Tree of Life Harvard Conference, Cambridge, MA.
- ***Matuk, C.**, & Uttal, D. H. (2009, May 4). *Animating narratives of evolution: A case of diagrammatic interpretation with cladograms*. Paper presented at the Conference on Research and Training in Spatial Intelligence, Evanston, IL.
- ***Matuk, C.**, & Uttal, D. H. (2009, April 13-17). *Countering diagrammatic narratives: The effects of animation on the interpretation of evolution*. Paper presented at the American Educational Research Association Meeting, San Diego, CA.
- ***Matuk, C.**, & Uttal, D. H. (2009, February 5-7). *Countering narratives of evolution: How animation influences the spatial temporal metaphors interpreted from cladograms*. Paper presented at the International Spatial Learning Center conference, Seattle, WA.
- 2008 ***Matuk, C.** (2008, August 27-29). *Animated cladograms: The perception and conception of evolution*. Paper presented at the EARLI Special Interest Group Text and Graphics Bi-Annual Conference: Exploiting the Opportunities – Learning with Textual, Graphical and Multimodal Representations, Tilburg, the Netherlands.

Organized Conference Symposia

- 2016 Tissenbaum, M. & **Matuk, C.** (Co-organizers). (2016, June 20-24). Real-Time Visualization of Student Activities to Support Classroom Orchestration. Symposium conducted at the 12th International Conference of the Learning Sciences, Singapore.
- 2011 **Matuk, C.**, & *King Chen, J. (Co-organizers). (2011, March 8-9). *WISE Ideas: A technology-enhanced curriculum to scaffold students' generating data, managing evidence, and reasoning about the seasons*. Teacher design focus group presented at the Cyberlearning Tools for STEM Education Conference. Berkeley, CA.
- 2008 ***Matuk, C.** (2008, September 13-14). *Mapping Narrative Spaces: The perception and conception of evolution*. Presentation at the NSF International Workshop on Spatial Cognition, Freiburg, Germany. [presenter].
- ***Matuk, C.** (2008, May 23-26). *Persuasive displays: Science, art, and power in natural history exhibits*. In R. Hariman (Respondent), *Symposium: Displays of Science, Knowledge, and Argument within the Museum Context*. Paper presented at the Conference of the Rhetoric Society of America, Seattle, WA. [co-organizer].

Conference Posters

- 2018 *Hovey, C., **Matuk, C.** & *Hurwich, T. (2018, Jun 23-27). "If you add too much science it gets boring." Exploring students' conceptual change through their game design iterations. Poster presented at the 13th International Conference for the Learning Sciences, London, UK.

- Matuk, C. & Lim-Breitbart, J.** (2018, Apr 13-17). "This is what I want." Technology co-design as a mirror on teachers' science inquiry practices. In Collins, A. & Bagno, E. (discussants), Kidron, A. & Gerard, L. (co-organizers). *Knowledge Integration: Trajectories, Opportunities and Future Directions*. Poster presented at the American Educational Research Association Meeting, New York, NY.
- 2017 *Levy-Cohen, R. & **Matuk, C.** (2017, Nov 6-9). What children learn from the game design process. Poster presented at the 13th Conference of the International Society for Design and Development in Education, Berkeley, CA.
- *Cirigliano, M. M., Pusic, M. V., Plass, J., **Matuk, C.**, Shiau, M., Pecaric, M., & Boutis, K. (2017, July). Visualizing Thought in Medical Education: How Does Drawing Enhance the Learning of Diagnostic Skills in Radiology? Poster Presented at the 2017 Association of Medical Illustrators Conference, Austin, TX.
- *Levy-Cohen, R., **Matuk, C.** & *Pawar, S. (2017, Jan 20). "Game making is harder than I thought": Challenges in game design driven by children's own interests. Poster presented at the 10th Annual Subway Summit on Cognition and Education Research, New York, NY.
- 2016 **Matuk, C.**, *Levy-Cohen, R. & Pawar, S. (2016, Oct 14-16). Questions as prototypes: Facilitating children's discovery and elaboration during game design. Poster presented at the 6th Annual FabLearn Conference on Creativity and Making in Education, Palo Alto, CA.
- Matuk, C.**, *Cocco, F., Linn, M. C. (2016, June 20-24). A teacher-centered approach to designing a real-time display of classroom activity. In Dillenbourg, P. (discussant), M. Tissenbaum & C. Matuk (co-organizers). *Real-Time Visualization of Student Activities to Support Classroom Orchestration* (Vol. 2, pp. 1120-1127). Poster presented at the International Conference for the Learning Sciences, Singapore.
- Matuk, C.**, Gerard, L., Lim-Breitbart, J., & Linn, M. C. (2016, April 8-12). Teachers' reflections on the uses of real-time data in their instruction. Poster presented at the American Educational Research Association Meeting, Washington, DC.
- 2015 Wichmann, A., **Matuk, C.**, *Sato, E., Gerard, L., Madhok, J., & Linn, M. C. (2015, August 25-29). Critiquing Peer Ideas during Technology-Enhanced Science Inquiry Learning. Poster presented at the *16th Biennial Conference of the European Association for Research on Learning and Instruction* (EARLI), Limassol, Cyprus.
- Matuk, C.**, Linn, M. C. & Eylon, B. S. (2015, April 16-20). Technology to support teachers using evidence from student work to customize technology-enhanced inquiry units. In Y. Kali, S. McKenney, & O. Sagy, *Teachers as designers of technology enhanced learning*. Interactive poster session conducted at the Annual Meeting of the American Educational Research Association. Chicago, IL.

- 2014 **Matuk, C.**, Linn, M. C., & Eylon, B. (2014, Jun 23-27). Technology to support teachers using evidence from student work to customize technology-enhanced inquiry units. Poster presented at invited session at the 11th International Conference on the Learning Sciences, ICLS2014, Boulder, CO.
- Wichmann, A., **Matuk, C.**, *Sato, E., Gerard, L., Madhok, J., & Linn, M. C. (2014, August 18-20). Critiquing Peer-Generated Ideas during Inquiry Learning. Poster presented at *The Biennial Meeting of the EARLI SIG20 Computer Supported Inquiry Learning*, Malmö, Sweden.
- 2012 **Matuk, C.**, McElhaney, K., *King Chen, J., *Miller, D., Lim-Breitbart, J., & Linn, M. C. (2012, July 2-6). The Idea Manager: A tool to scaffold students documenting, sorting, and distinguishing ideas in science inquiry. Poster presented at *The 10th International Conference for the Learning Sciences*, (Vol. 2, pp. 469-470). International Society of the Learning Sciences, Sydney, Australia.
- 2011 **Matuk, C.**, & *King Chen, J. (2011, July 4-8). *The WISE Idea Manager: A tool to scaffold the collaborative construction of evidence-based explanations from dynamic scientific visualizations*, *Symposium 3, Learning Interactions - Collaboration as Scaffolding: Learning Together with Dynamic, Interactive Scientific Visualizations and Computer Models*. Poster presented at the 9th International Conference on Computer Supported Collaborative Learning CSCL2011: Connecting computer supported collaborative learning to policy and practice, Hong Kong.
- 2011 **Matuk, C.**, *Sato, E., & Linn, M. C. (2011, July 4-8). *Agreeing to disagree: Challenges with ambiguity in visual evidence*. Poster presented at the 9th International Conference on Computer Supported Collaborative Learning CSCL2011: Connecting computer supported collaborative learning to policy and practice, July 4-8, Hong Kong.
- 2011 **Matuk, C.**, Cottingham, I., Farrell, K., Angeletti, A., & Diamond, J. (2011, March 8-9). *The World of Viruses interactive comic viewer*. Hands-on demonstration presented at the Cyberlearning Tools for STEM Education Conference. Berkeley, CA.
- 2010 **Matuk, C.**, McElhaney, K., & Linn, M. (2010, December 1-3). *Using visualizations to link atomic views of matter to students' everyday ideas about science*. In K. Perkins, *Interactive poster session: Interactive visualizations, simulations, and games for science and math learning: Comparing goals, affordances, and challenges across approaches*. Poster presented at the Discovery Research K-12 PI Meeting, Washington, DC.
- 2010 Linn, M. C., Tinker, R., Chiu, J., *King Chen, J., **Matuk, C.**, McElhaney, K., *Miller, D., Swanson, H., & Zhang, H. (2010, December 1-3). *Visualizing to Integrate Science Understanding for All Learners (VISUAL)*. Poster presented at the Discovery Research K-12 PI Meeting, Washington, DC.

- 2010 ***Matuk, C.**, & Uttal, D. H. (2010, April 30-May 4). *All have tails, but only two have horns: Inventing an intuitive representation of relatedness*. Poster presented at the American Educational Research Association Meeting, Denver, CO.
- 2010 ***Matuk, C.**, & Uttal, D. H. (2010, April 30-May 4). *The rhetorical functions of visual devices: Understanding evolution from museum animations*. Poster presented at the American Educational Research Association Meeting, Denver, CO.
- 2009 Donovan, S., ***Matuk, C.**, *MacDonald, T., Diamond, J., Uttal, D., Dodick, J., Evans, E.M., Caldwell, R., Scotchmoor, J., Palmquist, S. (2009, November 11-14). *Understanding the tree of life*. Poster presented at the National Association of Biology Teachers (NABT) Professional Development Conference, Denver, CO.
- 2009 ***Matuk, C.**, & Uttal, D.H. (2009, August 6-9). *Collages of meaning: Creating understanding of evolution from animation*. Poster presented at the American Psychological Association (APA) Convention. Toronto, ON.
- 2009 ***Matuk, C.** (2009, June 10-12). *Reconstructing evolutionary histories: A game about the tree of life*. Poster presented at the Games, Learning and Society Conference 5.0, Madison, WI.
- 2008 ***Matuk, C.** (2008, September 19-21). *Animated cladograms: Interpreting evolution from diagrams*. Poster presented at the 5th International Conference on Diagrammatic Representation and Inference, Herrsching, Germany.
- 2008 ***Matuk, C.** (2008, September 15-19). *Animating trees of life: How animation influences the perception of evolution*. Poster presented at the International Conference on Spatial Cognition, Freiburg, Germany.
- 2008 ***Matuk, C.**, & Uttal, D. H. (2008, June 23-28). *Entertaining evolution: Understanding science from animations*. Poster presented at the 8th International Conference for the Learning Sciences, Utrecht, the Netherlands.

Grants

Square brackets indicate role

* indicates graduate student status at time of proposal submission.

All currency in USD, unless otherwise noted.

Funded Research Proposals

- 2018-2019 *Science learning, interest, and identity in a cross-generational game design mentorship program*. University Research Challenge Fund [Category 1], New York University. \$15,000. **Matuk, C.** [PI].

- 2018
(May-Dec) *A More Perfect Union*. (Submitted Jan 25, 2018). Small Business Innovation Research/IES PRIORITY 1: Education Technology Products For Use by Students or Teachers (or Other Instructional Personnel) in Authentic Education Settings. US Department of Education, USD\$196,621 (NYU portion: \$20,000). Tefry, G., Romeo, M., Lim, J. & **Matuk, C.** [Proposal author, Key personnel].
- 2017-2019 *Collaborative research: Empowering learners to conduct experiments*. (Submitted Feb 10, 2017). Award No. 1736065. Cyberlearning: Transforming Education National Science Foundation. \$550,000 (NYU portion: \$112,000). Harteveld, C., Smith, G., **Matuk, C.** [Co-PI] & Sutherland, S.
- 2017-2018 *Impacts of a game-based learning mentoring and professional development program on history teachers*. (Submitted Aug 29, 2016). Woodrow Wilson Foundation. \$10,000. **Matuk, C.** [PI], Rufo-Tepper, R. & Flatt, R.
- 2015-2017 *Navigating the Cognitive Map: Advancing neuroscience, education, and outreach using real-time visualizations and neuroimaging within a mobile location-based learning experience*. (Submitted Dec 8, 2014). University Research Challenge Fund [Category 1], New York University. \$14,000. **Matuk, C.** [PI], Vikbladh, O., Fenton, A., Perlin, K., & Plass, J.
- 2015-2019 *Project Learning with Automated Networked Supports (PLANS)*. (Submitted Feb 2014). Award No. 1451604. Cyberlearning: Transforming Education, National Science Foundation. \$2,290,222. PI: Linn, M. C. Madnani, N. & Heilman, M. [Proposal author].
- 2015-2019 *Graphing Research on Inquiry with Data in Science (GRIDS)*. (Submitted Dec 2014). Award No. 1418423. Discovery Research PreK-12, Division of Research on Learning in Formal and Informal Settings, National Science Foundation. \$2,244,040. Linn, M. & Liu, O. [Proposal author, project contributor].
- 2011-2017 *Continuous Learning and Automated Scoring in Science (CLASS)*. (Submitted Dec 2010). Award no. 1119670. Discovery Research PreK-12, Division of Research on Learning in Formal and Informal Settings, National Science Foundation. \$3,147,729. Linn, M. & Liu, O. [Proposal author, Subcontractor].
- 2009-2014 *Visualizing to Integrate Science Understanding for All Learners (VISUAL)*. Award no. 0918743. Discovery Research PreK-12, Division of Research on Learning in Formal and Informal Settings, National Science Foundation. \$2,836,718. Linn, M. & Tinker, R. [Project contributor].
- 2008-2009 *Multimedia trees of life: The cognitively informed design of a learning environment for teaching evolution*. Cognitive Science Graduate Fellowship for Interdisciplinary Research Projects, Northwestern University. ***Matuk, C.** [PI].

- 2004 *The plastic brain: Understanding cortical reorganization during motor skills acquisition.* Vesalius Trust Research Scholarship, University of Toronto. Can\$1000. *Matuk, C. [PI]
- 2003 *The plastic brain: Understanding cortical reorganization during motor skills acquisition.* Canadian Society of Plastic Surgeons Scholarship, University of Toronto. *Matuk, C. [PI]

Press Coverage

- 2017 Brown, L. (2017, Mar 10). What would LBJ think of augmented reality?. *The Ledger*. Retrieved from theledger.com/news/20170310/what-would-lbj-think-of-augmented-reality
- Joseph, B. (2017, Feb 2). Augmented reality and learning in museums. *dmlcentral, Digital Media + Learning: The Power of Participation*. Retrieved from dmlcentral.net/augmented-reality-learning-museums/
- 2016 Harrison, R. (2016, Nov 7). Augmented reality contributes to museum learning. *At a Glance: News from the Steinhardt School of Culture, Education, and Human Development*. Retrieved from steinhardt.nyu.edu/site/ataglance/2016/11/augmented-reality-museum.html
- Harrison, R. (2016, Apr 11). NYU Steinhardt scholars present research on diversity, inequality, and technology in education at AERA 2016. News Release. Retrieved from nyu.edu/about/news-publications/news/2016/april/steinhardt-scholars-present-research-on-diversity-inequality-and-technology-in-education-at-aera-2016.html
- Beck, J. (2016, Spring). Edu\Tech\Novators Paulo Blikstein, Pratim Sengupta, Camillia Matuk. *Inquiry Magazine*, Northwestern University's School of Education and Social Policy. Retrieved from sesp.northwestern.edu/news-center/inquiry/2016-spring/paulo-blikstein-pratim-sengupta-camillia-matuk.html
- 2015 Harrison, R. (2015, Spring). How technology supports teachers in curriculum design. *NYU Research Digest*, 11(1), 25. Retrieved from en.calameo.com/read/000463038aab895c5bfaa
- Wong, W. (2015, Jan 9). Total package: How new notebooks simplify the classroom experience. *EdTech Focus on K-12*. Retrieved from edtechmagazine.com/k12/article/2015/01/total-package
- 2011 Stein, L. (2011, Spring). Comics to cyberspace: New media for literacy. *Inquiry Magazine*. Retrieved from <http://www.sesp.northwestern.edu/news-center/inquiry/comics-cyberspace.html>

2009 Sherman, M. (2009). Camillia Matuk Organizes Campus Darwin Exhibit. News Center, Northwestern University's School of Education and Social Policy. Retrieved from seesp.northwestern.edu/news-center/news/2009/01/camillia-matuk.html

Teaching Experience

Graduate Courses

New York University, Steinhardt School of Culture, Education & Human Development

Educational Communication & Technology program

Foundations of the Learning Sciences
Learning Environment Design
Integrating Technology in Teaching & Learning
Co-Designing Game-based Learning Experiences
Foundations of Cognitive Science
Research in Educational Communication and Technology (masters' thesis)

University of California, Berkeley, Graduate School of Education

Multicultural Urban Secondary English (MUSE) program

Technology in the Secondary English Classroom

Masters and Credential in Science and Mathematics Education (MACSME) program

Scientific Thinking and Learning
Science and Mathematics Education Colloquium Series
Science and Mathematics Education: Designing Educational Technologies [Co-instructor]

Undergraduate Courses

Northwestern University, School of Education and Social Policy

Learning and Understanding: A Cognitive Science Approach [Teaching Assistant]

Other Teaching

via The Royal Conservatory of Music

Piano performance, music theory, and music history [Private instructor] 1999-2009

Mentoring

Graduate students advised

- 2017-present **Anna Amato**, Educational Communication and Technology, NYU
- 2015-2016 **Irina Uk**, Educational Communication and Technology, NYU [on leave since 2016]

Dissertation Committee Membership

- 2017-present **Alison Haas**, *Using computational thinking and modeling in 5th grade science lessons* (orals examination). Teaching & Learning, NYU
- 2017-present **Abran Maldonado**, Exploring the scope, impact, and representation of black and latinx developers of edtech Teaching & Learning, NYU
- 2016-present **Melissa Horvath-Plyman**, *#GoingToCollege: The relationship between students' use of social media and the development of their perceptions about college access and opportunities*. Educational Communication & Technology, NYU
- 2016-present **Talia Hurwich**, *Future directions for comics in Jewish education* (candidacy paper). *Seen but not Heard? Graphic Novel Adaptations of Texts with Jewish Religious Significance* (Dissertation proposal). Education & Jewish Studies, NYU
- 2015-present **Matt Cirigliano**, *How do visual self-explanations enhance medical students' learning of diagnostic skills in radiology?* Educational Communication & Technology, NYU
- 2014-present **AJ Kelton**, *Improving the process of group work in educational settings through intentional instructor group design decisions*. Educational Communication & Technology, NYU

Dissertation Reader Activity

- 2016 **Ralph Vacca**, *Cultivating situated mindfulness in everyday life: A design-based study of a mobile approach*. Educational Communication & Technology, NYU
- 2015 **Tsu-Ting Huang**, *The effects of types of reflective scaffolding and language proficiency on the acquisition of physics knowledge in a game-based learning environment*. Educational Communication & Technology, NYU

Independent Study Supervision

- 2018, Spring **Jonathan Proseri**, *Supporting Middle School Students' Learning through Transmedia Game Design*. Educational Communication & Technology, NYU.
- 2017, Fall **Christopher Hovey**, *Exploring students' science understanding through board game design iterations*. Educational Communication & Technology, NYU.
- 2017, Spring, Fall **Patrick Grady O'Malley**, *Practical learning analytics in real-time usage*. Digital Media Design for Learning, Educational Communication & Technology, NYU.
- 2016, Spring **Andrea Buccioni Leal**, *Media design for social change*. Digital Media Design for Learning, Educational Communication & Technology, NYU.
- Sicong Chen**. Co-designing visitors' experience of a technology enhanced science outreach installation. Digital Media Design for Learning, Educational Communication & Technology, NYU.
- Jordana Gilman, Grant Henry & Michelle Lazarow**. *An analysis and synthesis of children's television history through the lens of learning design theory*. Digital Media Design for Learning, Educational Communication & Technology, NYU.

Service

Service to Profession

- 2018 Education Committee member, **International Society for the Learning Sciences**. [volunteered]
- Conference co-chair**, C2 ICCE sub-conference on Computer-Supported Collaborative Learning (CSCL) and Learning Sciences, International Conference for Computers in Education, Manila, Philippines. (2018, Nov 26-30).
- Discussant** for the paper session, *Application of Innovative Learning Technologies Within STEM Instruction*. 2018 Annual meeting of the American Educational Research Association (AERA), New York. (2018, April 13-17).

- Panel reviewer**, DRK-12 program, DRK-12 program, Directorate for Education and Human Resources, Division of Research on Learning in Formal and Informal Settings (DRL), National Science Foundation.
- 2015 **Guest talk** (2015, Nov 11) in the graduate-level course, *Cognition & Computers*, Instructor: Nathan Holbert, Columbia University Teachers College, New York, NY. [invited]
- 2001-present **Ad hoc reviewer** for the American Educational Research Association (SIG-Technology, Instruction, Cognition & Learning), British Journal of Educational Technology, CBE-Life Sciences Education, The Cognitive Science Society, Computers & Education, FabLearn, International Electronic Journal of Elementary Education, International Journal of Computer Supported Collaborative Learning, International Journal of Designs for Learning, International Journal of Social Media and Interactive Learning Environments, International Society for the Learning Sciences, Journal of the Learning Sciences, Journal of Educational Psychology, Merrill-Palmer Quarterly, Science Books and Films (SB&F), Science Education, EARLI SIG 20 Computer-Supported Inquiry Learning 2014.
- 2013-2014 **Co-coordinator of local conference arrangements**, Rethinking Language and Communicative Development. 44th Annual Meeting of the Jean Piaget Society (2014, May 29-31), San Francisco, CA. [elected]
- 2012-2014 **Project advisor**, *The Tree Room: Teaching and learning about evolutionary relationships*. National Leadership Grant, Institute of Museum and Library Services. USD\$401,833. Caldwell, R. & Scotchmoor, J. [invited]
- 2012 **Guest talk** (2012, Sep 19) in the undergraduate course, [*Building Your Next Generation Education Technologies*](#). Instructors: Dawn Song & Kristin Stephens, University of California, Berkeley.
- Online discussion facilitator** (2012, Feb 15-17) for the master's course, *Technology in the mathematics and science classroom*, Instructor: Samia Khan, University of British Columbia, Vancouver, BC. [invited]
- 2011 **Guest talk** (2011, Sep 7) for the graduate course *Innovative technology in mathematics and science education*, Instructor: Ji Shen, Department of Mathematics & Science Education, University of Georgia. [invited]
- 2008 **Guest talk** on digital portfolios in Engineering Design and Communication, Instructor: Ann McKenna, *Segal Design Institute*, Northwestern University. [invited]

Professional Memberships & Affiliations

2008-present	International Society for the Learning Sciences (ISLS)
2006-present	American Educational Research Association (AERA)
2009-2010	International Visual Literacy Association (IVLA)
2009-2010	Cognitive Development Society (CDS)
2004-2007	Association of Medical Illustrators (AMI)
2008-2009	Rhetoric Society of America (RSA)

Service to Program

2016-2017	Doctoral program coordinator , Educational Communication & Technology program, New York University. [appointed]
2015	Alumni relations committee , Educational Communication & Technology program, New York University. [appointed]
2008-2009	Student member of faculty search committee for Assistant/Associate Professor in Computer Science & Learning Sciences, Northwestern University. [elected]
2008, Fall	Co-organizer , Weekly brown bag research presentations, Learning Sciences, Northwestern University. [appointed]
2007	Co-organizer , First year student Fall orientation, Learning Sciences, Northwestern University. [volunteered]

Service to Department

2014-2015, 2018	Personnel Committee member , Department of Administration, Leadership & Technology, New York University. [elected]
2017	Search committee member for Assistant/Associate Professor of Educational Leadership and Policy Studies, Administration, Leadership & Technology, New York University (search canceled after Skype interviews). [invited]
2015, Feb 19	Member of Department event planning committee for Steinhardt's 125-year Anniversary Celebration. [volunteered]
2008-2009	Student member of faculty search committee for Assistant/Associate Professor in Computer Science & Learning Sciences, Northwestern University. [elected]

Service to University

- 2018 **Member of search committee** for Assistant Professor in Music Theory, Department of Music & Performing Arts Professions, New York University. [elected]
- 2016, Mar 18 **Recorded interview** and contributed materials for a faculty development workshop, *The flipped course: From recipe to application*. Instructors: Henry Samelson & Anna Zhang. Silver School of Social Work, New York University. [invited]
- 2016, Feb 9 **Consultant** for the NYU TechSavvy Program, New York University. [invited]
- 2008-2009 **Art contest and exhibit organizer**, One Book One Northwestern program, Northwestern University. [volunteered]

Service to Community

- 2017, 2018, Aug
2016, Jul **Designer and instructor** of *Co-Designing Game-based Learning Experiences*, a summer course and teacher professional development workshop offered in partnership with the Institute of Play, New York University.
- 2016, Oct 20 **Consultant** to principal and teachers on incorporating a school-wide educational game initiative, New Brunswick Public Schools.
- 2016, Dec **Leader & facilitator** of a participatory game design workshop for 8th grade Quest to Learn students, New York University.
- 2016, Apr **Designer, leader & facilitator** of an after school game design workshop for 8th grade members of the Heschel School Maker Club, New York University.
- 2010-2015 **Co-organizer and session facilitator** of annual summer WISE (Web-based Inquiry Science Environment) teacher professional development workshops, Technology Enhanced Learning in Science (TELS) center, University of California, Berkeley.
- 2011 **Data Visualization Workshop participant** (2011, Jun 11)
The Exploratorium New Media Studio, San Francisco, CA. [elected]
- 2007-2008 **Organizer of student volunteers**, Hilda's Place's *Meals for the Homeless* program <http://www.cfthinc.org/>, Northwestern University.

2006-2011

Recent graduate member, Accreditation Review Committee for the Medical Illustrator (ARC-MI). [elected]

Related Professional Skills

Data analysis software

Atlas.ti, Microsoft Excel, JMP, R, SPSS, PSPP, Weft QDA

Online curriculum development platforms

Web-integrated Inquiry Science Environment (WISE)

Graphics software

Adobe Creative Suite 5 (After Effects, Flash, Illustrator, InDesign, Photoshop), Autodesk Maya, Studio 3D Max

Programming languages

Basic knowledge: Actionscript 3, HTML, R

Languages

Native: English

Fluent: French